

# **Beyond Discipline: Positioning Design Practice and Education for the Twenty-first Century**

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VOLUME I of II



## **Abstract**

Design practice in the UK has changed dramatically in the past two decades. Boundaries between design disciplines have dissolved and it could be argued that many contemporary design studios now defy classification. Whilst these groundbreaking and successful studios are reconfiguring the design landscape, undergraduate design education is still dominated by a uni-disciplinary mindset and structure. This situation is creating a disconnection between design practice and education, and poses critical questions for the immediate future of design learning and teaching in higher education.

This doctoral study explores this disconnection. An initial scoping exercise draws on interviews with leading commentators from the UK design sector, examining the evolution of design practice over the last ten years and possible future directions for undergraduate education. Findings from the exercise indicate that (a) UK policy for creative education has placed undergraduate design courses in potential crisis, (b) current approaches in the university system are outdated, and (c) it is now necessary to re-define the skills and processes that designers will require in the twenty-first century. Moving-on from the scoping work, the study engages with five internationally renowned creative studios that can be characterised as defying classification. These are: Ron Arad Associates; Heatherwick Studio; Jason Bruges Studio; Punchdrunk; and Assemble. In-depth ethnographic studies cross-analyse the creative processes of these studios and the perspectives of their designers on education. Findings identify key components of each studio's process, the core skills and capabilities that are required by studio members, and innovative organisational structures and uses of studio space. They also explore studio members' past educational experiences, present involvement in education and reflections on future directions for pedagogy.

This study argues that the evident (and growing) disconnection between practice and education calls for a change to existing pedagogic models. It also proposes alternative approaches, and highlights the need for policymakers, practitioners and educators to work together to better prepare young designers to meet the design challenges of the twenty-first century.

**Key words:** design practice; design pedagogy; design policy; design discipline



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# Table of Contents

## Volume I

<b>List of Tables .....</b>	<b>p.1</b>
<b>List of Figures .....</b>	<b>p.1</b>
<b>Image Credits .....</b>	<b>p.12</b>
<b>Chapter One: Introduction .....</b>	<b>p.19</b>
<b>Chapter Two: Design Practice, Pedagogy and Policy: Trends, Intersections, Frictions and Questions.....</b>	<b>p.25</b>
2.1 Introduction.....	p.25
2.2 Practice .....	p.26
2.2.1 Introduction .....	p.26
2.2.2 Terminology and Classification of design .....	p.26
2.2.3 Developments in interdisciplinary design practice in the twentieth century .....	p.32
2.2.4 Shifts in evolving design practice in the twenty-first century .....	p.42
2.2.5 Summary .....	p.54
2.3 Pedagogy.....	p.57
2.3.1 Introduction .....	p.57
2.3.2 Terminology and Classification.....	p.57
2.3.3 Developments in interdisciplinary design pedagogy in the twentieth century .....	p.54
2.3.4 Shifts in evolving interdisciplinary design pedagogy in the twenty-first century .....	p.77
2.3.5 Summary .....	p.90
2.4 Policy .....	p.92
2.4.1 Introduction .....	p.92
2.4.2 Terminology and Classification.....	p.92
2.4.3 Policy for Design .....	p.93
2.4.4 Policy for Design Education .....	p.100
2.4.5 Summary .....	p.109
2.5 Summary and Statement of Research Questions .....	p.111
2.5.1 Research Questions .....	p.111
2.5.2 A paradigm shift? Re-classifying design, re-aligning pedagogy, and re-thinking policy .....	p.1113
<b>Chapter Three: Operationalisation of the Study .....</b>	<b>p.117</b>
3.1 Introduction.....	p.117

3.2 Methodological approach .....	p.118
3.3 Journey through the data gathering .....	p.120
3.3.1 Interview with Thomas Heatherwick .....	p.120
3.3.2 Scoping exercise: Beyond Discipline report.....	p.123
3.3.3 Primary data gathering situated within five studios.....	p.125
3.3.4 Beyond Discipline Symposium.....	p.142
3.4 Reflections on the journey .....	p.143
3.4.1 Ethical considerations.....	p.143
3.4.2 Reflexive objectivity.....	p.143
3.5 Summary .....	p.146
<b>Chapter Four: Presentation of Data.....</b>	<b>p.149</b>
4.1 Introduction .....	p.149
4.2 Scoping Exercise: Beyond Discipline report .....	p.151
4.2.1 Introduction .....	p.151
4.2.2 Key shifts in design practice over the last ten years .....	p.152
4.2.3 Key drivers for change .....	p.153
4.2.4 Positive and Negative implications of change .....	p.154
4.2.5 Building for progressive change: tensions and blockages .....	p.155
4.2.6 Implications for undergraduate design education in the UK.....	p.156
4.2.7 Summary.....	p.157
4.3 Ron Arad Associates.....	p.159
4.3.1 Introduction .....	p.160
4.3.2 Practice .....	p.164
4.3.3 Pedagogy .....	p.178
4.3.4 Summary.....	p.183
4.4 Heatherwick Studio.....	p.185
4.4.1 Introduction .....	p.186
4.4.2 Practice .....	p.188
4.4.3 Pedagogy .....	p.203
4.4.4 Summary.....	p.208
4.5 Jason Bruges Studio.....	p.211
4.5.1 Introduction .....	p.212
4.5.2 Practice.....	p.215
4.5.3 Pedagogy .....	p.232
4.5.4 Summary.....	p.236
4.6 Punchdrunk.....	p.239
4.6.1 Introduction .....	p.240
4.6.2 Practice .....	p.242
4.6.3 Pedagogy .....	p.255
4.6.4 Summary.....	p.259

4.7 Assemble.....	p.261
4.7.1 Introduction .....	p.262
4.7.2 Practice.....	p.267
4.7.3 Pedagogy .....	p.283
4.7.4 Summary.....	p.286
4.8 Summary of Presentation of Data .....	p.289
<b>Chapter Five: Analysis and Interpretation .....</b>	<b>p.291</b>
5.1 Introduction.....	p.291
5.2 Analysis of evidence for Practice.....	p.292
5.3 Analysis of evidence for Pedagogy .....	p.313
5.4 Interpretation of the findings .....	p.323
5.4.1 New approaches to terminology and classification .....	p.323
5.4.2 A new emergent process model.....	p.331
5.4.3 A combined 'emergent model' for pedagogy .....	p.336
5.5 Summary .....	p.341
<b>Chapter Six: Conclusions .....</b>	<b>p.343</b>
6.1 Introduction.....	p.343
6.2 Responses to the Research Questions .....	p.344
6.2.1 What are the factors implicated in current shifts in design practice? ....	p.344
6.2.2 How are shifts in practice reflected in the activities and processes of leading UK design agencies? .....	p.345
6.2.3 Is it possible to identify the emergence of a new design paradigm (and if so what are the key characteristics of this)? .....	p.346
6.2.4 What are the implications of evolutions in practice for contemporary design pedagogy and for design policy? .....	p.347
6.3 Contribution to knowledge .....	p.349
6.3.1 A profound, situated understanding of how design is executed in leading UK studios .....	p.349
6.3.2 New approaches to terminology and classification .....	p.349
6.3.3 A new emergent process model.....	p.350
6.3.4 A combined 'emergent model' for pedagogy .....	p.350
6.4 Limitations of the study .....	p.352
6.5 Agenda for future action .....	p.354
6.5.1 Impact so far.....	p.354
6.5.2 Future projections .....	p.355
<b>References .....</b>	<b>p.361</b>

**Appendices..... p.397**

Appendix 1: Interview questions for the scoping exercise .....	p.397
Appendix 2: Beyond Discipline report .....	p.398
Appendix 3: Selection questions for Ron Arad Associates.....	p.399
Appendix 4: Selection questions for Heatherwick Studio.....	p.400
Appendix 5: Selection questions for Jason Bruges Studio.....	p.401
Appendix 6: Selection questions for Punchdrunk.....	p.402
Appendix 7: Selection questions for Assemble.....	p.403
Appendix 8: Interview questions for studio team members.....	p.404
Appendix 9: Interview questions for studio directors.....	p.405
Appendix 10: Ron Arad Associates interviewee details .....	p.406
Appendix 11: Heatherwick Studio interviewee details .....	p.408
Appendix 12: Jason Bruges Studio interviewee details.....	p.410
Appendix 13: Punchdrunk interviewee details.....	p.411
Appendix 14: Assemble interviewee details.....	p.412

**Volume II Appendices continued**

Appendix 15: Beyond Discipline report interview transcripts .....	p.1
Appendix 16: Practitioner interview transcripts .....	p.130
Appendix 17: Beyond Discipline Symposium transcript.....	p.405

## Table of Tables

Table 1: Choi, B. C. and Pak, A. W., (2006). Multidisciplinarity, interdisciplinarity and transdisciplinarity in health research, services, education and policy: 1. Definitions, objectives, and evidence of effectiveness. *Clinical and investigative medicine*, 29(6), pp. 351-364.

Table 2: Bremner, C. and Rodgers, P., (2013). Design without discipline. *Design Issues*, 29(3), pp. 4-13.

Table 3: Sanders, E. B. N., Stappers, P. J., (2008). Co-creation and the new landscapes of design. *Co-design*, 4(1), pp. 5-18.

Table 4: HESA, (2018). *HE student enrolment subject area changes between 2016/2017 and 2017/2018* [image online] Available at: <https://www.hesa.ac.uk/news/11-01-2018/sfr247-higher-education-student-statistics> [Accessed 29th April 2018].

## Table of Figures

Figure 1: Koberg, D. and Bagnall, J., (2003). *The Universal Traveler: A Soft-Systems Guidebook to Creativity, Problem-Solving and the Process of Design*. 8<sup>th</sup> ed. Axzo Press, New York, USA.

Figure 2: Koberg, D. and Bagnall, J., (2003). *The Universal Traveler: A Soft-Systems Guidebook to Creativity, Problem-Solving and the Process of Design*. 8<sup>th</sup> ed. Axzo Press, New York, USA.

Figure 3: Koberg, D. and Bagnall, J., (2003). *The Universal Traveler: A Soft-Systems Guidebook to Creativity, Problem-Solving and the Process of Design*. 8<sup>th</sup> ed. Axzo Press, New York, USA.

Figure 4: Koberg, D. and Bagnall, J., (2003). *The Universal Traveler: A Soft-Systems Guidebook to Creativity, Problem-Solving and the Process of Design*. 8<sup>th</sup> ed. Axzo Press, New York, USA.

Figure 5: Sanders, E. B. N. and Stappers, P. J., (2008). Co-creation and the new landscapes of design. *Co-design*, 4(1), pp. 5-18.

Figure 6: Brosterman, N., (1997). *Inventing kindergarten*. New York, NY: Henry N. Abrams.

Figure 7: Barbican Centre, (2012). *Bauhaus: Art as Life*. Koenig Books, London.

Figure 8: Kostelanetz, R., (1970). *Moholy-Nagy: an anthology*. Da Capo Press, New York.

Figure 9: Efland, A. D., (1995). The spiral and the lattice: Changes in cognitive learning theory with implications for art education. *Studies in art education*, 36(3), pp. 134-153.

Figure 10: Efland, A. D., (1995). The spiral and the lattice: Changes in cognitive learning theory with implications for art education. *Studies in art education*, 36(3), pp. 134-153.

Figure 11: Efland, A. D., (1995). The spiral and the lattice: Changes in cognitive learning theory with implications for art education. *Studies in art education*, 36(3), pp. 134-153.

Figure 12: Design Academy Eindhoven, (n.d., c). *DAE Bachelors Program*. [online]. Available at: <http://2011.sfudutchdesign.ca/2011/design-academy-eindhoven-bachelor-program> [Accessed 25th June 2019].

Figure 13: Colley Architects, (n.d.) *Kiva Classroom 1*. [online]. Available at: <http://www.colleyarch.com/index.php/portfolio/educational/classrooms/kiva-classroom> [Accessed 1st February 2019].

Figure 14: Colley Architects, (n.d.) *Kiva Classroom 2*. [online]. Available at: <http://www.colleyarch.com/index.php/portfolio/educational/classrooms/kiva-classroom> [Accessed 1st February 2019].

Figure 15: Blueprint Magazine, (1995). 'London: The World's most Creative City'. [cover image]. *Blueprint Magazine*. July–August 1995. London.

Figure 16: Vanity Fair Magazine, (1997). 'Swinging London Mark II'. [cover image]. *Vanity Fair Magazine*. March 1997. London. Available at: <https://www.vanityfair.com/magazine/1997/03/london199703> [Accessed 26th June 2019].

Figure 17: Henshaw, Pete, (2017). 'Progress 8 measure'. [online]. Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/285990/P8\\_factsheet.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/285990/P8_factsheet.pdf) [Accessed 25th May 2019].

Figure 18: Furniss, Lara, (2016). 'Preparing lunch at Assemble'. [photograph]. Birmingham City University.

Figure 19: Furniss, Lara, (2016). 'Serving lunch at Assemble'. [photograph]. Birmingham City University.

Figure 20: Furniss, Lara, (2015). 'Note book entry for Ron Arad Associates'. [sketch]. Birmingham City University.

Figure 21: Furniss, Lara, (2015). 'Note book sketch plans for Ron Arad Associates'. [sketch]. Birmingham City University.

Figure 22: Furniss, Lara, (2016). 'Interview transcript colour coding, Martin Robinson'. [sketch]. Birmingham City University.

Figure 23: Furniss, Lara, (2016). 'Interview transcript colour coding, Maria Lisogorsky'. [sketch]. Birmingham City University.

Figure 24: Furniss, Lara, (2016). 'Process diagram sketching – Jason Bruges Studio'. [sketch]. Birmingham City University.

Figure 25: Furniss, Lara, (2015). 'Notes from dimensions discussion with Heatherwick'. [sketch]. Birmingham City University.



Figure 26: Furniss, Lara, (2016). *'Dimensions diagram development'*. [sketch]. Birmingham City University.

Figure 27: Furniss, Lara, (2019). *'Data gathering timeline'*. [diagram]. Birmingham City University.

Figure 28: Furniss, Lara, (2015). *'Photograph of Ron Arad Associates, London'*. [photograph]. Birmingham City University.

Figure. 29: Furniss, Lara, (2015). *'Site plan'*. [sketch]. Birmingham City University.

Figure 30: Furniss, Lara, (2015). *'Courtyard entry'*. [photograph]. Birmingham City University.

Figure 31: Furniss, Lara, (2015). *'Indicative first floor plan'*. [sketch]. Birmingham City University.

Figure 32: Furniss, Lara, (2015). *'First floor entry gallery'*. [photograph]. Birmingham City University.

Figure 33: Furniss, Lara, (2015). *'First floor design studio'*. [photograph]. Birmingham City University.

Figure 34: Furniss, Lara, (2015). *'Indicative ground floor plan'*. [sketch]. Birmingham City University.

Figure 35: The Light Surgeons, (2002). *'LGVU'*. [online]. Available at: <http://www.lightsurgeons.com/com/product-design/> [Accessed 25<sup>th</sup> June 2019].

Figure 36: Arad, Ron, (n.d.). *'Glider, Moroso'*. [online]. Available at: <http://www.ronarad.co.uk/products/glider/> [Accessed 25<sup>th</sup> June 2019].

Figure 37: Furniss, Lara, (2015). *'Rover Chair'*. [photograph]. Birmingham City University.

Figure 38: Arad, Ron, (n.d.). *'Well Tempered Chair'*. [online]. Available at: <http://www.ronarad.co.uk/studio-pieces/well-tempered-chair/> [Accessed 25<sup>th</sup> June 2019].

Figure 39: Arad, Ron, (n.d.). *'PQ Eyewear'*. [online]. Available at: <http://www.ronarad.co.uk/products/pq-eyewear/> [Accessed 25<sup>th</sup> June 2019].

Figure 40: Arad, Ron, (n.d.). *'Watergate Hotel'*. [online]. Available at: <http://www.ronarad.co.uk/architecture/the-watergate-hotel/> [Accessed 25<sup>th</sup> June 2019].

Figure 41: Arad, Ron, (n.d.). *'Curtain Call'*. [online]. Available at: <http://www.ronarad.co.uk/architecture/curtain-call-and-720-degrees/> [Accessed 25<sup>th</sup> June 2019].

Figure 42: Arad, Ron, (n.d.). *'Design Museum Holon 1'*. [online]. Available at: <http://www.ronarad.co.uk/architecture/design-museum-holon/> [Accessed 25<sup>th</sup> June 2019].

Figure 43: Arad, Ron, (n.d.). '*Design Museum Holon 2*'. [online]. Available at: <http://www.ronarad.co.uk/architecture/design-museum-holon/> [Accessed 25<sup>th</sup> June 2019].

Figure 44: Arad, Ron, (n.d.). '*ToHA*'. [online]. Available at: <http://www.ronarad.co.uk/architecture/toha/> [Accessed 25<sup>th</sup> June 2019].

Figure 45: Furniss, Lara, (2015). '*Table tennis table*'. [photograph]. Birmingham City University.

Figure 46: Furniss, Lara, (2015). '*Indicative process diagram*'. [sketch]. Birmingham City University.

Figure 47: Arad, Ron, (n.d.). '*Matrizia Sofa*'. [online]. Available at: <http://www.ronarad.co.uk/products/matrizia/> [Accessed 25<sup>th</sup> June 2019].

Figure 48: WOW bikes, (n.d.). '*Two Nuns - Steel sprung bicycle*'. [online]. Available at: <https://www.benedicttradcliffe.co.uk/WOW-BIKES> [Accessed 25<sup>th</sup> June 2019].

Figure 49: Arad, Ron, (n.d.). '*Hirst riding the Two Nuns bicycle*'. [online]. Available at: <http://www.friedmanbenda.com/museum-exhibitions/past/ron-arad-two-nuns-bicycle-2011/1/thumbnails> [Accessed 25<sup>th</sup> June 2019].

Figure 50: Furniss, Lara, (2015). '*Studio workshop*'. [photograph]. Birmingham City University.

Figure 51: Charny, Daniel, (1998). '*Platforms diagram*'. [diagram]. From Now On, London.

Figure 52: Furniss, Lara, (2015). '*Photograph of Willing House, Heatherwick Studio, London*'. [photograph]. Birmingham City University.

Figure 53: Heatherwick Studio, (n.d.). '*Interior of Heatherwick Studio*'. [online]. Available at: <https://www.britishcouncil.org/arts/heatherwick/> [Accessed 25<sup>th</sup> June 2019].

Figure 54 : Heatherwick Studio, (2014). '*Christian Louboutin Perfume Bottle*'. [online]. Available at: <http://www.heatherwick.com/projects/objects/fragrance-bottle-for-christian-louboutin-beaute/> [Accessed 25<sup>th</sup> June 2019].

Figure 55 : Heatherwick Studio, (2007). '*Spun Chair*'. [online]. Available at: <http://www.heatherwick.com/projects/objects/spun/> [Accessed 26<sup>th</sup> June 2019].

Figure 56 : Heatherwick Studio, (1997). '*Harvey Nichols*'. [online]. Available at: <http://www.heatherwick.com/projects/objects/harvey-nichols/> [Accessed 26<sup>th</sup> June 2019].

Figure 57: Heatherwick Studio, (2002). '*B of the Bang*'. [online]. Available at: <http://www.heatherwick.com/projects/objects/b-of-the-bang/> [Accessed 26<sup>th</sup> June 2019].

Figure 58: Heatherwick Studio, (2002). '*Rolling Bridge*'. [online]. Available at: <http://www.heatherwick.com/projects/infrastructure/rolling-bridge/> [Accessed 26<sup>th</sup> June 2019].

Figure 59: Heatherwick Studio, (2013). '*Learning Hub*'. [online]. Available at: <http://www.heatherwick.com/projects/buildings/learning-hub-the-hive/> [Accessed 26<sup>th</sup> June 2019].

Figure 60: Heatherwick Studio, (2013). '*Pier 55*'. [online]. Available at: <http://www.heatherwick.com/projects/spaces/pier55/> [Accessed 26<sup>th</sup> June 2019].

Figure 61: Hufton + Crow, (2010). '*Bombay Sapphire Distillery*'. [online]. Available at: <https://www.huftonandcrow.com/projects/gallery/uk-pavilion-shanghai-expo/> [Accessed 9<sup>th</sup> November 2019].

Figure 62: Furniss, Lara, (2015). '*Interpretation of the Studio Values Induction process diagram*'. [sketch]. Birmingham City University.

Figure 63: Furniss, Lara, (2015). '*Interpretation of Manson's description of the process*'. [sketch]. Birmingham City University.

Figure 64: Furniss, Lara, (2015). '*Interpretation of Hubbard's description of the process*'. [sketch]. Birmingham City University.

Figure 65: Furniss, Lara, (2015). '*Interpretation of Burrows' description of the process*'. [sketch]. Birmingham City University.

Figure 66: Furniss, Lara, (2015). '*Project bays diagram*'. [sketch]. Birmingham City University.

Figure 67: Hufton + Crow, (2010). '*UK Pavilion*'. [online]. Available at: <https://www.huftonandcrow.com/projects/gallery/bombay-sapphire-distillery/> [Accessed 9<sup>th</sup> November 2019].

Figure 68: Cass Sculpture Foundation, (n.d.). '*Pavilion*'. [online]. Available at: <http://www.sculpture.org.uk/artwork/pavilion-1> [Accessed 26<sup>th</sup> June 2019].

Figure 69: Heatherwick Studio, (2002). '*Paternoster Vents*'. [online]. Available at: <http://www.heatherwick.com/projects/infrastructure/paternoster-vents/> [Accessed 26<sup>th</sup> June 2019].

Figure 70: Furniss, Lara, (2015). '*Photograph of Jason Bruges Studio, London*'. [photograph]. Birmingham City University.

Figure 71: Furniss, Lara, (2015). '*Photograph of Jason Bruges Studio, London*'. [photograph]. Birmingham City University.

Figure 72: Furniss, Lara, (2015). '*Indicative Ground Floor Plan*'. [sketch]. Birmingham City University.

Figure 73: Furniss, Lara, (2015). '*Indicative First Floor Plan*'. [sketch]. Birmingham City University.

Figure 74: Design Week, (2015). '*Workshop*'. [online]. Available at: <https://www.designweek.co.uk/inspiration/emoticannes-installation-by-jason-bruges-studio/> [Accessed 26<sup>th</sup> June 2019].

Figure 75: Furniss, Lara, (2012). '*Venn Diagram from MADE conference*'. [sketch]. Birmingham City University.

Figure 76: Jason Bruges Studio, (2010). *'Showtime'*. [online]. Available at: <http://www.jasonbruges.com/art/#/showtime/> [Accessed 27<sup>th</sup> June 2019].

Figure 77: Jason Bruges Studio, (2016). *'Scent Constellation, Le Grand Musee du Parfum, Paris'*. [online]. Available at: <http://www.jasonbruges.com/art#/scent-constellation/> [Accessed 27<sup>th</sup> June 2019].

Figure 78: Jason Bruges Studio, (2010). *'Panda Eyes', World Wild Fund for Nature'*. [online]. Available at: <http://www.jasonbruges.com/art#/panda-eyes/> [Accessed 27<sup>th</sup> June 2019].

Figure 79: Jason Bruges Studio, (2015). *'Digital Double', No 10 Downing Street'*. [online]. Available at: <http://www.jasonbruges.com/design#/digital-double/> [Accessed 27<sup>th</sup> June 2019].

Figure 80: Jason Bruges Studio, (2012). *'More4 Rebrand'*. [online]. Available at: <http://www.jasonbruges.com/design#/more4-rebrand/> [Accessed 27<sup>th</sup> June 2019].

Figure 81: Jason Bruges Studio, (2014). *'Back to Front'*. [online]. Available at: <http://www.jasonbruges.com/art#/back-to-front/> [Accessed 27<sup>th</sup> June 2019].

Figure 82: Jason Bruges Studio, (2014). *'Dichroic Blossom'*. [online]. Available at: <http://www.jasonbruges.com/art#/dichroic-blossom/> [Accessed 27<sup>th</sup> June 2019].

Figure 83: Jason Bruges Studio, (2008). *'55 Baker Street – 1'*. [online]. Available at: <http://www.jasonbruges.com/art#/55-baker-street/> [Accessed 27<sup>th</sup> June 2019].

Figure 84: Jason Bruges Studio, (2008). *'55 Baker Street – 2'*. [online]. Available at: <http://www.jasonbruges.com/art#/55-baker-street/> [Accessed 27<sup>th</sup> June 2019].

Figure 85: Furniss, Lara, (2015). *'Jason Bruges Studio process diagram'*. [sketch]. Birmingham City University.

Figure 86: Jason Bruges Studio, (2012). *'The Nature Trail -1'*. [online]. Available at: <http://www.jasonbruges.com/art#/nature-trail/> [Accessed 27<sup>th</sup> June 2019].

Figure 87: Jason Bruges Studio, (2012). *'The Nature Trail -2'*. [online]. Available at: <http://www.jasonbruges.com/art#/nature-trail/> [Accessed 27<sup>th</sup> June 2019].

Figure 88: Moholy-Nagy, Laszlo, (1930). *'Light Space Modulator'*. [online]. Available at: <https://www.harvardartmuseums.org/art/299819> [Accessed 12<sup>th</sup> November 2019].

Figure 89: Jason Bruges Studio, (2012). *'21<sup>st</sup> Century Light Space Modulator -1'*. [online]. Available at: <http://www.jasonbruges.com/design#/21st-centry/> [Accessed 27<sup>th</sup> June 2019].

Figure 90: Jason Bruges Studio, (2012). *'21<sup>st</sup> Century Light Space Modulator -2'*. [online]. Available at: <http://www.jasonbruges.com/design#/21st-centry/> [Accessed 27<sup>th</sup> June 2019].

Figure 91: Furniss, Lara, (2015). *'Photograph of Punchdrunk's Store, Newham, London'*. [photograph]. Birmingham City University.

Figure 92: Furniss, Lara, (2015). '*Photograph of Punchdrunk's Office, Shoreditch, London*'. [photograph]. Birmingham City University.

Figure 93: Furniss, Lara, (2015). '*Photograph of Shoreditch House, Shoreditch, London*'. [photograph]. Birmingham City University.

Figure 94: Furniss, Lara, (2015). '*Photograph of Store interior*'. [photograph]. Birmingham City University.

Figure 95: Furniss, Lara, (2015). '*Photograph of boxes*'. [photograph]. Birmingham City University.

Figure 96: Dobbie, Stephen, (2011). '*The Séance*'. [online]. Available at: <https://www.punchdrunk.org.uk/work/other-work/> [Accessed 4<sup>th</sup> December 2019].

Figure 97 : Cochrane, Paul, (2015). '*Silverpoint*'. [online]. Available at: <https://www.punchdrunk.org.uk/project/silverpoint/> [Accessed 4<sup>th</sup> December 2019].

Figure 98: Brinkhoff/Mögenburg, (2014). '*The Drowned Man*'. [online]. Available at: <https://www.punchdrunk.org.uk/project/the-drowned-man/> [Accessed 4<sup>th</sup> December 2019].

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Figure 102: Punchdrunk, (2015). '*Silverpoint*'. [online]. Available at: <https://www.punchdrunk.org.uk/absolut-silverpoint> [Accessed 27<sup>th</sup> June 2019].

Figure 103: Furniss, Lara, (2016). '*Indicative process diagram*'. [sketch]. Birmingham City University.

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Figure 105: Kaine, Thom, (2011). '*Sleep No More, New York*'. [online]. Available at: <https://www.punchdrunk.org.uk/project/sleep-no-more/> [Accessed 4<sup>th</sup> December 2019].

Figure 106: Furniss, Lara, (2016). '*Cannon Factory, Tottenham, London*'. [photograph]. Birmingham City University.

Figure 107: Richards, Daniel, (2014). '*Under the Eiderdown -1*'. [online]. Available at: <https://www.punchdrunk.org.uk/project/under-the-eiderdown/>). [Accessed 4<sup>th</sup> December 2019].

Figure 108: Richards, Daniel, (2014). '*Under the Eiderdown -2*'. [online]. Available at: <https://www.punchdrunk.org.uk/project/under-the-eiderdown/> [Accessed 4<sup>th</sup> December 2019].

Figure 109: Furniss, Lara, (2016). '*Photograph of Sugarhouse Studio, London*'. [photograph]. Birmingham City University.

Figure 110: Furniss, Lara, (2016). '*Studio entry*'. [photograph]. Birmingham City University.

Figure 111: Furniss, Lara, (2016). '*Yardhouse*'. [photograph]. Birmingham City University.

Figure 112: Furniss, Lara, (2016). '*Sugarhouse making space*'. [photograph]. Birmingham City University.

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Figure 114: Furniss, Lara, (2016). '*Indicative Sugarhouse Studio ground floor plan*'. [sketch]. Birmingham City University.

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Figure 128: Assemble, (2011). '*Rubble-dash*'. [online]. Available at: <https://assemblestudio.co.uk/projects/oto-projects> [Accessed 27th June 2019].

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Figure 130: Assemble, (2015). '*Concept sketch for Stille Strasse*'. [online]. Available at: <https://assemblestudio.co.uk/projects/stille-strasse> [Accessed 27th June 2019].

Figure 131: Assemble, (2015). '*1:1 mock-up for Stille Strasse*'. [online]. Available at: <https://assemblestudio.co.uk/projects/stille-strasse> [Accessed 27th June 2019].

Figure 132: Assemble, (2014). '*Baltic Street -1*'. [online]. Available at: <https://assemblestudio.co.uk/projects/baltic-street-adventure-playground> [Accessed 27th June 2019].

Figure 133: Assemble, (2014). '*Baltic Street -2*'. [online]. Available at: <https://assemblestudio.co.uk/projects/baltic-street-adventure-playground> [Accessed 27th June 2019].

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Figure 137: Furniss, Lara, (2017). '*Process model for Ron Arad Associates*'. [sketch]. Birmingham City University.

Figure 138: Furniss, Lara, (2017). '*Process model for Jason Bruges Studio*'. [sketch]. Birmingham City University.

Figure 139: Furniss, Lara, (2017). '*Process model for Punchdrunk*'. [sketch]. Birmingham City University.

Figure 140: Furniss, Lara, (2017). '*Process model for Assemble*'. [sketch].  
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Figure 141: Furniss, Lara, (2017). '*Process model for Heatherwick Studio*'. [sketch].  
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Figure 142: Furniss, Lara, (2017). '*Conceptual categorisation diagram*'. [sketch].  
Birmingham City University.

Figure 143: Furniss, Lara, (2017). '*Paint swatch colour wheel*'. [photograph].  
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Figure 144: Furniss, Lara, (2017). '*Metric scale addition to concentric rings*'.  
[sketch]. Birmingham City University.

Figure 145: Furniss, Lara, (2017). '*Categorisation diagram for Heatherwick Studio*'.  
[sketch]. Birmingham City University.

Figure 146: Furniss, Lara, (2017). '*Categorisation diagram for Ron Arad Associates*'.  
[sketch]. Birmingham City University.

Figure 147: Furniss, Lara, (2017). '*Categorisation diagram for Jason Bruges Studio*'.  
[sketch]. Birmingham City University.

Figure 148: Furniss, Lara, (2017). '*Categorisation diagram for Punchdrunk*'.  
[sketch]. Birmingham City University.

Figure 149: Furniss, Lara, (2017). '*Categorisation diagram for Assemble*'. [sketch].  
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Figure 150: Furniss, Lara, (2017). '*Interpretative diagram of current model within undergraduate education*'. [sketch]. Birmingham City University.

Figure 151: Furniss, Lara, (2017). '*Interpretative diagram of initial hypothesis*'.  
[sketch]. Birmingham City University.

Figure 152: Furniss, Lara, (2017). '*Interpretative diagram of initial emergent model*'.  
[sketch]. Birmingham City University.

Figure 153: Furniss, Lara, (2017). '*Moment of discovery of new emergent model*'.  
[sketch]. Birmingham City University.

Figure 154: Furniss, Lara, (2017). '*Emergent process model – plan view*'. [sketch].  
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Figure 155: Furniss, Lara, (2017). '*Emergent process model – elevated view*'.  
[sketch]. Birmingham City University.

Figure 156: Furniss, Lara, (2017). '*Combined emergent model for pedagogy – plan view*'. [sketch]. Birmingham City University.

Figure 157: Furniss, Lara, (2017). '*Combined emergent model for pedagogy – elevated view*'. [sketch]. Birmingham City University.



Figure 158: Furniss, Lara, (2017). '*Integrated pedagogical thread diagram*'. [sketch].  
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Figure 159: Furniss, Lara, (2017). '*Integrated pedagogical hub diagram*'. [sketch].  
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Figure 90: '*21<sup>st</sup> Century Light Space Modulator -2*', 2012. Image reproduced by kind permission of Jason Bruges Studio (<http://www.jasonbruges.com/design#/21st-century/>).

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## **Chapter One: Introduction**

This study explores ongoing shifts in the practice of leading UK design agencies, and the implications of these for contemporary design pedagogy. It highlights a growing disconnection between design practice and education and teaching, and calls for a challenge to existing pedagogic models. The work also proposes alternative approaches to teaching and learning that better meet with progressive, and successful, trends in design. Via interviews and observation, primary ethnographic data was gathered from a selection of leading UK design agencies. This information was then used to assemble detailed case studies, providing a basis for a comparative case analysis. The analysis underpins the argument that design has moved beyond a disciplinary focus to an orientation that is founded on 'purpose'. This shift has important implications: the thesis argues that practitioners, educators, and policymakers need to work together to devise a new curriculum and approach, one that will prepare young designers to address successfully the challenges and opportunities of the twenty-first century.

The research emerged from my praxis as a designer, educator and researcher. With a degree in Three Dimensional Design from Manchester Metropolitan University, and a Master of Fine Arts from The School of the Art Institute of Chicago, I have twenty years professional design experience working internationally across a range of art and design disciplines. The first ten years were primarily based in the United States, and involved studying and working across interior, exhibition and theatre design. On returning to the UK at the end of the 1990s I discovered the design industry in London had become somewhat specialised. For example, a designer working on residential interiors would be reluctant to cross over to design for retail interiors. However, over the next ten years I experienced first hand a dramatic shift in practice, and the growing acceptance of designers working more fluidly across disciplines. In 2009, I decided that I wished to teach and so visited a range of undergraduate degree shows. I was immediately surprised at how narrow and specialised the courses had become since my own time in education. My understanding of pedagogy was limited at this point, but there appeared to be

a disconnection between teaching and the evolution of the fluid practices that I had witnessed first hand in the UK. Once in Higher Education, this perception of a disconnection between education and practice was reinforced. I witnessed students who wished to work more fluidly, and collaborate across different disciplinary courses, encounter resistance from academic staff. This issue then became the driver for my doctoral research.

Since 2000, design practice in the UK has changed dramatically. Boundaries between design disciplines have become fluid, and many contemporary design studios now defy classification (Coles, 2012). Whilst these studios are reconfiguring the design landscape, a uni-disciplinary structure still predominates in the domain of undergraduate design teaching. This situation is creating a disconnection between practice and education, and poses critical questions for the current design education system. The ‘specialist versus polymath’ debate has been ongoing for centuries (Root-Bernstein, 2009). Negative connotations are given to diversity of knowledge, with terms such as ‘jack of all trades and master of none’ (Nagle and Teodoridis, 2017, p. 2). Yet evidence suggests that creative thinking is ‘inherently multimodal, trans-disciplinary, and independent of domains’, requiring ‘polymathic breadth’ (Root-Bernstein, 2009, p. 858). This debate is explored in greater depth below. Perhaps surprisingly, few studies to date have explored this current disconnection between evolving polymathic practice and specialisation in higher education. Key texts, including Rawsthorn (2013), Williams (2012) and Coles (2012), capture to some degree the nature and dynamics of evolving practice, but do not address their implications for pedagogy. Yet Sanders and Stappers (2008, p. 11) argue that emerging design practices ‘will change what we design, how we design, and who designs. The impact upon the education of designers will be immense.’

The UK design sector is the second-largest in the world, and the largest in Europe (Creative Industries Council, 2018): trends and dimensions of the design industry are discussed in more depth in the Policy section of Chapter Two below. However, despite the status of design as ‘one of the fastest growing sectors within the creative industries’, there have been no identifiable

design policies or policy action plans in the UK (Whicher, 2017). Further, recent developments in education policy appear to be undermining the value of creativity at all levels of education (Creative Industries Federation, 2017a). This research is therefore both vogue and valuable as it can be asserted that the UK cannot afford to be complacent with respect to the current economic success of the creative industries. As will be argued later in this thesis, the UK needs to commit to the creation of the education and skills frameworks that will support and develop the sector, one that holds the potential to supply both high-skilled jobs, and significant export and domestic earnings into the future (Bazalgette, 2017).

The study has three core aims: first, to examine the design processes deployed by leading contemporary UK design studios (with a view to establishing the feasibility of characterisation and classification); second, to identify specificities and commonalities among situated design processes in an attempt to determine the extent to which a new design paradigm might be evolving; and third, to examine the implications of evolving trajectories in design practices and processes for (a) design pedagogy and support policy, and (b) the re-shaping of practice in non-creative environments. The research aims fundamentally to benefit design practitioners, students of design and design educators, and to aid in cementing the future success of the design sector. However, there exists potential for the creation of value for an audience beyond design, for example, those in the policy-making community and in non-creative business environments who aspire to enhance their innovation capacity. The research aims to generate impact in a variety of ways: conceptually via the creation of broad new understandings of evolving creative processes; in capacity-building via the training of students and professionals; and, instrumentally through progressive revisions of policy and practice. It is also designed to deliver impact in building enduring connectivity through follow-on interactions such as network and cluster growth, collaborative workshops, joint funding applications, and lasting relationships (Reed, 2016, p. 10).

The central question for the research is:

- How are current shifts in design practice reflected in the activities, organisation and processes of leading UK design agencies, and what are the implications of such shifts for contemporary design pedagogy and for design policy?

More specific and operational research questions to be addressed (defined in more detail below, in section 2.5.1) are:

- What are the factors implicated in current shifts in design practice?
- How are shifts in practice reflected in the activities and processes of leading UK design agencies?
- If possible, how might one identify the emergence of a new design paradigm (and if so what are the key characteristics of this)?
- What are the implications of evolutions in practice for contemporary design pedagogy and for design policy?

To explore these questions, the thesis is structured into six chapters.

Following this introduction, chapter two will explore and clarify the factors implicated in current shifts in design practice, and will examine whether it is possible to identify the emergence of a new design paradigm. The chapter, constituted fundamentally by a review of extant literature, is divided into three sections, namely, Practice, Pedagogy and Policy. Chapter three describes the philosophical orientation of, and practical choices made throughout, the operationalisation of the study: it also sets out a step-by-step journey through the data gathering exercise and addresses issues of ethical positioning and researcher reflexivity. Chapter four presents the data and evidence collected in connection with the study. First it describes an initial scoping exercise that draws upon interviews with expert and leading commentators from the UK design sector. Second, the details of five case studies are presented: the cases concern five internationally renowned creative studios, each of which is characterised by an approach that defies current classifications. The studios include: Ron Arad Associates; Heatherwick Studio; Jason Bruges Studio;

Punchdrunk; and Assemble. Using an ethnographic approach, the creative processes of these studios, and the views of their designers on design education, are explored in-depth. These case studies are validated through a validation workshop that brings the studios together to hear and discuss the findings. Chapter five provides an analysis in relation of all of the data collected in connection with the study, and features detailed cross-case comparative analysis. The chapter also provides an interpretation and discussion of themes identified in the case study work: it highlights commonalities between the studios and offers recommendations with respect to new directions in (a) terminology and classification, and (b) process models for practice and pedagogy. Chapter six draws together the main outcomes from the study and returns to describe the ways in which the research questions have been addressed: it also presents conclusions and identifies key contributions for a range of audiences. Finally, the chapter identifies possible limitations of the work and closes with proposals for an agenda for future research.



## **Chapter Two: Design Practice, Pedagogy and Policy: Trends, Intersections, Frictions and Questions**

### **2.1 Introduction**

This chapter reviews the extant literature in relation to the themes above, i.e., practice, pedagogy and policy. It is designed primarily to examine the ways in which current shifts in design practice are reflected in the processes of leading UK design agencies, and the implications of the latter for contemporary design pedagogy. The focus of the review is to locate and critically assess literature with respect to these evolutions in practice, and to explore any perceived disconnections with design education. The review will also consider the role and evolution of policy and the implications of ongoing change for future policy directions.

The literature search strategy was to review literature from the three areas noted above, addressing current theories and historical context. For Practice, the aims were to identify and analyse: shifts in terminology and classification systems; developments in interdisciplinary practice; and shifts in current design practice. For Pedagogy, the aims were to identify and analyse: evolutions of interdisciplinary design pedagogies; a perceived disconnection between current practice and pedagogy; and alternative educational models. For Policy, the aims were to examine: the evolution of policy for the design sector; the evolution of policy for design education; and how the UK government might best support this evolving sector. The study reviewed a broad range of sources, including: peer reviewed journal articles, academic books, reports, newspaper articles, and websites. It was necessary to carry out this wide-ranging literature review to provide a critical framework that would cover multiple perspectives and contexts. The chapter is divided into three main sections, each addressing in sequence the key areas of interest. A final section provides a summary of the review, and on the basis of the materials and ideas addressed in the chapter, identifies core areas for further research. These are set out as a series of research questions that provide the entry points and overall framework for the remainder of the study.

## **2.2 Practice**

### **2.2.1 Introduction**

The purpose of this research is to understand how design practice in the twenty-first century is evolving. This section is structured into three sections. The first section explores shifts in terminology and classification systems, to better understand these systems and clarify definitions for the study. The second section examines developments in interdisciplinary practice throughout the twentieth century to identify possible influences on evolving practice in the twenty-first century. The final section locates and critically assesses shifts in current design practice, to find out if it is possible to identify the emergence of a new design paradigm, and if so what are its key characteristics.

### **2.2.2 Terminology and classification of design**

It is important to first explore developments and shifts in terminology and classification systems, as ‘literature is filled with contrasting and sometimes contradictory definitions of design and efforts to define design have often led to acrimony’ (Buchanan, 2001, p. 8). Despite these perceived challenges, definitions are ‘critical for advancing inquiry’ (Buchanan, 2001, p. 8) and definitions of design, and how design is classified, will now be explored.

### **Definitions of design**

In ancient Greece, the word *techne* was used for design, art, craft, medicine, and music, with no differentiation between them, and is defined as ‘a technique, principle, or method by which something is achieved or created’ (English Oxford Dictionary, 2019). The word *design*, from the Latin *designare*, is defined as ‘to mark out, is the process of developing plans or schemes of action... to produce a coherent and effective whole’ (Encyclopaedia Britannica, 1968, p. 298). Johnson (1775, p. 574) defines design as: ‘to purpose; to intend anything; to form or order with a particular purpose.’ Over the past 50 years, a range of definitions have emerged, and today ‘a satisfactory definition of design is rather risky, if not impossible’ depending on whether design is considered ‘an idea, a knowledge, a project, a process, a



product, or even a way-of-being' (Findeli, 1990, p. 4). As part of this review, different definitions of design were analysed. The following basic definitions from dictionaries do not appear to offer significant value in the current context, and indeed are arguably partial to the extent that they might mislead even the casual or lay reader:

- 'To make or draw plans for something, for example clothes or buildings' (Cambridge Dictionary, n.d.a).
- 'To work out the structure or form of (something), by making a plan or sketch' (Collins English Dictionary, 2012).

More valuable definitions are listed below:

- 'Everybody designs who devises courses of action aimed at changing existing situations into preferred ones. Design, in this sense, is the core of all professional training' (Simon, 1969, p. 111).
- 'Design is a vision...Design is a process...Design is a result' – Michael Wolff, (Design Council, 1995).
- 'Design is the human power of conceiving, planning and making products that serve human beings in the accomplishment of their individual and collective purposes.' (Buchanan, 2001, p. 9).
- 'Design is what links creativity and innovation. Design may be described as creativity deployed to a specific end' (Cox, 2005, p. 2).
- 'Design is what designers do' (Swann, 2010, p. 5).

Other key terms related to design include domain and field:

- Domain consists of 'a set of symbolic rules and procedures... shared by a particular society' (Csikszentmihalyi, 2013, p. 27).
- Field is 'all the individuals who act as gatekeepers to the domain' (Csikszentmihalyi, 2013, p. 28).

This evidence highlights the challenge of defining design. However, rather than being a weakness, it should be seen as a strength. Buchanan argues that: 'fields in which definition is now a settled matter tend to be lethargic, dying or dead fields, where inquiry no longer provides challenges to what is accepted as truth' (Buchanan, 2001, p. 8).

### **Systems of classification of design**

A Classification System is defined as 'a set of boxes (metaphorical or literal) into which things can be put to then do some kind of work – bureaucratic or knowledge production' (Bowker and Star, 2000, p. 10). Enlightenment philosophers endeavoured 'to redraw the boundaries of the world of knowledge in Diderot's *Encyclopaedia*, by charting a new line between the

known and the unknowable' (Lamont and Molnár, 2002, p. 179). According to Stein (2007, p. 93), professional specialisation truly took off during the Enlightenment due to this 'scientification' of knowledge. Further specialisation developed in the nineteenth century due to increasing emphasis of exclusion over inclusion, and segregation over diversity (Bender, 1984). The notion of professions originally developed to differentiate between special and ordinary occupations. The issue was whether to define professions by their particular knowledge base, or as a type of institutional organisation. According to Lamont and Molnár (2002, p. 177), the latter view emphasised 'monopolistic closure (or social boundary drawing)' as a defining element. The closure model describes professions as a 'closed system', and social groups attempt to differentiate themselves from each other, to maintain and achieve superiority, creating 'in-groups' and 'out-groups' (Lamont and Molnár, 2002, p. 178). However, Lamont and Molnár highlight that boundaries can not only encourage separation and exclusion, but also communication, exchange, bridging and inclusion (Lamont and Molnár, 2002, p. 181).

The practice and profession of design is divided by disciplinary boundaries. As a noun, discipline is defined as 'a branch of knowledge, typically one studied in higher education' (English Oxford Dictionary, 2018). As a verb, discipline is defined as 'to train oneself to do something in a controlled and habitual way' (English Oxford Dictionary, 2018). Stein (2007, p. 93) defines disciplines as 'methodological lenses employed by communities of investigators relative to particular phenomenon.' The first universities, founded in the Middle Ages, began to label subjects as disciplines, despite the word university representing 'the unity of knowledge' (Stein, 2007, p. 93). Disciplinarity is defined as being 'about mono-discipline, which represents specialisation in isolation' (Max-Neef, 2005, p. 6), and 'an understanding of one set of conceptions, one methodological approach' (Bremner and Rodgers, 2013, p. 11)

Stein defines inter- as 'between or among' (Stein, 2007, p. 93), and suggests the term Interdisciplinary is ill-defined and 'dysfunctional'. Bremner and Rodgers (2013, p. 10) agree, stating the term is frequently used 'in a non-specific manner to refer to general collaboration across disciplines' which

results in imprecise use, confusion and a variety of different interpretations across different disciplines. Roland Barthes argues that interdisciplinarity occurs when ‘the solidarity of the old disciplines breaks down – perhaps even violently, via the jolts of fashion – in the interests of a new object and a new language’ (Barthes, 1971, p. 1). Barthes continues: ‘this unease in classification being precisely the point from which it is possible to diagnose a certain mutation,’ and describes this mutation as more of an ‘epistemological slide - a shift with respect to knowledge - than of a real break’ (Barthes, 1971, p. 1). Chettiparamb (2007) identifies that the most commonly used classification of types of interdisciplinarity is provided by the Organisation for Economic Co-operation and Development (OECD) (1972). The four classes of interdisciplinarity are:

1. ‘Multidisciplinary: juxtaposition of various disciplines, sometimes with no apparent connection between them, e.g. music + mathematics + history.
2. Pluridisciplinary: juxtaposition of various disciplines, assumed to be more or less related, e.g. mathematics + physics
3. Interdisciplinary: an adjective describing the interaction among two or more different disciplines.
4. Transdisciplinary: establishing a common system of axioms for a set of disciplines’ (OECD, 1972, pp. 25-26).

Choi and Pak (2006) argue that terms such as multidisciplinary, interdisciplinary and transdisciplinary, are ‘ambiguously defined and often used interchangeably’, and cite Leathard (1994), who refers to this situation as a ‘terminological quagmire’ (Choi and Pak, 2006, p. 352). In Table 1, Choi and Pak (2006, p. 359) explore this terminology by identifying a keyword, mathematical example and food example. In Table 2, Bremner and Rodgers (2013, p. 11) go even further, with their definitions of ‘Similarities and Differences of the Disciplinary Dissolve.’

Multidisciplinary	Keyword	Additive
	Mathematical example	$2 + 2 = 4$
	Food example	Salad bowl (such as a mixed salad, in which the ingredients remain intact and clearly distinguishable)

Interdisciplinary	Keyword	Interactive
	Mathematical example	$2 + 2 = 5$
	Food example	Melting pot (such as a fondue, in which the ingredients are only partially distinguishable)

Transdisciplinary	Keyword	Holistic
	Mathematical example	$2 + 2 = \text{yellow}$ (where the outcome is of a different kind)
	Food example	Cake (where ingredients are no longer distinguishable)

Table 1: 'Views on multidisciplinary, interdisciplinary and transdisciplinary' (Choi and Pak, 2006, p. 359)

Multidisciplinarity	An understanding of disciplinary difference, ability to learn from other disciplines
Crossdisciplinarity	An understanding of disciplinary difference, can follow problem-focus of other disciplines
Interdisciplinarity	An understanding of at least two disciplinary competencies, one primary, yet able to employ the concepts and methodologies of another
Transdisciplinarity	An understanding of at least two disciplinary

	competencies, neither is primary. Abstracts disciplines to bridge new problems
Pluridisciplinarity	An understanding of a combination of disciplines that are already related in the various domains of design itself
Metadisciplinarity	An understanding that shows effort to overcome disciplinarity by using methods to construct overarching frameworks to connect practices and their histories to new problems
Alterdisciplinarity	An understanding that shows an ability to make connections that generate new methods to identify 'other' dimensions of design activity and thought
Undisciplinarity	An understanding that purposely blurs distinctions and has shifted from being 'discipline-based' to 'issues or project based'. Displays an 'anything goes' mindset that is not inhibited by well-confirmed theories or established working practices

Table 2: 'Similarities and Differences of the Disciplinary Dissolve' (Bremner and Rodgers, 2013, p. 11)

This evidence indicates that design practice is still suffering from this 'terminological quagmire'. Bowker and Star (2000, p. 1) suggest that it is human nature to classify, whilst arguing that 'each category valorises some point of view and silences another. This is not inherently a bad thing – indeed it is inescapable. But it is an ethical choice, and as such it is dangerous' (Bowker and Star, 2000, p. 5). Foucault questions the validity of established classification systems, highlighting: 'Any limit we set may perhaps be no more than an arbitrary division made in a constantly mobile whole' (Foucault, 2002, p. 55). In *The order of things: an archaeology of the human sciences*, Foucault describes 'a certain Chinese encyclopaedia', where animals are divided as follows: 'belonging to the Emperor; embalmed; tame; sucking pigs; sirens; fabulous; stray dogs; included in the present classification; frenzied; innumerable; drawn with a very fine camelhair brush; et cetera; having just broken the water pitcher; that from a long way off look like flies' (Foucault, 2002, p. xvi). Foucault misattributed this classification, as it derived from a fictional work by Borges (1952). However, what is relevant, as Foucault explains, is that 'the wonderment of this taxonomy, the thing we apprehend in one great leap...is the limitation of our own' (Foucault, 2002, p. xvi).

In summary, for the purpose of this study, Swann's definition 'design is what designers do' (Swann, 2010, p. 5) will be used as a starting point to drive the research. The aim of the research is to investigate evolving design practice in the twenty-first century, and, therefore, at this point in the study it is not possible to give a more specific definition. As Findeli (1990, p. 4) argues, it is currently unclear whether design is now 'an idea, a knowledge, a project, a process, a product, or even a way-of-being'. The study will also use the term *interdisciplinary*, in the 'non-specific manner to refer to general collaboration across disciplines' (Bremner and Rodgers, 2013, p. 10). This is to avoid the terminological quagmire at this early stage of the review, which appears to overcomplicate, and reflect 'the limitation' of the current classification system (Foucault, 2002, p. xvi). The quagmire appears to encourage 'separation and exclusion' more than it encourages 'bridging and inclusion' (Lamont and Molnár, 2002 p. 181). Unease in classification at this point in the study reflects Barthe's (1971) view that this may be 'precisely the point from which it is possible to diagnose a certain mutation' and of an 'epistemological slide.'

### **2.2.3 Developments in interdisciplinary design practice in the twentieth century**

This section examines developments in interdisciplinary practice throughout the twentieth century, to better understand and identify possible influences and shifts in evolving practice in the twenty-first century. However, it is first important to look prior to the twentieth century to get a deeper understanding of evolutions in interdisciplinarity.

The key figure in history who defied classification was Leonardo da Vinci (1452-1519), and his notebooks record his versatile genius, with writings on painting, sculpture, architecture, anatomy, mining, inventions and music (da Vinci, 1970). As a polymath Da Vinci was an exception, but prior to the Industrial Revolution many artists engaged in a variety of disciplines, some desired to create a total work of art, combining art, architecture and decorative art (Lerner, 2005) and master craftsmen combined the roles of builder, craftsman, engineer and designer (Heatherwick, 2012). Da Vinci was a key figure in the Renaissance, during which time many figures demonstrated

polymathic tendencies, partly due to the 'Medici Effect', a term used to describe the 'astounding burst of multifaceted creativity that occurred in Italy because of the Medici family's patronage of diverse disciplines' (Lea et al., 2015, p. 61)

During the eighteenth century the Age of Enlightenment saw many prominent figures blurring the lines between science, technology, art, and industry, including Josiah Wedgwood (1730-95), Matthew Boulton (1728-1809), James Watt (1736-1819) and John Baskerville (1707-75). All were members of the Lunar Society of Birmingham, described as a 'multidisciplinary group of scientists, physicians, inventors, and entrepreneurs' (Reichenfeld, 1998, p. 18). The Romantic period, (approximately 1800-50) also saw polymaths with a 'willingness to try all things, to think, write, and discourse publicly about a wide variety of topics' (Ross, 2011, p. 401). Samuel Taylor Coleridge (1772-1843) was regarded as England's 'quintessential polymath' with interests in the sciences, journalism, literature, languages, while also working as a civil servant and diplomat. (Ross, 2011, p. 406). Romantic polymathy was encouraged by 'the way the different discourses and disciplinary practices assisted each other, cross-fertilised, and generated new ideas and ways of thinking' (Ross, 2011, p. 414).

However, these polymathic roles mostly disappeared by the mid-nineteenth century due to industrial development and emerging mass consumption (Lerner 2005). Designers became disconnected from materials and practical making and craftsmen lost prestige (Sennett, 2008). The aim of the Industrial Revolution was to 'replace man by man-made machines as a source of work' (Ackoff, 2000, p. 219). Tasks became simple enough to be done by machines and work became 'dehumanised' (Ackoff, 2000, p. 220). The scientific revolution of the Victorian era 'brought about an era of 'specialisation and professionalism.' (Ross, 2011, p. 416). Despite this departmentalisation, certain artists still challenged these perceived boundaries. Richard Wagner (1813-83) created the term 'Gesamtkunstwerk' or 'Total work of Art' in the mid-nineteenth century, as he sought to combine music with painting and architecture in great collaborative musical productions (Lerner, 2005, p. 212).

The Arts and Crafts Movement rejected industrialisation in favour of pre-industrial craftsmanship and embraced working across different disciplines (Rawsthorn, 2013, p. 111). By the late nineteenth century, movements such as Art Nouveau in France and Belgium, Jugendstil in Germany and the Vienna Secession in Austria were also very broad ranging. Charles Rennie Mackintosh (1868-1928) and Margaret MacDonald's (1864-1933) designs for the Willow Tea Rooms in Glasgow in 1904, and Josef Hoffman's (1870-1956) designs for Cabaret Fledermaus theatre bar in Vienna in 1907 were both total works of art, incorporating architecture, furniture and even cutlery (Lerner, 2005).

Throughout the twentieth century, various interdisciplinary process models were explored and developed, to challenge this dehumanised, industrial model, with varying degrees of success and acceptance. The early twentieth century saw an explosion of innovative new studio models, piloted by the Constructivists, De Stijl and the Bauhaus. A group of avant-garde Russian artists, writers, and intellectuals formed the Constructivist movement, with the belief that artists and designers should work in collaboration with industry, incorporating 'engineering and technology with progressive social and scientific values' (Lodder, 2004, p. 359). This spirit and approach was also taken up by the De Stijl in the Netherlands (Rawsthorn, 2013, p. 19). However, the quest for Gesamtkunstwerk truly culminated in the formation of the Bauhaus in Germany in 1919, when, in response to technological and economic developments, Walter Gropius (1883-1969) presented a universal aesthetic and a quest for modern design forms and educational pedagogy (Lerner, 2005). Being more universal in their methods of approach, enabled them 'to tackle a problem according to its peculiar conditions' (Gropius, 1955).

Laszlo Moholy-Nagy (1895-1946), a key member of the Bauhaus, 'explored so many unprecedented paths that standard classifications are insufficient' (Kostelanetz 1970, p. 5). Moholy-Nagy worked across the fields of poetry, writing, painting, photography, kinetic sculpture, set design for theatre and film, exhibition design, graphic design and product design, moving 'horizontal across the arts, rather than vertical into only one' (Kostelanetz 1970, p. 3). While working across many disciplines, he always respected the particular



nature of each, pioneered new approaches and even predicted developments that were realised decades later (Kostelanetz, 1970). Moholy-Nagy argued that 'designing is not a profession but an attitude' and believed that 'all problems of design merge into one great problem: design for life' (Moholy-Nagy, 1947, p. 42). However, conditions in Europe 'were not ripe for the broader acceptance' of these models, due to political developments, and by the late 1930s many of these artists and designers had fled Europe to escape Nazi oppression (Coles, 2012, p. 10).

The mid-twentieth century saw the continued exploration of interdisciplinary practice, driven by interdisciplinary developments in the field of science, which led to the Science of Design. During and after World War II scientists were 'forced out of their laboratories and into the real world in an effort to solve important problems arising in large complex organisations' (Ackoff, 2000, p. 220). These problems could not be solved by any one discipline and required an interdisciplinary approach (Ackoff, 2000, p. 221). In *The Sciences of the Artificial*, Simon (1969) proposed that the study of design should be interdisciplinary and accessible to anyone creatively making the artificial world. A preoccupation with the behaviour of systems, led to Systems Thinking, combining the 'complementary processes' of Analysis with Synthesis to 'organise an increasingly varied set of intellectual pursuits' (Ackoff, 2000, p. 221). One of those pursuits was the field of design, as 'dilemmas in one field gradually became aware of those arising in other fields and the similarities among them' (Ackoff, 2000, p. 220).

Examples of scientists exploring interdisciplinarity include Stafford Beer and Barry Commoner. Anthony Stafford Beer (1926-2002) explored Cybernetics, describing it as an interdisciplinary subject (Beer, 2002, p. 210). Using a different form of science and engineering, that did not 'seek to dominate nature through knowledge' (Pickering, 2009, p. 469), Stafford Beer designed human control systems using biological computing, arguing that 'the purpose of a system is what it does' (Beer, 2002, p. 218). In advocating cybernetics to specialists from different fields, Stafford Beer would propose a rhetorical question, asking 'do you think God knows the difference between physics and

chemistry?’ The reason for this was to provoke ‘a way of questioning our reductionist ways of thinking.’ (Beer, 2002, p. 212). Barry Commoner ‘was among the first scientists to realise, in the 1960s, that some fruits of technology posed dangers for human health’ (Csikszentmihalyi, 2013, p. 295). To explore these concerns Commoner broke away from standard scientific domains and the academic fields that preserve their boundaries, to let ‘real world events dictate where he should turn his attention’ (Csikszentmihalyi, 2013, p. 295). Focusing on solving real world problems, Commoner took an ‘adisciplinary’ approach that did not fit into a particular discipline or even a combination of disciplines (Csikszentmihalyi, 2013, p. 296), similar to the ‘undisciplinarity’ approach discussed earlier by Bremner and Rodgers (2013, p. 11).

Various design practitioners responded to this Science of Design. The Institute of Contemporary Arts, founded in 1946, became a centre for multidisciplinary debate for artists, writers and scientists. One group who met there regularly, and presented ‘ground-breaking projects’, was the Independent Group (Institute of Contemporary Arts, n.d.). Formed in the 1950s, described as the first transdisciplinary group, the Independent Group created ‘a modernist renaissance with a radically inclusivist outlook’ (Robbins, 1990, p. 237). The diverse production of the group’s members included writings, exhibitions, art and architecture, and forced the creative industries to ‘develop a more inclusive semantic field’ (Robbins, 1990, p. 238). Charles Eames (1907-78) and Ray Eames (1912-88) ‘ignored conventional boundaries between disciplines and embraced the notion of performance as a means of communicating their design ideas’ (Williams, 2012, p. 25). The Eames’s set up a studio in 1943, and spent thirty years designing products, modernist houses, exhibitions and films. The film *Power of Ten*, explores the power of a single number in relation to the universe which is ‘still praised for its clarity by scientists and mathematicians’ (Rawsthorn, 2013, p. 115). Richard Buckminster Fuller (1895-1983) was an American design ‘maverick’, described by The New Yorker as ‘an engineer, inventor, mathematician, architect, cartographer, philosopher, poet, cosmologist, and comprehensive designer’ (Tomkins, 1966). Buckminster Fuller labelled the 1960s the Design

Science decade, and called for a revolution ‘to overcome the human and environmental problems he believed could not be solved by politics and economics’ (Cross, 2001a, p. 1).

The 1960s also saw the rise of the Design Methods movement. A symposium held in 1965, at the Birmingham College of Advanced Technology, discussed the nature of the design method and scientific method with the Design and Innovation Group, an interdisciplinary group from the technical faculties, industrial teaching staff, the College of Art, and practitioners from industry (Gregory, 1966). In the resulting publication, *The Design Method* (Gregory, 1966), Gregory defined the scientific method as ‘a pattern of problem-solving behaviour employed in finding out the nature of what exists’, and the design method as ‘a pattern of behaviour employed in inventing things of value which do not yet exist’ (Gregory, 1966, p. 6). Gregory defined the design process as ‘the same whether it deals with the design of a new oil refinery, the construction of a cathedral, or the writing of Dante’s Divine Comedy’ (Gregory 1966, p. 3). John Chris Jones’s 1970 publication, *Design Methods*, also focused on collaboration, and paved the way for user-centred design and ergonomics. Jones questioned the aims and purposes of designing, and recognised that new methods had appeared in many industrial areas, including management, production engineering, accounting and marketing, as well as non-industrial areas such as acting, painting, musical composition, philosophy, science and teaching (Jones, 1992, p. xviii). Jones argued that all these areas were ‘collectively seeking, not only new procedures, but new aims and a different level of achievement....outside the boundaries of traditional expertise’ (Jones, 1992, p. xviii).

In 1967 Edward de Bono coined the term Lateral Thinking, concerned with ‘new ideas and new ways of looking at things, escaping from old ideas in order to find better ones, and change’ (De Bono, 1987, p. 135). De Bono saw Lateral Thinking as a set of ‘attitudes, idioms and techniques for cutting across patterns in a self-organising asymmetric patterning system’ and used these techniques to generate new concepts (De Bono, 1987, p. 169). Similarly, Horst Rittel developed a Wicked Problems approach, which he saw as an alternative

to 'the linear, step-by-step model of the design process being explored by many designers and design theorists' (Buchanan, 1992, p. 15). Rittel believed that most design problems were wicked problems, which he defined as a 'class of social system problems which are ill-formulated, where the information is confusing, where there are many clients and decision makers with conflicting values, and where the ramifications in the whole system are thoroughly confusing' (Buchanan, 1992, p. 15). This approach is similar to the 'undisciplinarity' approach discussed earlier by Bremner and Rodgers (2013, p. 11) and Commoner's 'adisciplinary' approach (Csikszentmihalyi, 2013, p. 296). Rather than a linear process model, Rittel recommended that the design process be divided into two distinct phases: problem definition and problem solution. Problem definition used analysis to determine all of the elements of the problem. Problem solution used synthesis to determine the final plan to be carried into production (Buchanan, 1992, p. 15).

The 1970s experienced a 'backlash against design methodology and a rejection of its underlying values' (Cross, 2001a, p. 2). Even Jones is quoted as saying 'in the 1970s I reacted against design methods. I dislike the machine language, the behaviourism, the continual attempt to fit the whole of life into a logical framework' (Cross, 2001a, p. 2). Michel Foucault described an emergence in the 1970s of two types of individual: 'specific individuals who speak from a particular disciplinary location and the universal individuals who speak as the conscience and consciousness of society' (Chettiparamb, 2007, p. 2).

Since the 1970s, universality has drawn great interest, with the realisation that physically different systems show identical critical behaviour (Stacey, 2013). The universal individual is explored in *The Universal Traveler* (Koberg and Bagnall, 2003), originally published in 1972. Using the analogy of travel, the text is 'a guide to creative problem solving' and 'a passport to success'. The process is described as universally relevant, 'based on the premise that any problem, dream, or aspiration, no matter its size or degree of complexity, can benefit from the same logical and orderly systematic process employed to solve world-level problems' (Koberg and Bagnall, 2003, p. 1). Inspired by Stafford Beer's cybernetics, they believed their process could address most

social, industrial and economic problem situations (Koberg and Bagnall, 2003, p. 1). Koberg and Bagnall see problem solving as a universal occupation, explaining ‘although potential problems surround you in many apparently different forms, it is only their specific situations that differ. The process of solving or resolving them creatively by design is basically the same’ (Koberg and Bagnall, 2003, p. 28). The process is described as a ‘sequence of stages or stopovers on a journey to a given destination’ and the seven stages include: ‘Accept; Analyze; Define; Ideate; Select; Implement; Evaluate’ (Koberg and Bagnall, 2003, p. 16). Koberg and Bagnall acknowledge that there may be multiple ways to view and interpret these stages, and illustrate four possibilities (See Figures 1, 2, 3, 4) (Koberg and Bagnall, 2003, p. 16). They conclude that in reality the problem-solving process proceeds endlessly, and that ‘the ultimate version would have to be a spiral, a continuum of sequential round trips progressing ad infinitum like entwined atoms within a DNA molecule’ (Koberg and Bagnall, 2003, p. 16).

### 1. Straight line

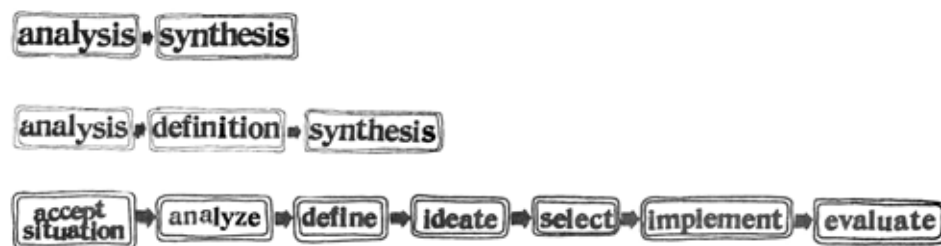


Figure 1: ‘Straight Line’. (Koberg and Bagnall, 2003, p. 16).

### 2. Feedback loops – ‘A back and forth action where you never go forward without always looping back.’

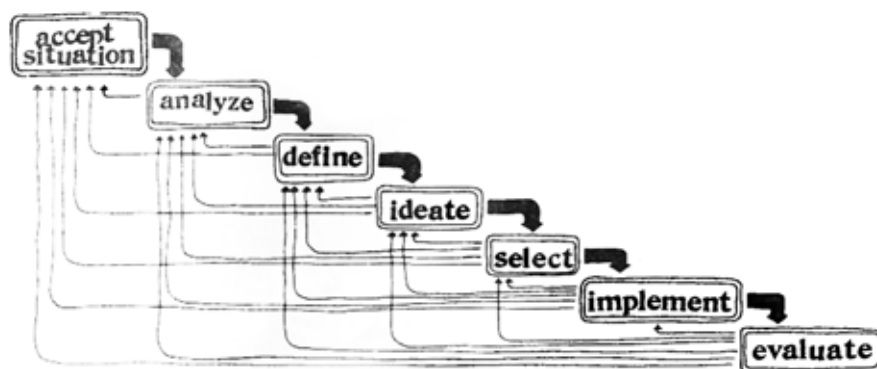


Figure 2: ‘Feedback Loops’. (Koberg and Bagnall, 2003, p. 16).

3 . Branching – ‘Where certain events occurring at various stages determine more than one connection and progress to a resolution is more expansive than direct.’



Figure 3: ‘Branching’. (Koberg and Bagnall, 2003, p. 16).

4. Circular / Spiral – ‘A scattering of pieces with each stage progressing concurrently with the others rather than as a connected chain of events.’

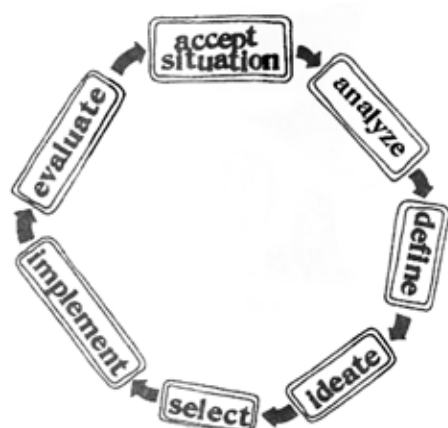


Figure 4: ‘Circle / Spiral’. (Koberg and Bagnall, 2003, p. 16).

Also reflecting universality, or ‘unity,’ the term Transdisciplinary first appeared in France, in 1970, in the talks of Jean Piaget, Erich Jantsch and Andre Lichnerowics, at an international workshop exploring issues in teaching and research in universities (Nicolescu, 2006, p. 1). Developments in transdisciplinarity began in the 1960s, in the writings of Felix Guattari and Sergio Vilar, with Guattari defining transdisciplinarity as ‘a call to rethink relationships between science, society, politics, ethics, and aesthetics through a new meta-methodology’ (Coles, 2012, p. 17). However, according to Nicolescu (2006), the 1970 definition of the term ‘pointed to a new space of knowledge without stable boundaries between disciplines’ (Nicolescu, 2006, p. 1). Jean Piaget (1896-1980) was a Swiss philosopher and psychologist who

saw symbiotic relationship between disciplines, and ‘saw heterogeneity as a virtue and unity in diversity’ (Stein, 2007, p. 102).

Donald Schon challenged the ‘positivist doctrine underlying much of the Design Science movement, and offered a constructivist paradigm’ with ‘reflective practice’ (Cross, 2002, p. 3). Schon described reflective practice as ‘a kind of experimentation that consists in reflective conversation with the materials of a design situation. A designer sees, moves and sees again’ (Schon, and Wiggins, 1992, p. 135). Proposing a ‘radically different paradigm’, Schon described design as ‘a process of reflection-in-action’ (Dorst and Dijkhuis, 1995, p. 262). Schon saw design as a ‘reflective conversation with the situation, with problems set or framed by designers, who take action improving the (perceived) current situation’ (Dorst and Dijkhuis, 1995, p. 262).

The end of the twentieth century saw design focusing primarily on ‘making products more efficient to manufacture, more efficient to use and prettier to look at’, while addressing ‘brand value, competitiveness and markets’ (Williams, 2012, p. 7). By the 1980s there was a general move away from making comparisons between science and design (Cross, 2002, p. 2), and design was ‘generally consigned to a commercial role’ (Rawsthorn, 2013, p. 20). However, a minority of individual designers and groups continued to develop interdisciplinary practice. In 1972 Kenneth Grange (1929-) founded interdisciplinary design consultancy Pentagram (Cross, 2001b). In the 1980s and 1990s interdisciplinary consultancies such as IDEO, Tangerine and Seymour Powell also played key roles in the British design scene (Williams, 2012, p. 11). Eiko Ishioka (1938-2012) spent over forty years working across the fields of graphic design, art direction, set design for theatre and film, costume design, exhibition design, television commercials, music videos, and large-scale events (Ishioka, 1983 and 2000). Through the late twentieth century into the twenty-first century, Philippe Starck (1949-) and Ron Arad (1951-) have defied classification, designing buildings, interiors, furniture, household items and fashion (Lawson, 2006). Arad refuses to be pigeonholed

with disciplinary labels, and in 2009 had an exhibition titled No Discipline at the Museum of Modern Art in New York (Jacobs, 2012).

In summary, throughout the twentieth century there were hybrid practitioners, from the Moholy-Nagy to Buckminster Fuller to Ron Arad, who crossed boundaries, rejecting what they perceived to be the de-humanised, industrial model of practice, in search of a humanistic, universal aesthetic. The findings appear to demonstrate a strong unifying thread of undisciplinary or adisciplinary thinking. Political developments in Europe put a stop to early progress, but in response to the necessities of WWII, interdisciplinarity continued to develop and design became a science. Systems, methods and processes were explored, building a belief that one process could solve any problem. Challenging reductionist ways of thinking, these practitioners prioritised real world problems, rather than discipline specific problems. They took a comprehensive view to tackle problems, whether social, environmental, industrial or economic and were able to work across many fields by moving, like Moholy-Nagy, horizontally rather than vertically. Breaking away from linear, step-by-step process models, problems were viewed and framed as messier and more ill-formed. Process models, therefore, became branched or even spiralled, requiring lateral, reflective thinking. As Foucault highlights, the specific individual did not go away, but the twentieth century witnessed the re-generation of the universal individual, re-defining what design is, and preparing the ground for the twenty-first century.

#### **2.2.4 Shifts in evolving design practice in the twenty-first century**

This final section explores evolving design practice in the twenty-first century. The purpose is to identify current shifts in design practice, and to establish whether a new design paradigm can be identified.

##### **Processes of practice**

Since 2000, there has been a significant shift within the field of design, with the dissolving of disciplinary boundaries, and what appears to be ‘the most significant paradigm shift in living memory’ (Coles, 2012, p. 332). There are still designers who are discipline specific, happy to be the ‘specialist executor,’



but there is a significant rise in the 'polymath interloper' (Seymour, 2006). These 'interlopers' are choosing to defy traditional classification in favour of being defined by the fluidity with which they move across the fields of art, architecture and design (Coles, 2012). Knowledge is now being produced through complex, hybrid, non-linear processes using collaboration and integrated problem solving (Klein, 2003) and the result is that 'the notion of disciplines is artificial and is now breaking down into a post-disciplinary world' (Chettiparamb, 2007, p. 12).

There appear to be multiple drivers for these shifts. Defying traditional disciplinary classification, whether through multi-, inter-, trans- or post-disciplinarity is seen as a response to a changing world (Chettiparamb, 2007). These changes appear to include a crisis in professionalism, the economy and technology (Bremner and Rodgers, 2013). The crisis in professionalism is the result of designers becoming less interested in the commodification of design, in styling and marketing (prevalent over the previous two decades), and more interested in innovation, narrative, expression and experience (Williams, 2012). The crisis in economy reflects wider economic issues. A recent NESTA report exploring hidden innovation in the creative industries states that economic slowdown is 'making generalism fashionable again, with many design consultancies attempting to enter their competitors' niche markets' (Miles and Green, 2008, p. 29). Sennett supports this view, highlighting that shifting domain is necessary for survival, and states 'the capacity to shift habits reaches deep into the animal kingdom...the capacity to respond and problematise in different domains is the ethological key to natural selection' (Sennett, 2008, p. 279). The crisis in technology is due to the explosion of information and computing technologies affecting creative practice. As a result of these crises, 'design is characterised by fluid, evolving patterns of practice that regularly traverse disciplinary boundaries' (Bremner and Rodgers, 2013, p. 8).

These shifts have had direct impact on definitions and terminology, with practitioners 'redefining what design is' (Williams, 2012, p. 7). While brand value, competitiveness and markets are still an important part of design in the

twenty-first century, an increasing number of designers now do not 'place great significance on such words' and their practices are similar to those of 'artists, inventors, poets and performers' (Williams, 2012, p. 7). It could be argued that even the term design is in question. Designer Dieter Rams explains: 'I am troubled by the devaluing of the word 'design'. I find myself now being somewhat embarrassed to be called a designer' (Warman, 2011). Williams (2012) interviews a range of contemporary practitioners, and responses highlight immediate issues with traditional definitions and classification:

- Jaime Hayon: 'I don't call myself a designer or an artist, I call myself a creator. I create things, and those things are whatever you want. People love to classify but I don't believe in categories. People need more personality' (Williams, 2012, p. 99).
- El Ultimo Grito: 'We advocate the designer as a post-disciplinary figure, a kind of apprentice of everything and master of nothing. We have always intended that our work should demystify design' (Williams, 2012, p. 30).
- Troika: 'It is time to acknowledge that the classical distinction between art and design is simply outdated. What is more interesting in both art and design is when the outcome communicates or materialises a clear world view' (Williams, 2012, p. 106).

The evidence above highlights that, for some practitioners, the terms artist and designer are insufficient or outdated. However, Williams cautions that 'they still provide context and discourse, helping to understand and interpret work that, in many ways, is new and therefore inclined to be alien and inaccessible' (Williams, 2012, p. 26).

This shift from commodification to experience impacts on the meaning of product in design, which Buchanan (2001) highlights will cause issues for design practice, design education and design research. To overcome this, Buchanan proposes 'four orders of design', with each order being 'a place for re-thinking and re-conceiving the nature of design' (Buchanan, 2001, p. 10).

The four orders include:

- Graphic Design: Symbols
- Industrial Design: Things
- Interaction Design: Action: ‘how human beings relate to other human beings through the mediating influence of products. And the products are more than physical objects. They are experiences, activities or services’ (Buchanan, 2001, p. 12)
- Environmental Design: Thought: ‘the idea or thought that organizes a system or environment’ (Buchanan, 2001, p. 12)

Instead of focusing on Symbols and Things, designers appear to be turning to Action and Environment (Buchanan, 2001, p. 11). Interaction design first appeared in the late 1980s but is now offered as a field of study. A key element of Interaction Design is designing in the fourth dimension, through storytelling (Sanders and Stappers, 2008, p. 10). Service design is described as a ‘human-centred approach and an outside-in perspective, applying design methodology and principles to the design of services’ (Holmlid, 2009, p. 1), and appear to link to both Interaction and Environmental design. Other new design disciplines have begun to emerge which demonstrate this shift from designing products and technologies to designing ‘for people’s purposes’ (Sanders and Stappers, 2008, p. 10). According to Sanders and Stappers (2008, p. 10) these new disciplines incorporate several of the traditional design disciplines within them, and ‘centre around people’s needs or societal needs.’ Sanders and Stappers’ (2008, p. 10) table below (see Table 3) demonstrates this shift from product to purpose:

The traditional design disciplines focus on the <b>designing</b> of ‘products’ ...	... while the emerging design disciplines focus on <b>designing</b> for a purpose
visual communication design	design for experiencing
interior space design	design for emotion
product design	design for interacting
information design	design for sustainability
architecture	design for serving
planning	design for transforming

Table 3: ‘A snap shot in time of traditional and emerging disciplines’. (Sanders and Stappers, 2008, p. 10).

Since 2000 there has also been a significant shift in the evolution and development of studio models, where ‘traditional disciplinary boundaries are

exceeded' (Coles, 2012, p. 9). According to Coles (2012, p. 10) this shift demonstrates a desire by designers and artists to revisit the studio models piloted by both the 'neo-avant-garde' of the 1950s (the Independent Group), and the 'historical avant-garde' (the Constructivists and De Stijl). There are now fewer larger scale consultancies, with the majority of studios tending to stay relatively small (Williams, 2012). Possible reasons for this shift are partly to do with decline in the sector, tighter corporate budgets, a rise in freelancers, and also 'a growing confidence among the younger generation to go it alone' (Williams, 2012, p. 11). Williams (2012, p. 11) attributes this confidence and determination to go it alone as being inspired by role models such as Ron Arad, who 'showed the way for younger designers to work outside large companies.' There is also an increasing number of designers and artists 'coalescing into informal collectives where they can share spaces and resources' (Williams, 2012, p.11). In discussing the work of pioneering twenty-first century studios, including Studio H in the USA, and Participle in the UK, Rawsthorn (RSA, 2013) identifies three common themes:

- 'A determination to apply design for the good of society.
- Interpreting design in its broadest strategic sense in a process of change management.'
- Having entrepreneurial drive to do so, in developing new ideas and the strength to realise them, and have access to digital technology' (RSA, 2013).

In *The Transdisciplinary Studio*, Coles (2012) conducts in-depth research within four international studios that Coles identifies as transdisciplinary. Coles defines a transdisciplinary studio as 'a microorganism that actively generates objects across the contexts of art, design and architecture' (Coles, 2012, p. 13) and 'a vital place where a large proportion of artists and designers generate ideas, objects, environments, and situations' (Coles, 2012, p. 9). One example is Studio Olafur Eliasson, based in Berlin, 'where specialists from different fields come together to form a transdisciplinary team' (Coles, 2012, p. 9). The studio space consists of a large design office, a series of test spaces, a workshop, an archive and library, and also a school set up by Eliasson called the Institute fur Raumexperiment (explored in more depth in the next Section of this Chapter on Pedagogy) (Coles, 2012, p. 9). The methodological

principles at play within the studio keep changing due to the variety of work produced, and this ensures that the studio doesn't become 'a static entity or a non-critical machine' (Coles, 2010, p. 65). Studio member Behmann explains that 'many architectural practices are premised on a more industrial model of design and production, which is based on specialisation' which is very different to this studio, where people have 'a broader skill base that feeds into other aspects of our activities rather than existing in isolation' (Coles, 2010, p. 65). The work of the studio is co-produced, due to 'the flexibility needed to enhance the collaborative nature of the studio's production process' (Coles, 2010, p. 65). Also, the administrative structure in place 'bespeaks soft power' as this is 'the most appropriate way to maintain the flexibility needed to optimise the research and production process of new work' (Coles, 2012, p. 64). This study by Coles (2012) will inform the methodology and the gathering of primary data later in this thesis.

As discussed earlier, the explosion in technological developments has driven a 'levelling-out' of traditional disciplinary hierarchies, that mirrors the changes that took place 100 years ago with the Bauhaus and Constructivist movements (Marshall and Pengelly, 2006, p. 112). 3D computer technologies are enabling the 'integration and convergence between distinct axiomatic domains', resulting in new forms of convergent practice. Marshall and Pengelly (2006) describe these practices as 'terrain vague', which 'fall between the mainstream discourses of architecture, art and design' (Marshall and Pengelly, 2006, p. 111). Also highlighted earlier, collaboration appears to be essential for these new ways of working. Problems that could be solved, in previous decades, by a sole practitioner and an assistant, now require 'groups of people with skills across several disciplines, and the additional skills that enable professionals to work with, listen to, and learn from each other as they solve problems' (Dorst, 2015, p. ix). Sennett (2008) supports this view, stating 'Western capitalism has sometimes claimed that individual competition rather than collaboration most effectively motivates people to work well, but in the high-tech realm, it is firms that enable cooperation who have achieved high quality results' Sennett (2008, p. 52). Co-designing is also becoming common practice, defined as 'the creativity of designers and people not trained in design working together in

the design development process' (Sanders and Stappers, 2008, p. 6). The diagram below (Figure 5) represents the co-designing process, with a growing emphasis on the 'fuzzy front end' (Sanders and Stappers, 2008, p. 7). The term 'fuzzy' is used 'because of the ambiguity and chaotic nature...it is often not known whether the deliverable of the design process will be a product, a service, an interface, a building, etc' (Sanders and Stappers, 2008, p. 7). This diagram appears to be similar to the Koberg and Bagnall spiral, where each stage progresses concurrently on top of one another while gradually reducing (2003, p. 16).

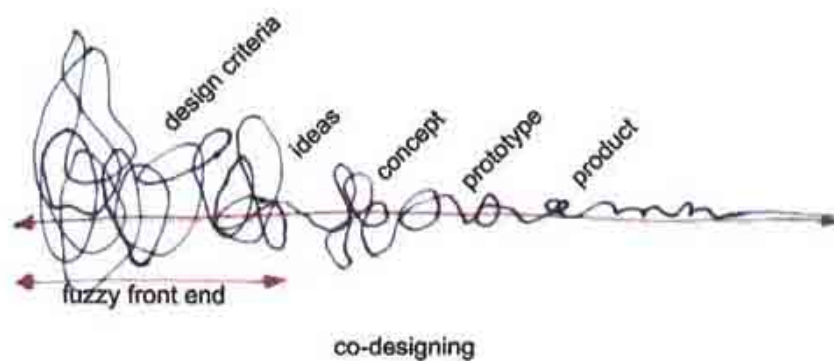


Figure 5: 'Co-design process diagram'. (Sanders and Stappers, 2008, p. 7).

Evolving methods of thinking, seeing and doing, are also highlighted as informing new processes. The term Design Thinking was first used by David Kelley when he founded his company IDEO in California in 1991 (Rawsthorn, 2013, p. 24). Design thinking is described as a process that puts the skills designers have learned 'into the hands of people who may have never thought of themselves as designers and apply them to vastly greater range of problems.' This enables the design process to be 'shared across diverse professions, or be influenced by working with people with different perspectives on complex cross-disciplinary problems' (Adams, Daly, Mann, and Dall'Alba, 2011, p. 2).

Ways of seeing are also key to design thinking, as 'innovation begins with an eye' (Brown, 2009, p. 237). Philosopher John Thackara appears to support this view, stating 'to do things differently, we need to perceive things differently' (Thackara, 2005, p. 6). Due to the appearance of complex, non-

linear processes in many areas, transdisciplinarity is recommended, as it is considered 'a different manner of seeing the world, more systematic and more holistic' (Max-Neef, 2005). This holistic way of seeing appears to directly link to Moholy-Nagy's view, discussed earlier in the chapter, that 'the key to our age is to be able to see everything in relation' (Findeli, 2001).

'Frame Creation' is about doing things differently, described as 'a fascinating new practice for creating original approaches to really hard problems' (Dorst, 2015, p. xv). It was originally developed in the 'practices of expert designers' known for 'solving the unsolvable' and for 'finding new opportunities where others see only problems' (Dorst, 2015, p. xv). Like Design Thinking, the process 'can be used by professionals in other fields, beyond the designing disciplines' (Dorst, 2015, p. xv). To deal with the open, complex, dynamic and networked problem situations design is currently facing, Dorst (2015) recommends a process of: 'Co-evolution; Developing problem situations; Creating Frames; Exploring themes; Fostering a discourse' (Dorst, 2015, p. 59). Dorst argues that designers are now selected by clients on their approach to 'problem situations' and recommends these problems be approached in the following innovative ways:

- 'Seeing differently: our perception of the world is organised by solutions, rather than problems.
- Thinking differently: the world is used to a static notion of rationality.
- Doing differently: the world has set ways of dealing with novelty and innovation' (Dorst, 2015, p. 13)

Practitioners explored earlier in this section, appear to embody these three approaches. Jaime Hayon sees differently, by seeing himself as a 'creator' rather than an artist or designer a creator (Williams, 2012, p. 99). As with Moholy-Nagy defining design as an 'attitude', El Ultimo Grito 'think' differently by advocating the designer as 'a post-disciplinary figure, a kind of apprentice of everything and master of nothing' (Williams, 2012, p. 30). Finally, Studio Olafur Eliasson are 'doing' differently, by continually pushing the variety of work produced, to ensure the studio doesn't become 'a static entity or a non-critical machine' (Coles, 2010, p. 65).

## **Interdisciplinarity versus Specialisation**

The findings above provide evidence of a dramatic rise in interdisciplinary practice since 2000, and the primary data presented later in the study will demonstrate five studios who work in this way. However, evidence also suggests there is tension between interdisciplinarity and specialisation, and conflict within the industry over this evolving breadth of practice.

Many interviews and protocol experiments have been conducted with well-known and exceptional designers from different disciplines, including Lawson (1994, 2006) and Cross (2001b, 2003). Both authors note similarities in the creative strategies of the designers, despite the great disparity between projects. However, they counter these with cautions, including ‘this does not necessarily mean that experts can successfully switch practice between domains. Extensive training within a domain still seems to be crucial to professional expertise’ (Cross, 2003, p. 12). Lawson (2006, p. 32) states ‘it would seem reasonable to suggest that the balance of skills required by each type of designer is different.’ These views appear contradictory to the evidence gathered earlier in this chapter. The interdisciplinary designers and studios discussed appear to find crossing domains highly beneficial, understanding that developing fluency in other domains increases different forms of creativity’ (Lea *et al.*, 2015, p. 58).

One argument for not switching domain is the ten-thousand-hours-rule, originally conceived by Anders Ericsson, to look at expert performance (Ericsson and Lehmann, 1996). Ericsson argues ‘the highest levels of human performance in different domains can only be attained after around ten years of extended, daily amounts of deliberate practice activities’ (Ericsson and Lehmann, 1996, p. 273). Seen as ‘a common touchstone for how long it takes to become an expert’ the rule translates into three hours a day for ten years, seen as common training for young people in sports (Sennett, 2008, p. 172). The rule supports Cross (2003) and Lawson (2006), and their argument that extensive skills training within a domain is crucial, and the skills required by each domain are different. However, there appears to be a conflict between this rule, recommending deep, domain specific skills, and the work of



interdisciplinary designers who appear to cross domains regularly, developing a breadth of skills. As demonstrated earlier, evolving innovative methods require seeing and thinking differently, and perhaps it is necessary to look at, re-think and re-define 'skills' in the twenty-first century, to better value current practice. Sennett (2008) appears to support this view, arguing that practice has moved on from the ten-thousand-hour rule. Experts now need broad analytical skills, deep focused skills, and the ability to combine both of these to work on 'social explorations to frame a problem' (Sennett, 2008, p. 247). Therefore, the evidence points clearly to the notion that an interdisciplinary designer spending 10,000 hours crossing multiple domains is as much an expert as a specialist designer spending 10,000 hours within one domain.

Another issue, linking to the concerns of Lawson, Cross and the ten-thousand-hours-rule, is one of levels of quality, and the view that 'there are no standards of excellence for interdisciplinary work in general' (Klien, 1990, p. 94). This is partly due to the changing nature of design which now requires designers work on complex social and political issues, as behavioural scientists, which, according to Norman (2010) they are 'woefully undereducated for the task.' Interdisciplinary designers are also criticised for having 'Leonardoesque aspirations' in wanting to be polymaths, and Campbell (1969) argues that interdisciplinary training is bound to fail as it 'produces a shallowness, a lowest common denominator breadth, an absence of the profound specialisation which is essential' (Campbell, 1969, p. 329). However, it could be argued that the term polymath also needs to be re-thought. Andreasen (2014) appears to support this view, stating that 'many creative people are polymaths, people with broad interests in many fields.' Design firm Seymour Powell also appear to support this view, explaining that due to the breadth of work that comes into the studio, they hire 'polymaths with a much broader bandwidth' as they tend to be the most creative and bring experiences from many different challenges to bear on any given problem (Seymour, 2006). They argue that an 'over-specialised/under experienced workforce isn't going to help' solve new challenges emerging (Seymour, 2006).

As discussed at the beginning of this study, the ‘specialist versus polymath’ debate has been ongoing for centuries (Root-Bernstein, 2009). Negative connotations are given to diversity of knowledge, with terms such as ‘jack of all trades and master of none’ (Nagle and Teodoridis, 2017, p. 2). Yet evidence suggests that creative thinking is ‘inherently multimodal, trans-disciplinary, and independent of domains’ (Root-Bernstein, 2009, p. 858). According to Root-Bernstein (2009, p. 858) ‘creativity, by definition, requires polymathic breadth’, as it requires ‘the integration of ideas, concepts, practices, problems, skills, methods, or materials that have not previously been integrated.’ Root-Bernstein (2009, p. 853) highlights that many psychologists believe that ‘gifted individuals are specialists and that their creativity stems from intense application to a single domain.’ However, Root-Bernstein, (2009, p. 854) argues that ‘from the polymathy perspective, giftedness is the ability to combine disparate (or even contradictory) ideas, sets of problems, skills, talents, and knowledge in novel and useful ways.’ In exploring the role of generalists in novel knowledge integration, Nagle and Teodoridis (2017, p. 1) describe the ‘paradox where impactful discoveries are the result of diversified knowledge input, yet achieving diversification is increasingly difficult as knowledge accumulation leads to division into narrower knowledge areas and increased specialisation.’ They propose: ‘Rather than being a jack of all trades and master of none, individuals with high levels of knowledge diversity might play an important role as a jack of all trades and master of knowledge.’ (Nagle and Teodoridis, 2017, p. 25).

Interdisciplinarity appears to be more accepted if it follows a specialised educational route. For example, Stein (2007, p. 96) argues the need to solidify disciplinary expertise before interdisciplinarity, and Bremner and Rodgers (2013, p. 13) see an initial ‘disciplinary platform of knowledge and skill’ as essential. In discussing emergent design domains, McCullagh (2010) argues many designers entering these new domains ‘over-stretch themselves and damage their long-term prospects’ because of a ‘diminished vertical stack’. This vertical stack refers to T-shaped designer concept, where the vertical stroke of the T is a depth of skill (typically developed at undergraduate level) and the horizontal stroke is the disposition for collaboration across disciplines

(typically developed at Masters level) (Hansen, 2010). However, Moholy-Nagy did not follow the T-shaped model, and preferred to move horizontally (Kostelanetz 1970, p. 3). Specialising in one discipline can make the designer 'insular', yet Moholy-Nagy demonstrates that 'the default epistemic position should be one of open-minded disciplinary tolerance, not one of sceptical disciplinary Xenophobia' (Stein, 2007, p. 96). Stein argues that this 'ethnocentrism' inhibits collaboration across disciplines (Stein, 2007, p. 96). This evidence argues that traditional skills in the vertical stack need to be re-defined as they may not be relevant to the new processes of practice. Also, if specialisation limits collaboration, and collaboration is a key component to solving the problems of the future (as highlighted earlier in the chapter by Dorst, 2015, p. ix), we need to re-think our understanding of traditional disciplinary specialisation, and the T- shaped model.

In summary, the issues highlighted above - with regards to domain shifting, quality and the need for specialisation before interdisciplinarity - could be re-framed, to view interdisciplinarity as a discipline or specialism. Nicolescu (2006, p. 18) appears to support this view, arguing that transdisciplinary experts are not ultra-specialists of a very narrow discipline, but they are still experts 'because they have knowledge of the methodology of transdisciplinarity.' An interdisciplinary discipline could have forms of knowledge and ways of knowing independent of the different domains of design practice (Cross, 2002, p. 3). Rather than viewing interdisciplinary practitioners as having issues with quality, discipline with a lower case 'd' is still present even if a traditional disciplinary domain is not. Interdisciplinary designers still 'require discipline to be undisciplined' (Salustri and Rogers, 2009, p. 9). For example, Dutch designer Anouk Wipprecht merges the disciplines of fashion, engineering, interaction design, experience design and science to create an interdisciplinary discipline she defines as 'FashionTech' (Wipprecht, n.d.). Viewing interdisciplinarity as a discipline could also help create a common language for design which would in turn help to 'transfer methodological expertise between design disciplines' (Salustri and Rogers, 2009, p. 2).

It appears that ‘disciplinary knowledge has reached its own limitations,’ and that there are benefits to moving beyond discipline entirely (Nicolescu, 2006, p. 2). Meaning ‘across’, ‘between’ or ‘beyond,’ transdisciplinarity was originally conceived in the 1960s, but ‘the intellectual climate was not yet prepared for receiving the shock of contemplating the possibility of a space of knowledge beyond the disciplines’ (Nicolescu, 2006, p. 1). As discussed earlier in this section, design studio El Ultimo Grito choose to define themselves as ‘post-disciplinary’ to help ‘demystify design’ (Williams, 2012, p. 30). This evidence highlights the possibility that academic terminology can mystify design, which reflects the concerns of a ‘terminological quagmire’ discussed earlier. Re-framing interdisciplinarity as a specialism, or moving beyond discipline, could not only simplify terminology and avoid this ‘terminological quagmire,’ but also enable the creation of a common language for design which in turn could enable the sharing of methodology. This could help to demystify design, and make it easier for practitioners and non-practitioners alike to collaborate and better understand and value evolving design practice in the twenty-first century.

### **2.2.5 Summary**

This section of the literature review reveals that terminology and classification systems for design are becoming more complex. Yet it appears that simplicity is required as a means of de-mystifying design. This should aid in addressing the ‘terminological quagmire’ that reflects the limitations of the current classification system, and make it easier for practitioners and non-practitioners to collaborate and better understand evolving design practice in the twenty-first century. At the beginning of this section, Swann’s definition of design, ‘design is what designers do’ (Swann, 2010, p. 5), was selected as a starting point to drive the research. However, this definition now needs to be reconsidered, as the findings highlight that design thinking has enabled non-designers to engage in design. Design is now more about ‘an attitude’ than a profession (Moholy-Nagy, 1947, p. 42), with many practitioners designing in a way that can be described as ‘beyond discipline’ (Nicolescu, 2006, p. 2).

The section makes it clear that interdisciplinary practice is nothing new, and that throughout the twentieth century, hybrid, universalists employed a comprehensive view, re-defining design and preparing the ground for the twenty-first century. Now, 100 years on from the formation of the Bauhaus, it appears that we face a similar moment, with the rise of the ‘polymath interloper.’ The specialist executer has not gone away, but many practitioners now defy traditional classification in favour of being defined by the fluidity with which they move across the fields of art, architecture and design. Practitioners are ‘redefining what design is’ (Williams, 2012, p. 7), and moving from designing products to designing ‘for people’s purposes’ (Sanders and Stappers, 2008, p. 10). Studio models are also evolving, where in ‘traditional disciplinary boundaries are exceeded’ (Coles, 2012, p. 9). Key methods include collaboration, co-designing and ‘seeing, thinking and doing differently’ (Dorst, 2015, p. 13). Evidence highlights tensions between interdisciplinarity and specialisation within the industry, with respect to domain shifting, quality, and the need for specialisation before interdisciplinarity. Thus, this study proposes that these issues could be ‘re-framed’ to present interdisciplinarity, or designing beyond discipline, as a specialism. An interdisciplinary designer spending 10,000 hours crossing multiple domains could be as much an expert as a specialist designer spending 10,000 hours within one domain.

Due to professional, technological and economic developments, ‘the creative disciplines are undergoing the most significant paradigm shift in living memory’ (Coles, 2010, p. 332). Paradigm is defined as ‘a model of something, or a very clear and typical example of something’ (Cambridge Dictionary, n.d.c). The evolution of the term ‘paradigm’ has been addressed by philosophers down the ages, from Plato’s ‘Timaeus’ which explored the theory of forms and the paradigm of ‘immanence and transcendence’ (Perl, 1999), and De Saussure’s exploration of Linguistics and the ‘semiotic paradigm’ that analyses language as ‘a system of relationships between sound and meaning’ (Shaumyan, 1998, p.1), to Kuhn’s Scientific Belief System where ‘a paradigm is what the members of a Scientific community, and they alone, share’ (Kuhn, 1974). However, this study deploys Feyerabend’s approach, where paradigms can become ‘undisciplined’, with an ‘anything goes’ philosophy that argues

that different disciplines can learn from each other's models (Shaw, 2017). Paradigm Shift is defined as 'a time when the usual and accepted way of doing or thinking about something changes completely' Cambridge Dictionary, (n.d.d). A paradigm shift occurs when several people working in a discipline 'begin to encounter anomalies or phenomena that cannot be explained by the established model' (Hairston, 1982, p.76). This paradigm shift is evident in the commentary above, as new methods are required to solve these new problems. Many designers appear less interested in the commodification of design, or styling and marketing, and more interested in innovation, narrative, expression and experience (Williams, 2012). Further investigation is now needed, as the findings call to: re-frame our understanding of skills and specialisms; question current perceptions of the expert and the polymath; and, further explore evolving creative processes and methodologies. To do this, the study will take influence from Coles (2012), to inform its methodology and the gathering of primary data later in the thesis. The approach will include in-depth research situated within five internationally renowned studios, examples that can be perceived to 'defy classification'.

Finally, further investigation is also needed to explore the implications of any paradigm shift for design education and design policy, and this will form the subject of the following two sections of this review. Key texts used in this section of the review, including Rawsthorn (2013), Williams (2012) and Coles (2012), do not address the implications for pedagogy, yet according to Sanders and Stappers (2008, p. 11) these emerging design practices 'will change what we design, how we design, and who designs. The impact upon the education of designers will be immense.'

## **2.3 Pedagogy**

### **2.3.1 Introduction**

Findings from the previous section above demonstrate that interdisciplinary practice is growing rapidly within the UK, and a clear paradigm shift can be identified that will have implications for design students. Yet statistics show that the UK Higher Education system is uni-disciplinary in structure, which appears to demonstrate a disconnection between practice and pedagogy. This section is structured into three sections. The first section explores terminology and how current Higher Education courses are classified. The second section examines evolutions of interdisciplinary design pedagogies throughout the twentieth century, both in the UK and internationally, to better identify historical influences on current pedagogy. The final section explores this perceived disconnection between current practice and pedagogy and looks to emerging alternative educational models, to see what may be learnt.

### **2.3.2 Terminology and Classification**

This section aims to clarify terminology and identify how current Higher Education courses are classified, to better interpret where this perceived disconnection between current design practice and pedagogy might exist, and in what form.

### **Pedagogy**

Pedagogy is defined as ‘the method and practice of teaching, especially as an academic subject or theoretical concept’ (Oxford Dictionaries, n.d.). This definition demonstrates the traditional emphasis on ‘teacher-centered’ learning. However, in recent decades there has been more of an emphasis on ‘student-centered’ pedagogy, with ‘learners constructing their understandings through their actions and experiences on the world’ (Mascolo, 2009, p. 1). Mills and Huber (2005, p. 43) state that ‘a disciplinary identity is by definition a pedagogic one.’ If this is the case, then each discipline has its own pedagogical approach, which raises the question of what an interdisciplinary pedagogical approach can be. Interdisciplinary pedagogy is ‘not synonymous with a single process, set of skills, method, or technique’ and aims to foster ‘a

sense of self-authorship and a situated, partial and perspectival notion of knowledge that they can use to respond to complex questions, issues or problems' (Haynes, 2002, p. xvi). Chettiparamb supports this view, stating that interdisciplinary teaching is 'a very amorphous concept, encompassing many facets' (Chettiparamb, 2007, p. 32) and that interdisciplinary pedagogy and teaching requires 'much more than an understanding of the concept' (Chettiparamb, 2007, p. 31). It is clear from these descriptions that interdisciplinary pedagogy is a fluid, amorphous method of teaching practice, and perhaps Stein's definition is the most suitable for this study, as 'the idea of exposing students, in some way, to a variety of disciplines' (Stein, 2007, pp. 94-95).

### **Undergraduate structure within Higher Education**

The UK has the highest number of design students in Europe and is ranked fourth in the world. In total, 7.6 per cent of all students in Higher Education in the UK were enrolled on a Creative Arts and Design course in 2016/17 (HESA, 2018). Statistics from the Higher Education Statistics Agency show a gradual increase in HE enrolments on Creative Arts and Design courses: 2014/2015 = 166,930; 2015/2016 = 169,825; 2016/17 = 175,700 (HESA, 2018). Data also shows a 2% increase in uptake between 2016/2017 and 2017/18 academic years (Table 4).



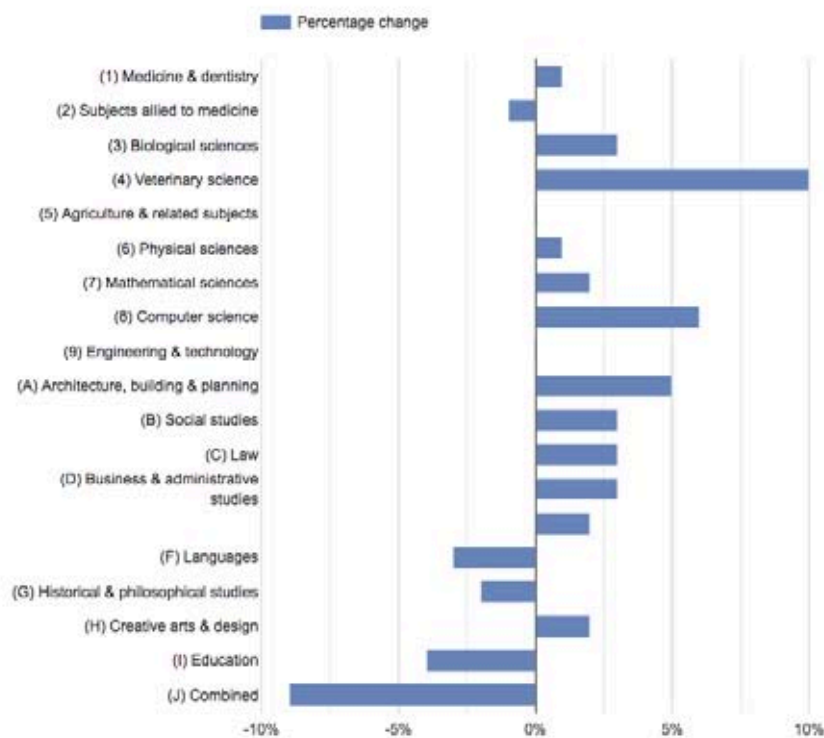


Table 4: 'HE student enrolment subject area changes between 2016/2017 and 2017/2018'. (HESA, 2018)

Table 4 shows a uni-disciplinary structure for all subjects, except the Combined category, which represents interdisciplinary courses that 'cover a range of subjects, such as modular courses offered by The Open University' HESA (2018). Universities and Colleges Admissions Services (UCAS), the centralised on-line service students use to find and apply for courses, divide universities, colleges, and conservatoires offering Creative Arts and Design courses into the following subject areas:

- Fine art
- Design studies
- Music
- Drama
- Dance
- Cinematics and photography
- Crafts
- Creative/imaginative writing (UCAS, 2019)

Selecting Design Studies on the UCAS website, shows 754 undergraduate courses listed from 129 providers. These courses offer a range of sub-disciplines. Titles vary, but approximately fall into the following headings: Graphics; Fashion; Architecture; Interior; Theatre and Performance; Product;

Games; Film and TV; Interaction; Animation; Textiles; Lighting; Exhibition; Costume; Computer science; Advertising and Brand; Creative media; Landscape; Make-up, SFX, Hair (UCAS, 2019). There are a few exceptions that are not sub-disciplines, including three listings for Design, including BA Design at Goldsmiths, and three listings for Art and Design, including BA Art and Design at Birmingham City University. However, this clearly demonstrates a uni-disciplinary structure, with the majority of design courses divided into many sub-disciplinary categories.

In summary, interdisciplinary pedagogy appears to be an amorphous concept, but at its core is the idea of exposing students to a variety of disciplines. The UK Creative Arts and Design courses are clearly successful, in that they have the most design students in Europe, and are showing a gradual increase in enrolments. Yet these courses follow a uni-disciplinary, siloed structure, divided into many sub-disciplines, which does not reflect current evolving interdisciplinary practice.

### **2.3.3 Developments in interdisciplinary design pedagogy in the twentieth century**

This section examines evolutions of interdisciplinary design pedagogies throughout the twentieth century, both in the UK and internationally, to better understand these processes and identify possible historical influences and impact on current pedagogy.

The earliest universities were established around the eleventh century, structured into Faculties of Medicine, Philosophy, Theology and Law, and academics were considered ‘forerunners of the Renaissance thinkers and creators’ (Max-Neef, 2005, p.6). Medieval guilds, established in the thirteenth and fourteenth centuries, offered apprenticeships to train and work under the control of master craftsmen (Souleles, 2013, p. 244). During the fifteenth and sixteenth centuries universities favoured ‘theoretical investigations in a variety of subject matters’ which paved the way for more diverse fields of learning (Buchanan, 2001, p. 4). Design, however, was not one of these fields

within universities, as it was regarded as a 'servile activity' (Buchanan, 2001, p. 5). However, independent art schools and academies were established in Europe in the sixteenth century, and tended to teach art and design separately (Buchanan, 2001).

During the Enlightenment, two key texts were written that proposed more interdisciplinary approaches to pedagogy. John Locke (1632 - 1704) published *Some Thoughts Concerning Education* (Locke, 1889, 2<sup>nd</sup> ed.), recommending a holistic approach, simultaneously educating the body, character and mind (Robinson and Aronica, 2015, P.254). Jean-Jacques Rousseau (1712-1778) wrote *Emile*, (Rousseau, 1762) as a treaty on the nature of education, arguing that education is the cultivation of inherent faculties rather than the imposition of knowledge (Lupton and Miller, 1993). These theories inspired many progressive educational reforms targeted at children, including Heinrich Pestalozzi (1746-1827), Friedrich Froebel (1782-1852), Franz Cizek (1865-1946), Maria Montessori (1870-1952) and Rudolph Steiner (1861-1925). These models advocated more personalised, holistic and child-centred approaches, and were often labelled 'progressive' as they were seen as the opposite of 'traditional education' by critics (Robinson and Aronica, 2015, p. 254). Froebel used the metaphor of a child as a seed and created the Kindergarten, discovering the importance of play and drawing as a special mode of cognition (Brosterman, 1997). Froebel developed teaching materials called *gifts*, which were play objects, including balls, blocks, sticks, paper, pencils, and clay, and integrated them into the educational method in radical ways. Gifts were treated as toys, the teacher represented a loving mother, and the schoolroom represented a garden (with actual gardens often outside the school) (Figure 6) (Brosterman, 1997, p. 35).

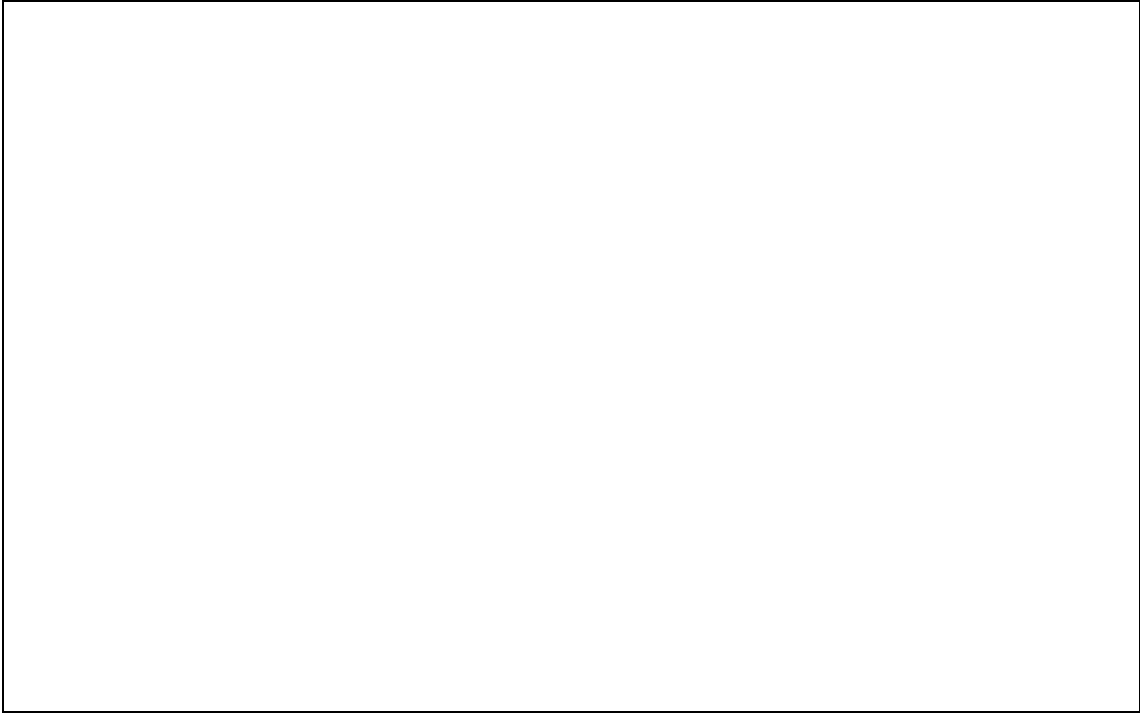


Figure 6: 'Children's garden, unidentified Kindergarten, Los Angeles, c. 1900'. (Zindman/Freemont, New York, c. 1900, reproduced in Brosterman, 1997, p. 37).

Despite these holistic models, a mass system of education was established in the UK by the mid-nineteenth century to meet the labour needs of the Industrial Revolution, and learning was divided and organised on the principles of mass production (Robinson and Aronica, 2015, p. xiv). Different fields of production were 'specialised and segregated from each other in the hope that the output would be greater' (Kostelanetz, 1970, p. 191). In response, the public educational system became vocational, with separation of the various types of experience, losing any sense of synthesis or universality (Kostelanetz 1970, p. 192). In 1835, the first publicly funded system of art and design education in Britain was set up by the government. The Select Committee on Arts and Manufactures produced a report recommending that schools be built near factories (Souleles, 2013, p. 245). Serving the interests of manufacturing, schools of design were established, continuing the separation of art and design, and learners were required 'to declare that they had no intention of becoming painters or sculptors' (Souleles, 2013, p. 246). A few institutions reacted against these learning divisions, including Central School of Arts and Crafts. Established in 1896 by William Lethaby (1857-1931) with the support of William Morris, Lethaby advocated the dissolving of barriers

between the designer and the craftsman (Hall, 2016, p. 4). Yet the majority of universities and schools became more specialised, with growing disciplines and sub-disciplines, that ‘consolidated at the end of the nineteenth century’ (Max-Neef, 2005, p. 6), and created the public system of education we have today, with the traditional separation and hierarchy of disciplines (Robinson, 2006).

However, by the early twentieth century, the quest for a universal design pedagogy was being explored throughout Europe (Lerner, 2005, p. 213). Progressive educators challenged these disciplinary boundaries, resulting in the establishment of a variety of schools, including Vkhutemas, founded in Russia in 1920, which ‘in the spirit of freedom’ offered an ‘extraordinarily flexible, open and experimental course of studies’ (Hall, 2016, p. 7). The De Stijl movement in the Netherlands, and several schools in Germany, including the Burg Giebichenstein Kunsthochschule, also pushed ideas forward (Brentjens, 2019, p. 16) and went on to influence the most pioneering interdisciplinary schools of the early twentieth century, the Bauhaus and the New Bauhaus.

Formed in 1919, in Weimar, Germany, the Bauhaus presented a universal aesthetic and a quest for modern design forms and educational pedagogy (Lerner, 2005). Headed by Walter Gropius (1883-1969), the Bauhaus was founded with ‘a mix of romantic socialism and utopian aspirations’ in response to Gropius’s desire to reform arts and crafts teaching as a reaction against industrialisation (Desorgues, Forgács, and Kathleen, 2012, p. 13). With this quest for a universal design pedagogy, Gropius wrote that his intention was ‘to introduce a method of approach which allows one to tackle a problem according to its peculiar conditions’ (Gropius, 1955, p. 17). Bauhaus teachers believed that an interdisciplinary curriculum would help design generations creatively master future transformations (Lerner 2005, p. 225). They used unconventional methods, hoping to ‘unlearn students and return them to a state of innocence, a point of origin from where true learning could begin (Lupton and Miller, 1993, p. 4). The Bauhaus endeavoured to devise both ‘a general definition of design’ and ‘a method of design education’ for the

twentieth century (Findeli, 1990, p.4). The architecture of the Bauhaus Dessau building, designed by Gropius, also reflected the philosophy and was designed as a stage to represent the holistic approach of uniting architecture, design and art under one roof (Barbican Centre, 2012). With a flexible plan, open internal spaces and open-plan workshop facilities, the building was ‘an ever-changing space’ and a ‘flexible laboratory’ (Barbican Centre, 2012, p. 200).

Froebel’s Kindergarten model played a key part in the creation of the Bauhaus, as many Bauhaus master-teachers were taught the Froebel method, including Johannes Itten, Joseph Albers, Wassily Kandinsky and Paul Klee (Brosterman, 1997, p. 120). The greatest legacy of the Bauhaus – the Basic Course, or Vorkurs - owed a great deal to Froebel’s pedagogy, which included learning by doing, experimentation for its own sake and encouraging play. These concepts were woven into the core philosophy of the Bauhaus (Lerner 2005, p. 217). Figure 7 represents Gropius’s schematic diagram demonstrating the ‘integrated practical craft training and theoretical tuition’ offered to students over a three- to five-year period, commencing with the mandatory year-long Vorkurs course. Regarded as the ‘backbone of Bauhaus education’, Vorkurs classes were divided into three main areas: visual analysis; material study; colour theory (Desorgues, Forgács, and Kathleen, 2012, p. 31). Workshop tuition developed skills in: wood, stone, glass, textiles, paint, metal and clay. Practical and theoretical training ran side by side, exploring basic principles including form, colour, composition, space and construction. As this was a new style of teaching, there were no existing qualified teachers, so each workshop was shared by two masters, one to develop technical skills, the other to stimulate creative thinking (Lerner, 2005, p. 215).

During the 1930s, many of the Bauhaus masters fled Germany to escape Nazi oppression, and started to either teach or found art and design schools in their new countries (Rawsthorn, 2013, p. 114). Joseph and Anni Albers went to Black Mountain College, North Carolina, and helped establish a ‘laboratorial environment’ with a broad range of eminent artists and designers, including Robert Rauschenberg, John Cage, and Buckminster Fuller (Rawsthorn, 2013, p. 114). Gropius went to Chicago, and seeing a ‘lack of cohesive instruction in

art, decorative art, design, architecture and planning in the American educational system' decided to set up an experimental school 'like the Bauhaus, to generate developmentally appropriate curriculum' (Lerner, 2005, p. 219). Gropius proposed that preliminary training would resist vocational labelling and that later professional training would focus on 'broad-based skills' (Lerner, 2005, p. 220). Gropius imagined first creating several experimental 'beacon' schools, giving staff freedom to create 'developmentally appropriate lessons based on the Bauhaus system,' to then build the methods into a general curriculum to adapted nationwide (Lerner, 2005, p. 220).

In 1937, Gropius invited fellow Bauhaus master Laszlo Moholy-Nagy (1895-1946) to set up and lead the New Bauhaus. Through various iterations, due to issues with financial support, the school became the School of Design (1939-1944) and then finally the Institute of Design (1944 –present), which later became incorporated into the Illinois Institute of Technology (Findeli, 1990, p. 5). With a radical vision for future educational reform, Moholy-Nagy's aim for the New Bauhaus was to organically integrate artistic, scientific, technical and social skills, to give students a diversified competence (Kostelanetz, 1970, p. 213). Moholy-Nagy had 'utopian ideals of a creative, interdisciplinary society' and his work and teaching 'continually pushed beyond the limits of available technology' (Lerner, 2005, p. 217). Fellow Bauhaus master, Gyorgy Kepes, collaborated with Moholy-Nagy, and later took many of their developments to Massachusetts Institute of Technology and founded the Centre for Advanced Visual Studies, which became 'a role model for art and technology programmes all over the world' (Rawsthorn, 2013, p. 39).

The pedagogical structure of the New Bauhaus was based on Bauhaus principles, with the one-year Vorkurs, or Preliminary Course (later renamed the Foundation Course in 1945). Moholy-Nagy believed that his preliminary course was 'perfectly fitted to any professional curriculum, i.e., not only for designers, but also for lawyers, doctors, teachers, etc' (Findeli, 2001, p. 13) as he saw design primarily as an 'attitude' (Moholy-Nagy, 1947, p. 42). Students then chose a three-year specialised workshop, including: Light, Product Design, Modelling, Colour, Stage, Weaving, and Architecture (Findeli, 1990, p.

6). Due to evolutions in science and technology, Moholy-Nagy made two additions. Firstly, he incorporated technological arts, including photography, film, and kinetic and light sculpture, and non-visual arts, including music and poetry. Secondly, he combined art and technology with science, introducing courses in physical, life, human, and social sciences (Findeli, 1990, p. 7). This enabled students to learn ‘the subjective and objective qualities, the scientific testing of materials, the existence of the fourth dimension (time)’ (Kostelanetz 1970, p. 169) (Figure 8).

According to Findeli (1990, p. 7), the two ingredients needed to set up an educational programme are ‘a curriculum and a pedagogical method to transmit its content.’ Findeli argues that for a design school, if the emphasis is on the curriculum, the school is content-orientated and the characteristic profile is vocational. If the emphasis is on pedagogy, and the school is process-orientated and the profile is humanistic (Findeli, 1990, p. 7). Moholy-Nagy’s philosophy for the New Bauhaus was to embrace both equally. But, like Locke, Rousseau and Froebel, he took a humanistic approach and placed ‘man’ at the centre of the curriculum, rather than subjects. Herbert Read described Moholy-Nagy’s approach as a ‘New Humanism’ (Kostelanetz 1970, p. 170). Moholy-Nagy believed that the ‘key to our age is seeing everything in relationships’ (Findeli, 1990, p. 13), and that specialising in one design discipline ‘destroys this wholeness by creating a monster with a specialised calling, a man with perhaps one beautiful muscle on an otherwise wretched body’ (Kostelanetz 1970, p. 170). Moholy-Nagy’s design philosophy and pedagogical vision are still taught today, at the Institute of Design, now part of the Illinois Institute of Technology, Chicago.



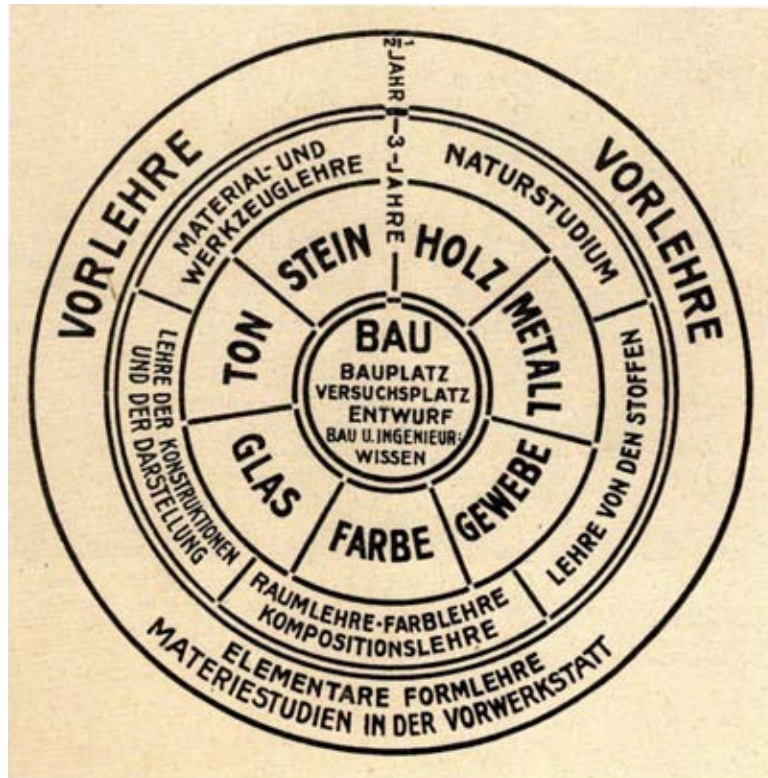


Figure 7: 'Walter Gropius, Schematic presentation of the Bauhaus curriculum, 1922, Bauhaus-Archive Berlin'. (Atelier Schneider, DACS 2012, reproduced in Barbican Centre, 2012, p. 30)

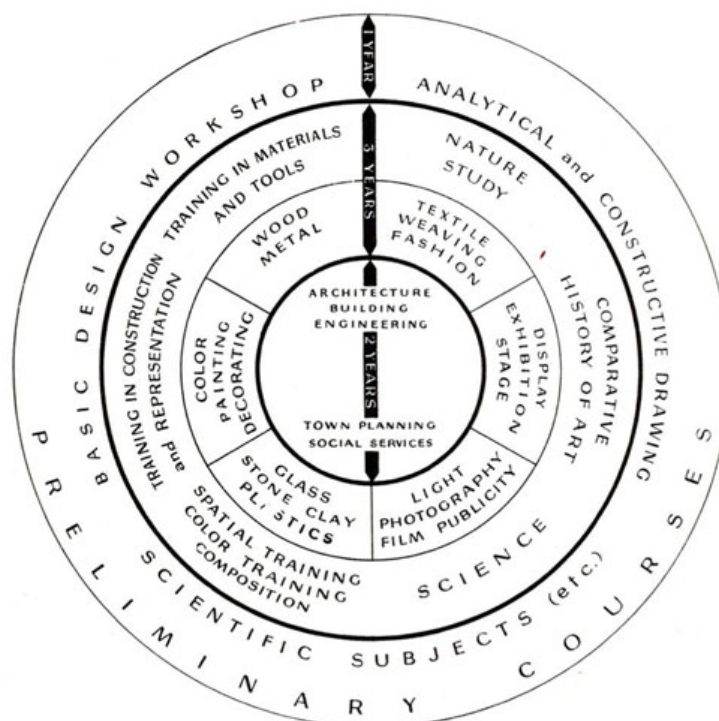


Figure 8: 'Laszlo Moholy-Nagy, Schematic presentation of the New Bauhaus curriculum, Chicago, 1937'. (Kostelanetz, 1970, illustration 65)

The mid-twentieth century saw an explosion in interdisciplinary pedagogy, both in UK and internationally, due to the influence of the Bauhaus, rapid

developments in technology, and calls for social change and student unrest. The late 1960s was a time of radical student action around the world, with riots in Paris in 1968, and then, shortly afterwards, students at the Hornsey College of Art staged a sit-in, calling for a major review of the curriculum (Hall, 2016, p. 9). One of the demands from students was ‘for disciplinary structures in universities to be removed and replaced by more holistic concepts that were closer to practical life’ (Chettiparamb, 2007, p. 12). The OECD declared ‘Communities have problems. Universities have disciplines’ (Chettiparamb, 2007, p. 9).

In the 1950s, the Bauhaus ‘acted as a modernist symbol, as an inspiration which made innovation possible’ (Yeomans, 2009, p. 1), and inspired the formation of many new courses and schools. The Hochschule für Gestaltung, founded in 1953 in Ulm, Germany, (also known as The Ulm Experiment) was directed by Bauhaus student Max Bill (1908-1994). The school set up a course similar to the Vorkurs, and drew from many disciplines and the sciences. The pedagogy focused on curiosity towards new disciplines, including cybernetics, information theory, systems theory, semiotics and ergonomics (Ranjan, 2005, p. 4). Another example is the Basic Design movement that emerged in the UK in the mid-1950s, led by Victor Pasmore and Richard Hamilton at University of Newcastle-on-Tyne (Yeomans, 2009, p. 1). The movement began as ‘an ad hoc, spontaneous attempt to introduce a more open-ended and experimental mode of working’ (Yeomans, 2009, p. 1), in response to current practices which were ‘essentially rooted in the nineteenth century and ripe for radical change’ (Yeomans, 2009, p. 1). This drive towards experimentation was spearheaded by Victor Pasmore, who, like the Bauhaus, regarded the art studio as a laboratory where his teaching went hand in hand with his own creative research (Yeomans, 2009, p. 11). Through Pasmore’s influential position on the Coldstream committee, (discussed in more depth in the next Section on Policy) Basic Design thinking became more widely disseminated throughout the country (Yeomans, 2009, p. 10), and contributed to the formation of the Art and Design Foundation Diploma, introduced in 1960 as a pre-diploma to the three-year Diploma in Art and Design (Souleles, 2013, p. 249).

In 1958, in response to the dramatic acceleration of change taking place in India at the time, Charles and Rae Eames produced a report for the Government of India to make recommendations on a programme of training in design that would support small industries. The report recommended creating an institute of design, research and service, with a focus on training students 'not only to solve problems, but to help others solve their own problems' (Eames and Eames, 1958, p. 8). The challenge of the program was to include a wide variety of disciplines including: engineering, physics, philosophy, anthropology, architecture, music, sculpture, economics, agriculture, dance and drama, painting, literature (Eames and Eames, 1958, p. 8). The Eames' advocated a 'method of bringing various disciplines together to attack a problem in a fresh way' (Eames and Eames, 1958, p. 13). The National Institute of Design, in Ahmedabad, still follows this philosophy today (Ranjan, 2005).

However, this study proposes that the most pioneering interdisciplinary schools established in the UK throughout the twentieth century were the Construction School and the Open University. In 1964, Norman Potter (1923-1995) set up the Construction School, also known as The Bristol Experiment, in Bristol, as part of the West of England College of Art. Partly inspired by Lethaby, and the Ulm Experiment, (and later by the 1968 Hornsey student revolts), Potter placed the workshop at the heart of the design process (Potter, 2012). The school grew out of major changes to art and design education in the 1960s, with the introduction of the Diploma in Art and Design (DipAD), forcing schools to apply for formal accreditation. Out of 200 applicants only 61 were granted, and the West of England College of Art was not one of them, so needed to take drastic action (Langdon, 2012).

The Construction School ran from 1964-1979. Established by a team of eight, including a philosopher, English language specialist, and various artists and designers, the three-year course was without specialisation (Potter, 2012). Potter avoided conventional titles, such as interior design, as he found them redundant (Langdon, 2012) and believed that design education and practice

were 'handicapped by identity-fixations' such as architect, graphic designer, interior designer (Potter, 2012, p. 23). Describing design education as 'irrationally divided up into specialisations with a doubtful relation to the work students may finally do, and with even less plausible reference to the situation as it could be in ten years time' (Potter, 2012, p. 24), the aim was 'to create a course relevant to designers in all subsequent fields of specialisation' (Potter, 2012, p. 165).

The first three years provided general 'employable competence,' and offered a further optional two years of study seen as 'a postgraduate specialisation' (Potter, 2012, p. 165). The first year was intellectually demanding, focusing on problem-solving and communication techniques. The second year focused on making, with workshop practice and technical studies in wood, metals and plastics. The third year focused on exhibition design, and was student-designed around a series of options, pulling together the work of the previous two years (Potter, 2012, p. 165). Potter chose to focus on exhibition design as he saw it as 'wide-latitude design' (Potter, 2012, p. 52) and believed that if a designer did not expand their frame of reference, and look out beyond their specialism, they would simply be 'working as a badly educated specialist' (Potter, 2012, p. 61). Between 1975 and 1977, a second, more radical iteration was developed, decentralising the educational structure of the school (Langdon, 2012). The school prioritised people and relationships, using a non-hierarchical organisational structure. 'Communities' were created, specialising according to the competence of the staff member leading the group and each community built and equipped its own studio environment. All year groups were condensed into one, and work was exhibited and critiqued together (Potter, 2012, p. 166).

Due to the radical nature of the school, it suffered continual resistance from the wider institution, until it was shut down in 1977 (Langdon, 2012). According to Langdon (2012), 'the efforts of the school to define itself were constantly foiled.' First under threat in 1966, leading national and international designers sent a petition to The National Council for Diploma in Art and Design. Names included Terence Conran, Cedric Price and James

Stirling. The petition expressed confidence in the course, and requested enough time to allow the course to show its potential (Langdon, 2012). Despite these challenges, Potter ‘resisted the increasing emphasis on specialisation in design education and worked to encourage practical collaboration between disciplines’ (Kriemann, 2013).

The Open University (OU) has been leading multidisciplinary and interdisciplinary pedagogy at Higher Education level for the last fifty years. Opening in 1969, the university was one of the first successful distance teaching universities in the world, using communications technology to bring high quality degree-level learning to people who had not had the opportunity to attend traditional campus universities (The Open University, 2019). Diverse students included those who: had not gained sufficient qualifications to enter other universities; had disabilities; had family or workplace commitments preventing full-time attendance; lived abroad or remotely; or were in prison (Weinbren, 2014, p. 231). In 1964, the then Prime Minister, Harold Wilson, proposed a ‘university of the air’ project, and appointed Minister of the Arts, Jennie Lee, to oversee it, and it was Lee’s ‘total commitment and tenacity’ that ‘gradually wore down the mountains of hostility and indifference that she faced’ (The Open University, 2019). Initially, four courses were offered: Mathematics; Understanding Society; Humanities; Science. New courses grew rapidly, using a collaborative approach to course design across non-traditional boundaries, which was revolutionary at the time. Courses were developed by multidisciplinary course teams and staff developed new teaching methods using emerging technology (The Open University, 2019).

Although the main learning experience was individual, residential summer schools brought students together to enable collaboration and offer face-to-face teaching (Weinbren, 2014, p. 233). These summer courses were considered radical, and Art and Environment, TAD292 (1976-1985) is a good example. Ex-student, Alexandra Richards, explains: ‘It did cause a lot of ripples...it was about people thinking differently and being open to different things and I think that is quite threatening’ (Weinbren, 2014, p. 248). The

course ‘crossed disciplinary boundaries. It sought to promote both a better understanding of the environment but also the self-esteem of learners...and strategies for creative work’ (Weinbren, 2014, p. 249). Units included: Boundary Shifting, Imagery and Visual Thinking, Having Ideas by Handling Materials (Weinbren, 2014, p. 249). Like Moholy-Nagy, the aims were ‘attitudinal, sensory and subjective’ and the criteria included ‘enthusiasm, imagination and authenticity’ (Weinbren, 2014, p. 249). Another former student Dale Godfrey concluded that the philosophy of the TAD course was that you ‘built your own hoops and then decided whether you wanted to jump through them or not’ (Weinbren, 2014, p. 249) .

Still operating today, the OU uses a modular system. Students choose from a broad range of subjects, creating their own personal multidisciplinary or interdisciplinary learning experience. The OU states: ‘Combining different subjects provides an exciting opportunity to find ways in which those subjects intersect and influence each other, across different subject boundaries’ (Open Learn, n.d). The Open qualification aims to offer ‘a deeper learning and understanding, and ultimately interdisciplinary thought and understanding’ (Open Learn, n.d.). The OU argues that ‘although knowledge is often organised into clearly defined, subject-specific boxes’, it is the knowledge that falls between the gaps that provides the ‘glue’ to solving the world’s greatest challenges (Open Learn, n.d.). Rather than being an ‘expert’ in a particular subject, or a ‘generalist’, the OU advocates that by creating their own personal multidisciplinary education the student becomes an ‘individual specialist’ (Open Learn, n.d.). The wider benefits of this approach are highlighted as: motivation; breadth of knowledge; acquiring new knowledge; creativity; making connections (Open Learn, n.d.).

The later twentieth century saw a continuation of a variety of radical interdisciplinary pedagogical examples, focussing on socially responsible design, and studies into interdisciplinary theory and developing pedagogical models. In 1972, Buckminster Fuller and Victor Papanek (1923–98) collaborated on publishing *Design for the Real World* (Papanek and Fuller, 1972), arguing for more socially responsible design practice. Prior to

publication, Buckminster Fuller founded and ran the Department of Design at Southern Illinois University in Carbondale, from 1955-70. The school supported Buckminster Fuller's 'comprehensive designer' view (Rawsthorn, 2018, p. 158), and explored a variety of 'overlapping modes of experimental teaching and communication' (Wigley, n.d.). Buckminster Fuller recruited Harold Cohen, who had been teaching at the New Bauhaus, and also brought in influential visitors, including Charles Eames. Abandoning traditional university workspaces, the school moved the design studio out to portable structures and built four of Buckminster Fuller's geodesic domes as workshops (Wigley, n.d.). All disciplines were brought together, the domes treated as 'information gathering, visualising, extending and broadcasting machines,' and the school 'imagined itself turning into a brain, a giant information system inside a dome sustaining a world research team' (Wigley, n.d.).

Papanek established programs at Purdue University and the University of Kansas, to train design generalists, as he felt the true design needs of the world must be carried out by cross-disciplinary teams. Challenging the current system, Papanek stated: 'the skills we teach are too often related to processes and working methods of an age just to a close' (Papanek and Fuller, 1972, p. 109). As with Buckminster Fuller's comprehensive view, Papanek believed in an integrated approach, describing integrated design as 'design-as-a-whole, of unity, we need designers able to deal with the design process comprehensively' (Papanek and Fuller, 1972, p. 115). At Purdue, the five-year undergraduate curriculum encouraged each student to create as broad a programme as possible. Papanek explained that this was 'to break down the false dividing lines between the various specialised fields of design such as visual design, interior design, industrial design, etc.' (Papanek and Fuller, 1972, p. 117). The experience of working as part of multi-disciplinary teams was seen as essential but Papanek acknowledged the challenge of teaching in this way: 'Young designers have been sold and over-sold the concept of the lonely, struggling genius, the individual problem-solver. Reality does not bear this out. Most working designers today find themselves part of a team (like it or not)' (Papanek and Fuller, 1972, p. 119). Papanek saw this as essential

preparation for the future tools of communication and expression, such as computer sciences, photography, kinetics, cybernetics, electronics, and film-making.

Like Froebel's view of the child as a growing seed, Gropius envisioned a cohesive education with developmentally appropriate spatial learning by proposing an education program that would 'grow concentrically, like the annular rings of a tree' (Lerner, 2005, p. 221). In the 1960s, Jerome Bruner developed similar ideas about the structure of learning. Bruner used the term 'spiral curriculum' to describe 'a representation of cognitive structures based on the notion of hierarchy in which early learning provides the foundation for later learning' (Efland, 1995, p. 134). A spiral curriculum enabled the transfer of principles and attitudes, focussing on a general idea, rather than a skill. Bruner believed this type of transfer was 'at the heart of the educational process' (Bruner, 1960, p. 17) stating: 'the more fundamental or basic the idea he has learned, almost by definition, the greater will be its breadth of applicability to new problems' (Bruner, 1960, p. 18). (Figure 9).

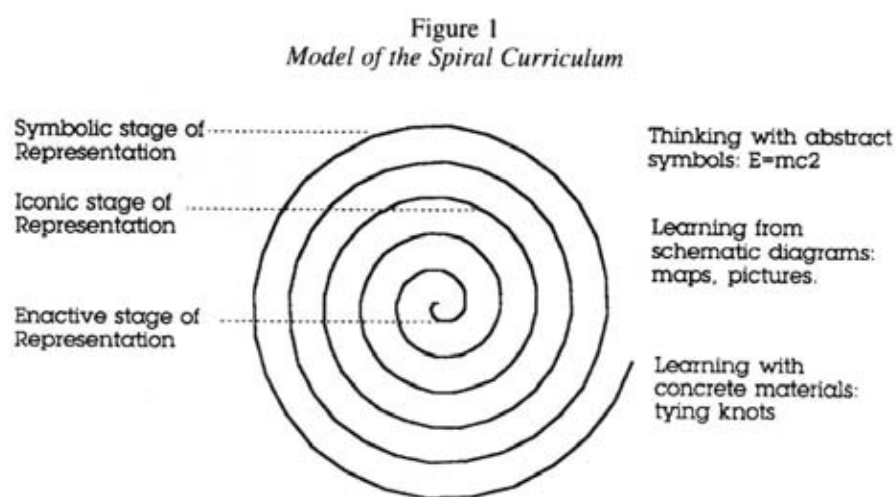


Figure 9: 'Bruner's model of the Spiral Curriculum'. (Bruner, 1960, reproduced in Efland, 1995, p. 135).

Efland (1995), takes the concentric rings of Froebel and Gropius, and the spiral of Bruner, and develops the 'lattice' (Lerner, 2005, p. 223), describing it as 'a lattice-like structure, inviting differing paths of exploration' (Efland, 1995, p. 135). Efland argues that the lattice structure would enable the learner to use 'differing strategies for seeking new knowledge' (Efland, 1995, p.135).



Taking influence from Spiro *et al.* (1988), who explore the importance of ‘cognitive flexibility,’ Efland applies a ‘multidirectional,’ ‘multiperspectival’ criss-crossing approach to the lattice, where concepts are revisited in an array of ‘differing directions and contexts, learned in their interconnectedness’ (Efland, 1995, p. 146). Efland highlights that a potential hazard for discipline-based curricula was ‘the temptation to develop ideas independently’ rather than exploring the deep connections among them (Efland, 1995, p. 149). This demonstrates the ‘worst case scenario where the natural connections that should arise among disciplines are artificially separated by the curriculum plan’ (Efland, 1995, p. 149). Figure 10 (Efland, 1995, p. 151) demonstrates a typical curriculum ‘tree’ structure where four sub-disciplines of art are separated. Figure 11 demonstrates the potential intersections among the four sub-disciplines, with multiple occasions for intersection (Efland, 1995, p. 151). There appears to be a similarity between these Spiral and Lattice approaches and Koberg and Bagnall’s Branching and Spiral process diagrams, discussed in the previous chapter (Koberg and Bagnall, 2003, p. 16).

*Discipline-based Knowledge Shown as a Tree Without Overlapping Elements*

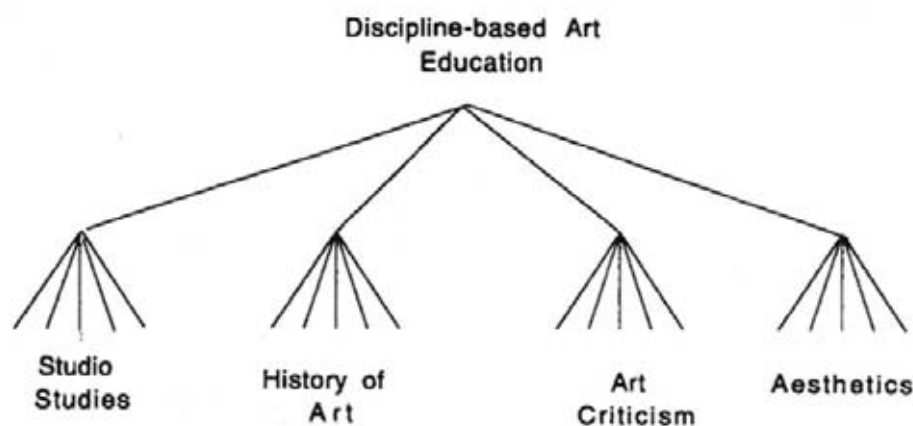


Figure 10: ‘Efland’s model of the Tree’. (Efland, 1995, p. 151).

*Discipline-based Knowledge Shown as a Semi-Lattice with Partially Overlapping Elements*

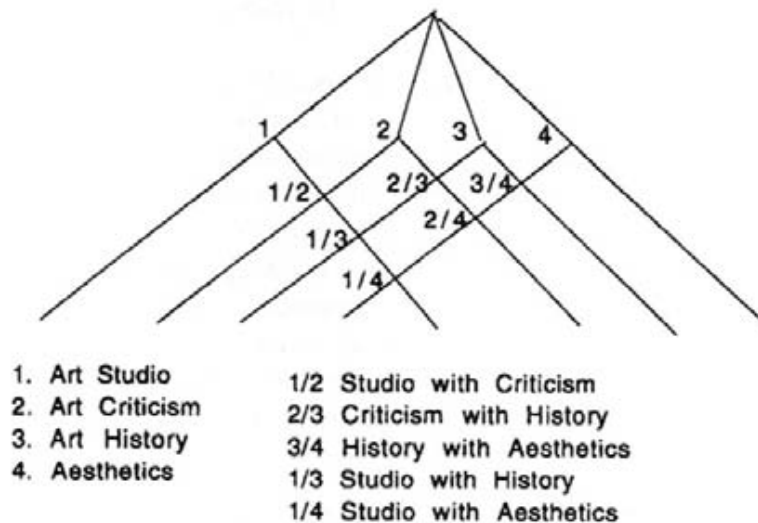


Figure 11: 'Efland's model of the Semi-Lattice'. (Efland, 1995, p. 151).

In summary, the twentieth century saw an explosion of arguably radical interdisciplinary pedagogical models, both within and outside the UK. They were radical in the sense that they accord with the definition of 'radical' as 'believing or expressing the belief that there should be great or extreme social or political change' (Cambridge, n.d.b). They were also innovative, progressive and alternative. Froebel's Kindergarten method made significant impact, with a clear thread of influence from the Bauhaus and New Bauhaus, to the comprehensive, integrated curriculum of Buckminster Fuller, to the current Art and Design Foundation course. Reacting against the industrial model of education, and responding to rapid developments in technology, and calls for social change, these educators shared a quest for a universal design pedagogy, creating laboratory environments that could foster broad-based skills. Despite much political resistance, and hostility, these models continued to challenge the system, even going beyond design, offering benefits to the wider professional curriculum. Two types of interdisciplinarity are highlighted; interdisciplinarity across the sub-disciplines of design; interdisciplinarity between design as a discipline and other wider disciplines such as the social sciences. All appear driven by the needs to: respond to future needs and transformations; create diversified competence; develop a humanistic outlook. Many use circular, spiral and latticed curriculum models, and saw

these methods as essential preparation for what they predicted to be the essential future tools of communication and expression.

### **2.3.4 Shifts in evolving interdisciplinary design pedagogy in the twenty-first century**

The turn of the twenty-first century witnessed significant shifts in the relationship between practice and education (Buchanan, 1998, p. 63). Today's professional design practice, involving 'advanced multi-disciplinary knowledge that presupposes interdisciplinary collaboration' now requires 'a fundamental change in education' (Friedman, 2012, p. 150). It could be argued that new partnerships need to be built between education and professional practice, as 'the skills we share with our students should be the skills of today, not the skills of yesterday' (Buchanan, 1998, p. 64). Many reports produced over the last twenty years support a more interdisciplinary approach to pedagogy at Higher Education level. Yet uni-disciplinary education still dominates in the UK, and 'the structure of the great majority of universities reinforce the uni-disciplinary formation, especially at undergraduate level' (Max-Neef, 2005, p. 1). As discussed at the beginning of this Pedagogy section, UK Higher Education structures still reflect the mid-nineteenth century model, where learning was divided and organised on the principles of mass production (Robinson and Aronica, 2015, p. xiv), with different fields of production 'specialised and segregated from each other' (Kostelanetz, 1970, p. 191). Therefore, this final section will critically assess evolving interdisciplinary pedagogy, explore the perceived disconnection between practice and pedagogy, and will look to current emerging alternative educational models to see what may be learnt.

### **Interdisciplinary pedagogy**

In the UK, *Building Towards 2001* (Bill, 1990) recommends a common university degree to educate every designer, which only allows for specialisation at a later date. In response, Lawson argues that 'such an idea, while well-meaning, is fundamentally flawed. It assumes that there is a pool of eighteen-year old students with more or less blank minds and personalities who might be attracted to take such a degree' (Lawson, 2006, p. 8). It would

appear that ‘the design generalist is mostly met with scepticism’ (Eckert, 2017, p. 137). However, the OECD explores interdisciplinary education, and highlights that interdisciplinarity is primarily ‘a state of mind requiring each person to have an attitude that combines humility with open mindedness and curiosity, a willingness to engage in dialogue and, hence the capacity for assimilation and synthesis’ (OECD, 1972, p. 192). This ‘state of open mindedness’ appears to be a more positive, accurate interpretation of the ‘more or less blank mind’ Lawson describes. The report recommends: ‘a mode of education that enables a student to choose what may be best for him/her without having to go through a process of perhaps wasted education in a narrow discipline’ (OECD, 1972, p. 199). Yet, as demonstrated earlier, a uni-disciplinary structure still dominates UK undergraduate education, despite interdisciplinary programmes being widely embedded in institutions in other countries, including the United States (Chettiparamb, 2007, p. 31). The OECD report proposes that both institutions and students are reluctant to embrace interdisciplinarity due to settled habits, lack of information, structural inertia, and a fear of the unknown (OECD, 1972, p. 192). Chettiparamb (2007, p. 37) expands on this and highlights three core challenges in engaging in interdisciplinary teaching:

Institutional problems: Rigid structures that split and group disciplines in ways that do not correspond to current needs

People problems: Rigid ways of thinking by people involved, using disciplinary frameworks to resist change. Most teachers have spent years teaching in a particular discipline and might be pursuing research that is narrowly specialised

Facilities problems: lack of facilities and space make it difficult to run an interdisciplinary programme, and time pressures do not allow teaching staff to step outside their discipline and engage in innovation

With regards to institutional rigidity, John Mathers, former CEO of the Design Council, advocates a ‘holistic, bottom-up design approach’ stating that ‘large

organisations are perpetually at risk of what the French call *deformation professionnelle* (occupational hazards), tending to insularity, silo structures, and general ossification of thinking' (Mathers, 2015, p. 28). In this environment, processes and rules can be hard to question, whether due to habit or pressure of time (Mathers, 2015, p. 28). These rigid structures and systems can also be linked to the model of industrial education, designed to meet the needs of the nineteenth century. Robinson and Aronica (2015) argue that the UK still follows this industrial model today, and that the principles follow the purposes of industrial manufacturing. These include:

Conformity – Products had to be identical. Therefore, mass education was designed to mould students to certain requirements.

Compliance – Processes required compliance with rules and standards, and now education is based on compliance in curriculum, teaching and assessment.

Linear – Processes were linear, and now mass education is designed in a series of linear stages.

Market demand – Production had to meet market demand, and now an emphasis on STEM disciplines is applied to education.

Division of labour – Typical in factories, and now the same in education, with specialisation and segmentation. (Robinson and Aronica, 2015, p. 35)

With regards to people problems, and rigid ways of thinking, Sennett (2013) highlights that 'modern society is de-skilling people in practising cooperation' (Sennett, 2013, p. 8). Sennett argues that changes in modern labour have 'weakened both the desire and the capacity to cooperate with those who differ' (Sennett, 2013, p. 7), despite cooperation being 'the foundation of human development' (Sennett, 2013, p. 13). Despite organisation favouring cooperation in theory, in reality modern organisational structures inhibit it. Sennett describes this as the 'silo effect', creating isolation of individuals and departments 'who share little and who indeed hoard information valuable to others' (Sennett, 2013, p. 7). Referencing the work of philosophers Amartya

Sen and Martha Nussbaum, and their 'Capability Theory', Sennett explains 'people's capacities for cooperation are far greater and more complex than institutions allow them to be' (Sennett, 2013, p. 29). Nicolescu (1994) asks 'why, since the partitioning of knowledge into separate disciplines has been astonishingly successful, should we propose an alternative?' (Nicolescu, 1994, p. 3). Like the OU's glue between disciplines, Nicolescu answers that 'the space between disciplines, is filled with an information-flux which crosses all the spheres and disciplines and goes beyond them' (Nicolescu, 1994, p. 6). Designers now work on 'organisational structures, social problems, interaction, service, and experience design' involving 'complex social and political issues' yet they may be 'woefully undereducated for the task' (Norman, 2010). Norman proposes that successful design requires 'generalists who can cut horizontally across many of the deep, vertical specialities' in collaboration with specialists (Norman, 2014). Yet, in the university, 'specialists rule' (Norman, 2014). Max-Neef (2005) supports this view, recognising that challenges facing the twenty-first century, including 'water, forced migrations, poverty, environmental crises, terrorism etc, cannot be adequately tackled from specific individual disciplines' (Max-Neef, 2005, p. 5). Like Moholy-Nagy, Klein (2003) proposes 'building a transdisciplinary attitude' (Klein, 2003), or a disruptive 'attitude' to tackle current problems and to enable 'innovation from an undisciplined attitude' (Celaschi, Formia and Lupo, 2013, p. 9).

### **A new king of university, a new common process**

Tackling these future challenges may require a new kind of university. Taylor (2009) supports this view, calling to 'end the university as we know it,' stating that the mass production model has 'led to separation where there ought to be collaboration, and to ever-increasing specialisation' (Taylor, 2009). Taylor advocates a university structure built on themes rather than disciplines, and recommends: teaching to be cross-disciplinary and cross-cultural; abolishing permanent departments, even for undergraduate education, to create problem-focused programs; increasing collaboration amongst institutions (Taylor, 2009). Irani (2018) also supports this view, stating that as interdisciplinarity grows in importance, 'dividing universities by academic

departments creates barriers not benefits' (Irani, 2018). There appears to be a need for 'open, flexible boundaries' for academics and students, as universities will need to shift from structure to cooperation (Irani, 2018). With cooperation, universities could design interdisciplinary programmes, where the disciplines are integrated, enabling context-specific modules that 'better suit industry and prepare students for jobs, opening doors rather than closing them' (Irani, 2018). Staley (2015) proposes five models of innovation in higher education 'that expand our ideas of the university,' inspired by the 'spirit of experimentation' in institutions like the Bauhaus and New Bauhaus:

Polymath University - Every student commits to three disparate majors building creativity and innovative thinking emerge from the mashing-up of disparate ideas, developing a breadth of knowledge.

Nomad University – No fixed physical location, learning occurs around the globe, and each course is organised around a specific problem.

Interface University – Students will learn how to think with computers, treating the computer as a third hemisphere of the brain.

Neo-Liberal Arts College – A degree with no majors, and competence in all 10 of the following working skills: Sense-making; Social intelligence; Novel and adaptive thinking; Cross-cultural competency; Computational thinking; New-media literacy; Transdisciplinarity; Design mind-set; Cognitive load management; Virtual collaboration.

Ludic University (or the University of Play) – 'No set curriculum, students follow their curiosity, exploring those subjects necessary to satisfy that curiosity on an as-needed basis.' Focusing on play and imagination, students explore world-making, and asking What if? (Staley, 2015)

Buchanan also calls for 'a new kind of university' (Buchanan, 2001, p. 7) arguing the effectiveness of teaching design 'grows fainter every year' and that young designers need 'more knowledge and a broader humanistic point of view in order to deal with the complex problems' they will face (Buchanan, 2001, p. 6). Integrating all disciplines could lead to a 'unity of knowledge

comprising the very idea of a *university*' (Gruenwald, 2011, p. 4). Encouraging interdisciplinary exploration to break down barriers between disciplines and departmental compartmentalisation of knowledge, could also avoid overspecialisation referred to as 'knowing too much about too little' (Gruenwald, 2011, p. 10). Spencer (2016) agrees that 'universities aren't the future of design education,' as students need to be agile, resilient and adaptable, open to new ways of doing things, and work in different contexts, which universities currently don't allow, as well as the 'mental and physical space to experiment, to fail, and to learn' (Spencer, 2016).

These new universities may require a common process. In a study exploring designers perceptions of interdisciplinarity, Dolan (2003) interviewed over fifty design studios in the USA and results supported the argument that 'although the work of an architect differs in scale, purpose and technology from the practice of graphic design, a common process unites the problem solving in these and other disciplines' (Davis, 1998, p. 7). Hall (2016) appears to support this view in discussing an 'integrated education', like Papanek, arguing that design education should exploit its 'ill-defined, itinerant status...as a truly cross-disciplinary activity' (Hall, 2016, p. 3). One way of applying a common process is by using the 'transfer principle' (Gee, 2003, p. 211) also described as 'metalevel thinking' (Gee, 2003, p. 207). Enabling a holistic model of design education, the transfer principle 'liberates a practitioner skilled in a particular discipline. A designer with know-how beyond her specialisation is thus able to solve the given problem by recommending expertise beyond her own' (Hall, 2016, p.5). Soules (2013) defines this as the necessity 'to use expertise without being an expert' (Soules, 2013, p. 252). This common process could be a 'working synthesis of design thinking and learning' applying the 'three lenses' of 'thinking, acting and being' (Adams, Daly, Mann, Dall'Alba, 2011, p. 2).

One common process that currently exists in UK education is the Foundation Diploma in Art and Design, inspired by the Bauhaus Vorkurs, and the New Bauhaus Preliminary course, and also referred to as Basic Design (Findeli, 2001, p. 12). It gives students the opportunity to explore many different



creative disciplines, and is regarded as ‘a year of vital experimentation’ (Dawood, 2017b). Spencer (2016) describes the recent closures of Foundation courses in the UK as ‘a horror story’, arguing that ‘we need foundation courses now more than ever. Design education needs to be connected, not specialised, because that’s how design is in the real world. If designers aren’t ready for anything, they are ready for nothing’ (Spencer, 2016). Ranjan (2005) supports this view, arguing that what was ‘originally perceived and dealt with at the Bauhaus and Ulm as a critical orientation to design thinking and action’ is still required today, despite ‘substantial change in the tools and processes of design in the information age’ (Ranjan, 2005, p. 1). Lerner proposes that ‘in Bauhaus fashion...the best universal, aesthetic language for multivariant problem-solving’ can still be learned through ‘sequential, guided *vorkurs* exercises’ (Lerner, 2005, p. 224).

A survey conducted in design and architecture schools across twenty-two countries explores Basic Design and highlights that the pedagogy promotes ‘a holistic, creative and experimental methodology that develops the learning style and cognitive abilities of students with respect to the fundamental principles of design’ (Boucharenc, 2006, p. 1). Key results from the survey demonstrate that ‘45% of the Basic Design (BD) teachers and Project Teachers (Degree specific teachers) were of the view that the teaching of BD should be integrated (rather than separate) over the full length of the academic programme’ (Boucharenc, 2006, p. 16). Findeli (2001) supports revisiting Basic Design and extending it beyond the first year, as: ‘A system, especially a human or social system, is best understood from within, through a qualitative, phenomenological, approach. Basic design, if properly reconsidered, will be the best pedagogical tool for teaching such an approach’ (Findeli, 2001, p. 12). This is an argument that has resonance with the current study and is one that provides a foundation for elements of the work below. Findeli recommends that basic design ‘be taught in parallel with studio work through the entire course of study, from the first to last year. Moholy-Nagy’s pedagogical work at the New Bauhaus would be a good starting point for such a difficult and demanding task’ (Findeli, 2001, p. 16). Friedman also sees wide potential for Basic Design, and recommends it be introduced ‘as an aspect of the

humanities and made available to all students in secondary and higher education' (Friedman et al., 1994, p. 40). This would encourage students 'to extend themselves beyond specialised points of view' (Friedman et al., 1994, p. 40). A Basic Design undergraduate education could 'open many doors, including science, humanities, arts, technology' to then provide 'an excellent foundation for a more specialised graduate education in design' (Owen 2004, p. 7).

### **Innovative interdisciplinary examples**

This section will now explore several existing innovative interdisciplinary pedagogical examples from Finland, The Netherlands, Germany and United States. In Finland, school children are encouraged to work in an interdisciplinary way throughout their education, and yet Finland still ranks near the top of the PISA (Programme for International Student Assessment) global educational rankings for literacy and numeracy (Robinson and Aronica, 2015, p. 60). In the 1990s the Finnish system was 'in crisis', but rather than turning to standardisation and testing to reform the system, they took a different route (Robinson and Aronica, 2015, p. 60). All schools are required to follow a broad, balanced curriculum, but are given freedom to design how to do this. A high priority is placed on practical and vocational programmes and development of creativity. Teachers are valued and schools collaborate, sharing resources, ideas and expertise and build close links with their local community. There is one single exam at the end of their studies (Robinson and Aronica, 2015, p. 60). However, in 2015, Finland embarked on 'one of the most radical educational reform programmes ever undertaken by a nation state' at secondary level, removing traditional teaching subjects in favour of teaching topics' (Garner, 2015). Lessons focus on active, collaborative learning, with pupils working in small groups. An example is *The European Union*, which 'merges elements of economics, history, languages and geography' (Garner, 2015). Piloted in Helsinki, it is now being rolled out across the whole of Finland and will be fully in place by 2020. It is challenging for some teachers, 'who have spent their lives focusing on a particular subject', but to address this, like the Bauhaus and the OU, a 'co-teaching' approach is

applied to lesson planning, with input from more than one subject specialist (Garner, 2015).

Established in 1955 in The Netherlands, Design Academy Eindhoven (DAE) is an interdisciplinary institute offering a four-year undergraduate course and a two year masters. The undergraduate course is split into eight interdisciplinary departments crossing art, architecture and design. Rather than using ‘classical disciplines’ such as graphic design, interior design or fashion design, the departments ‘are distinguishable by their different approaches to the subject. What they have in common is the fact that they focus on ‘man’ (Design Academy Eindhoven, n.d., a). Like Froebels and Moholy-Nagy, DAE takes a humanistic approach placing people at the heart of the curriculum. The eight courses include: Man and Communication; Man and Leisure; Man and Motion; Man and Activity; Man and Identity; Man and Well-being; Public Private; Food non-food (Design Academy Eindhoven, n.d., b).

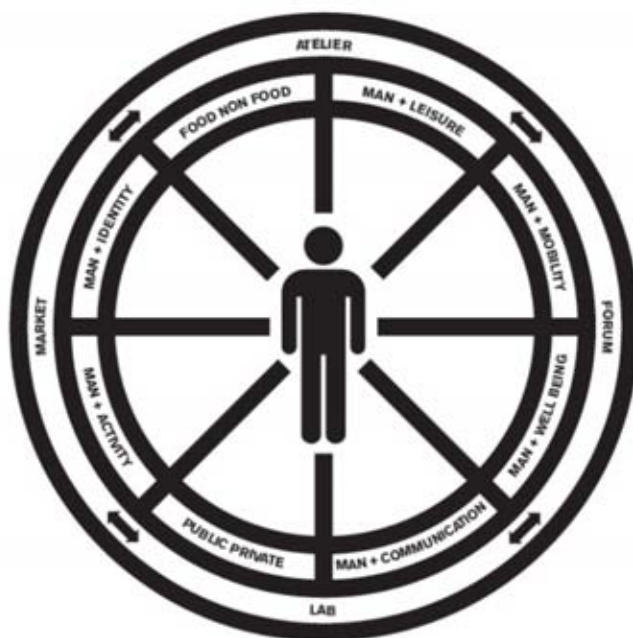


Figure 12: ‘DAE Bachelors Program - Compass Curriculum’. (Design Academy Eindhoven, n.d. c)

The compass curriculum model (Figure 12), clearly takes inspiration from the Bauhaus and New Bauhaus circular models (Figures 7 and 8). The first year is a foundation course, exploring all four points of the compass and all eight departments and how they interrelate. The second year focuses on one of the

eight departments, while continuing to explore three of the four compass departments. The third year focuses on one of the eight departments, while continuing to explore one or two of the compass departments. The fourth year focuses on internships and final examinations. No matter what route taken, all students graduate with the same Bachelor of Design. DAE believes this horizontal, integral approach is more effective than the traditional vertical structure of separate disciplines, as it creates designers who are ‘strong conceptualists as they are encouraged to ask critical questions, introduce new approaches and design from a bird’s eye view’ (Design Academy Eindhoven, n.d., b). As an academic at DAE himself, Dorst (2015) applies *Frame Creation* (discussed in the previous chapter) to pedagogy by ‘reframing the design school’ to create an educational model for ‘a changing profession’ (Dorst, 2015, p. 129).

As discussed in the previous chapter, Studio Olafur Eliasson founded the Institut für Raumexperimente, a school within the studio itself, to investigate new approaches to arts education at university level. Running from 2009 to 2014, and seen as an educational research project, the Institut was affiliated with the College of Fine Arts at the Berlin University of the Arts (Institut für Raumexperimente, n.d.). Eliasson saw the experiment as building a methodological model to explore the notion of the school as a process, and as a laboratory for experience (Eliasson, 2009). The Institut’s process directly linked to the studio’s innovative creative processes, using ‘experimentation as a method’ (Eliasson, 2014), and the curriculum was written at the end of each semester, rather than the beginning (Eliasson, 2014).

Eliasson was inspired by the educational experimentation at the Center for Advanced Visual Studies at MIT, the New Bauhaus and Black Mountain College, and aimed to recast these ‘radical notions of learning into contemporary society’ (Eliasson, 2009). Believing that art education had ‘seriously failed to acknowledge the fact that creativity is a producer of reality’, the Institut was not a ‘discrete space’, but ‘inseparable from its surroundings, from Berlin, from society and life in general’ (Eliasson, 2009). Believing the hierarchical transmission of knowledge practised in many art schools is

clearly unproductive, everyone at the Institute was a ‘practitioner’ (Eliasson, 2014). The aim was to ‘establish a school of questions rather than of answers; of uncertainty and doubt’ (Eliasson, 2009). At the end of the five years, Eliasson explained it would be hard to imagine the studio without the school (Coles, 2010, p.200). However, Eliasson justifies the closure as ‘the success of a model lies in its ability to re-evaluate itself’ (Eliasson, 2009). One of the key things learnt from the experiment was that ‘having confidence and believing that most everything is possible is a powerful driving force. In education, it is far more productive to make this felt than to teach crafts, skills, or career management’ (Eliasson, 2014). Eliasson supports a ‘slow revolution’ in education, and believes that ‘if crucial changes happen at a microscopic level, an entire society or worldview may in time be changed’ (Eliasson, 2014).

IDEO are applying design thinking to pedagogy, as it sees ‘opportunities to rethink the structure of education all the way up the chain’ (Brown, 2016). Brown (2009) states that ‘engagements with public and private schools, educational initiatives, and with colleges and universities has become a growing part of IDEO’s work’ (Brown, 2009, p. 223). In 2004, David Kelley, founder of IDEO, set up The d-school at Stanford University, in the Hasso Plattner Institute of Design. The school does not offer design courses, but, similarly to Moholy-Nagy’s vision for his Preliminary course, ‘serves as a unique environment where graduate students in fields as far flung as medicine, business, law, and engineering can come together to work on collaborative design projects’ (Brown, 2009, p. 224). Brown explains that the methods designers have developed for arriving at innovative solutions can be used ‘not just to educate the next generation of designers but to think about how education as such might be reinvented to unlock the vast reservoir of human creative potential’ (Brown, 2009, p. 222).

In recent years IDEO have started to focus on tackling systems challenges, including education and government as the rate of change of the past decades has been ‘dizzying’, and ‘outpaced our industrial-era organisations and infrastructure’ (Brown, 2016). Brown (2016) argues that for institutions to survive, they will need to ‘create new roadways’ by: ‘Busting out of siloed

design practices; developing ever-broader capacities, taking an interdisciplinary, deeply collaborative approach' (Brown, 2016). An example is a collaboration with Innova, a private network of schools in Peru. Using a multidisciplinary team, IDEO have designed 'the school system's curriculum, teaching strategies, buildings, operational plans, and underlying financial model from the ground up' (Brown, 2016). The curriculum incorporates social and innovation challenges, and flexible spaces with moveable walls enable flexibility in teaching style and group size (Martin, 2014). Brown explains that IDEO are exploring how education could prepare today's children for the technologically enhanced environment they'll grow up in, and also how they could address the very policy that shapes those educational institutions (Brown, 2016).

Considering the design of educational spaces, to better enable interdisciplinary pedagogy, is explored at Virginia Tech. A student experience task force looked at future use of space, and findings proposed doing away with traditional classrooms and lecture halls, and instead designate a desk or workbench for every student. The task force proposed creating 'large spaces filled with desks, group rooms, and lounge areas where students read, write, work on projects, socialise, mentor each other, and collaborate' (Mathews, 2014). At times, students could be grouped in similar disciplines, and at other times they are mixed up, with 'engineers, poets and biochemists all colliding together daily, formally and informally' (Mathews, 2014). This would enable each student to have a personalised curriculum, while also working on transdisciplinary team projects (Mathews, 2014). The task force took inspiration from the open plan Burchard Hall at Virginia Tech, with the Kiva Classroom, designed by Colley Architects (Figures 13 and 14). The Kiva Classroom is a freestanding experimental studio space, that is 24' diameter. Designed for the Industrial Design department, teaching and learning are assisted by use of the continuous whiteboard located on the interior surface of the room, and large screen monitors located on the interior and exterior walls (Colley Architects, n.d.).



Figure 13, Figure 14: 'Kiva Classroom 1 and 2'. (Colley Architects, n.d.)

### **2.3.5 Summary**

In summary, this section reveals that the UK Higher Education Creative Arts and Design courses are regarded as successful in terms of recruitment and enrolment. However, they tend to follow a uni-disciplinary, siloed structure which reflects an industrial model of education, and suggests a possible disconnection between pedagogy and current evolving interdisciplinary practice.

The twentieth century witnessed an explosion of radical, innovative, interdisciplinary pedagogical models, with clear threads of influence running from Froebel and the Bauhaus through to the current Art and Design Foundation course. The educators involved shared a quest for a universal design pedagogy, creating laboratory environments that could foster broad-based skills. Despite much political resistance and hostility, these models challenged the traditional systems, even going beyond design, offering benefits to the wider professional curriculum. One hundred years on from the formation of the Bauhaus, and fifty years since the establishment of the Open University, we appear to be at a similar moment with similar needs as the current industrial model of education appears to fail to reflect or support developments in practice, technology, and social and environmental challenges.

Evidence suggests that a new kind of university could be required, and many options are highlighted. These include using themes rather than disciplines, with problem-focused programs, and interdisciplinary teaching that supports collaboration. A common process could be developed that reflects a new iteration of the Basic Design course, to provide an excellent undergraduate training, enabling a more specialised graduate education later. Taking inspiration from the innovative interdisciplinary models explored, new partnerships between education and professional practice could be created to make these future models relevant.

Further investigation is now required to facilitate examination of possible options. To do this, this study will take influence from interdisciplinary



practitioners such as Moholy-Nagy, the Eames', Buckminster Fuller, and Eliasson and IDEO, who apply their practice to inform their pedagogy. To inform the gathering of primary data later in the study, in-depth research was conducted in five internationally renowned studio that defy classification. Rather than treating practice and pedagogy separately, as Rawsthorn (2013), Williams (2012) and Coles (2012) do, this study will not only explore evolving practice, but also views on and implications for pedagogy, to better understand what an interdisciplinary Higher Education pedagogy could be.

## **2.4 Policy**

### **2.4.1 Introduction**

Having examined shifts in contemporary design practice and pedagogy, it is now necessary to explore implications for policy, as policymaking has a direct impact on both. This section is structured into three parts. The first clarifies terminology and classification of policy, the creative industries and design sector. The second examines the evolution of policy for the design sector, to better understand the current situation. The third examines the evolution of policy for design education, to better understand how the UK government can best support this evolving sector.

### **2.4.2 Terminology and Classification**

Whicher (2017) defines Design Policy as ‘government intervention aimed at stimulating the demand for and/or supply of design in a country or region’, a useful construct in the context of the current work. Policymaking is ‘the process of changing an idea into an action’ (indirect, n.d.), and Policymakers in education are ‘whoever sets the terms and the practical conditions under which schools are required to work’ and this can include school board members, superintendents, politicians and union leaders (Robinson and Aronica, 2015, p. 226).

The Creative Industries Federation (2017b) define the Creative Industries as ‘those which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property.’ Again, this definition is useful in the current context. The 12 subsectors within the Creative Industries include: advertising and marketing; architecture; crafts; design (product, fashion, graphic); film, TV, video, radio and photography; IT, software and computer services; publishing; museums, galleries and libraries; music, performing and visual arts; animation and VXF; video games; heritage (Creative Industries Federation, 2017b). Government Statistics from 2017 show the UK Creative Industries were ‘booming’, growing at twice the rate of the economy, making record contributions of £101.5bn GVA (Gross Value Added) to the UK

economy, up from £85bn in 2015 (Creative Industries Federation, 2017b). GVA is ‘a measure of total output and income in the economy’ (Nayak, 2017). 9.4% of UK total exports of services were from the Creative Industries, and Europe is the most important continent in terms of export at 45% (Creative Industries Federation, 2017b). Employment across the Creative Industries reached 2,008,000 in 2016. The sector provides 6% of all UK jobs, and 35% are self-employed (Creative Industries Federation, 2017b).

The UK has the second-largest design sector in the world and the largest in Europe; it ranks fourth in the world for design exports, and exports 50% more design than it imports (Creative Industries Council, 2018). The recent report *Designing a Future Economy* (Design Council, 2018) highlights that design skills are more widely used than previously thought. Using the US Department of Labor’s dataset of job characteristics, the Design Council mapped this to the UK, identify the most important skills associated with design occupations, and other occupations that use the same skills. The report demonstrates that 2.5m people use design skills in their day-to-day work, and contribute £209bn to the UK economy (GVA) (Design Council, 2018).

### **2.4.3 Policy for Design**

In recent years, Europe has seen a considerable rise in design action plans, policies and strategies (Whicher, 2017). Both Finland and Denmark have launched dedicated policies, and, following recommendations from the EU Design Action Plan (European Commission, 2013), many countries, including Estonia, France, Ireland, Latvia and Slovenia, have launched design action plans (Whicher, 2017). However, despite being ‘one of the fastest growing sectors within the creative industries’, there have been no identifiable design policies or policy action plans in the UK (Whicher, 2017). This section aims to identify developments in policymaking, to better understand this current policy situation.

The Creative Industries Council (n.d.) lists twenty-nine representative bodies, including the Design Business Association, the Chartered Society of Designers, D&AD, the Creative Industries Federation, and the Design Council. These bodies

mostly work on behalf of an area of the industry, but none appear to represent the industry as a whole or drive policy (Montgomery, 2013, p. 9). Arguably the best-known public sector body, most dedicated to design promotion, is the Design Council (Swann, 2010). Formally the Council of Industrial Design (CoID), the Design Council was initially set up by the government in 1944 to promote the British design industry, to support the post-war economy (Swann, 2010). The organisation went through various iterations over the following decades, and by the mid-1990s became a Think Tank (Ford and Davis, n.d.). The new mission was to inspire the best use of design, with initiatives including Creative Britain, looking at how design could improve the country's global standing, and Millennium Products, celebrating outstanding examples of British design and innovation (Swann, 2010). In 2011, the Design Council merged with CABI, the government's adviser on design in the built environment, and now describes itself as the UK government's adviser on design, working to improve people's lives through the use of design (Design Council, n.d.).

Creative Britain and Millennium Products are two examples of many where government has supported, and possibly exploited, design for political gain. In the mid-1990s, the Conservative government started to link and promote Britishness with innovation, developing the term Cool Britannia and commissioning the Millennium Dome (Williams, 2012). The growing 'London scene' was celebrated in Blueprint magazine's July–August 1995 edition, titled 'London: The World's most Creative City' (Figure 15) and *Vanity Fair* magazine's March 1997 issue with a twenty-five page article dedicated to 'Swinging London Mark II' (Figure 16) (Harris, 2017). In May 1997 Tony Blair came to power, and New Labour re-appropriated the term Cool Britannia, prioritising design and designers to rebrand Britain (Williams, 2012). Rooted in a thriving music scene, and an economic boom, London was advertised as the culturally creative centre of the world (Harris, 2017). The report *Britain™: Renewing Our Identity* (Leonard, 1997), attempted to re-imagine Britain. Delivered to Tony Blair on his first day of tenure, the report proposes that Britain be re-branded to boost the country socially and economically, and that the creative industries will play a vital role in this (Leonard, 1997). The report

states that Britain should be ‘a hub, an importer and exporter of ideas, goods and services, people and cultures’ and should be celebrated as a ‘hybrid nation with a history of peculiar creativity and non-conformity’ (Leonard, 1997, p. 3). To achieve this, the answer was ‘to exploit its contemporary designers as ambassadors’ (Williams, 2012, p. 13).



Figure 15: ‘London: The World’s most Creative City’. (Blueprint Magazine, 1995)

Figure 16: ‘Swinging London Mark II’. (Vanity Fair Magazine, 1997)

In 1998, Culture Secretary Chris Smith launched and led the Creative Industries Task Force, which consisted of key ambassadors from the design industry, as well as Whitehall departments, including the Department of Culture, Media and Sport, the Department of Trade and Industry and the Departments of Education and Employment (Williams, 2012). Smith commissioned the first research into the economic benefits of the creative industries, and the results made a strong economic case (Williams, 2012). In 1998, Smith also announced the foundation of NESTA, (the National Endowment for Science, Technology and the Arts), aimed at developing creative talent and raising public perceptions and appreciation of the creative industries (Williams, 2012, p. 16). The Millennium Dome was the perfect opportunity to demonstrate this, like the Great Exhibition of 1851, looking at the world of the future, designed by the best British architects and designers

(Williams, 2012). To a certain degree this was achieved, but spiralling costs and budget over-runs, and interference from controlling sponsors dampened the final outcome (Williams, 2012, p. 22). Since taking power in 2006, the current Conservative government has continued to exploit contemporary designers and build on British creative success with events such as the Shanghai World Expo in 2010 and the London Olympic Games in 2012. The London Olympics was considered the most important event to impact the design industry in 2012 (Banks, 2012), with claims that it demonstrated that the UK was 'the most creative place on earth' (Banks, 2012). It is clear then, that design is valued by government as a powerful tool to promote the UK, both socially and economically. This raises the question of why there is no dedicated policy to support and protect this sector (Whicher, 2017).

One reason why there is no identifiable policy for design appears to be due to issues with terminology and classification. Over the last decade, numerous reports have been produced arguing for better classification of design, to enable better support from policy-makers, including Cox (2005), Miles and Green (2008), and APDIG (2013) and Swann (2010). There appears to be confusion 'between how design is understood by academics, design professionals, industry, the general public and policymakers' (Whicher, Cawood and Walters, 2012, p. 2). Yet, without 'a clear, operational definition of design activity...policies in support of design will remain fundamentally flawed' (Green, Cox and Bitard, 2013, p. 274). In *Defining Design: The Debate* (APDIG, 2013), the All-Party Parliamentary Design and Innovation Group advocates the need for better classification for design, highlighting that for design to be on the policy agenda, governments require evidence. Dr James Moultrie argues that 'classification is needed to enable measurement. Measurement is needed to provide evidence. Evidence is helpful in forming policy. Meaningful classification is therefore a prerequisite of sensible policy' (APDIG, 2013, p. 2).

However, as discussed in the previous Practice section, the term design is not easy to define, and there have been shifts in terminology to re-position design, with the introduction of terms such as Creativity and Innovation. Creativity is

the generation of new ideas, not limited to the Creative Arts (Lawson, 2006, p. 145). Innovation is the successful exploitation of new ideas (Cox, 2005, p. 2). From the late 1980s onwards, design became more associated with innovation, which led to greater investment in innovation in companies where 'design methods' were being deployed (Green, Cox and Bitard, 2013, p. 268). These shifts appear to be financially motivated, and prioritise innovation and the problem-solving idea of creativity over aesthetics, fantasy or play (Oakley, 2009, p. 405).

One example of this prioritisation is the introduction of innovation voucher schemes. Over the last twenty years, various policy schemes have been created across Europe and the UK, to support innovation, starting in the Netherlands in 1997 (Virani, 2013). Most schemes aim to promote and accelerate innovation in some way with governments providing small lines of credit to small and medium-sized enterprises (SMEs) (OECD, 2010). In the UK, two schemes have been implemented: Nesta's Creative Credit scheme (Bakhshi, Edwards, Roper, Scully, Shaw, Morley and Rathbone, 2013) and Creativeworks London's Creative Voucher Scheme (Virani, 2014). Nesta's scheme, related in part to *Hidden Innovation in the Creative Industries* (Miles and Green, 2008), was a business to business venture, and thus transactional in approach. Creativeworks London's scheme was collaborative, and enabled SMEs to develop short-term research and development initiatives with academic partners and research organisations (Virani, 2013). However, recent studies have raised concerns about the effectiveness of these schemes, in having no long-term effectiveness (Economic and Social Research Council, 2013).

In 2010, the European Commission included design as one of ten priorities in its innovation policy, stating that design and creativity must be better exploited, and that by 2020 design should be a well-integrated element of innovation policy across Europe (Whicher, Cawood and Walters, 2012). The APDIG agree, highlighting that the UK Government does not fully appreciate the significance of 'design as the spine that runs through industry, innovation, and social wellbeing' (APDIG, 2011). The evidence highlighted above argues

that definition is an urgent issue from a policy perspective. The need to better define design and its relationship with innovation, is essential in building appropriate policy support for design and the creative industries as a whole.

Despite there being no clear policy for design within the UK, design is now being recognised and recommended as a key tool for designing policy. Design can add value to policy development through: being human centered; reframing problems; breaking down disciplinary silos; working collaboratively; reducing risk through testing (Buchanan, 2014). This approach has been referred to as design thinking, service design or strategic design (Buchanan, 2014) and leading consultancies in the field include IDEO (globally) and Engine Service Design and Participle (in UK). As discussed in the previous Pedagogy section, IDEO use design thinking as a collaborative process where designer's methods are employed to create viable business strategy, through a human-centred, problem-solving approach (Brown, 2009). Engine Service Design argue that service design can offer policymakers and practitioners both a new vision for transforming public services, and the route for getting there (Parker and Heapy, 2006). Participle uses designers' skills to tackle urgent social problems as it believes designers are natural lateral thinkers, and their communications skills can help to persuade people to participate (Rawsthorn, 2008).

This shift in policy making, which Taylor (2014) calls Beyond Policy, highlights that existing linear processes, where policymakers use inflexible, risk averse methods, are no longer relevant to today's problems, and that pragmatic, risk taking, fast learning, experimental methods of the designer are required (Taylor, 2014). This approach encourages policymakers to see policy making and policy implementation as a single, interconnected process (Bason, 2014), through shared methodologies, including a process of iteration, which involves continual testing and close involvement with end users (Norman, 2014). Design requires patience and humility, a respect for the challenge faced, and a willingness to engage that problem on its own terms before rushing to action, qualities perhaps not traditionally found in policy making (Miller and Rudnick, 2011). In 2014, the UK Cabinet Office took on this



challenge, and launched the Policy Lab, the first design-led lab for strategic projects in the UK (Buchanan, 2013). Interest in design for policy making in the UK appears to have increased due to Policy Lab successes, such as the creation of Government Digital Service (GDS) which has transformed over 2000 different government websites into approximately 300, has won the Designs of the Year 2013 award, and done much to amplify the potential of technology and design in Government (Buchanan, 2013).

In summary, there have clearly been developments towards policymaking for design, yet the UK still has no identifiable design policies or policy action plans. The reasons for this appear complex. Design is clearly valued by government as a powerful tool to promote the UK, both socially and economically, and government appears to support innovation. Design has also been used as a key tool for designing policy, with the creation of Policy Lab. As demonstrated at the beginning of this section, the UK creative industries are thriving, despite having no clear policy for design, which poses the question of whether a policy for design is actually needed. Governments do not necessarily have the information required to make appropriate interventions, and could risk of making things worse (Swann, 2010). Also, as demonstrated in the previous Practice section, the design industry is possibly evolving too rapidly for policy to be relevant. However, The APDIG (2011) recommends that the UK government creates a National Design Strategy that it takes ownership of in a well-informed and proactive way. Several reports (Green, Cox and Bitard, 2013; Miller and Rudnick, 2011) highlight a symbiotic relationship between the evolution of policy supports and the development of the design industry, and express the need to bring the domains of research, design and policy together. Therefore, for the UK design industry to continue to thrive, industry requires one main representative body, a better definition of design, and a dedicated policy for design created in a collaborative, symbiotic way bringing designers, researchers and policymakers together.

#### **2.4.4 Policy for Design Education**

As discussed at the beginning of this section, many countries in Europe now have dedicated design policies and action plans, including Finland (Whicher, 2017). *Design Finland Programme* (Ministry of Education and Culture Finland, 2013) was created by the Ministry of Education and Culture Finland in 2012, using a joined-up policy model focussing on ‘the intimate, non-hierarchical co-operation of design, industry, education and promotion’ (Korvenmaa, 2007). The Programme recommends the setting up of a Finnish Design Network, to strengthen this ‘ecosystem’, as well as advocating multi-disciplinarity and a basic design education embedded across all levels (Ministry of Education and Culture Finland, 2013). One of the results was the removal of traditional teaching subjects in favour of teaching topics, discussed earlier in the Pedagogy section (Garner, 2015). These implementations appear to have been successful, as Finland ranks near the top on the global educational rankings for literacy and numeracy (Robinson and Aronica, 2015, p. 60). Yet in the UK, despite clear evidence earlier in the chapter of design’s benefits for economic growth, ‘it remains a struggle to get policymakers to foster creativity at all levels of education’ (Mathers, 2015, p. 29). There appears to be a disconnection between government’s valuing of the creative industries from an economic point of view, and an education policy that is said to be ‘squeezing creativity out of our children’s learning’ (Norris, 2018).

Many policy reports produced in the UK over the last sixty years have promoted the importance of an integrated, broad creative education, avoiding early specialisation. In *The Two Cultures and the Scientific Revolution*, C. P. Snow (1959), claimed that science and the humanities had become two cultures, deeply divided and alienated. Concerned that science and the arts in Britain were drifting apart (Jones, 2009), Snow argued that the British system forced children to specialise at an unusually early age, still modelled on nineteenth century needs of industrialisation (Whelan, 2009). Snow saw educational snobbery as creating this divide, and believed the only answer was to rethink education entirely (Whelan, 2009). Snow hoped for the emergence of a ‘third culture’, bringing his two cultures together (Brookman, 1996). The report prompted considerable debate and controversy at the time, and yet,

nearly sixty years later, Marshall (2008) believes a third culture can now be identified, describing the current digital age, where ‘art’ and ‘technology’ have converged, as the rise of a ‘hybrid third culture’ (Marshall, 2008, p. 17).

William Coldstream was hired by government to make recommendations about the future shape of art and design education, and produced two reports (Coldstream, 1960; Coldstream, 1970). Coldstream reviewed the National Diploma in Design (NDD), that had been in place since WWII, and created the Diploma in Art and Design. This new Diploma no longer recognised artists only as artisans and makers, but also as academics. The Diploma became a three-year course, with four specialisms: Fine Art; Graphic Design; Three Dimensional Design; Textiles and Fashion (BBC Radio 4, 2014). Coldstream’s view was that: ‘Uncertainty is the condition that young artists today have to learn to live with, and that is what we are trying to accommodate’ (Thompson, 2005, p. 219). Rather than turning to professional educators, Coldstream chose professional artists and designers to join his committee, and key pedagogical ideas included: empowering small independent schools, by providing a stable institutional framework but without a general curriculum; students experiences directly reflect current practice, with designated studio space; part-time teaching by professional practitioners; students only formally assessed twice – on entry and on leaving (Thompson, 2005, p. 219). Yet few schools were able to fully realise the recommendations, due to ‘betrayal at almost every point’ (Thompson, 2005, p. 220). Rather than following the recommended small-scale specialist institutions, large-scale polytechnics were created, and the more open-ended, developmentally flexible undergraduate courses proposed by Coldstream were replaced by regulated, benchmarked and modularised courses (Thompson, 2005).

The Education for Capability campaign was initiated in 1978, to counter what was described as ‘the academic bias’ of British education and to promote the value of practical, co-operative skills (RSA, n.d.). The movement wrote a Manifesto which, like Snow, highlighted the divide and hierarchy, this time between education and training, with an emphasis on scholarly activity rather than skills (Thompson, 1984). Donald Schon dedicated his book, *The Design Studio* (Schon, 1985) to the campaign in the hope that it would aid the cause

(Schon, 1985). Again like Snow, the manifesto highlighted that young people in Secondary or Higher Education were increasingly forced to specialise, and, despite having knowledge, were not equipped to use that knowledge outside the education system (Thompson, 1984). The campaign advocated a 'well-balanced' education that embraced analysis and the acquisition of knowledge, but also included creative skills, competence, the ability to cope with everyday life and working in co-operation with others. Propositions recommended a concentration on problem-solving, and highlighted that creative activity is under-valued, skills of hand and eye are similarly under-valued, emphasis on individual achievement and competition leads to a neglect of social interaction, and the education system is too inward-looking. (Thompson, 1984).

The *Dearing Report*, headed by Sir Ronald Dearing (Dearing, 1997) looked at the shape, structure, size and funding of higher education and produced the first comprehensive study on higher education since the 1960s (Dearing, 1997). One key recommendation was that all HE institutions should review the programs they offer, to securing a better balance between breadth and depth across programs. Like the Education for Capability campaign, the review advocated a more balanced, outward looking approach, specifying that all undergraduate programs include sufficient breadth to enable specialists to understand their specialism within a wider context (Crace and Shepherd, 2007). One year later, the National Advisory Committee on Creative and Cultural Education was established to make recommendations on the creative and cultural development of young people through formal and informal education. Chaired by Sir Ken Robinson, *All Our Futures* (Futures, 1999) responded to a White Paper produced in 1997, titled *Excellence in Schools* (HMOS, 1997) which highlighted the need for a broad, flexible and motivating education that recognises the different talents of all children (HMOS, 1997). Like Coldstream, the committee was made of members from a broad range of specialisms, as Robinson understood that ideas and values particular to one field were actually common to all (Futures, 1999, p. 15). The report states that creative and cultural education are as important as literacy and numeracy, and can support and enhance each other as 'complementary abilities'

(Futures, 1999, p. 13). The report highlights that employers want people who can adapt, see connections, innovate, communicate and collaborate with others, and that the knowledge-based economies will be dependent on these abilities (Futures, 1999, p. 14). Like Snow, the report concludes that the current education system was created in the nineteenth century, to meet the needs of industrialisation, and needs to be rethought to face the challenges of the twenty-first century (Futures, 1999, p. 16).

In 2005, Sir George Cox undertook a review of creativity in business (Cox, 2005) and, as with all the previous reports above, recommends breadth and balance, with a multi-disciplinary design education approach. The report argues that Higher Education is becoming more multi-disciplinary around the world, that there are a few pioneering examples in the UK, but that it needs to become the norm, not the exception (Cox, 2005). Recommendations include: closer links between universities and industry; HE courses should better prepare students to work with, and understand, other specialists; incorporating a greater breadth of teaching; establish centres for excellence for cross-disciplinary teaching (Cox, 2005, p. 28). Like Education for Capability, Cox highlights the importance of transferable skills, arguing that the majority of students studying the creative arts will not practice as professionals and therefore it is essential that they view their skills in a wider context (Cox, 2005, p. 32). However, like Snow, Cox states that the UK education system (in contrast to other countries), channels students into 'arts' or 'science' at a relatively young age, reinforcing the perception that creativity is only for the minority, when it should be a part of every aspect of modern life, including business (Cox, 2005, p. 29).

In 2013, the Warwick Commission, chaired by Vikki Heywood CBE, undertook a comprehensive investigation into the future of cultural values. The resulting report, *Enriching Britain: Culture, Creativity and Growth* (Warwick Commission, 2015), highlighted a significant decline in the number of state schools offering arts subjects (BBC, 2015). The report found that between 2003 and 2013 there had been a 50% drop in GCSE entries for design and technology, 23% for drama, and 25% for other craft-related subjects

(BBC, 2015). Young people are often expected to pay for extra-curricular creative activities, putting them out of reach for low-income families. This risked creating a 'two-tier system', in which only the most advantaged pupils had access to a wide range of experiences (BBC, 2015). As with Snow, Education for Capability, and Dearing, the report concludes that ministers are 'obsessed with siloed subject-based curriculum and early specialisation' (BBC, 2015).

One reason highlighted for this decline in uptake of arts subjects in state schools is the introduction of the STEM agenda. In 2007, the UK Government commissioned the Department for Employment and Learning (DEL) and the Department of Education (DE), to undertake a review of Science, Technology, Engineering and Mathematics (STEM) (Department of Education, 2009). Findings of the report created a STEM Strategy, which aims 'to empower future generations through science, technology, engineering and mathematics to grow a dynamic, innovative economy' (Department for Education, n.d.). The Strategy emphasises that priority must be given to STEM subjects throughout Primary, Secondary and Higher Education, to enable growth in the sector by increasing the number of skilled workers with qualifications in STEM (Department for Education, 2011).

A direct result of this strategy was the creation of the English Baccalaureate (EBacc) in 2010. The EBacc is a schools' performance measure to show the number of pupils studying 'core' academic subjects at key stage 4, in both state-funded and independent schools. The five 'core' EBacc subjects are: English; Maths; Science; a language; geography or history (GOV.UK, 2017). In 2016, a new accountability system was introduced, called Progress 8. Rather than five core subjects, Progress 8 measures a pupil's progress across eight subjects: English, Maths, three EBacc qualifications, and three other subjects (either EBacc subjects or other approved qualifications) (Figure 17) (Henshaw, 2017). The measures need to be published by schools on their websites, in a standard format, and include how much progress pupils have made in their chosen 8 subjects, how many have passed the 8 subjects, the

percentage of students who gain the EBacc and the percentage of students who entered for the EBacc (AQA, n.d.).

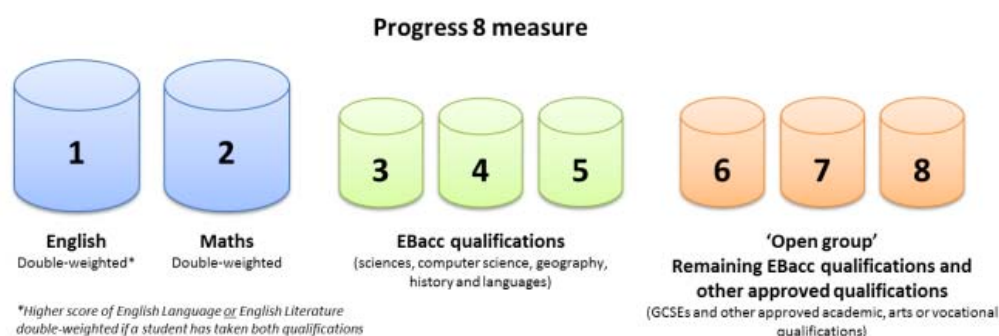


Figure 17: 'Progress 8 measure'. (Henshaw, 2017, p. 3).

Many reports argue that the introduction of these measures has directly resulted in falling entries to arts subjects. The Cultural Learning Alliance (2017) highlights that since 2010, there has been a fall of 28% in arts GCSEs, in 2016-2017 alone there was a 9% drop in arts GCSE, and since 2010, there has been a 43% drop in take-up of Design and Technology (Cultural Learning Alliance, 2017). The Education Policy Institute report (Johnes, 2017) shows a clear decline in arts subject entries at GCSE as a result of 'the triple pressure of the EBacc, Progress 8 and wider financial issues within schools.' This is due to the limited number of option subject slots for non-EBacc subjects. The report states the government needs to acknowledge the increased pressure that the EBacc and Progress 8 have brought on arts subjects and consider the impact on pupils and on the creative industries more widely (Henshaw, 2017). Many other Creative Industries bodies are calling for similar action. The Creative Industries Federation (CIF, 2017a, p. 2), highlights the need to turn STEM into STEAM, adding an Arts subjects, stating that a narrow focus on science, technology and maths will not deliver the innovation and creative thinking needed. CIF (2017a) highlights that the arts, including crafts and design, are vital subjects and that theses artificial barriers need to be broken down, to place arts with science, technology and maths, at the heart of education. In 2014, the Crafts Council launched a manifesto, delivered to the House of Commons, in an attempt 'to secure the future of craft education' and 'put craft and making at the heart of education,' titled *Our Future is in the*

*Making: An Educational Manifesto for Craft and Making* (Craftscouncil, n.d.). Nesta also advocate STEAM, recommending that Government ‘should end the bias against multi-disciplinary education – supporting the combined take-up of arts and science subjects at school and higher education’ (Nesta, 2015). The Bacc for the Future campaign, which is petitioning government against the EBacc, published a report (*Bacc for the Future*, 2018), highlighting the continuing cuts to arts subjects at secondary schools, despite that fact these subjects teach a wide range of skills much in demand from employers, particularly collaboration, creativity, self-expression and control (*Bacc for the Future*, 2018).

One factor impacting on Higher Education appears to be the introduction of fees, which originally began in 1981, when underfunded universities were struggling to survive (Adonis, 2017). The Conservative government removed controls on fees for international students, to give higher education a vital source of non-state income. New Labour then introduced fees for home students of £1,000 in 1998, following two key recommendations from the Dearing Report, which also recommended expanding student numbers (Crace and Shepherd, 2007). In 2004, Andrew Adonis, director of the new university fees policy under Tony Blair, introduced a new cap of £3,000 a year. The intention was that fees would vary between £1,000 and £3,000, depending on the cost and benefit of the individual course (Adonis, 2017). Students would pay on a sliding scale to reflect cost and benefit, with repayments made after graduation, with no interest. The aim was to enhance student choice, making universities more responsive (Adonis, 2017). However, Adonis accuses Vice-Chancellors of forming a cartel by charging £3,000 for almost every course.

In 2010, the *Browne Review* (Browne, 2010) proposed that universities remove the current cap and recommended ‘top-up’ fees could range from £6,000 to £10,000 (Hubble, 2010). Reflecting back, Adonis indicates that he believes the current fees system is not working, and questions whether they should be abolished entirely or whether cross-party support can keep fees to between £1,000 and £3,000, as was originally intended (Adonis, 2017). The introduction of fees means universities have gone from centres of learning to



profit centres, with students becoming consumers of products (Preston, 2015). Alongside the increasing changes to fees, Higher Education institutions have gone through change in the organisational structure. Universities are now described as having ‘toppling hierarchies’ (Preston, 2015). The average wage of a vice-chancellor ‘exceeds £260,000, while some earn more than £400,000’, which is a wage increase at four times those of academic staff between 1998-2009 (Preston, 2015). Finally, of all the disciplines at Higher Education level, it appears that the humanities – arts, languages and social sciences – have suffered the most significant funding cuts, with the current government again seeming to favour the ‘revenue-generating’ STEM subjects (Preston, 2015). Statistics highlighted earlier in the chapter, demonstrate a slight growth in student enrolment numbers, which suggests that the fees are not currently deterring students. However, it appears that the fees have shifted the role of the university from being a centre of learning to a profit centre, creating hierarchical structures that value revenue generating STEM subjects over the humanities.

In response to the perceived negative impact from the introduction of the policies discussed above, many innovative interdisciplinary pedagogical initiatives are developing in the UK, both within and outside formal education. According to (Abrams, 2017) ‘dozens of schools in England are implementing a system that has many similarities to the one being introduced in Finland.’ This includes the XP free school in Doncaster, that has introduced project-based learning, rather than subject-based learning, despite the difficulties of ‘implementation in the system that focuses on standardised assessment’ (Abrams, 2017). Artists in Residence is an initiative set up by Andrea Zafirakou, who won the Global Teacher Prize in 2018. Zafirakou chose to use the prize money to work with UK schools to help them ‘improve their art curriculum by connecting them with artists to co-design a residency project’ (Artist in Residence, n.d.). The Victoria and Albert Museum (V&A) has established DesignLab Nation, which links up regional museums, secondary schools and local industry to support Key Stage 3 and 4 Design and Technology. Tristram Hunt, Director of the V&A, argues that with dramatically falling numbers in art, design and technology subjects being

taken up at GCSE and A Level, art and design subjects are ‘on the endangered list’ (Hunt, 2017). Hunt explains ‘we need an education system more attuned to creativity, design, innovation, enterprise and interdisciplinary nimbleness’ (Hunt, 2017). The Institute of Imagination was set up in 2014 as a non-profit organisation based in London, and invites children, families and schools from London and beyond, to ‘explore, experiment, make, play and create together’ (Institute of Imagination, n.d.). Director of Content and Learning, Gareth Binns, explains that with schools still largely using ‘a curriculum from the 1950s’, the Institute ‘draws no subject boundaries or distinctions between the artistic and scientific worlds’ and is ‘the fuel of STEAM’ (Binns, 2015). In 2020, two Livingston Academies are scheduled to open, in Bournemouth and West London, offering a ‘groundbreaking curriculum relevant to the digital age’ (Livingstone Academies, n.d.). Driven by Ian Livingston, the games designer behind franchises including Tomb Raider and Warhammer, the intention is to applying gaming elements into the entire learning process, and students will ‘learn how to problem-solve rather than just how to pass exams’ as Livingstone believes the ‘trial-and-error nature of creating games as a key model for learning’ (Lee, 2014).

In summary, these findings demonstrate a clear thread of agreement over the last sixty years that creative education should be valued, with a holistic, well-balanced approach, avoiding early specialisation in favour of breadth and transferable skills. The messages are often similar, at times identical, yet the current model appears to still be based on the nineteenth century needs of industrialisation, with a siloed subject-based curriculum and early specialisation. The UK risks creating (as Snow predicted) a divided, two-tiered system, where arts subjects are not supported in state schools. There appears to be considerable evidence that the take-up of arts subjects in state schools is dropping significantly, due to the STEM agenda and the introduction of the EBacc and Progress 8 measures. Another factor highlighted is wider financial issues within schools due to general funding cuts. These negative impacts could potentially affect the pipeline of talent into the creative industries, placing the design sector under threat. It is important to note that China has spent the past thirty years investing almost exclusively in the sciences and

now their students are having to come to the UK to learn how to be creative, announcing that as a nation they have lost creativity (Preston, 2015). The World Economic Forum states that the top three skills needed to thrive in what they call the 'Fourth Industrial Revolution' include complex problem solving, critical thinking and creativity, all fundamental design skills (Gray, 2016). It therefore appears critical that if the UK wants to play a key part in this Fourth Industrial Revolution, a STEAM education needs to be offered by state schools as well as independent schools, and England will require a national plan ensuring that all children and young people are offered a high quality cultural and creative education at all levels.

#### **2.4.5 Summary: reports, recommendations and rhetorics**

The findings of this section suggest that for UK design industry (and the UK economy generally) to continue to thrive, the design industry might benefit from one main representative body, a better definition of design, and useful policy for both design and design education that is constructive and supportive. It would appear that policymakers need to better understand the symbiotic relationship between the evolution of policy supports and the development of the design industry, and that policy needs to be designed in collaboration with a broad range of specialists, including educators, researchers, practitioners, public sector organisations and policymakers (all of which might be viewed as an eco-system). Two key reports (Swann, 2010, and Green, Cox and Bitard, 2013), address future policy for design and design education in the UK, advocating policy intervention. Recommendations include: strengthening the design profession, through investment in education; creating a professional body or national design institution that can act as a network hub; and, raising awareness about design and its breadth of application. This final point is significant with regards to the classification of design. A key challenge in attempting to implement a broader, holistic curriculum, avoiding specialisation, is terminology. With the reduced focus on art and design at Secondary level, new students entering Higher Education will have limited knowledge of current art and design practice. Therefore, without traditional 'disciplinary' labels (as proposed in the title of this study), Higher Education institutions may struggle to clearly communicate their

courses to new students. Likewise, government will struggle to categorise and therefore value design.

Policymakers could look to Finland and its joined-up process for design and creation of design education policy. However, it is important to clarify that England is highlighted as the only nation in the UK not to have a national plan ensuring all young people are offered high quality cultural and creative education (Creative Industries Federation, 2017, p. 3). Scotland has recently created a national plan, with a general framework for whole-school transformation, called *Curriculum for Excellence* (Robinson and Aronica, 2015, P.242). Like Finland, the plan was also developed in a joined-up, collaborative way with educators, parents, students and business and community leaders from across the country. It was also created in association with the International Futures Forum, a worldwide group of educators, policymakers and researchers. The curriculum aims to encourage interdisciplinary learning and the offer of increased flexibility, with a greater focus on skills and the application of learning to real-life situations (Scottish Government, n.d.). Bazalgette (2017) argues that government ‘cannot be complacent’ about the current economic success of the creative industries, and that it needs to commit to designing the education and skills frameworks to support the sectors where the jobs of the future will be located: this is an argument that is pursued with the presentation of fresh evidence below.

## **2.5 Summary and Statement of Research Questions: practice, pedagogy and policy – deep ties, broken links and urgent questions**

The strategy in this review has been to examine literature from the fields noted above, and to address both historical context and current theorising. The review was undertaken with a view to illuminate current shifts in design practice, exploring their implications for design pedagogy (and the perceived disconnection with practice), and examining how both practice and pedagogy can best be supported by policy.

### **2.5.1 Research Questions**

The review has revealed some key trends within the themes reviewed, and has also pointed to important friction points across them. Whilst practice has changed rapidly and continues to evolve, pedagogies have responded only slowly or not at all, and policy relating to the industry and its educational underpinnings – where this has been evident - has lagged or failed to meet the needs of practitioners, students and the wider economy. This situation is deeply troubling for many both within and beyond the sector and one that raises important questions. It is these questions that sit at the core of this research and each is set-out below in detail:

#### **1. What are the factors implicated in current shifts in design practice?**

This question aims to establish more thoroughly whether design practice in the twenty-first century is evolving, and if so, how and why this evolution is taking place. The nature and direction of the evolution is also an issue for examination. If studios are working in more fluid, interdisciplinary ways, what are the drivers for this and what is the historical context in which this shift has taken place.

2. How are shifts in practice reflected in the activities and processes of leading UK design agencies?

This question is designed to examine the design processes deployed by leading contemporary UK design studios (with a view to establishing the feasibility of characterisation and classification). If these studios are working in new ways, it will be necessary to identify: how they are able to work fluidly across disciplines; the key components of their processes; and, the core capabilities required of young designers that work in such environments.

3. If possible, how might one identify the emergence of a new design paradigm (and if so what are the key characteristics of this)?

The aim of this question is to more clearly identify specificities and commonalities among situated design processes in an attempt to determine the extent to which a new design paradigm might be evolving. Identifying a paradigm shift will have implications for design practice and pedagogy. It might require a re-framing of our understanding of skills and specialisms, creative processes and methodologies. This knowledge might also help one to hasten the creation of, or support, such a paradigm.

4. What are the implications of evolutions in practice for contemporary design pedagogy and for design policy?

If a new paradigm can be identified, the aim will then be to explore whether a disconnection between practice and pedagogy can be identified. A paradigm shift will have implications for those design students who need to 'prepare for membership in its intellectual community by studying that paradigm' (Hairston, 1982, p. 76). A disconnection between practice and pedagogy will also have implications for policy – here it is important to examine the nature of these implications and to seek appropriate ways in which they might be addressed in a policy context.

### **2.5.2 A paradigm shift? Re-classifying design, re-aligning pedagogy, and re-thinking policy**

Findings indicate a significant paradigm shift, with practitioners redefining the concept and practice of design, and moving from designing products to designing for people's purposes. Key characteristics appear to include collaboration, co-designing and seeing, thinking and doing differently. Specialist executers have not gone away, but many practitioners now defy traditional classification in favour of being defined by the fluidity with which they move across the fields of art, architecture and design. Due to professional, technological and economic developments, 'the creative disciplines are undergoing the most significant paradigm shift in living memory' (Coles, 2012, p. 332). However, evidence from the review highlights conflict and tension between interdisciplinarity and specialisation within the industry with respect to domain shifting, quality and the need for specialisation before interdisciplinarity. This study will argue that these issues can be re-framed to view interdisciplinarity, or designing beyond discipline, as a specialism. This could enable the creation of a common language for design which in turn could enable the sharing of methodology.

The review indicates that terminology and classification systems are continuing to evolve and becoming more complex. Yet it appears that simplicity is needed in order to de-mystify and make sense of design for those that do it, teach it and use it. Findings indicate a need for avoiding the 'terminological quagmire' that appears to reflect the limitation of the current classification system, and make it easier for practitioners and non-practitioners to collaborate and better understand evolving design practice in the twenty-first century. It appears that better definition of design is needed, to build appropriate policy support for design and the creative industries as a whole. Without educating people about the value of design, it is unlikely to receive appropriate support. Further investigation is now needed to better define design, and this will be explored in later sections of the thesis.

Findings highlight that UK Higher Education Creative Arts and Design courses follow a uni-disciplinary structure, one divided into many sub-disciplines and one that reflects an industrial model of education. This siloed structure suggests a disconnection between pedagogy and evolving interdisciplinary practice. This study will argue that a fundamental change in education is required. Much can be learned from the twentieth century explosion of radical pedagogical models, that shared a quest for a universal design pedagogy, creating laboratory environments that could foster broad-based skills. Despite much political resistance and hostility, these educators challenged traditional curriculum models in response to the technological, social and environmental challenges faced at the time. One hundred years on from the formation of the Bauhaus, and fifty years since the establishment of the Open University, we appear to be at a similar moment with similar needs.

Finally, this research highlights a disconnection between the UK government's valuation of the creative industries from an economic point of view, and an education policy that appears to be de-valuing creativity at all levels of education. It has been argued (Bazalgette, 2017) that government 'cannot be complacent' about the current economic success of the creative industries, and needs to commit to designing the education and skills frameworks to support this sector. The creative industries could be under threat if cuts to creative education continue. Therefore, STEAM education could be offered by state schools, and an English national plan could be designed to ensure that all children and young people are offered a high quality cultural and creative education at all levels. One main representative body could help to drive policy, to allow the industry to continue making record contributions to the economy. Policy could be designed in collaboration with a broad range of specialists, including educators, researchers, practitioners, public sector organisations and policymakers, viewed as an ecosystem.

There is now a need for greater understanding of how these shifts are reflected in the practice of leading UK design agencies working in this new paradigm, in order to gain a broader understanding of its key characteristics. Greater penetration is required to: re-frame our understanding of skills and



specialisms; question current perceptions of the expert and the polymath; and, explore evolving creative processes and methodologies. To do this, the study will take influence from Coles (2012), to inform the operationalisation of the study and the gathering of primary data. The latter will be based primarily on in-depth, qualitative research undertaken within five internationally renowned studios who defy classification. Rather than treating practice and pedagogy separately, as Rawsthorn (2013), Williams (2012) and Coles (2012) do, this study will not only explore evolving practice within each studio, but also their views on pedagogy. This will enable a better understanding of what an interdisciplinary Higher Education pedagogy could be, and how this might aid future generations in creatively mastering and leading ongoing transformations. There are also indications of a need to re-think the university, and a design degree that could possibly be a new iteration of the Basic Design course, one that is based on a common process. Taking inspiration from the innovative interdisciplinary models discussed, and exploring new partnerships between education and professional practice, this study will take influence from interdisciplinary practitioners such as Moholy-Nagy, the Eames', Buckminster Fuller, and Eliasson and IDEO: all of these are known to apply their practice to inform their pedagogy.



## **Chapter Three: Operationalisation of the Study - approach, methods and modes of analysis**

### **3.1 Introduction**

The aim of this study is to examine (a) how current shifts in design practice are reflected in the processes, activities and organisation of leading UK design agencies, and (b) the implications of this for contemporary design pedagogy and design policy. To pursue this aim, the study is situated within leading contemporary UK design studios. This permits the examination and classification of the design processes that are deployed. It also enables the construction of a 'worldview' of basic beliefs that underpin the practices of the studios, and the identification of specificities and commonalities between them. Ultimately, this facilitates reflection on the nature and form of an emerging design paradigm (Guba and Lincoln, 1994, p. 107). Findeli (2001, p. 12) argues that 'a system, and especially a human or social system, is best understood from within, through a qualitative, phenomenological approach'. The 'system' for this study is the practice of the studios, and the study is therefore qualitative and phenomenological. The methodology is fundamentally 'inductive' in nature as this permits the evolution of themes, patterns and categories over time (Marshall and Rossman, 2010, p. 214). It is also 'interpretive', insofar as there is an effort to bring meaning and insight to the words and acts of participants (Marshall and Rossman, 2010, p. 210). The chapter sets out first the general methodological approach employed in the study, and then describes the step-by-step journey through the data gathering. It concludes with reflections on the research journey and highlights ethical considerations and the requirement for reflexive objectivity throughout.

### **3.2 Methodological approach**

In general, a constructivist methodology is deployed, one that is hermeneutical (using written, verbal and non-verbal communication) and dialectical: the aim is to provide rich insights (Guba and Lincoln, 1994, p. 106). Individual views are compared and contrasted through a dialectical interchange (Guba and Lincoln, 1994, p. 111). The ontology is relativist, as the realities of the studios are best understood through ‘multiple mental constructions, socially and experientially based, local and specific in nature and dependent on the individual persons or groups’ (Guba and Lincoln, 1994, p. 110). The epistemology is subjectivist and transactional, as the findings are created as the investigation proceeds (Guba and Lincoln, 1994, p. 111). Third-person action-orientated research methodology is also used, with the intention of gathering both action outcomes and research outcomes (Swann, 2002, p. 56). Swann (2002) argues that design research can bridge design and academia, enabling a better ‘understanding of working practices in both research and professional practice’ (Swann, 2002, p. 61). The intention for this research is to bridge together practice, education and research in order to inform, propose and inspire action.

Cross (2002) argues that examples of best practice in design research are purposive, based on identification of an issue or problem worthy and capable of investigation (Cross, 2002, p.3), and this study focuses on the perceived issue of a disconnection between shifts in evolving design practice and pedagogy. Gasparski recommends three stages in the praxiology of design: the product; the process; the performer (Gasparski, 1979, p.102). This study looks at all three, but prioritises process, as the other aspects, ‘although important, have a secondary and deducible nature’ (Kryssanov, Tamaki, and Kitamura, 2001, p.332). Lawson (1994) identifies four key techniques that researchers can employ to understand the design process. These are: Analyse existing design projects and propose logical structures and processes; Observe designers at work; Experiment on designers; Interview, asking designers to tell us what they do. This study focuses on three of these four techniques: analyse; observe; interview. Building on the work of Coles (2012), comparative case-based qualitative research methods based in ethnography are used, and

primary source data is gathered through phenomenological interviews and participant observation, along with secondary source data analysis. Lawson's fourth technique, Experiment, is not used explicitly in this study as it tends to deliberately divorce a phenomenon from its context (Yin, 2009) and context is a key part of the studio process. Also, as discussed above, the research is action-orientated in approach and is not framed as conventional action research (the latter can imply some degree of experimentation). The major concepts and themes sketched briefly above will be unpacked further in this chapter below.

### **3.3 Journey through the data gathering**

The data gathering was carried out in four stages. The first was an initial interview with Thomas Heatherwick. This led to a wider scoping exercise, conducting interviews with a range of stakeholders from within the design sector, which resulted in the publication of the Beyond Discipline report (see Appendix 2). The third stage was an in-depth study of five leading UK design studios, and the final stage was a symposium, essentially a validation exercise, hosted to feed back the findings to the studios, for interrogation, comment, discussion and validation.

#### **3.3.1 Interview with Thomas Heatherwick**

The initial research strategy for the study was to conduct one interview with the head of a range of approximately ten to fifteen studios, to gain insights into the processes deployed. A phenomenological semi-structured in-depth interviewing method was chosen to capture lived experiences and develop a worldview (Kvale and Brinkmann, 2009, p. 27). Lawson (1994, p. 3) acknowledges faults in interviewing, stating that ‘reading what designers say about their process and asking them to describe their process is unsatisfactory.’ However, Lawson then justifies using interviewing as a method, explaining ‘we would be foolish indeed not to ask designers how they do it’ (Lawson, 1994, p. 3). Interview techniques can range from questionnaires remotely administered to large samples, to in-depth interviews with small samples (Lawson, 1994, p. 3). This study chose the latter course of action, as ‘it is more useful to know how a few outstanding designers work and think than to conduct experiments on a large number of less able ones’ (Lawson, 1994, p. 3).

The first interview was conducted in 2013 with Thomas Heatherwick, head of Heatherwick Studio. The aim was to test early research questions, which explore a) whether the specialised structure in Higher Education was still relevant, or whether it could focus more on process, and b) what the wider implications of his creative process might be. Heatherwick was selected because the studio had built a significant reputation over recent years due to winning the Gold medal for the UK pavilion at the Shanghai World Expo in

2010, and for designing the Olympic Cauldron for the 2012 London Olympic Games. Also in 2012, the V&A Museum celebrated the work of the studio in a retrospective exhibition titled 'Heatherwick Studio: Designing the Extraordinary', and the studio published a book, *Making* (Heatherwick, 2012). Reading the following quote highlighted the potential value of the studio's involvement:

'We've worked out a process of analysing and developing the thought process that underpins a building project. But we use the same process for a piece of furniture or a Christmas card. There's this building up of iterative reviews and analysis' (Gibson, 2012).

Having studied in the same academic year as Heatherwick at Manchester Metropolitan University (MMU), on the Three Dimensional Design course, I hoped that entry would be possible. A personalised, hand-written A3 entry letter was posted in a considered attempt to draw attention. This approach is consistent with Marshall and Rossman's (2010, p. 101) opinion that 'more personalised requests will have larger and more committed responses from potential participants,' and, according to Heatherwick's personal assistant, this method proved very effective.

The interview highlighted both the strengths and weaknesses of the method, and significantly altered the methodological approach of the study. The challenges included: the volume of noise in the open plan environment; the visual distractions of multiple things happening at once; the need for flexibility when time frames for the interview changed at the last moment; and, most importantly, the need for multiple voices, as Heatherwick was very clear about his views but questions arose as to whether his views were shared by other members of the studio. However, one strength of being situated within the studio became immediately apparent when Heatherwick described his ideal art college environment:

'I went to Gothenburg on exchange when I was at the RCA, and they were re-doing the art college. They had to move everyone out into a giant shipyard hanger on the harbour. There was this gigantic space which had everybody in the whole Art and Design School. There was this raised walkway that you could see sparks of someone welding over

there next to drawing tables. It spoke of one world and one way of thinking about the world around us. And that's my ideal art college.'

As Heatherwick described this, I was sitting in the centre of the studio, looking at sparks from two studio members welding over Heatherwick's left shoulder, alongside studio members working on computers over his right shoulder. Clearly Heatherwick's experience in Gothenburg had directly influenced the layout of his studio, which he describes in other interviews and publications as one of the key elements of his process. This connection would not have been made through a remote questionnaire, telephone conversation, or face-to-face interview outside the working studio environment. Another surprise, through observation, was the identification that the workshop is placed at the heart of the studio, and every major piece of furniture and equipment is on wheels, to allow the space to be completely reconfigured depending on the needs of each project. The design and layout of the studio was unlike any studio I had visited during a twenty-year professional design career, which highlighted a significant shift in approach to studio design. These discoveries highlighted that observation was as valuable as interviewing, and indicated that rather than just interviewing heads of studios, more time should be spent within a smaller number of studios, to interview multiple voices while also observing. This enabled a deeper understanding of the process, and how each studio operates and evolves. For this reason the methodology shifted to an ethnographic approach, not previously considered, for the in-depth stage of the study.

Denscombe (2010, p. 79) defines Ethnography as 'a description of peoples or cultures,' and provides a holistic perspective, from the point of view of the individuals involved, in the form of a written account that is a crafted construction that employs rhetoric (to inform with effective or persuasive speech). This method requires:

- Spending time in the field, allowing a journey of discovery;
- Regarding routine and normal aspects of everyday life as worthy of research data;
- Paying special attention to the way the people studied see their world;



- Approaching the findings holistically, looking at inter-linkages for processes, relationships, connections, interdependencies (Denscombe, 2010, p. 80).

This study draws inspiration from Coles (2012), who in turn drew upon ideas from Paul Rabinow with his ethnographic participant observation model for studying communities in Morocco. Both took two approaches, ‘interspersing informal observations with more formal interviews’ (Coles, 2012, p.14).

### **3.3.2 Scoping exercise: Beyond Discipline report**

After the decision to take an ethnographic approach to study a small number of studios for the main primary data gathering, it became apparent that a more general understanding of shifts within the design industry was required as a precursor. Therefore, a scoping exercise was undertaken and this involved interviewing a range of stakeholders from within the design sector in the UK. Participants included authors, practitioners, educators, researchers, patrons and leading representatives from design organisations and design publications. The rationale for the scoping exercise was to generate an understanding of key shifts in evolving design practice; identify key drivers for these shifts; and establish views on the implications of these shifts for creative education and Higher Education pedagogy. The intention was to clarify these issues and identify key themes and direction for the next stage of the study.

Much research was conducted through textual analysis, online research of websites, and conference visits, to identify potential stakeholders. An initial list of twenty was drawn up, eleven were contacted and eight accepted. Subsequently, through a process of snowballing (Denscombe, 2010, p. 37), a further three participants were contacted and interviewed, following multiple recommendations from early interviewees. The total number of participants for the scoping exercise was twelve (including Heatherwick’s early interview). This quantity is recommended by Kvale and Brinkmann (2009), who advise approximately fifteen interviews for a qualitative interview study (Kvale and Brinkmann, 2009, P. 113). Lawson (1994) interviews eleven well-known architects, and Coles (2012) interviews twelve participants from a broad range

of backgrounds, to support his in-depth study of four transdisciplinary studios (Coles, 2012, p.10).

Selection criteria was based on trying to capture as wide a range of roles from within the design sector as possible, as their output is crucial in arriving at a broader understanding of how the sector is evolving. Purposive sampling was used and this concentrated on a relatively small number of participants deliberately selected on the basis of their known attributes, relevance to the issues and privileged knowledge or experience about the topic (Denscombe, 2010, p. 35). Purposive sampling focuses on selecting with a specific purpose in mind as a way of getting the best information (Denscombe, 2010, p. 35). Purposive sampling has a variety of strategies, and for the scoping exercise 'stakeholder sampling' was used, as this approach involves identifying major stakeholders from across the service being researched (Palys, 2008, p. 697). Semi-structured phenomenological interviews were conducted with each participant. The interviews involved asking a list of ten predetermined questions (Appendix 1), yet participants were encouraged to go off-topic if something occurred to them. The final question was used as an opportunity to ask for recommendations of appropriate studios for the main in-depth part of the study, and this proved extremely valuable. Interviews were recorded on a digital voice recorder, for which each participant gave their consent by signing a consent form. Interviews were conducted in casual settings selected by the participant. Each interview was transcribed, and sent to the participant for validation and approval.

The interviews were conducted between late 2014 and early 2015 (see Appendix 15 for transcripts). Data from the transcripts was colour coded and cross-analysed, using 'inductive analysis' to discover patterns, themes and categories (Marshall and Rossman, 2010, p. 214) and to thus facilitate comparisons (Kvale and Brinkmann, 2009). These common themes were clustered together, and then further analysed to create sub clusters (Marshall and Rossman, 2010, p. 213). One key observation from this analysis was the considerable quantity of time the interviewees wished to spend responding to the question about implications for design pedagogy, and also the strength of

their opinions. This was not expected, and helped to inform the rationale for the next phase of the study, which was then structured to give equal importance to both practice and pedagogy. The key findings were interpreted and written into a report, which was validated through a peer review process, two of the peers being interviewees of the study. The report was published in 2015 (Furniss, 2015), and conclusions provided themes for the next stage of the study (see Appendix 2 for full report).

### **3.3.3 Primary data gathering situated within five studios**

For the main body of the study, primary data was gathered through in-depth ethnographic comparative case studies of five studios. The studies took place between September 2015 and June 2016. The purpose was to explore shifts in evolving practice, and identify what skills, structures and educational training requirements are bound up in these processes. The aim was to examine similarities and differences between these studios in terms of process, organisational structures, use of space, core skills and views on pedagogy and the current Higher Education system. I hoped to determine commonalities and differences between the studios in an effort to inform understandings of evolving practice, and ultimately to aid in re-figuring undergraduate design education.

The selection rationale for the studios was founded on the principle of ‘instantiation of concept’, selecting organisations that were successful, experimental, or seeking new ways of working that cross or dissolve traditional disciplinary boundaries. Purposive sampling was again used, selecting with a specific purpose in mind as a way of accessing the most valuable information (Denscombe, 2010, p. 35), and also selecting based on relevance to the theory (Yin, 2009). As discussed above, purposive sampling has a variety of strategies, and for this in-depth study ‘paradigmatic case sampling’ is used, as this strategy involves selecting cases that are ‘exemplars’ in a certain class (Palys, 2008, p. 697). As Marshall and Rossman (2010, p. 99) recommend, ‘once you have decided on the setting, site, population or phenomenon of the study, then the research needs to take place within these settings.’ The intention is to sample with as many variables as possible,

selecting studios that represented the broadest possible range of creative work. However, as Dobbert (1982, p.103) argues, capturing all the relevant variables is ‘an impossible task, the best compromise is to include a sample with a reasonable variation in the phenomenon.’

Selection criteria were based on identifying designers who are ‘defined not by discipline but by the fluidity with which their practices move between the fields of art, architecture and design’ (Coles, 2012). Selection criteria were drawn up to select appropriate design studios, the processes of which might be revealing and informative (Denscombe, 2010). Criteria included studios that:

- Do not adhere to conventional disciplinary boundaries (Rodgers and Smyth, 2010, p. 12)
- Do not define themselves by discipline (Coles, 2012) (Williams, 2012)
- Have come to prominence since the millennium (Williams, 2012)
- Are based in the UK (Williams, 2012)
- Are as variable as possible in terms of size and variety of work produced (Coles, 2012) (Marshall and Rossman, 2010)

Throughout the selection process I posed the following questions:

- What is unique about the studio?
- What impact is the studio having both instrumentally and conceptually? (Reed, 2016, p.10)
- What characteristics are compelling or unusual?
- Is there a high probability that a rich mix of processes, people, programs, interactions, and structures of interest are present?
- Is entry possible?
- Is the researcher likely to be able to build a trusting relationships with the participants?
- Will personal connections play a part?

Initial research was conducted through text analysis, online research of studio websites, and attending events and conferences to hear studio members discuss their work. A list of fourteen studios was identified, and seven were prioritised by answering the selection questions above. A further seven were identified as back-up studios, should access be denied or delayed. The seven priority studios were all contacted and five accepted. A personalised entry letter was posted to each studio, along with a printed copy of the Executive

Summary of the Beyond Discipline scoping exercise report (Furniss, 2015). This sample size is recommended by Marshall and Rossman (2010, p. 103), who advise a sample of four 'informants' for qualitative case studies, and also by Coles (2012) who conducts in-depth research within four studios.

The five studios who agreed to take part in the study are:

### **Studio 1: Ron Arad Associates**

I had been aware of the work of this studio since being a undergraduate student in the late 1980s. However, during the literature review and early interviews for the scoping exercise, Arad's impact as both a practitioner and educator became more apparent. This led to a request for an interview with Arad as part of the scoping exercise. I did not initially consider approaching Arad to take part in the main study, due to prioritising studios that had come to prominence since 2000. However, during the scoping interview, the value in the longevity of studio, how it has chosen to evolve, the impact it has had on the industry, and Arad's influence on teaching (creating the Design Products course at Royal College of Art) became apparent (see Appendix 3 for answers to the selection questions).

### **Studio 2: Heatherwick Studio**

As discussed earlier in this chapter, I had been aware of Heatherwick since studying in the same academic year at MMU, and reasons for selecting the studio to be part of the case studies came out of findings from the initial interview as part of the scoping exercise (see Appendix 4 for answers to the selection questions).

### **Studio 3: Jason Bruges Studio**

I worked with Jason Bruges at Imagination, London, in the early 2000s, and during the scoping exercise, several interviewees recommended the studio. However, developments that Bruges had made in setting up his own studio were unclear, until I attended a MADE conference in Birmingham, 2012, where Bruges presented 'Interactive Architecture: Learning Spaces Living Places'. During the talk, Bruges explained the difficulty of defining the work of the studio, and used a Venn diagram to demonstrate that the work sits in the intersection between installation art, time based 4D architecture, interaction design and cybernetics. At this point the value of the studio for the study became clear (see Appendix 5 for answers to the selection questions).

#### **Studio 4: Punchdrunk**

I first became aware of Punchdrunk when attending a performance of ‘The Drowned Man’, in London, 2013. This performance was unlike any I had previously seen, during my professional design career which has included designing for theatre. This highlighted a significant shift in approach to making theatre experiences. I then attended a three-day design master class in 2014, on the set of ‘The Drowned Man’, with key members of the Punchdrunk creative team. During this time, the unique creative process used by Punchdrunk was communicated. A further visit to the experience ‘Against Captain’s Orders’, at the National Maritime Museum, London, 2014, highlighted that Punchdrunk also applies this process to early years education and museum experiences, clearly demonstrating potential for the study (see Appendix 6 for answers to the selection questions).

#### **Studio 5: Assemble**

I was first made aware of Assemble at a Theatre Educators conference in Wimbledon, 2012, when the recent project Theatre on the Fly was discussed. I attended the conference, ‘Just what is it that makes today’s art schools so different, so appealing?’, at the Institute of Contemporary Arts, London, 2014, to hear studio member Maria Lisogorsky speak about the work of the studio. Then, during the scoping exercise, several interviewees discussed the impact of Assemble, as a collective, exploring public realm projects including pop-up theatres, adventure playgrounds and community workshops (Furniss, 2015, p. 14) (see Appendix 7 for answers to the selection questions).

A total of thirty-three practitioners were interviewed for the case studies, across the five studios. All except two were face-to-face interviews: the exceptions were conducted via Skype. This quantity is reflective of Coles (2012), who undertook an in-depth ethnographic study of four design studios, with a total of thirty-one interviewees. Semi-structured, phenomenological interviews were conducted with each participant. The interviews involved asking eleven predetermined questions, yet participants were encouraged to go off-topic if something occurred to them. Two slightly varying sets of

questions were prepared, one for team members, and one for studio directors (see Appendix 8 and 9 for interview questions).

Challenges required flexibility and adaptability, to meet the needs of the individuals and sites in multiple ways (Kvale and Brinkmann, 2009, p. 242). For example, cancellations happened due to work conflicts or personal issues of the interviewees, and interviews were re-arranged. Depending on the time availability of each interviewee, decisions were sometimes made on which questions to prioritise. Depending on the response to a question, the order of the questions was sometime varied. Two members of Punchdrunk requested they be interviewed together, due to time restrictions. Eight members of Assemble requested they be interviewed together, due to the high demand on their time from the national press after winning the Turner Prize. To secure Assemble's involvement in the study, I offered to purchase, prepare and serve lunch to the eight interviewees, and the digital voice recorder was placed at the centre of the lunch table. This approach proved advantageous as it captured the collective spirit of the studio, hearing the different voices in debate with each other, during a relaxed moment when they all had lunch together (see Figures 18 and 19).



Fig. 18: 'Preparing lunch at Assemble'. (Furniss, 2016).



Fig. 19: 'Serving lunch at Assemble'. (Furniss, 2016).

Each studio was visited multiple times, to observe people, processes and evolutions over time. This approach also helped to build familiarity and



rapport. The participant observation model underpins ethnography, as a way of ‘participating in and finding out about the daily lives of others’ (Emerson, Fretz and Shaw, 2011). The aim of this method is to gain ‘insights into cultures and events – insights only coming to one who experiences things as an insider’ (Denscombe, 2010, p.206). Emphasis is placed on depth of research rather than breadth, on holistic understanding, and on context (Denscombe, 2010). With this model the researcher’s identity is openly recognised, and the approach takes the form of shadowing a person or group, witnessing at first hand and in intimate detail the culture/events of interest (Denscombe, 2010). At all sites my role as ‘participant as observer’ was openly acknowledged (Denscombe, 2010, p. 207), and the work entailed varying degrees of participation, depending on the needs of each site. Mostly the role was only to interview and observe, but at Punchdrunk my professional design skills were used to spend a day set-building, allowing access to the store location, and observation of the creative team at work. This approach is supported by Marshall and Rossman, (2010, p. 113) who argue that ‘the researcher may help out with chores, learn more about a particular activity, feel compelled to engage in daily activities to meet the demands of reciprocity. Such interaction is usually highly informative while remaining informal.’ Interviews and observations were conducted within the studio environment, except at Punchdrunk, where a casual environment was selected. This was due to the fact that Punchdrunk were at the time split across four locations: a small office that outsiders were not invited to; Shoreditch House Hotel for general meetings with outsiders; the store used for building sets and storage; and, on-site locations. Therefore, I visited all three accessible sites: interviewing at Shoreditch House Hotel; set-building at the store; attending and observing an on-site client presentation at Greenhive Care Home.

Ethnographic field notes were kept in notebooks for each studio. As advocated by Schatzman and Strauss (1973, p. 100), observational notes are ‘statements bearing upon events experienced principally through watching and listening.’ The observational strategy was to record field notes on: what happens (looking at events); how it happens (looking at behaviours); and, where it happens (looking at the environment) (Marshall and Rossman, 2010, p. 139).

The aim was to record detailed, non-judgmental and concrete field notes observing these categories, whilst also being open to other possibilities (Marshall and Rossman, 2010, p. 139). During visits, notes were recorded in black ink. Later reflections on the notes were recorded in orange ink (see Figure 20). Indicative rough plans of each studio were sketched during visits to better interrogate the layout and function of space (see Figure 21).

Once the studio visits were complete, interviews were transcribed, and transcripts were reviewed, edited and approved by the interviewees (see Appendix 16 for interview transcripts). Data from the transcripts was then analysed, colour coded and cross-analysed, using 'inductive analysis' to discover patterns, themes and categories (Marshall and Rossman, 2010, p. 214) and to facilitate comparisons (Kvale and Brinkmann, 2009) (see Figures 22 and 23). These common themes were clustered together, and then further analysed to create sub clusters (Marshall and Rossman, 2010, p. 213). Diagrams were also developed in an attempt to capture the processes described by each studio (see Figure 24). These key findings, combined with the field notes and secondary source data, were then interpreted and compiled into comparative case studies. Case studies aim to illuminate the general by looking at the particular; are holistic rather than dealing with isolated factors; focus on detailed workings of relationships and social processes rather than outcomes; and allow sufficient detail to unravel the complexities of a situation (Denscombe, 2010, p. 53). The key strength of case studies is depth, as they can provide detail, richness, completeness, and within case variance (Denzin and Lincoln, 2005). Comparative case studies enable the identification of 'significant features on which comparisons with others in the class can be made' (Denscombe, 2010, p.61). This technique has an iterative nature, and includes: making an initial statement or proposition; comparing the findings of an initial case against these statements or propositions; revising the statements or propositions; comparing other details of the case against the revisions; comparing the revision of the facts with further cases; and repeating this process as many times as is needed (Yin, 2009). This differs from other techniques, such as pattern making, because the iterative mode allows for the



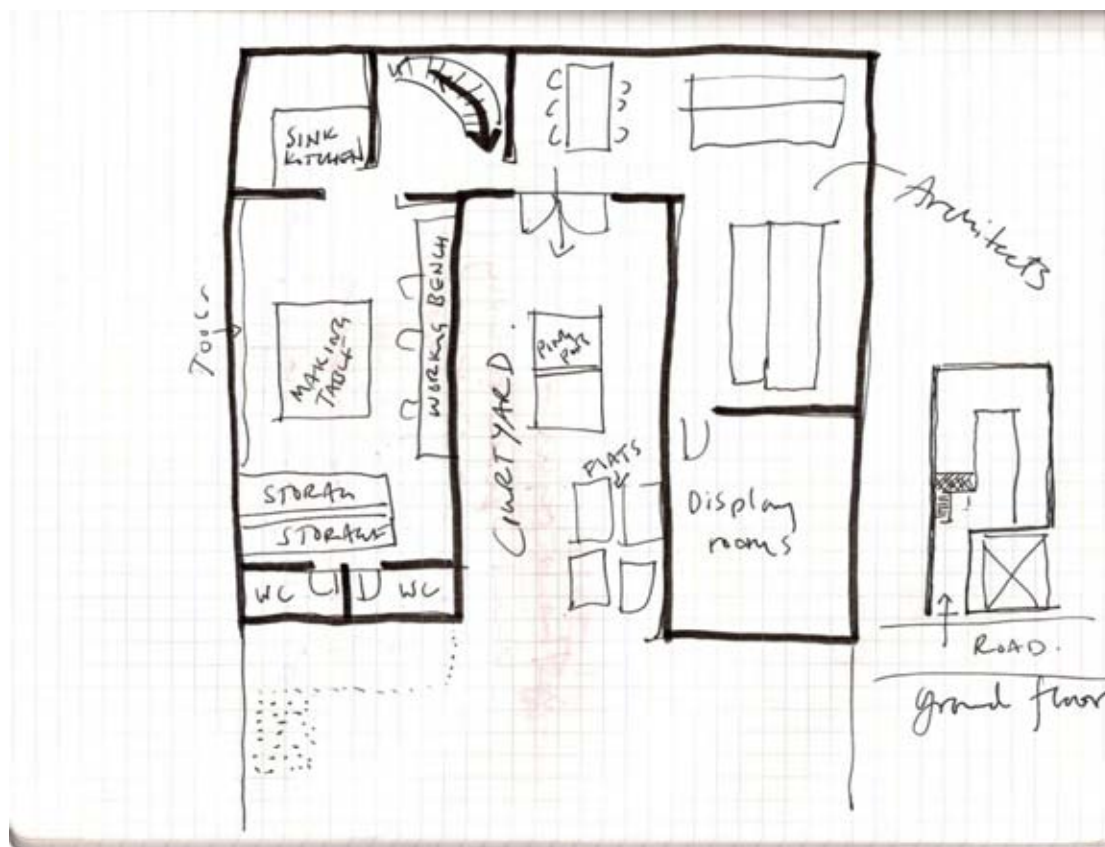
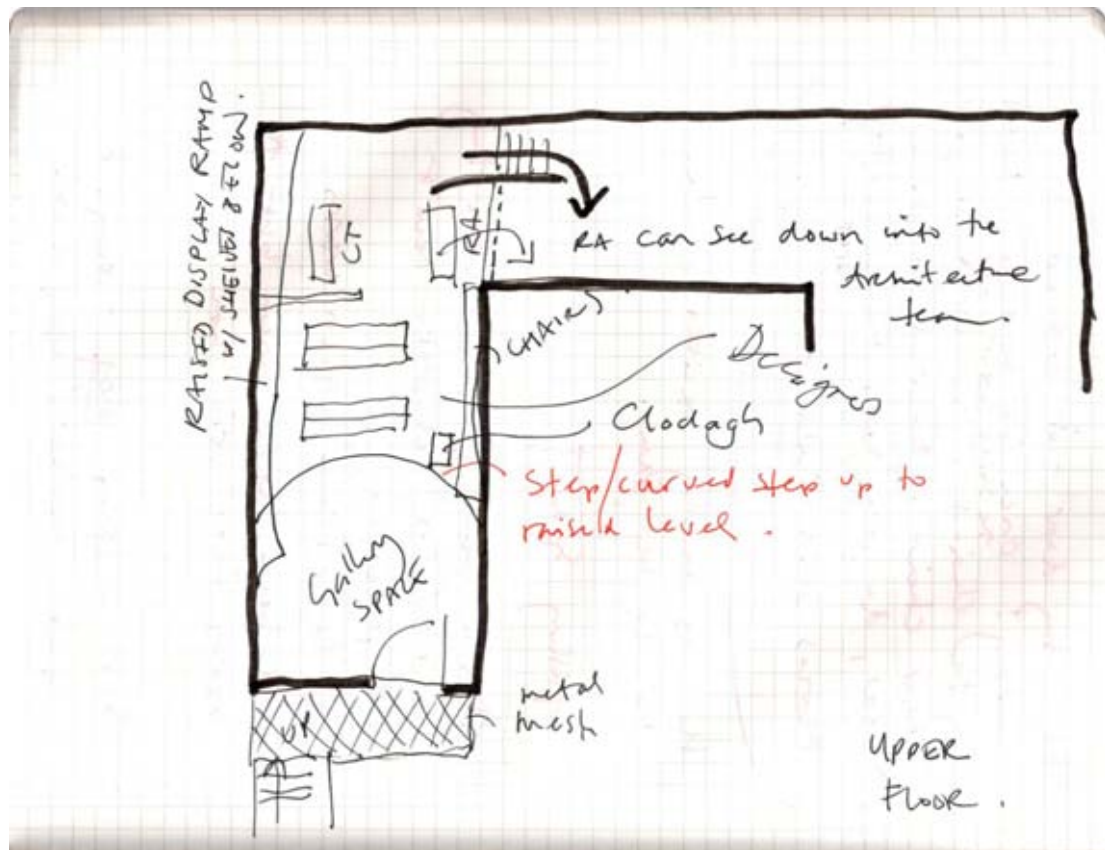


Fig. 21: 'Note book sketch plans for Ron Arad Associates'. (Furniss, 2015).



knowledge of all these other things and a passion for art. So the then production manager who I had an interview with said "Yeah, this could be perfect" and that was my plan, my back door approach to get a job here.

LF  
That's fascinating.

MR  
It took a long time. When I did fine art this industry wasn't around. People weren't paying money to just come up with stupid ideas of things that just move and flash and all this stuff.

LF  
So how long have you been here now?

MR  
Three years in March. I've definitely done well to change my role.

LF  
How would you describe the creative process of the studio?

MR  
Each team member has their own passions and interests. And that's been more refined over the last year. You can really see that coming through a bit more. Then obviously you've got the directors that have their vested interests. A lot of it at the moment is led by the client coming through the door and then negotiation between the two. At the moment I think maybe we're a little bit heavy on what people want rather than stuff that we're producing internally. I think it would be nicer if we were a bit more confident in saying "Let's give a bit more time in developing our creative skills in house" then people would actually look at it and say "I want to pay you for that". At the moment we've got the balance just slightly off. But saying that it's about revenue as well, and if someone comes along and wants something then obviously you'll go with that. But there's a creative conversation when it comes in. We often talk it around into something that we really like and we can get something out of it. I think that's the good thing about the studio is that we do take risks and things because we want to keep it interesting. We could easily just be boring and make more money, probably. I would have thought. There's a risk to it.

LF  
So it's trying to find that balance depending on how much work is coming in and what you want to do.

MR  
Yes, the whole conversation about how much time have you got to allocate to this. But Jason is very keen on if there's an opportunity for a small budget, high risk bit of research he'll gun for it. And that's probably to his credit. And the managing director would probably worry about that, but Jason is always keen to break a few rules, which is good.

LF  
That sounds great. The next question is how does this compare to other studios you have worked with?

MR  
I've never worked in a studio.

Defining the studio?

Time at Studio

Team

creative development v. business money

risk taking

Fig. 22: 'Interview transcript colour coding – Martin Robinson'. (Furniss, 2016).

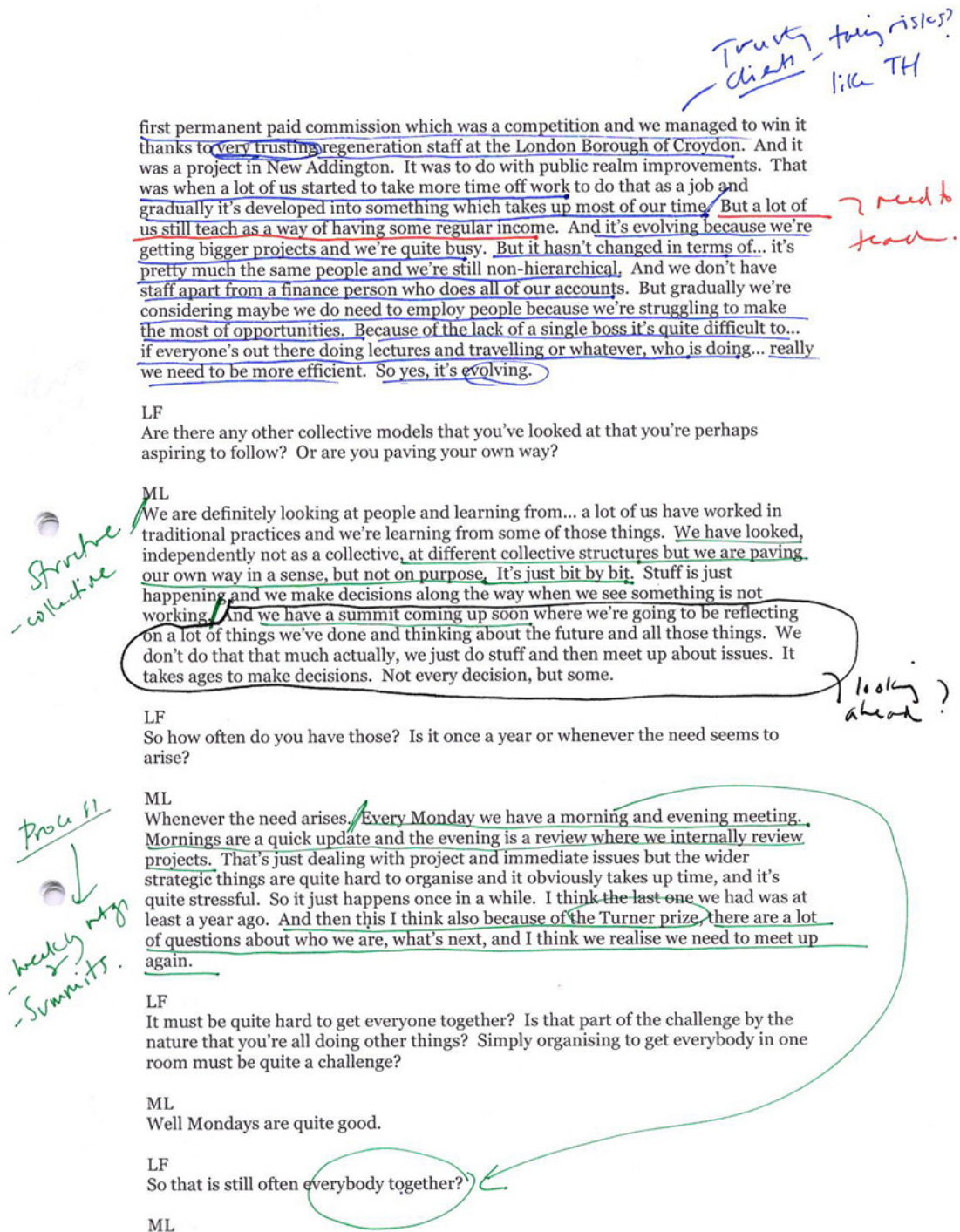


Fig. 23: 'Interview transcript colour coding – Maria Lisogorskya'. (Furniss, 2016).



Each case study is structured in the same way, following core themes identified, and is divided into two main sections, Practice and Pedagogy. Practice explores the work of each studio, the processes deployed, and the evolutions of each studio. Pedagogy explores studio members' past educational experiences, present involvement in education, and views on the future of design education. One challenge I faced was the initial task of categorising the work of each studio. Due to the breadth and variety of work, it was not practical to attempt to group the work in terms of disciplines. Noting how interviewees describe the work of the studio, and observing how the work is categorised on their websites, I chose to create a 'Menu of Work' that clusters projects by size, from small to large. Each menu records work, both proposed and realised, produced by each studio since its foundation. Each size group is loosely based on metric architectural scale measurements, which transfer measurements, at a fixed ratio of length, onto paper:

- Small (virtual, 1:1, 1:2, 1:5, 1:10 scales) includes Apps, furniture pieces, lighting, jewellery, vessels, clothing, one-to-one performances
- Medium (1:20, 1:50 scales) includes interiors, exhibitions, retail, installations, small bridges and pavilions
- Large (1:100, 1:200, 1:500 scales) includes architecture, urban developments, and large outdoor installations and performances

The menu concept was derived initially from the interview with Hugh Heatherwick, who suggested looking at the work of Heatherwick Studio as a menu. Influence also came from the text *Small, Medium, Large, Extra-Large*, documenting the design work of Rem Koolhaas and his studio OMA (Koolhaas and Mau, 2002). However, I re-constructed and combined these concepts, and this Menu of Work and the approach constitutes a core contribution to knowledge and understanding from the study (see Chapter Six below).

Once the case studies were completed, the findings for each were analysed using within-case and across-case analysis methods. Heatherwick Studio was the only studio to request approval of the case study (after approval of the interview transcripts), and edited an amount of content before the analysis



could begin. This was due to the studio's concerns with security, divulging trade secrets, and offering information that may fuel the fire for critics. The across-case analysis method enables data reduction and interpretation (Marshall and Rossman, 2010, p. 210). Codes, categories and concepts are explored, until theoretical saturation has occurred, using processes of inductive analysis to discover patterns and themes and categories in the data (Marshall and Rossman, 2010, p. 241). The codes are identified and grouped by axial coding, according to conceptual categories that reflect commonalities (Marshall and Rossman, 2010, p. 215). The aim is to identify common themes to be analysed and revised using explanation building in the multi-case studies (Yin, 2009). These findings are then presented in a matrix format, and form the content of the Analysis and Interpretation chapter of the study.

Further developments in categorising and defining the work of each studio evolved as deeper connections were made during the analysis and interpretation. The process diagrams created for each studio were cross-analysed and combined to create an amalgamation, reflecting key components common to the processes of all five studios. Also, the method of using scale to group the work of each studio was further expanded to include dimensions. This approach derived primarily from field notes taken after the final interview with Heatherwick, where he proposed re-structuring Higher Education into dimensions rather than disciplines, as a more accurate way of reflecting current practice (see Figure 25). Further in-depth analysis of the findings from the other studios reinforced this concept and confirmed a commonality between them: their work tends to fall under a particular dimension (whether 2D, 3D or 4D) rather than a discipline; each studio tends to view its work through that particular dimensional lens (see Figure 26).

No Division Between

Art, Design & Architecture.

But allow each one

well. His points about the RCA & the predicting future in interacts. The fact they were too preoccupied & care about the products.

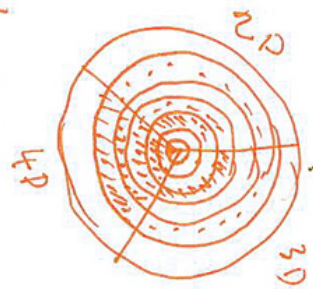
The freedom, flexibility & support he received in Newcastle was clearly key.  
Freedom to move sideways?

At the end he suggest that the WHAT could be:



Fig. 25: 'Notes from dimensions discussion with Heatherwick'. (Furniss, 2015).

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and  
RIBA Building Industry Trust  
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London W1A 4AD  
England



# The Design Studio

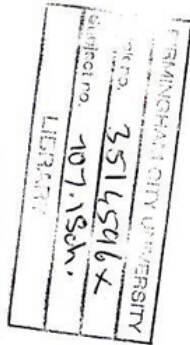
## Means

Break down into:

• DIMENSION

• Scale  
(Human) length  
5m, 4D = Space / time

motion  
experience



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## Preface

This study was commissioned by the RIBA Industry Trust as a contribution to the 'great education debate' of the 1980's, a debate concerned both with general education and that of architects in particular.

Architecture and design teaching methods are being seen increasingly as models for avoiding the polarisation of the arts and the sciences in traditional secondary education: an 'education to some purpose' involving both intellectual and practical ability. Such an education produces young people with a much greater all round capability, of great value to them and society. Such people are also just the kind that a diverse industry such as building needs in all its many facets.

It is hoped that Dr. Schon's work will also aid 'The Education for Capability' campaign of the Royal Society of Arts.

Keith Ingham  
Chairman  
RIBA Building Industry Trust.



Fig. 26: 'Dimensions diagram development'. (Furniss, 2016).

### **3.3.4 Beyond Discipline Symposium**

In a final element of data gathering and testing, a closed, follow-on Symposium was hosted in 2017. This was designed as a validation exercise, one that would facilitate discussion, integration and validation of the findings of the study. All studio participants were formally invited to attend the event, which was advertised as an opportunity to meet fellow participants, to hear of the findings from the study, and to discuss opinions on the future of design education. Punchdrunk offered its new studio for the venue, and I provided afternoon tea. Located in North East London, the venue was the most convenient location for all participants.

A total of twelve participants attended the symposium, with representatives from three of the five studios. The symposium approach was also used as a means of investigating and facilitating generalisability of results, as it enabled the findings from one studio to be presented to the others, and highlighted similar phenomena at a general or universal level (Denscombe, 2010, p. 298). Despite academic concerns raised about the validity of generalising the findings from just a few cases, according to Denscombe (2010, p. 60), this ‘in-class generalisability’ method can be defended if: each of the five case studies represents one of a type, i.e., ‘a single example of a broader class of things’; and the findings from one case study can be generalised to the other examples, and are ‘similar to others of its type’. As discussed above, the selection criteria for the studios specifically selected studios of a type or class, and the findings (as demonstrated later in the study) demonstrate many in-class similarities. The presentation and following discussion was recorded on a digital voice recorder, for which each participant again offered consent via completion of a consent form. The recording was transcribed and sent to participants for further approval and comment (adding further to validation of results) (see Appendix 17 for transcript).

## **3.4 Reflections on the journey**

### **3.4.1. Ethical considerations**

The main ethical considerations for this research project are connected with the interviews and participant observation, and the key issues addressed include: informed consent; confidentiality; the option of withdrawal; the production of transcripts; the role of the researcher; and consequences of interactions in the research process, in particular, addressing possible harm to the participants (Kvale, Brinkmann 2009). I gained consent, with a signed consent form, from all participating interviewees, with the agreement that they could be identified and referenced (including via quotations). In turn, I agreed to provide transcripts for approval, to ensure all quotations were accurate, and to respect any restrictions the interviewees wished to place on parts of the interviews that they did not wish to be quoted. The interviewees, and each studio, were offered the right to anonymity and the option of withdrawal from the study until the end of the project on request. As discussed earlier in the chapter, Heatherwick Studio edited an amount of content from the case study, partly due to concerns that the information may provide material for critics at a time when the studio was under scrutiny in relation to the Garden Bridge project (the option of withdrawal was offered and discussed). Via approval of all interview transcripts, and approval of case studies (where requested), data quality and credibility of the study is assumed (Marshall and Rossman, 2010, p. 101).

### **3.4.2 Reflexive objectivity**

I adopted a three-fold approach to the study, as a designer, educator and researcher. This required relying on previous professional design experience, and a current role in Higher Education. I acknowledge that there might be concerns about objectivity of results, and it is a potential limitation of the study that my role might bring accusations of inherent bias or self-justifying argument. As a way to limit bias and to mitigate subjectivity, I worked with multiple sources from different perspectives: this provided a means of undertaking reality checking with a wide spectrum of stakeholders. The final

symposium event was a conscious and deliberate attempt to minimise any bias and to validate and enhance the reliability of findings.

Other potential limitations of the study are connected with selection of the studios. All participants were based in London, despite using an emergent methodology based on purposive sampling and snowballing. If the study had been conducted with different practitioners, different results might be generated. Also, the selection process did not include a 'control' studio that might represent a 'normal' organisation that is one that does not meet the selection criteria noted above. An alternative methodological approach would have been to compare and contrast specialised studios working in the established paradigm, with non-specialised studios working in the perceived emerging paradigm. A control sample, capturing the processes of a specialised studio, could have been used to compare against the non-specialised studios. However, a decision was firstly taken to use a comparative case study approach, which requires a small number of cases for depth of investigation. Secondly, the findings of the literature search and the *Beyond Discipline* report established that a paradigm shift was occurring, and therefore the study prioritised an attempt to capture the processes of 'fluid' studios, rather than spending time looking at established forms of practice. The latter have been studied widely elsewhere and time for doctoral research was limited.

Finally, I recognise that I have an editorial role in presenting the voices of the participants, and that the study is therefore partial (Denscombe, 2010). I acknowledge that the study is: a creative work; an interpretation; and a reflection of reality (Denscombe, 2010, p. 86). Observation relies on my own culture, social background and personal experiences (Denscombe, 2010, p. 87). I accepted stories from the interviewees at face value, and accept the particular prejudice brought to the interpretation of the data. However, as Csikszentmihalyi (2013, p. 405) argues, 'none of us could avoid being prejudiced. But by being reflective, we can to a certain extent overcome the biases that otherwise would follow from our prejudices.' Therefore, through reflexive objectivity, I attempted to gain insight into these unavoidable prejudices whenever it seemed called for in relation to the research project.

Also, respondent validation opportunities, through both the data (transcripts) and the findings (case study and symposium) were a means to check the validity. This allowed the interpretations and understandings to be confirmed or amended (Denscombe, 2010, p. 299).

### 3.5 Summary

In summary, the literature review in Chapter Two suggests the need for greater understanding of how leading UK design agencies are working, to gain a broader understanding of their key characteristics and to explore the implications of these for design pedagogy. The aims of the study are to: better understand shifts in evolving design practice; better define design; enable the possible creation of a common language for design which in turn could enable the sharing of methodology; further explore the perceived disconnection between practice and pedagogy; and, identify how creative education at HE level can be supported.

Therefore, the research comprises a study of diverse (but progressive and fluid) practitioners to gather insights into their practices and processes, and uses multiple sources of evidence. These include:

- An initial interview with Thomas Heatherwick
- A scoping exercise, with published report, based on interviews with leading design commentators, practitioners, educators and stakeholders
- Case studies of five studios built on interviews, participant observations, and text-based analysis
- Analysis and interpretation of the findings through the use of matrices and diagrams
- A symposium designed to discuss and validate the findings (see Figure 27 for timeline).



Fig. 27: 'Data gathering timeline'. (Furniss, 2019).



The research is designed to enable the construction of a worldview through a qualitative, phenomenological approach. Ethnography provides a holistic perspective from the point of view of the individuals involved. It implies spending time in the field and approaching findings holistically, and looking at inter-linkages and interdependencies in processes, relationships and connections. The research is designed to have both research outcomes and action-oriented outcomes. It also aims to bridge design, academia and education to enable greater collaboration between the profession and the world of academia, and to establish better understanding of working practices.



## Chapter Four: Presentation of Data

### 4.1 Introduction

This chapter presents the data and evidence collected throughout the study. First it describes an initial scoping exercise that draws upon interviews with expert and leading commentators from the UK design sector. Second, the details of five case studies are set out: the cases concern five internationally renowned creative studios, each of which is characterised by an approach that can be described as defying classification (at least in conventional terms). The studios include: Ron Arad Associates; Heatherwick Studio; Jason Bruges Studio; Punchdrunk; and Assemble.

The scoping exercise aims to establish a greater understanding of shifts within the design industry. Participants include authors, practitioners, educators, researchers, patrons and leading representatives from design organisations and design publications. As discussed above, interviewees were asked a list of ten pre-figured questions (see Appendix 1). The findings were grouped into five key themes, namely: key shifts in design practice over the last ten years; key drivers for change; positive and negative implications of change; building for progressive change: tensions and blockages; and, implications for undergraduate design education in the UK. A report that resulted from the exercise, *'Beyond Discipline: design practice and design education in the twenty-first century'* (Furniss, 2015) was published in 2015 (see Appendix 2 for the full report).

The case studies are designed to examine similarities and differences between the studios in terms of process, organisational structures, use of space, core skills and views on pedagogy and the current Higher Education system. Through the use of an ethnographic approach, the creative processes of these studios, and the views of their designers on design education, are explored in-depth. As discussed above, interviewees were asked eleven pre-figured questions. Two slightly varying sets of questions were prepared, one for team members, and one for studio directors (see Appendix 8 and 9 for interview questions). Each case study is structured in the same way to aid with reading

and facilitate cross-analysis. The structure follows core themes identified through the interviews, and is divided into two main sections, Practice and Pedagogy. Practice explores the work of each studio, and is broken down into the following sections: menu of work; process; organisational structures; core capabilities; spatial requirements; and, evolutions. Pedagogy explores studio members' views on education and is divided into three sub-sections: past educational experiences; present involvement in education; and views on the future implications for undergraduate design education.

## **4.2 Scoping Exercise: Beyond Discipline report**

### **4.2.1 Introduction**

The scoping exercise was conducted between September 2014 and February 2015, except for the pilot interview with Thomas Heatherwick, conducted in March 2013 (see Appendix 15 for transcripts). The intention was to build a greater understanding of shifts within the UK design industry since 2000, and to identify key themes and directions that might shape the next in-depth stage of the study. The twelve interviewees represented a range of roles and positions within the design sector and included authors, practitioners, educators, researchers, patrons and leading representatives from design organisations and publications:

- Ron Arad is Founder of Ron Arad Associates, and former Head of Design Products at the Royal College of Art.
- Zeev Aram is Founder of Aram Store and The Aram Gallery.
- Haidee Bell is Head of Design Challenges at the Design Council.
- Helen Charman is Director of Learning and Research at Design Museum, London.
- Daniel Charny is Co Founder and Director of Fixperts, Professor of Design at Kingston University, and Co Founder of From Now On.
- Nick Couch is Founder of Deskcamping and Business Director for Design at Mother, London.
- Deborah Dawton is Chief Executive at Design Business Association.
- Thomas Heatherwick is founder of Heatherwick Studio.
- Nat Hunter is Co-Director of Design at Royal Society for the encouragement of the Arts (RSA), and Founding Director of Airside.
- Tim Lindsay is Chief Executive Officer at D&AD.

- Lynda Relph-Knight is an independent design writer and consultant, and former Editor of Design Week (a post held for more than 20 years).
- Gareth Williams is a Design Curator, Lecturer and Author of *21 Twenty One – 21 Designers for Twenty-First Century Britain* (Williams, 2012).

#### **4.2.2 Key shifts in design practice over the last ten years**

In exploring shifts in design practice, interviewees agree that the practice of design in the UK is now unrecognizable in comparison with a decade ago, and propose that changes result from role re-definition, process re-invention, and ongoing evolution. By questioning their purpose, designers are re-defining their roles for the twenty-first century. Designers appear increasingly engaged with social, environmental and political agendas, and are recognizing increasingly that they can apply innovative processes and transferable design skills across a spectrum of settings. Charny argues that now ‘there is a mobility of discipline, transferal of skills, transferal of process’ (Furniss, 2015, p. 12). To adapt to these shifting roles, processes have required re-invention. A dramatic rise in collaborative activity is highlighted as essential to meet the challenges, as Lindsay believes: ‘we live in a much more collaborative age’ (Furniss, 2015, p. 12). Working beyond disciplines is not only increasing but appears to be a necessity, as studios are operating more fluidly across traditional and emerging disciplines. Charman argues that ‘the notion of disciplines themselves are unraveling’ (Furniss, 2015, p. 15). With this rapid evolution of the sector, there has been a steep increase in the number of smaller design studios, and larger studios have found ways to move forward by splitting into segments. There has also been a steady rise in the number of freelancers. Agility and iteration are now recognized as key elements in the design process, as Hunter proposes, to be a designer in the twenty-first century ‘you have to be really agile and really iterative and you have to keep changing yourself’ (Furniss, 2015, p. 15). Interviewees highlight the design collective Assemble as a key example. Assemble explores public realm projects, including pop-up theatres, adventure playgrounds and community workshops, and has been nominated for the 2015 Turner Prize.

### **4.2.3 Key drivers for change**

Interviewees suggest that change has two core drivers: external and environmental factors; and, the choices that designers make. The key external driver imposed on designers is digital technology. Williams argues that ‘technology has just blown things apart’ by enabling designers to work, learn and collaborate in new ways (Furniss, 2015, p. 16). Economic pressures have affected the sector, with larger studios either closing or strengthening, and smaller studios developing broader offers. Miles and Green (2008) suggest that this is strategic, and highlight that the economic slowdown has meant that studios are offering a broader capability set and service menu in an attempt to both enter competitors’ markets, and develop a foothold in non-traditional and parallel market spaces. Relph-Knight believes these changes require designers to respond more rapidly, stating ‘we all want things faster. So designers have to think faster’ (Furniss, 2015, p. 16). The wider UK industry is also having a significant impact on the design sector, as businesses start to recognize the benefits that design can bring, beyond styling. Traditionally slow-moving businesses are attracted by the design sector’s ability to rapidly adapt and change, and, as Dawton highlights, are re-shaping the landscape by ‘investing very heavily in the recruitment of designers and building in-house capacity’ (Furniss, 2015, p. 16).

The second strand affecting change is coming from within the sector, and is driven internally by the choices that designers are making. Designers are applying new attitudes and a universalistic outlook to enable fluid, transdisciplinary practice. Heatherwick describes this as ‘having universal eyes’ (Furniss, 2015, p. 16), as these designers tend not to see barriers, nor do they see themselves as divided into segments: they look at design holistically with a different mindset. There has also been a return to making and a resurgence in craft, which allows designers to better connect to their work and enable the process of iteration. Finally, pioneering twentieth century practitioners have also been cited by the interviewees as inspiring change. Ron Arad is highlighted as a leading influence, through both his practice and his teaching, with Williams stating ‘now, more and more, there are designers

who are acting independently, autonomously, inspired or led by Ron Arad' (Furniss, 2015, p. 16).

#### **4.2.4 Positive and Negative implications of change**

Whilst interviewees indicate that this change has positive implications, they also highlight negatives that are hampering the design sector. Significant positive propulsion in the sector partly comes from a perceived shift in outlook, with designers positively questioning their role and purpose, preferring to address social issues rather than mass consumption. Seeing themselves as human catalysts for change, Hunter explains that 'social design and social entrepreneurship is people reclaiming design and applying it to making the world better' (Furniss, 2015, p. 20). Positive change in external perceptions of design have come, in part, from the 2012 London Olympics, and designers are being afforded greater credit as they transfer their skills into non-creative environments. Through a rise in entrepreneurialism, designers are also pro-actively instigating change. For example, Deskcamping responds to the ever-expanding freelance community, by inviting established studios to offer empty desks, encouraging cross-disciplinary conversations and collaborations. As its Founder, Couch, argues: 'creative business is about being inquisitive and curious and open to new things and new ways of doing things' (Furniss, 2015, p. 20). Finally, non-designers are also making an impact on projects like the Design Council's Knee High Design Challenges, which shows that great social innovation can come from a more fluid, non-conformist way of thinking and working.

However, at the same time, there is a disconnect, and interviewees highlight various negatives holding the sector back. Relph-Knight goes as far as to say 'I am deeply concerned about the future of the profession' (Furniss, 2015, p. 23). A lack of support from UK manufacturing firms in exploiting UK design talent is highlighted as a key issue. Aram, who has spent many years attempting to bring graduates and industry together, states 'we export our design talent abroad... and then we import their design from manufacturers abroad to back here. Now if this is not absurd I don't know what is' (Furniss, 2015, p. 23). Lastly, design is also perceived as being devalued by commoditization, over-supply and lack of confidence. Charman responds to this by asking 'how many



more toothbrushes do we need?’ (Furniss, 2015, p. 23). Over-supply is due to too many designers and not enough jobs, and lack of confidence comes from the short life span deliberately designed into products in some sectors.

#### **4.2.5 Building for progressive change: tensions and blockages**

Interviewees argue strongly that Government’s lack of understanding of the importance of design, and the sector’s fractured structure, both create tensions that hamper transformation and progress. They believe action needs to be taken to better define and represent design in order for Government to value it. As Williams explains, ‘the government doesn’t know what design is and design doesn’t know what design is’ (Furniss, 2015, p. 24). The Government’s decision to prioritise STEM subjects at GCSE, and reject the STEAM agenda, has meant that Design & Technology and Art & Design are not valued as core subjects, and are seen as inferior fringe subjects that will not count in school league tables. Lindsay states that ‘Michael Gove’s de-investment in teaching arts subjects is an absolute travesty’ (Furniss, 2015, p. 24).

The sector’s fractured structure, and a lack of collective identity, implies that there is no clear representation, despite there being up to twenty organisations claiming to speak for industry. Couch asks ‘who is leading the conversation about design in the UK at the moment? Who is setting an agenda?’ (Furniss, 2015, p. 27). Interviewees propose that one main representative body could lead debates, speak to Government and protect the industry (and it is important to note that while these interviews were taking place in 2014 the Creative Industries Federation was founded, which aims to do this). Defining design is also highlighted as an issue, as Williams argues: ‘Design is good at problem solving but it is absolutely hopeless at the problem of defining what it is’ (Furniss, 2015, p. 27). The sector struggles to define itself, and is moving faster than any existing classification system. Traditional terminology does not apply to emerging designers who do not see disciplinary separation and boundaries, and even the word ‘designer’ is being challenged by some, who prefer to define themselves as ‘artists’. Interviewees argue that

better definition of design might enable easier classification, measurement, and support from Government.

#### **4.2.6 Implications for undergraduate design education in the UK**

The overwhelming response from interviewees is that the current undergraduate design education system is in crisis, and that it is time for a new approach. Yet creative education is vital, as Charman explains: ‘To distill the value of design education down to one thing, it would be that for young people, through design education, they can change the world for other people in the broader sense’ (Furniss, 2015, p. 28).

Interviewees indicate that policy for creative education has placed undergraduate design courses in its current position. A critical lack of emphasis on creative subjects in primary and secondary education, Foundation courses being cut, and the introduction of university fees has negatively re-shaped the recruitment landscape. Relph-Knight asks ‘Why are we cutting foundation courses?’ (Furniss, 2015, p. 28). Dawton fears that ‘MAs are going to die out unless something happens’ (Furniss, 2015, p. 28). Fees have turned universities into financial institutions, students are consumers, and intake policy privileges quantity over quality in the pursuit of income targets. And yet Relph-Knight argues that ‘a degree has no value if you have to pay for it’ (Furniss, 2015, p. 28).

The current university system is also called into question by interviewees, who believe it is outdated, does not reflect contemporary and evolving design practice, and it struggles to prepare or deliver the creative talent that industry needs. Relph-Knight explains: ‘I don’t think university is the future for design’ (Furniss, 2015, p. 31). Dawton believes ‘a BA doesn’t get you into a job’ (Furniss, 2015, p. 31). Highlighting a disconnection between practice and education, Hunter argues that ‘teaching is still very out of date, fifty years out of date’ (Furniss, 2015, p. 31). An inability to adapt quickly is highlighted as a key issue, and interviewees propose that it is perhaps just a matter of time before industry starts to consider a take-over and re-design of degree level

design education. Dawton supports this view, stating: ‘The industry cannot wait for education to catch up’ (Furniss, 2015, p. 31).

Interviewees believe that it is necessary to re-define the skills and processes that twenty-first century designers need, and also to look to alternative educational models. Arad argues that ‘the biggest problem is what do we teach?’ (Furniss, 2015, p. 33). Industry needs people who can collaborate, communicate, and integrate activities and projects. Dawton argues that ‘generalist is almost a dirty word in the UK, but it does feel as though certainly big industry needs those people that are capable of casting their eye across the whole organisation’ (Furniss, 2015, p. 33). Heatherwick suggests starting by ‘imagining there is no education system existing and there’s a world that’s full of kerbs, pavements, posters etc. How do you train people to think about that world?’ (Furniss, 2015, p. 33). Interviewees suggest education should be less about discipline-specific practical skills, and more about thinking and process. As Dawton explains, ‘what you’re training them for today is not what they’re going to need tomorrow’ (Furniss, 2015, p. 33).

#### **4.2.7 Summary**

The findings of the scoping exercise indicate that evolution in design practice in the UK over the past decade has been dramatic. Yet, commentators also suggest that without immediate action from Government, the education community and industry itself, we may see the collapse of not only a key creative sector, but in turn, innovation and creative thinking across many allied and connected sectors. As Aram states: ‘Design is a natural resource and you have to nurture it, teach it well, develop it, and give it facility, credit and air to breathe’ (Furniss, 2015, p. 34).

Three key recommendations are made: design must be nurtured; design must be valued; and, design must be taught well. For design to be nurtured, industry should come together to re-consider and re-define the concept of ‘design’, and demand strong representation from one main body that will instill pride and create a unified and compelling voice. For design to be valued, Government should support and give credit to creative education

across all levels, encourage continued growth, and value the potential of a vital and ever-evolving sector. For design to be taught well, education should examine current practice and alternative educational models to better understand the processes and skills that young designers will require if they are to meet the challenges of coming decades. As Dawson concludes, ‘if you’re not aware of what’s happening out there, you can’t develop people for that environment’ (Furniss, 2015, p. 34).

There is clearly a necessity for in-depth analysis of developing process in practice to allow for better dialogue and transferal of knowledge between industry and education. Therefore, the next stage of this study will be situated within leading innovative creative studios, to gather primary data enabling greater understanding of the skills young designers will require if they are to meet the challenges of coming decades.

### 4.3 Ron Arad Associates



Fig. 28: 'Photograph of Ron Arad Associates, London'. (Furniss, 2015).

#### **4.3.1 Introduction**

The study was conducted between September and November 2015. At the time of the first visit, the studio comprised twenty members, of which six were interviewed in order to capture a cross section of roles. Interviewees include: Ron Arad; Asa Bruno; Caroline Thorman; Michael Castellana; Marcus Hirst; Lucy Pengilley Gibb (see Appendix 10 for interviewee details).

The studio has been located in Chalk Farm, London, since 1989, within a former piano workshop and clothing factory. Exterior presence is limited and entry is through a hand-crafted rusted metal security gate, almost engulfed by wisteria (Figure 28). Through the gate, a low, dark alley opens into a light, blue courtyard filled with original Fiat 500 cars in various stages of decay. An open mesh steel staircase leads up to the main entrance (Figure 29, Figure 30). In contrast, the interior is a world of curves, from the undulating wooden floor to organic steel beams and tensile wrapped roof. Every corner is filled with objects, from internationally celebrated chairs to recent prototypes, some formally displayed, others seemingly discarded. In November, the space feels cold, but the atmosphere is very relaxed with a low level of warm light. Split over two levels the first floor houses the entry gallery and design studio (Figure 31, Figure 32, and Figure 33) and the ground floor houses the architecture studio, workshop, kitchen, toilets and exterior courtyard (Figure 34). Both Arad and Thorman have desks looking out over the open plan first floor. Located at the top of the staircase, they form a link between the design studio and the architecture studio below.

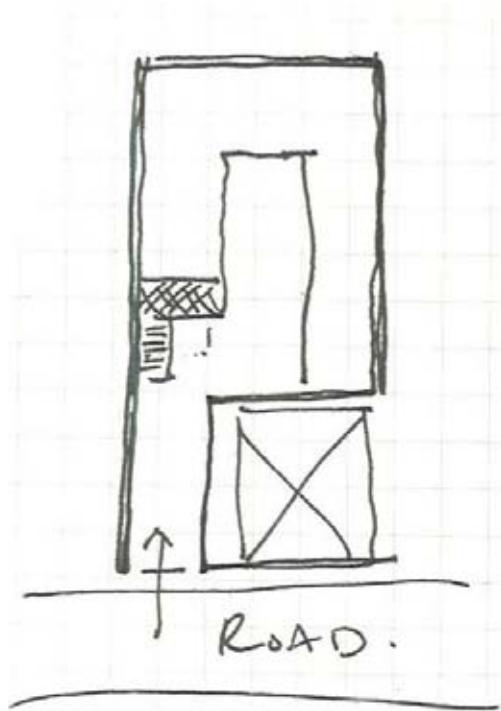


Fig. 29: 'Site plan'. (Furniss, 2015).



Fig. 30: 'Courtyard entry'. (Furniss, 2015).

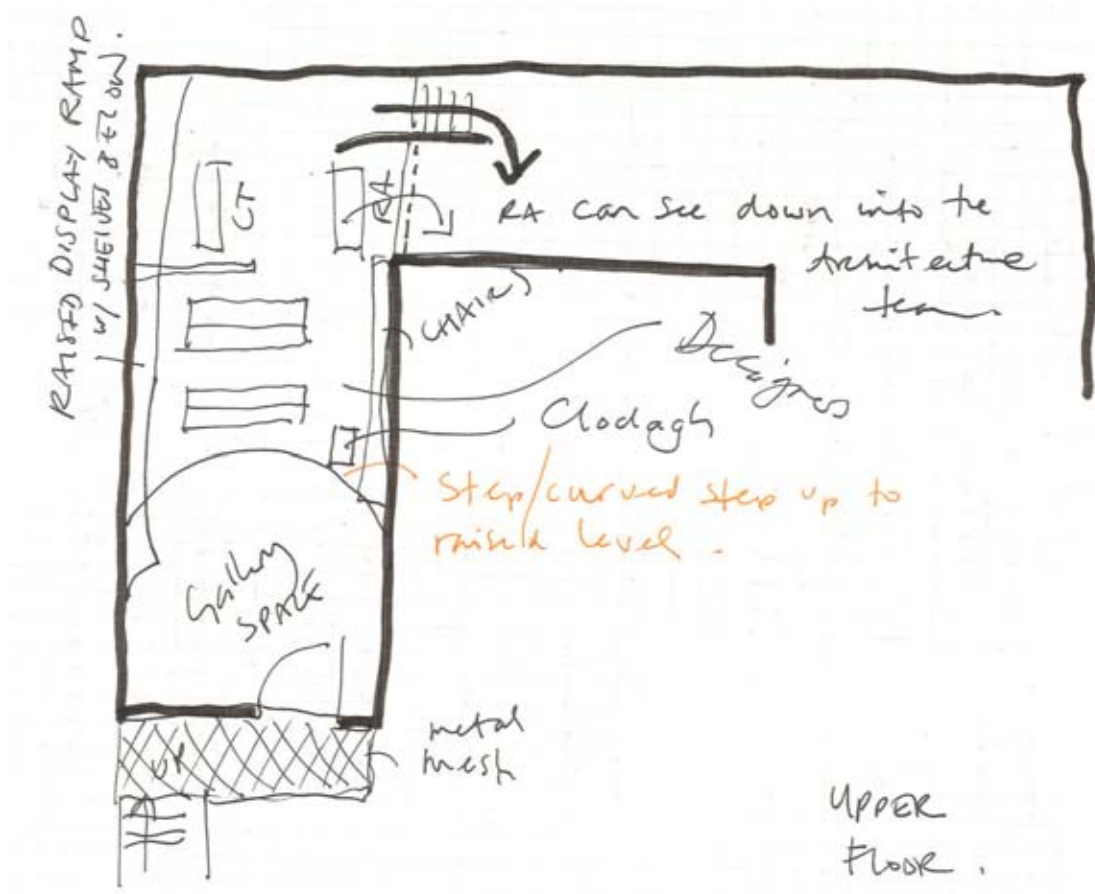


Fig. 31: 'Indicative main entrance first floor plan'. (Furniss, 2015).





Fig. 32: 'First floor entry gallery'. (Furniss, 2015).



Fig. 33: 'First floor design studio'. (Furniss, 2015).



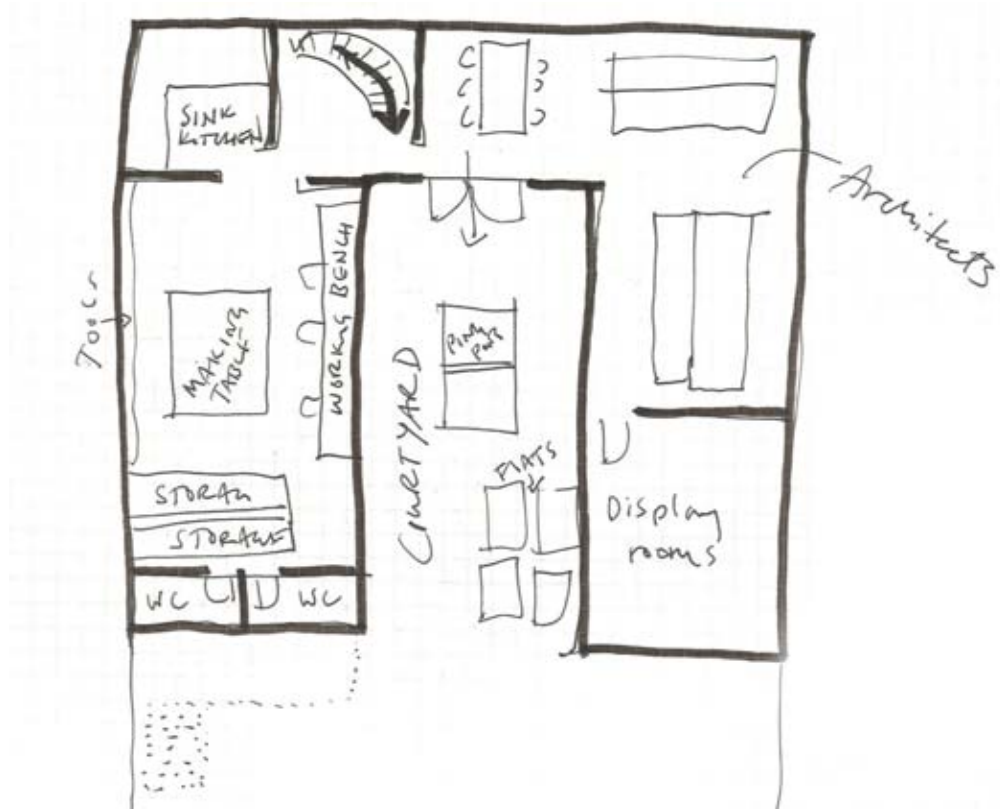


Fig. 34: 'Indicative ground floor plan'. (Furniss, 2015).

The studio was founded in 1981 under the name One Off Ltd by Ron Arad and Caroline Thorman, and became Ron Arad Associates in 1989. Feeling uninspired as a recent graduate in an architecture firm, Arad entered design with the creation of the Rover chair (Figure 37), comprising a leather seat from a Rover car and Kee Klamp metal framing found at a local scrap yard. Having written his thesis on the art of readymades, Arad had an interest in found objects and identified more with artists than designers. Arad explains: 'I had to invent my profession, I didn't know what it was. When I did the Rover chair it was more to do with readymades than it was to do furniture. But somehow I was sucked into this furniture world. Later people wanted to know 'What are you? Are you an artist? Are you an architect? Are you a designer?' I never thought I had to declare loyalty to any of the clubs.' Arad's 2009 show at MoMA, 'No Discipline', encapsulates this view. Despite many changes and evolutions over the decades, Thorman believes the philosophy of the studio has remained consistent; 'to break convention, to do something new and innovative. There's no point in doing it otherwise. And to always do it without compromise.'

### 4.3.2 Practice

Hirst defines the studio as a design studio or artist's studio, but believes the reality is more complicated than that: 'I don't think it's sufficient now to call somewhere a design studio or an artist's studio and I'm not sure it would conform to that description.' Arad prefers 'progressive playground' (Compton, 2014). The work of the studio crosses art, design and architecture, but is unified by human interaction and innovation. Everything produced interacts with people in some way, as Arad explains: 'Whatever you do, you have to imagine how it is going to be used.' (Jacobs, 2012b, p. 40). Key to Arad's philosophy is innovation: 'I'm interested in designing something that didn't exist before I designed it.' (Compton, 2014). The Design Museum, London, (2012) describes Arad as 'one of the most influential designers of our time' and by being consistently inventive and challenging, Arad has 'studiously avoided categorisation by curators and critics throughout his career.' In 2008, Ron Arad Architects was formed, but Pengilley Gibb explains that whether they are creating studio pieces, products or architecture, they are all working on 'pieces, of various scales', and what ties them together is 'a value of craftsmanship' and an 'artisanal way of making'.

### Menu of Work

Below is a range of work, both proposed and realised, produced by the studio since its foundation. I have curated and arranged the work by scale, from small to large:

**Virtual scale** - A portable touch screen monitor (Figure 35).

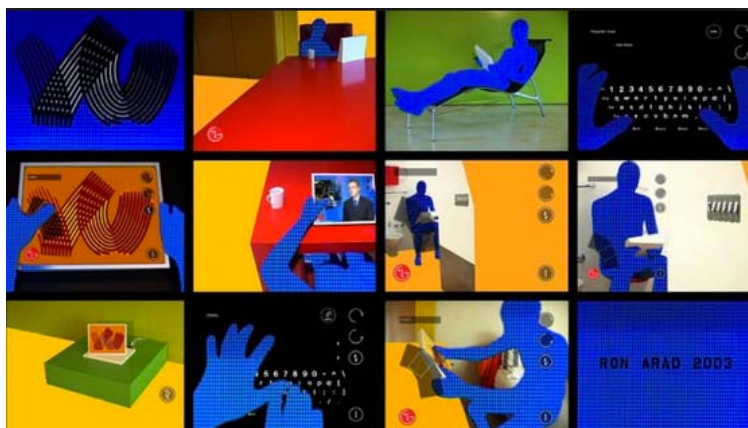


Fig. 35: 'LGVU'. (The Light Surgeons, 2002).

**Small scale** – Chairs, Sofas, Shelving, Tables, Jewellery, Vessels, Glassware, Lighting, Cutlery, Eyewear, Hats, Books, Logos, Magazine Covers, Stereos, Indoor Sculpture, Bicycle.



Fig. 36: 'Glider, Moroso'. (Arad, n.d.).



Fig. 37: 'Rover Chair'. (Furniss, 2015).



Fig. 38: 'Well Tempered Chair'. (Arad, n.d.).



Fig. 39: 'PQ Eyewear'. (Arad, n.d.).



**Medium scale** – Exhibitions, Retail Interiors, Restaurant Interiors, Hotel Interiors, Residential Interiors, Opera/Performing Arts Interior, Installations, Outdoor Sculpture, Monument, Pavilion, Bridge.



Fig. 40: 'Watergate Hotel'. (Arad, n.d.).



Fig. 41: 'Curtain Call'. (Arad, n.d.).

**Large scale** – Buildings: Private Residences; Multi-storey Residences; Museums; Medical Centre; Office Development.



Fig. 42: 'Design Museum Holon 1'. (Arad, n.d.).



Fig. 43: 'Design Museum Holon 2'. (Arad, n.d.).

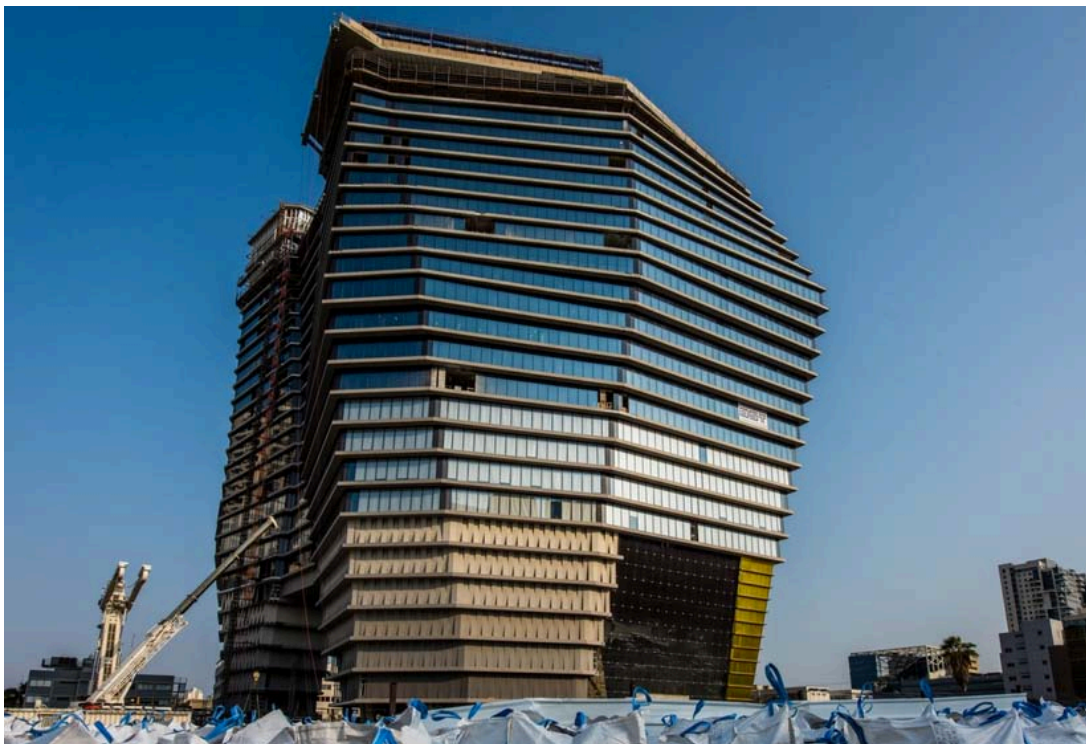


Fig. 44: 'ToHA'. (Arad, n.d.).



## Process

Key components that drive the creative process include: a game of table tennis; exploring what's and if's; demanding time and quality; making and materiality; new technologies.

When asked to describe the process, Arad is reluctant to analyse what appears to be, for him, instinctual. His response is to point to the table tennis table in the courtyard (Figure 45). During research visits, it becomes apparent that the game of table tennis is both a physical and metaphorical representation of how the studio works, through an emergent, iterative process that goes back and forth, between Arad and the studio member leading the project. Pengilly Gibb explains 'the earlier you can sit with Ron the more fruitful. We often work with something as simple as a 2D plan or you can quickly mock something up in 3D and then sit with Ron. He'll do it on the Wacom and have all the different layers and talk through it. You'll go off and model it, test it, or work into it a bit more. It might be a completely different idea the next day. Often there's one repeating element and you know that's the thing in Ron's head. So it's a process of to and fro and guiding.' Figure 46 is an indicative diagram of this to and fro process.



Fig. 45: 'Table tennis table'. (Furniss, 2015).

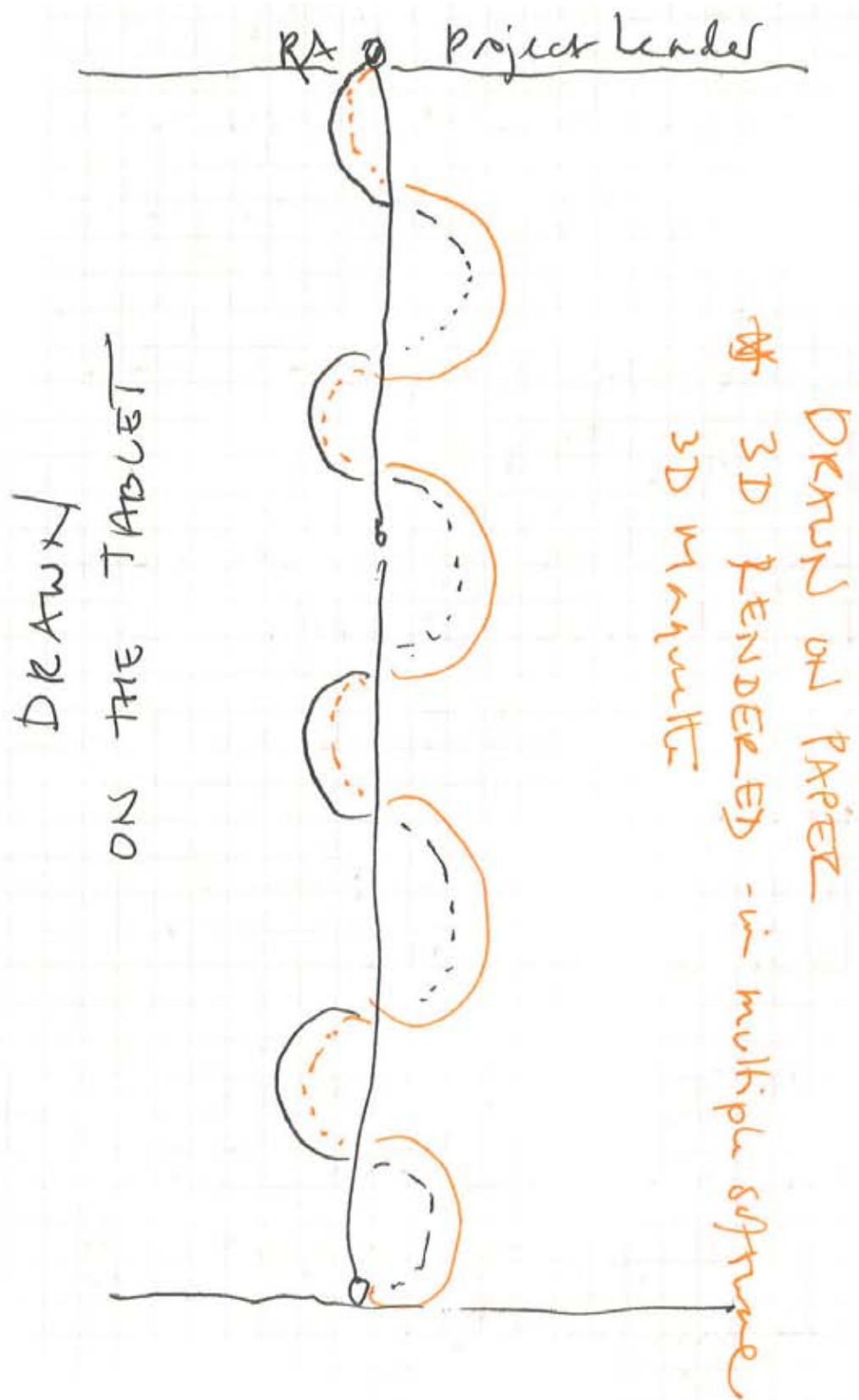


Fig. 46: 'Indicative process diagram'. (Furniss, 2015).

When pressed to describe the process of the studio, Arad describes it as ‘considering curiosity’ and shows a presentation he created titled ‘What’s and If’s?’, demonstrating how the studio asks questions. An example given is walking down a street, seeing old mattress and saying ‘what if people sit on it?’ Arad explains that he then took the idea to Hirst and they developed it into ‘Matrizia Sofa’, 2015 (Figure 47). Another example is when the studio was asked to design a bicycle for charity (Figure 48, Figure 49). Hirst explains: ‘the idea wasn’t about solving any practical issues, it was ‘what if the wheels were like this?’ We could have sketched it and drawn it but we ended up making it.’ Hirst stresses that asking ‘what if?’ is a key part to creativity at every stage of a project, not just the initial idea. Questioning is essential to narrow down ideas, as Hirst explains: ‘We can sit here and have 50 ideas between us about any particular object or any object typology, the real work starts in how you form that idea and how you resolve the problems.’ An example is the PQ eyewear line (Figure 39). The key to the design is an easily adjusted A-shaped wire structure above the nose, and Arad explains: ‘We started from the ground up. You think, “why didn’t anyone think of this before? Is it possible to do?”’ (Jacobs, 2012a).



Fig. 47: ‘Matrizia Sofa, 2015’. (Arad, n.d.).





Fig. 48: 'Two Nuns - Steel sprung bicycle'. (WOW bikes, n.d.).



Fig. 49: 'Hirst riding the Two Nuns steel sprung bicycle'. (Ron Arad Associates, n.d.).

Another key element is demanding time, as Bruno explains: 'one factor that I would say is drastically different between this practice and probably most other practices, is the emphasis and the time allowed for design within the process. That's not because we're special, it's because it's a luxury we demand.' Pengilley Gibb agrees: 'everyone wants it quickly, they want it for cheap, but

they want good quality. Fortunately here, because you have Ron Arad who works between the art, architecture, sculptural kind of world, the quality is what we want and need. We fight tooth and nail to make sure that the quality is the winner and that comes with a cost.'

Making was key to the early success of the studio, with Arad a trained welder. Arad explains: 'I called my company One Off, stressing the unique nature of each piece. I experimented, did pieces of furniture out of sheets of steel. I would bend it myself.' (Lietti, n.d.). As the work of the studio expanded in scale and ambition, and moved from one-off studio pieces to mass production, the making moved to Italy, and a making team are still there today. However, the design-maker approach is still evident in the work, as Pengilley Gibb explains: 'if you look at Ron's studio pieces and product pieces, they're all about the craft of making.' Pengilley Gibb believes this approach to materiality 'can bridge the boundaries between art and architecture and interiors. It's about that materiality and quality.'

The studio has pioneered the use of new technologies, both as a tool to aid the design process and in the manufacturing and realisation of products. Within the studio, Arad uses a large Wacom tablet and pen, and explains: 'there was a time when I thought I was going to be left behind by the IT revolution. Now I am completely addicted to my tablet. I still use my pencil but it is a light pen.' (Compton, 2014). Re-appropriating technologies is also key, and Pengilley Gibb explains she uses Maya (a software traditionally used for animation) for an interlocking roof system as 'you can do skin and bone.' Arad has often been ahead of his time in the use of new technologies, and in 2002 the studio designed a mobile touch screen device for LG: 'They asked me to do a monitor but instead of doing that I did the iPad' (Compton, 2014). Arad explains: 'we did a little commercial, which is exactly me and my iPad now, before iPhones. But LG didn't understand what I wanted from them.'

### **Organisational structures**

Bruno describes the hierarchical structure of the studio as 'more of an atelier than an office, the leading artist being Ron.' However, Castellana explains 'it's

different from other studios driven by one singular mind, in that Ron is very open to criticism, very open to tangential ideas. It's not a singular direction. There's less of a feeling of hierarchy.' Hirst believes this approach surprises outsiders, and journalists, because of their general lack of understanding of the reality of the design process, which leads to an over simplification: 'They need a figurehead. Actually, the reality of making stuff involves a lot of people and a lot of experts who generally go unnoticed.'

Internal teams are selected by Arad, as Castellana explains: 'Ron feels some projects work better for certain people so they take those on.' There is also an emergent, intuitive element to the process, as Bruno explains: 'There are days where he would prefer to work with one person and there are days where he would prefer to work with another and that would really affect the outcome of a particular project.' The small size of the studio plays a key part in the process, as Bruno explains: 'Had the office been bigger Ron would have no choice but to delegate a lot more and be less connected to the process. That would mean that you have people who are purely in charge of taking instructions and making things happen rather than applying their own thoughts and ideas and suggestions to them.' Due to the size and simplicity of the structure, Castellana also believes it is 'very difficult to say exactly what your part is.' Trusted external collaborators are also brought in for specific roles within teams. Hirst believes there is a two-way relationship with external fabricators: 'It's very nice to think we're experts with lots of things, but we're not. There are people out there who do one particular thing very well, and sometimes that knowledge is helpful, sometimes it can get in the way because they have a very set way of doing things. With blind confidence you can get them to make something that they wouldn't have done without that kind of encouragement.'

The studio is split into two departments, with Ron Arad Associates and Ron Arad Architects. Castellana explains 'there is a separation...because the requirements for the jobs are quite different.' However, Castellana highlights: 'there are times when there is collaboration. There are projects which are somewhere between architecture and product design or industrial design.'

Rather than disciplinary labels, Castellana believes studio members are identified through skill sets: 'People have developed certain skill sets and have certain tendencies with projects.' Bruno agrees: 'When a product comes in we don't treat it differently if it involves designing an interior for a hotel, or designing a brand new 30-storey building. It's the same people...applying the same sensibilities and sensitivities, asking the same questions, and producing similarly detailed data.' Arad does not wish his work to be assigned disciplinary labels: 'We don't separate between categories, we don't say we're doing art, we're doing design, we're doing architecture' (Allen, 2003). Hirst believes the issue of labelling goes right back to defining the term design itself: 'because it is such a broad subject. I don't know if we specifically do design in a way that people think about it.'

### **Core capabilities**

Members have wide-ranging technical skills, but core soft skills appear to be a priority. Thorman explains: 'There needs to be a compatibility, an affinity with working with Ron, because there's a very strong relationship and bond between Ron and the person that's interpreting and working with him. Castellana agrees: 'There's a social element that's extremely important. To be able to discuss and negotiate through those projects together with Ron and together with the team.' Hirst explains: 'You can have the best skills in the world but if they don't like you, they don't like you. In intimate environments like this it's about getting on with people.' Bruno describes this as 'personalities over degrees.'

Bruno cites confidence as a key skill: 'You want confident, mature people but you don't want them over-confident or under-confident.' Castellana explains: 'It's important to have a certain curiosity and tenacity about things, because quite often you are thrown into things that you might not know much about. You have to find that gene for educating yourself.' Hirst believes being open is also key: 'Openness to the fact there's not just one way to do something. Openness to developing ideas, resolving problems.' Diversity of background is also highlighted as essential, as Bruno explains: 'one of the most interesting aspects of the way people have been attracted to this place, is the fact that they

don't follow normal prescriptive routes. Some people have a battery of higher education degrees, some people have left school at sixteen, didn't have a professional qualification, but did have an amazing talent and a great personality.' Thorman concludes that: 'Everybody here is amazing. They have come from all over the world. We have hundreds of applications every quarter, sometimes 1,500 a year. There's a very low turnover of staff here. Most of the staff have been with us for many years.'

### **Spatial requirements**

Entering the studio is a visually overwhelming experience for any visitor due to the rich array of objects, and feels very bohemian in its relaxed and informal style. Bruno explains: 'everybody who walks in for the first time is quite held aback.' Hirst stresses 'it's not an accident that it looks like this...it's carefully constructed. Almost an unofficial declaration.' Hirst believes the look of the environment 'affects your outlook and the sense of who you are', and is hugely important to many creative studios now, not only for attracting certain clients but also prospective employees. Thorman explains that the studio was never designed to be a work environment: 'It was designed to be a playground. It still has the sense of a playground all these years later.' She believes that a feeling of home is key, stating: 'You can learn a great deal from looking around here at what matters to us and what doesn't matter to us quite so much. We don't need perfect white walls and clinical preciseness. We want the things that inspire us and remind us and influence us around us.'

Other key spaces within the studio are the workshop (Figure 50) and courtyard. The making space in Italy is the primary workshop, but the in-house workshop plays a vital role as a testing ground, as Castellana explains: 'It's more like a laboratory than a workshop. We don't go down there to make and build something. We go down there to try some idea and make something that we'll probably end up breaking.' The courtyard, with table tennis table, is a social space to eat and play. Pengilley Gibb explains: 'It's where we have our lunch. And we do play ping-pong on it! Ron will say 'Asa! Come out here and have a game of ping-pong.'



Fig. 50: 'Studio workshop'. (Furniss, 2015).

## Evolutions

The key evolution within the studio is the work itself, from one-off commissions to the full range of work produced today. Thorman explains: 'In the very beginning we had a little workshop at the back of the studio. People would come in, order something and we would go around the back and make it. It was very simple.' However, Arad explains the evolution was due to the 'danger of becoming a craftsman because of the charm of the early work. So I moved all that to Italy.' The move to Italy solved another practical problem, as Thorman explains: 'When we moved here we thought it would be perfect to have the studio up here and the workshop downstairs. But, there was too much of a dichotomy between the cleanliness one needed up here and the mess down there.' Thorman believes moving the making to Italy was 'one of the best things we ever did, because it allowed us the space to be able to concentrate, and expand the range of projects that we do.' Thorman also believes embracing new technologies has added greatly to the work of the studio.' She explains: 'The biggest change has come from computers, software, the internet and email. On the design side, our way of visualising a piece was to go and make the piece. And that's a dramatic change today in that if Ron has an idea, he can go and sit at the computer with one of the designers, and

see his sketch normally within an hour. We do things that we couldn't possibly have done when Ron had to draw on paper.'

Despite international acclaim and breadth of projects, the studio size has stayed the same. Bruno explains: 'the intention was never and still isn't to grow exponentially. Neither the greater studio nor the architectural department within it are built around the notion of growth, and that's governed by Ron's wish to be very involved in everything that's being done in the studio.' Thorman believes they will never leave the Chalk Farm site, but there may be room for development: 'It's a long-term home, we don't want to leave. We would like to redevelop here, but it doesn't belong to us which is a shame, and if it did then we would.' Pengilley Gibb supports this: 'We're always talking about how nice it would be to have everyone on one level - products, architecture, everyone all together - because that allows listening to one another.'

### **4.3.3 Pedagogy**

Key to how and why the studio works is how members' previous educational experiences have informed their practice and outlook, and, in turn, how their practice now informs their involvement in education.

#### **Past experiences**

Key themes highlighted while discussing past educational experiences include: fluidity, freedom and pluralism. Castellana describes his undergraduate course as fluid, and that the first year 'didn't have any specificity for which part of design you're going to go into. So, I would be sitting side-by-side with architects and all the rest who want to do something creative. We did a lot of cross-discipline collaborative projects.' Bruno found his undergraduate liberating: 'What I enjoyed most studying at the Architecture Association (AA), was that absolutely unfettered freedom to come up with amazing ideas and you weren't judged about whether they were feasible or not.' Hirst's undergraduate course was titled 'Industrial Design Products' and ran alongside 'Industrial Design Innovation'. Hirst explains: 'Students were put in rooms side by side and for the first year doing pretty much the same course. By the second and third year they would have broken away slightly. They were trying to value both approaches - in a very practical way or a more poetic way.' Diversity continued as a core experience during Hirst's masters at the Royal College of Art. The Design Products course was designed and run at the time by Arad, and was made up of tutors from many different backgrounds. Hirst explains: 'There was a lot of diversity in the students but also in the staff as well. So you were able to come into contact with people who would be classed as fine artists and industrial or product designers, all mixing together.' Arad describes his experience at the AA as pluralist. At the time, the AA was headed by Alvin Boyarsky, who Arad describes as 'pluralist to the point of being indifferent.' The course was based on a system of units, run by unit masters, and ideas were more important than a finished building (Arad and Antonelli, 2009, p. 154). Arad explains: 'Everyone had their own way of doing things and it was encouraged. It was a good environment for me and my peers who didn't enjoy conforming' (Arad, 2014).



## **Present Involvement**

Many of the studio members are involved in education. Pengilley Gibb makes regular visits to Cardiff Met as a visiting tutor and Hirst has strong ties with Sheffield Hallam. However, Arad has had the greatest involvement in education, both at undergraduate and postgraduate level. Arad's first teaching experience was in the mid-1990s at Vienna's Hochschule fur angewandte Kunst. Arad created a general design undergraduate course, and some students later followed Arad to the UK, including Martino Gamper, who explains: 'Ron shaped a whole generation of designers. His impact will be felt for decades' (Compton, 2014).

In 1998, along with Daniel Charny and Hilary French, Arad led a change in design education by creating the Design Products course at the Royal College of Art, declaring that 'defining courses by sectors was no longer relevant'. Arad explains the name: 'I didn't want to call it Product Design... because everything is a product of design.' Arad combined the furniture and industrial-design departments and hired working artists and designers to head up units called Platforms (Figure 51). Platforms were not sector-specific, but focused on process, combining theory and practice (Furniss, 2015). Arad thought of the course 'not as a kind of professional preparation but as guided exploration....asking fundamental questions about what design was, could and should be' (Compton, 2014). Arad explains: 'It wasn't about giving them a set of tools' (Arad, 2014). Arad turned the course into a 'global academic super-brand' (Compton, 2014), and McGuirk (2010) believes 'a generation of designers graduated wanting to work just as he did – as a designer-maker, free from the technical constraints set by manufacturers.' Alumni are 'known for a refusal to accept traditional boundaries between art and design, between craft and making and technology and engineering' (Compton, 2014). Some studio members are alumni of the course and believe the course is the best piece of design Arad has produced throughout his career.

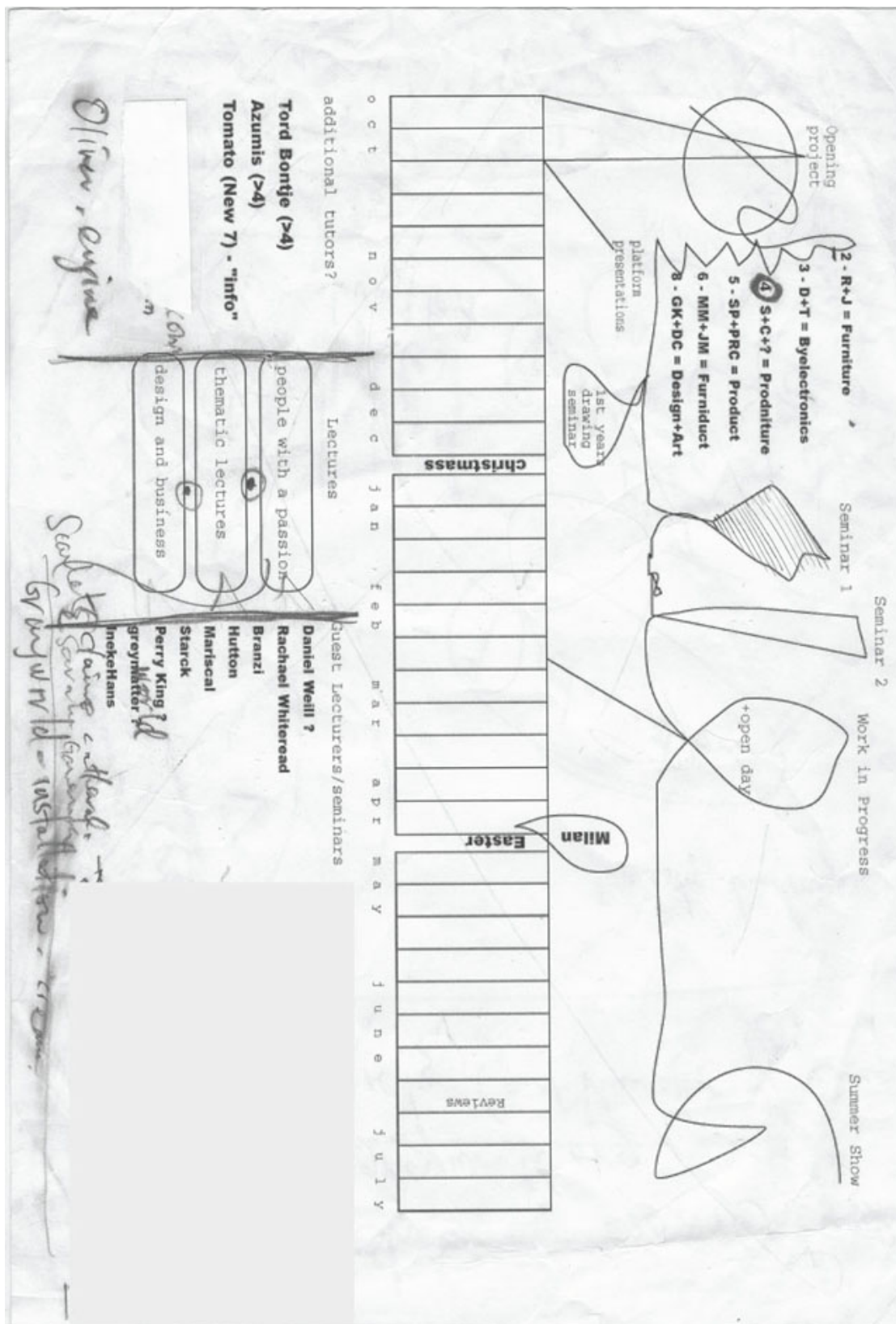


Fig. 51: 'Platforms diagram'. (Charny. 1998).

## **Future implications**

Key implications identified by the interviewees for undergraduate education include: freedom; failure; transferrable skills; breadth; criticism and courage; the need to redefine design.

Bruno believes a key benefit to studying is being insulated from the real world, as too many real-world parameters can curb creative freedom. Hirst explains that prescriptive briefs limit creativity, and would benefit from increased space and freedom. He explains: ‘to not know where you’re going with an idea is actually really creative.’ Hirst argues that failure should also be supported and feels that undergraduate education should be a time when you can work ‘without fear of failure because you need to let some ideas fail. How does education support that?’ Castellana believes that transferrable skills are essential: ‘people are groomed in a way to believe what they want. If somebody really wants to be a set designer that’s fine, but you don’t actually know if they want to be a set designer or not. And the skill set that comes with being a set designer is of course adaptable in lots of other places.’ To enable the transfer of skills, Pengilley Gibb suggests: ‘Someone who is very good with coding should sit next to someone who would rather draw it by hand, because it can transfer across.’

Thorman proposes breadth, and that UK courses look to European schools and beyond for inspiration: ‘There shouldn’t be a division between fine art, design, sculpture, photography. European design schools allow that, and in this country I think it is becoming more conformist, more boxed, more segregated than it used to be.’ Thorman cites schools in the Netherlands, Germany, and Israel, as producing really interesting work and explains: ‘They’ve been provided with a freedom of technology, and a diversity that we’re treading on in this country.’ She believes this issue is down to the UK government: ‘it’s government pressure to conform.’ Bruno agrees that breadth is vital to enable young designers to ‘think beyond that limitation of interior design stops here, architecture begins there. Rather than prepare people to be one or the other, I think it’s much more important to prepare people for the undeniable shared definition that belongs to designers and architects.’

Three attributes Bruno believes are key to the studio and should be emphasized during education are: being critical; receiving criticism; and, having courage. He explains: 'One of the most important things to learn during undergraduate studies is the ability to receive critique and ask yourself questions and be very brave about how you answer them. Because if you're not able to be critical of yourself and to receive criticism, you're missing something very fundamental.' Bruno also believes courage is needed to step outside your discipline: 'If you become a specialist in your field you have to be very strong to dare to take a different step because people will tend to question how you dare step out of that and do something else.'

Hirst argues that it is essential for education to understand 'the reality of the way that we work, not this imagined way of working' and have 'contact with the industry that they're educating people to go into.' Being open to the diversity and complexity of design is another factor that Hirst believes is key: 'Respecting the fact that creativity or design has lots of approaches and directions it can take, if there's a course that can be sympathetic to that, that would be interesting.' Hirst argues further that a fundamental problem resides in misconceptions of what design is and does: 'People have an idea of design. Where have they got that from?' Hirst partly blames secondary education for this lack of understanding: 'They're getting less and less funding to teach. So how are they going to provide that education to people thinking about a university degree? Ask the teachers 'What is design?' and would they be able to give some kind of answer? You hear politicians saying how we're the home of creativity, but not with the support of government.'

#### **4.3.4 Summary**

Arad's pluralist, non-conformist educational experience has clearly defined both his practice and pedagogic approach, which in turn has left a lasting legacy on both creative practice and education. The work of the studio has shaped the current creative landscape, inspiring leading designer-makers to take design from a reactive to a proactive self-motivated process, creating self-generated work. This was driven by Arad starting out not knowing how to define what he did, refusing to be labeled, breaking conventions and approaching everything with a pluralist outlook.

Despite crossing art, design and architecture, the work is mostly three dimensional, and unified by human interaction and innovation. Key components of the process include a refusal to compromise, demanding time and embracing new technologies. The process is spontaneous, emergent and iterative, with play at its heart. Making and materiality are at the core of all projects, whether creating in-house or with long standing trusted external partners. All work is object based with an artisanal approach. Although an atelier model, the hierarchical structure is relatively flat, with constant collaboration. The small size means roles are broad and fluid, with an emphasis on skill sets and personality over disciplinary labels. Studio members have diverse backgrounds that do not follow prescriptive routes, and key attributes include confidence, curiosity, tenacity and initiative. Refusing to grow has preserved a studio culture, where decisions are made by consensus, everyone has a voice, and members show long standing commitment to Arad. The studio space is used to declare a bohemian agenda, challenge the preconceived notions of what an office should be, and to provide a playground for creativity, experimentation and fun. The workshop is a vital laboratory for exploration, and a visual reminder that making is still a fundamental part of the philosophy.

Arad's rebellious approach to teaching has had a major impact on creative education, by refusing to define courses by disciplines, teaching with no agenda, and prioritising guided exploration over professional preparation. Studio members are drawn from non-conventional, fluid, pluralist educational

backgrounds, where they enjoyed unfettered freedom. The studio believes education should: provide freedom; embrace failure; prepare students to think beyond the limitations of one discipline; look to European courses and remove disciplinary divisions; emphasise transferrable skills; encourage self-criticism and risk-taking. They believe re-defining design is key, to better understand the fundamental skills a designer needs, the reality of the way designers work, and that government should better support secondary education.

## 4.4 Heatherwick Studio



Fig. 52: 'Photograph of Willing House, Heatherwick Studio, London'. (Furniss, 2015).

#### **4.4.1 Introduction**

This study was conducted between September and November 2015. A preliminary visit, to interview Thomas Heatherwick, was conducted as part of an earlier scoping exercise in March 2013. At the time of the first visit, the studio comprised 178 employees, of which eight were interviewed in order to capture a cross section of roles. Interviewees include: Mark Burrows; Mat Cash; Amanda Goldsmith; Hugh Heatherwick; Thomas Heatherwick; Neil Hubbard; Fred Manson O.B.E; Alice O'Hanlon (see Appendix 11 for interviewee details).

Situated in the heart of Kings Cross, London, the studio comprises five buildings, all within five minutes walking distance of each other. Acton Street was the original studio site, but Willing House (Fig. 52) has the largest footprint and is now the initial point of contact. Split over two levels, the ground floor houses the design studio and the basement houses the archive. The Victorian red brick building is also home to a Travel Lodge. There is no exterior presence. Entry is through a security-controlled gate, along a low, dark alley packed with parked bicycles. The interior, in contrast, is spacious, light and filled with objects (Fig. 53). The open plan layout revolves around a central meeting area lit by overhead skylights. A constant medium level of noise comes from conversations, meetings, presentations and use of machinery. Two meeting tables in the centre of the open area are surrounded by architectural models, furniture pieces and design prototypes including bus seats designed for the new Routemaster bus. Several enclosed meeting rooms have full height glass folding doors to enable them to be opened or closed while still maintaining visibility. From the central meeting-tables it is possible to observe all areas, each devoted to a particular activity. Heatherwick explains: 'there's food, toileting, bandsawing, computering all in one space' (Cheshire, 2013, p. 92).





Fig. 53: 'Interior of Heatherwick Studio'. (Heatherwick Studio, n.d.).

Heatherwick Studio was set up in 1994, by Thomas Heatherwick and Jonathan Thomas. Their aim was to create a new type of studio with a new way of working, as Heatherwick explains, 'there was no business model or precedent for the type of environment we needed to make' (Cheshire, 2013, p. 95). Cheshire (2013, p. 95) describes how: 'they set out to be new Victorians – modern master builders. Priorities were to make things, not just design them, and to ignore the strict classifications of design or architecture or urban planning which Heatherwick regards as fashions of thought.' Described as 'the Leonardo da Vinci of our times' by Sir Terence Conran (Wroe, 2012), Heatherwick's philosophy is to consider all design in three dimensions, not as multi-disciplinary design, but as a single discipline: three-dimensional design (Heatherwick, 2012).

#### 4.4.2 Practice

Studio projects are wide-ranging, and Manson defines the main objective as doing 'exceptional projects' and to 'extend Thomas's interpretation of exceptional.' The studio's designs are characterised by two strands: 'materiality' and 'uncategorisable ingenuity' (Cheshire, 2013, p. 95). Selection of work is key, as Goldsmith explains: 'We're excited by new typologies. We can't just be one discipline.' At the time of the study, the studio was working on twenty-one projects.

#### Menu of Work

Below is a range of work, both proposed and realised, produced by the studio since its foundation. I have curated and arranged the work by scale, from small to large:

**Small scale** - Business Card (wood and ice-cream), Christmas Cards (leather, resin, wood), Ceramic Tiles (3D relief), Watch, Pocket Knife, Perfume Bottle, Vessels, Bag, Trophies, Chairs, Cabinets, Benches, Shelving, Tables, Railings.



Fig. 54 : 'Christian Louboutin Perfume Bottle'. (Heatherwick Studio, 2014).

Fig. 55 : 'Spun Chair'. (Heatherwick Studio, 2007).

**Medium scale** - Sound Barriers, Newspaper Kiosk, Window Displays, Pavilion, Gazebo, Installations, Exhibitions, Retail Interiors, Restaurant Interiors, Roundabouts, Street Lighting, Playground, Air Cooling Vents, Bus, Boat, Olympic Cauldron, Bridges (Rolling, Glass).



Fig. 56: 'Harvey Nichols'. (Heatherwick Studio, 1997).  
Fig. 57: 'B of the Bang'. (Heatherwick Studio, 2002).



Fig. 58 : 'Rolling Bridge'. (Heatherwick Studio, 2002).

**Large scale** - Bridge (Garden), City Square, City Landscaping, Building Facades, Monuments, Communications Mast, Electricity Pylons, Floating Park. Buildings: Tea House; Community Centre; Temple; Pavilions; Information Centre; Café; Artists Studios; Shopping Centre; Town Hall, Velodrome; Cable Car; Housing; Hotels; Distillery; Power Station; Concert Hall.





Fig. 59: 'Learning Hub'. (Heatherwick Studio, 2013).



Fig. 60: 'Pier 55', New York. (Heatherwick Studio, 2013).

## **Process**

Heatherwick claims to use ‘the same process for a piece of furniture or a Christmas card. There’s this building up of iterative reviews and analysis’ (Gibson, 2012, p. 107). Heatherwick explains this process is something he could not do on his own: ‘It’s a process. You need your team.’ Describing the process as ‘panning for gold’ (Phillips, 2015), Heatherwick identifies four key components: Question; Make; Zoom; Eliminate (Cheshire, 2013).

According to Burrows, questioning starts with ‘looking at what someone thinks they want and then seeing potential for something far greater than the problem that is apparent.’ Burrows explains the process always starts with, and iteratively refers back to, the brief, while asking ‘have we thought hard enough? Have we seen every opportunity?’ and to achieve this takes ‘enormous amounts of hard work... being rigorous...carrying out forensics and thinking about every variable. It’s exhausting, but it’s necessary.’ Distilling ideas by continually questioning the brief in an iterative process requires time. The recently completed Bombay Sapphire’s gin distillery at Laverstock is a clear example of this extreme iteration (Fig. 61). Studio member and project manager Katerina Dionysopoulou describes the process as very long with ‘very intense dialogue, like a trial...You go through hell. So much questioning. So much pain. You say no to him [Heatherwick] and he keeps asking so many questions until he finds out the actual reason for no, and from that he will find an answer’ (Cheshire, 2013, p. 98). It took twelve different, well-developed ideas before the studio found the chosen option (Cheshire, 2013).



Fig. 61: 'Bombay Sapphire Distillery'. (Hufton + Crow, 2010).

New studio members are shown a 'Studio Values Induction process diagram' (Fig. 62). Discussing this diagram, Manson draws a more complex version, explaining: 'There are some straight lines that are totally satisfying and there are others which are just wavy lines, but most often it's a messy curve' (Fig. 63). Both Hubbard and Cash compare the questioning, reductive approach to squeezing the brief through a mangle (Fig. 64). Cash explains: 'We spend a lot of time putting projects, or the brief, in a mangle and squeezing it until something drops out and that something that drops out is the anchor that grounds the whole project.' During further discussions, Burrows responds to Manson's diagram and extends it even further (Fig. 65). Burrows' diagram goes right back to the beginning and starts again, while also adding key points of making throughout the process which he describes as 'emergent', explaining that the final outcome 'is process-based, that's what's so exciting about work here.'



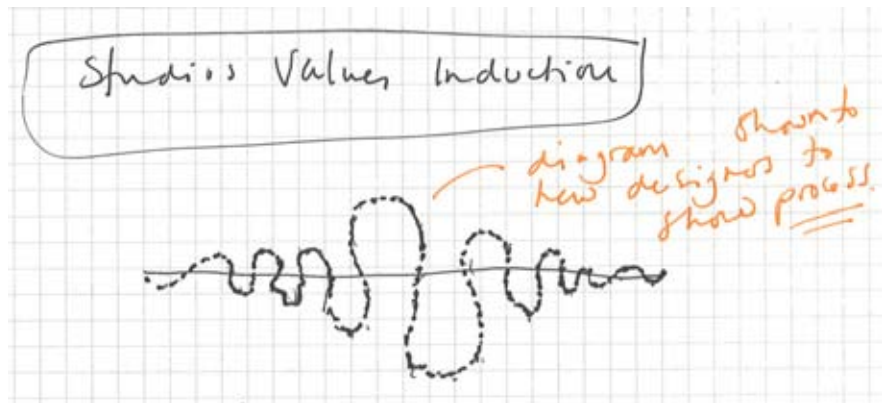


Fig. 62: 'Interpretation of the Studio Values Induction process diagram'. (Furniss, 2015).

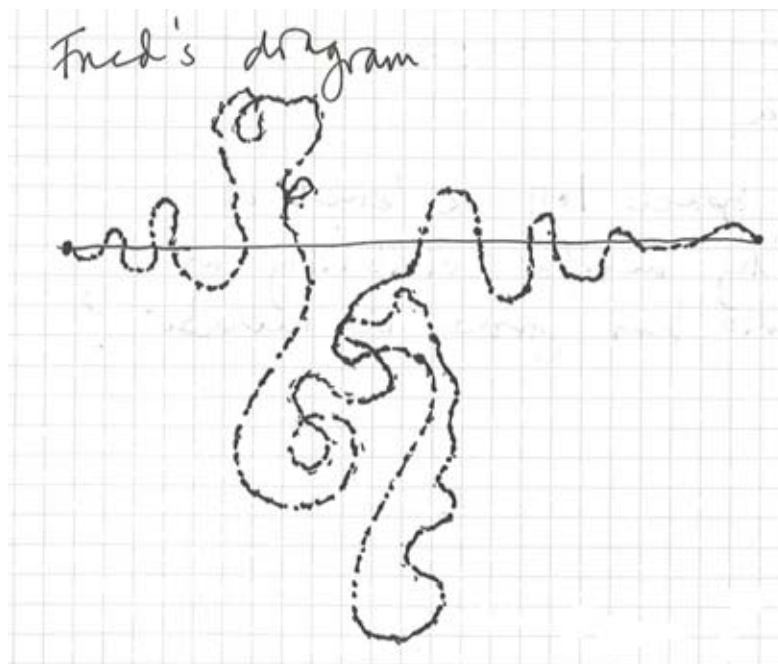


Fig.63: 'Interpretation of Manson's description of the process'. (Furniss, 2015).

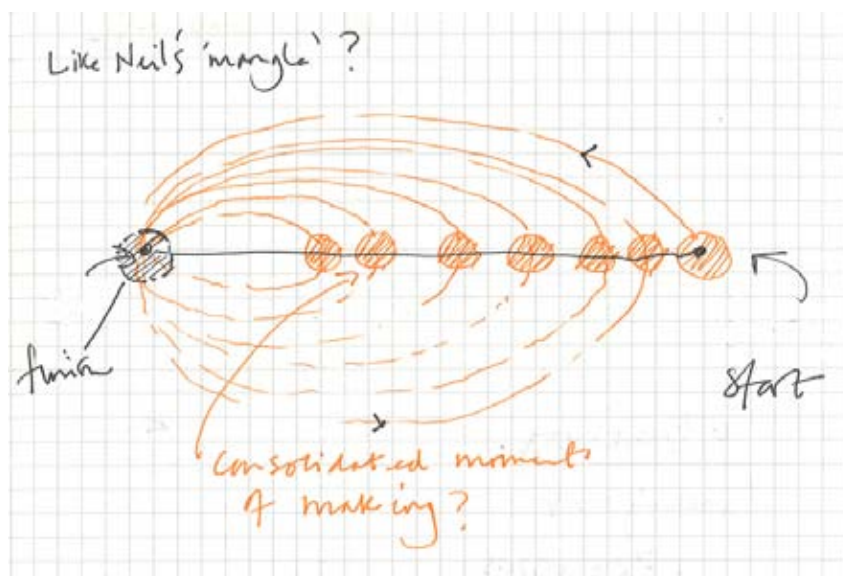


Fig. 64: 'Interpretation of Hubbard's description of the process'. (Furniss, 2015).

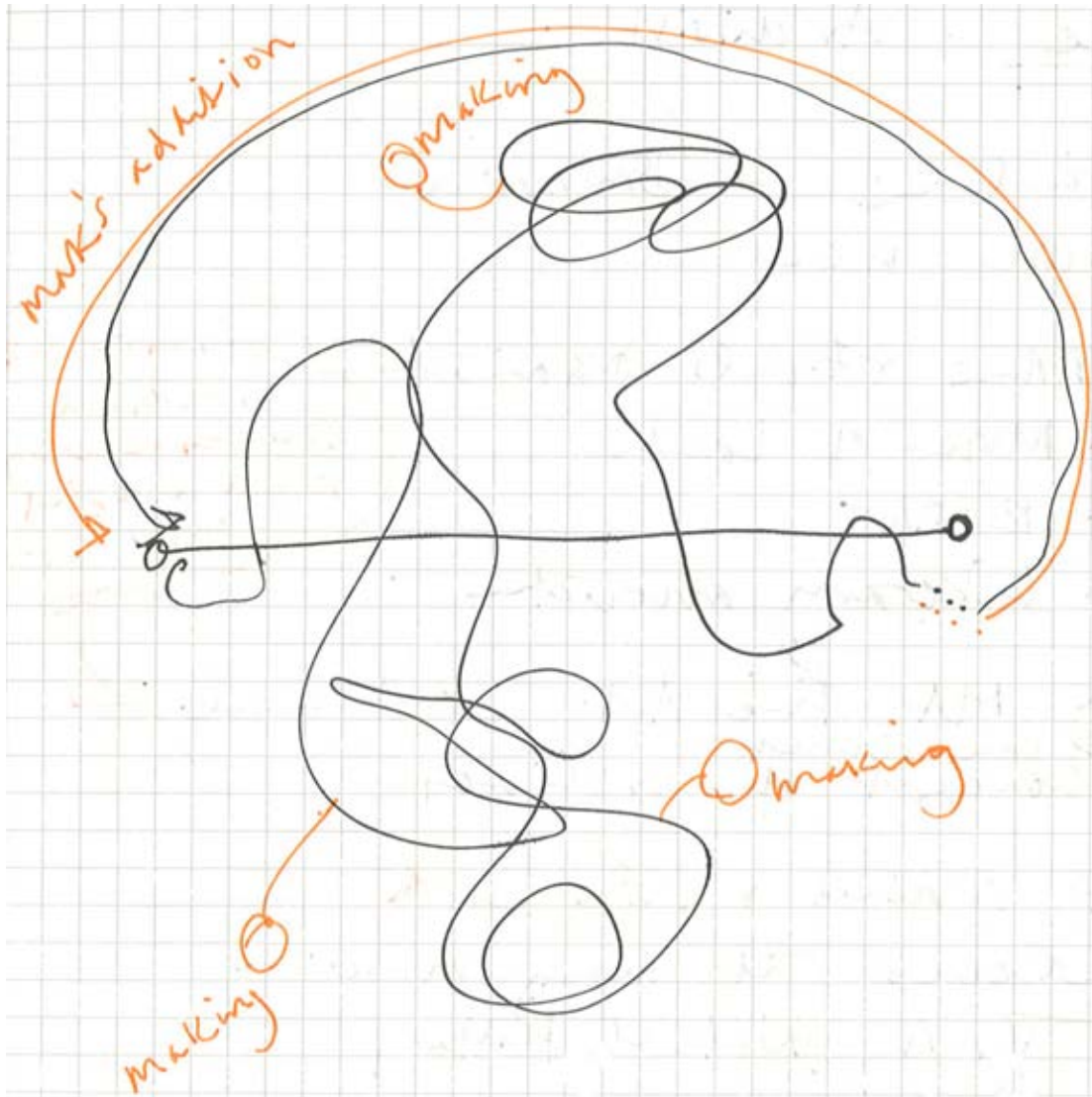


Fig. 65: 'Interpretation of Burrows' description of the process'. (Furniss, 2015).

The studio began as designer-makers, and the process still relies on making and the workshop. Heatherwick believes that making is 'a way to do true practical analysis, because drawings can fool you. And models, mock-ups, prototypes – anyone can relate to them. It's not just a tool to show people, though: it's a tool to show yourself' (Cheshire, 2013, p. 96). Burrows believes the workshop plays an important part of the studio's process as making is a way of proving, and 'you can't argue with an idea that's been proven.' He highlights different strands as: proving exercises; material studies; experiments; discoveries; communication; promotion. Burrows identifies that making is a good medium to interrogate and assist in the progression of ideas, and that the workshop team have an affinity with their hands and also with thinking in three dimensions and problem solving.



Dionysopoulou compares the way Heatherwick works to breathing, explaining: 'He zooms out, always has the big idea, but then zooms in on the details' (Cheshire, 2013, p. 98). This is due to Heatherwick's desire to use materials and forms at a human scale, 'the scale at which people touch, experience and live in the world' (Heatherwick, 2012, p. 13). No matter how large the project, this process of zooming in and out allows the studio to continually refer back to this human scale. Heatherwick explains 'our role is to be able to pull right back and see something in it's biggest context, but then be able to zoom in until you're analysing the close detail' (Cheshire, 2013, p. 96).

The studio has developed ways to support a process of elimination and critique, through collaborative discussion and self-inflection. Hubbard describes the elimination process as starting with self-inflection, individually asking 'is that really the best?' He explains this can be challenging as 'you have to be very passionate about something ... but then stand back and go 'actually what I've done is rubbish'!' The next stage of the elimination process is through team and studio-wide discussions which take the form of critiques. Work is pinned up and, as Hubbard explains, the act of pinning work up is 'a very obvious physical manifestation of separating yourself from the work.' Studio members describe this process as brutal and exhausting, but Cash believes that a key challenge for new studio members is 'redefining what you believe good enough is.' Hubbard explains that the result of this process is that no-one 'can attribute an idea to themselves or to Thomas, it actually comes through discussion.' Another aspect of elimination is celebrating failure. Heatherwick explains: 'when we realise something isn't going to work, then there's a jolt of excitement at that rejection, an excitement at the clarity of knowing what we shouldn't do' (Phillips, 2015). While archiving the process of a project, O'Hanlon keeps models of dead-end ideas, even if they do not feature in the final design, as 'any idea explored, was valid at that moment in time, so it's part of the story. It's like following someone's stream of consciousness.'

### **Organisational structures**

There is a clear hierarchical structure at the top of the studio's organisation, evident in the job titles: Director; Associate; Head of Department; Group

Leader; Designer. However, at project level the structure appears fairly flat. Project teams have a variety of members at different stages in their training, as well as a mixture of designers and architects. Teams are not separated into disciplines, as Heatherwick believes ‘ideas can ossify if they are chopped up into different fields such as art, design, architecture... I think there will be less distinction between everyone’s activities in the future’ (Phillips, 2015). Goldsmith agrees: ‘we’re not architects, we’re not designers, we’re not product designers, we’re not landscape designers, we’re something else. As a group we’re something else.’

Since the formation of the studio, members have had backgrounds in engineering, architecture, product design, landscape architecture, project management, sculpture, photography, theatre design, craft and making (Heatherwick, 2012, p. 11). That diversity has reduced as the studio has grown in number and the projects have grown in scale. At the time of the study, the studio has approximately 100 members who are architecturally trained. However, Hubbard explains that they come from very diverse backgrounds with a fundamental interest in making and production: ‘Even with the people we find who are specialists, they’ve done some exciting stuff across disciplines, and I think interdisciplinary thinking is always relevant.’ Cash agrees, explaining that a member might also have ‘an engineering degree or have studied theatre design.’ Cash stresses the importance of diversity, as projects are ambiguous: ‘They’re all very different. They are things that you could call architectural or you could call something else. Those boundaries aren’t clearly defined.’

External collaborators have played key roles in the work of the studio at various times. In 2005, when the studio was just a twelve person team, a structural engineer from consultants Packman Lucas was based at the studio full-time, due to the nature of the work being produced (Sheil and Packman, 2005). External artists and designers are also invited into the studio to give lunchtime talks about their processes, from a diverse range of backgrounds. Goldsmith explains: ‘we had a paint detective in a couple of months ago and

he was brilliant. It's things like that which are really refreshing, it just tells you a bit about how other people might approach things.'

### **Core capabilities**

Heatherwick identifies core capabilities required to work in the studio as: criticism; self-confidence; communication; having a universal outlook. For Heatherwick, criticism is key because 'in the act of criticism there is implied change,' and self-confidence is necessary to step outside the confines of traditional disciplines. Self-inflection requires self-confidence, which Hubbard explains is 'prevalent throughout the studio.' Goldsmith agrees, explaining the designers are 'quietly confident. I think you do need to be confident with the way we do things here.'

Verbal and visual communication are also key. Hubbard explains that everyone needs to be able to present and articulate: 'for me that's one of the core skills here, to be able to get across design thinking in a very clear and straight forward manner.' Hubbard believes it is vital to have 'critical thought, and distil that thought into simple communication. Because you can be the best designer in the world but if in that review no one else is buying into it then there's a problem.' Core technical skills include 3D modeling and complex geometry, as Cash explains: 'we value 3D modelling skills very highly because the complexities of construction now.' Sketching is also important, and something Cash believes is 'a lost art. Both from a diagram perspective but also just to communicate spatial directions.' Cash concludes that model making is key 'because it demonstrates an understanding of materials and making.'

Having a universal outlook is highlighted as essential, which Heatherwick describes as 'having universal eyes.' Burrows explains: 'You either think in a certain way or you don't...what works here is being truly open-minded, what we could be rather than what we're going to do. It's kind of an attitude. Being open to possibilities is being open to all of those disciplines.' For Burrows, existing with a single specialism is 'untenable'. Hubbard agrees: 'Everyone who has come here has either built their own house or done something that is

fascinating.... are obsessed with ceramics or are practicing artists in their own right.' O'Hanlon explains that when interviewing new members, 'it's half CV and half will they fit into the culture. It's about people's attitude and are they interesting people. We're really interested in curious people, from interesting, diverse backgrounds.' Goldsmith feels the studio is really good at identifying people who are 'creative in a more lateral way.'

### **Spatial requirements**

When asked about the philosophy behind the design of the studio, Hubbard observes: 'everything is designed in a way to facilitate this notion of studio, that it's not an office, it's not a practice, it's a place of doing. The old kind of renaissance name of a studio...where it's actually an artist's lair.' Three key elements noticed immediately on entering the studio are: the open plan layout; a strong visual identity with the use of objects; the prominent visible presence of the workshop.

As discussed earlier, Heatherwick's educational experience at Gothenburg, in the shipyard hanger, appears to have directly informed the philosophy of the open plan layout. Goldsmith believes this approach sends a clear message: 'it's a statement about transparency.' This type of layout also provides a level of efficiency, as Manson explains: 'If you're in a single space, lots of things just get sorted out.' Flexibility is key, as Hubbard explains: 'It's a very active space. We sometimes put test rigs up and test mechanisms or mark out spaces and get a feel of things.' All major pieces of furniture, including machines in the workshop, are on wheels to enable reconfiguration. Heatherwick explains: 'the whole place in my mind is one big workshop. Everything shunts around for what we need to do' (Cheshire, 2013, p. 99). Project teams sit together in open project bays, where desks are placed around the edges with layout tables in the middle and a magnetic pin-up wall. Cash observes that at many architectural studios desks are linear because 'teams shrink and expand and it's really easy to move people up and down that line' which means that 'you only ever speak to the person to your left or your right.' The studio has created the principle of a circle with no predominant seat, which Cash describes as 'non-hierarchical, you speak to the person to your left and right, but also you'll

speak across the corners. You're forced to speak to everybody. You get a bay vibe' (Fig. 66).

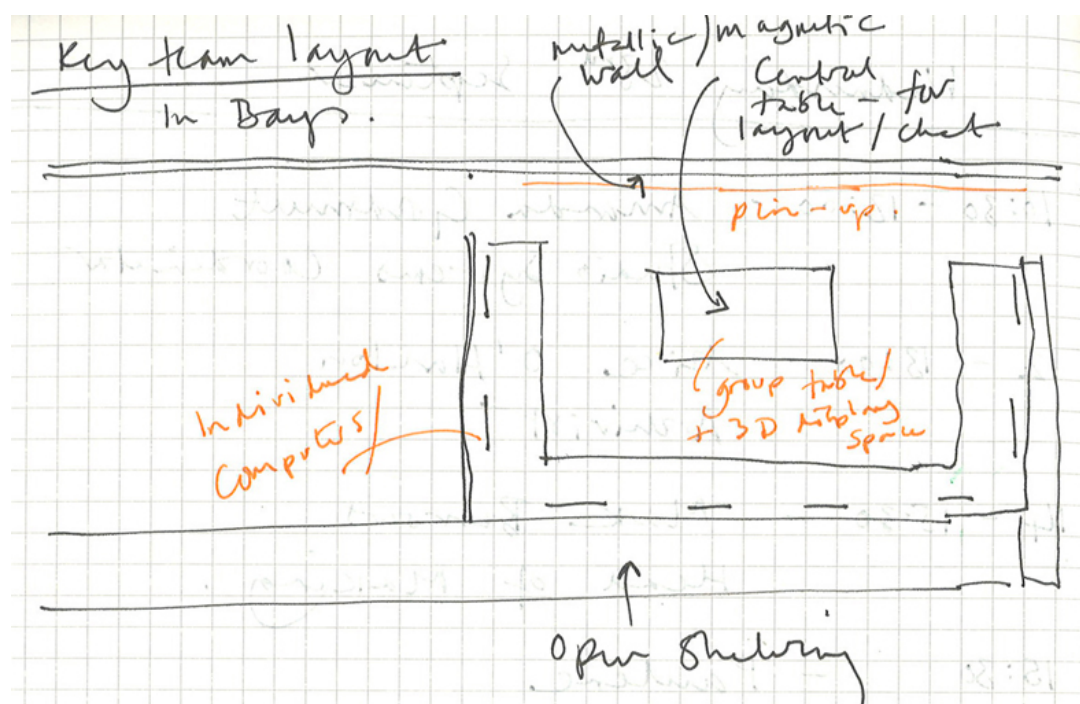


Fig. 66: 'Project bays diagram'. (Furniss, 2015).

Hubbard describes every visual aspect of the studio as 'very considered', and that the aim is to create an interesting space that inspires. As well as all the models and prototypes the studio generates, objects are lent by David Osborne, a collector. Cash explains the important role they play: 'it's about interest and innovation and excitement of form, material and colour and all those things. It's about looking at other disciplines, other materials, things you wouldn't even consider. Innovation of craft in all sorts of different disciplines, that you can borrow, learn from, take and apply.'

Burrows believes placing the workshop at the heart of the studio sends a clear message to clients: 'it's right there, it's big, it's noisy, something's going on in there, there's an energy about being busy, interrogating or producing or striving to communicate the best thing that you possibly can to win the hearts and minds of people.' Taking up a quarter of the footprint of the studio, Hubbard explains that the workshop is 'a very symbolic thing of a beating heart of the studio.' Goldsmith agrees: 'making is a big part of our process. Having it in the same building, it's a huge statement of intent.'

## **Evolutions**

Heatherwick dedicates his book *Making* to ‘the imaginative vision of clients, commissioners and authorities who demand that projects are special’ (Heatherwick, 2012, p. 15). These clients and patrons have clearly enabled the studio to evolve in the way Heatherwick envisioned. From the beginning, Heatherwick aspired to create architectural projects, but chose to do this through 3D design. Heatherwick explains ‘I knew I was interested in building, but the architectural world at the time just didn’t feel right, it felt very theoretical’ (Appleyard, 2012, p. 3). His BA thesis explored this concern with architectural education, by interviewing architects, self-builders and contractors about their educational experiences, which provided limited practical knowledge of making and materials (Heatherwick, 2012, p. 10). Then, at the RCA, Sir Terrence Conran became Heatherwick’s mentor, and says: ‘He talked very ambitiously about becoming involved in architectural projects’ (Cheshire, 2013, p. 94).

Twenty years later, the studio is doing mostly architectural work. Due to the success of iconic projects such as the UK Pavilion for the Shanghai Design Expo 2010 (Fig. 67), and the Olympic Cauldron 2012, Manson explains that Heatherwick has become ‘a real brand.’ Heatherwick explains the studio is now working on ‘more strategic projects, which is what I’ve always been interested in. Most of our work is designing buildings and infrastructure and thinking about cities’ (Cheshire, 2013, p. 99). However, this has created stresses for the studio, including rapid growth of employees (Cheshire, 2013, p. 99). Below shows the estimated growth over the last ten years:

- 2005 = 7 employees
- 2006 = 15 employees
- 2010 = 27 employees
- 2012 = 75 employees
- 2015 = 178 employees
- 2019 = 217 employees



Fig. 67: 'UK Pavilion'. (Hufton + Crow, 2010).

As a result, the studio has had to expand from being in one location to being split across five separate locations, which in turn creates the challenge of maintaining studio culture. Studio member Eliot Postma expresses concern: 'It's changed the studio. The culture is still there. But you can become a mega-brand' (Cheshire, 2013, p. 99). Maintaining a strong identity is a priority that Hubbard is involved in exploring, and he is constantly asking 'how we keep that idea of a studio alive, help keep that identity going?'

Introducing more hierarchy has been one of the answers to managing this growth, as Cash explains: 'as you get bigger, hierarchy becomes manifested because you have to organise.' Goldsmith believes the studio is still generally 'quite flat' but highlights: 'the bigger we get the more corporate we have to be in certain ways.' Hugh Heatherwick has been involved in the infrastructure of the studio since its formation, which he sees as key to the success of any business. He explains that 'as a studio grows, so the infrastructure grows with

it', and questions whether design businesses are innovative from an infrastructural perspective and 'look at how other people or other bubbles are operating.' Heatherwick believes 'the biggest project of the studio has been, is and will always be the studio itself' (Cheshire, 2013, p. 99). Therefore, it appears that a balance between growth and maintaining the studio's values will be the main challenge ahead.



### 4.4.3 Pedagogy

#### Past experiences

Key valuable pedagogical experiences highlighted by interviewees include: freedom, breadth; agility; the Foundation course. Heatherwick experienced freedom during his undergraduate degree, and was given the support to design and make a full-sized building (Fig. 68). Burrows also cites freedom, in terms of use of space: ‘When I studied my sculpture degree we were put in a disused church... you could do anything you wanted to. We ripped out loads of stuff, drilled holes in the walls, took windows out. If you haven’t got that freedom how can you possibly make the leap?’



Fig. 68: ‘Pavilion’. (Cass Sculpture Foundation, n.d.)



Fig. 69: ‘Paternoster Vents’. (Heatherwick Studio, 2002).

Heatherwick was given the freedom to do six-week rotations in other subjects during his undergraduate, including textiles, resulting in ‘experiments with sewing machines, irons and starch and calico, folding fabrics and fixing them three dimensionally.’ These early experiments later led to the studio’s design for the cooling tower vents at Paternoster Square (Fig. 69). Hubbard experienced breadth on his BA Design course at Goldsmiths, describing the course as unique, explaining that ‘you could be a graphic designer or an architectural designer. They were more interested in creation of ideas and the development of ideas, and the development of critical thinking. Rather than following one discipline, the course was very multi-disciplinary.’ Goldsmith

also benefitted from breadth in her Landscape Architecture degree, due to the introduction of cartooning as a communication tool: ‘the idea was you have to learn how to set a scene and animate a space. You do that through storyboarding and that was incredibly valuable.’

Enabling opportunities for agility are also raised. During his undergraduate studies, Heatherwick was given permission to go to Plymouth University to do an architectural metalwork course. Hubbard found agility in the four year sandwich course structure of his degree: ‘I chose it because it was a four year degree at the time, which had a year in industry, and I found my internship here.’ The awareness of transferrable skills has given Goldsmith the agility to work in a variety of areas: ‘my degree is unspeakably valuable to me because of the skills it’s given me... I’m super-capable to pick a lot of the things up that I wouldn’t have been able to pick up otherwise.’

Hubbard credits his Foundation course as being the best year of his education as it was ‘the first exposure to bronze casting, metalwork, all these exciting kind of things. Breaking you down...that first real exposure to that multi-disciplinary world of things influencing each other.’ Burrows agrees, describing his Foundation experience as ‘an eye-opener’ and goes on to explain that the ‘Foundation was fantastic, being able to pick any of those disciplines was just as it should be. So you can see where your passions lie.’

### **Present involvement**

Hugh Heatherwick and Burrows recently ran an educational project with a secondary school. The studio collaborated with the Victoria and Albert Museum (V&A) Schools’ DesignLab, and the Art Department at Whitecross High School in Hereford. Pupils first visited the studio, then visit a completed studio project - the Bleigiessen installation at the Wellcome Trust in London - and finally visited the V&A to see the *Heatherwick Studio: Designing the Extraordinary* exhibition and to visit the collections. Curators toured the students through the collections, to give them a better understanding of different materials, looking at how they are made; where they come from; their limitations and possibilities (Victoria and Albert Museum, 2013). After

this initial trip students were given briefs to analyse, pairing a Challenge with a Collection at the V&A:

The Challenge: A structure to span the river Wye  
The Collection: Jewellery

The Challenge: A personal item to stop you getting wet  
The Collection: Ironmongery

The Challenge: A seat that can only function when two people occupy it  
The Collection: Glass

The Challenge: A folly building in Hereford  
The Collection: Ceramics

The project helped students re-define their understanding of the word design and enabled them to see that, due to the cross-disciplinary nature of the studio, things do not exist in isolation. Students had to collaborate with each other and other departments. Following the process of the studio, at the end of the project, students gave stand-up critique presentations in front of their drawings, and the emphasis was more on process than final solutions (Victoria and Albert Museum, 2013).

### **Future implications**

Key issues highlighted by the interviewees, that undergraduate education needs to address, include: disciplinary classifications; breadth; space; depth of thinking; disconnection with practice. Heatherwick raises concerns with the current disciplinary classification system: 'I think a broader definition is interesting. I've always liked the simplicity of 3D Design. Rather than a trend of our time, it's absolute if something is 3D or 2D.' Heatherwick suggests within 3D Design 'there are lots of common things that aren't currently allowed to be common, including automotive products, furniture, building design, infrastructure design, engineering, and construction. With 2D Design, you could have photography, graphics, painting.'

Goldsmith believes exposing students to the breadth of design is key: 'I think that attitude about being more than just one thing is really important and it's

when we all learn the most.’ Cash agrees: ‘The studio easily moves out of one discipline into another in what it does ...we want our people to be able to do that.’ O’Hanlon suggests writing open briefs, enabling students to: ‘start from scratch, having no pre-conceptions at the beginning of the project, and building up from there.’ When discussing students leaving education identifying themselves as a graphic designer or architect, Manson responds: ‘I think that’s a disservice, that’s the misunderstanding of education.’ Teaching at the Sir John Cass Faculty of Art, Design and Architecture, Manson says the aim is ‘making it messier, more complicated, and pulling out skills which are beyond the net (idea) of what it is.’

Studio space, and the concept of everyone working together, is raised as an important element in the education process and something that is disappearing. Manson explains: ‘Unfortunately what’s happened, is.... they’re not in the same space.’ O’Hanlon also raises concern for diminishing studio space: ‘I had a special tour of the new architecture studio in Central St Martins and they were like ‘It’s so fabulous, it’s all about hot-desking’. And I thought is this a good thing? Isn’t this quite unsettling if you’re a student trying to make work and you just want your space to do stuff in.’ The issue of depth of thinking is also raised. Burrows sees a lack of depth with some interviewees when they say ‘I had the brief, I had an idea, and I did it.’ Hubbard also believes there is too much emphasis on end product rather than process: ‘What I want to see is people thinking.’ Part of the thinking process, is questioning the brief, which Burrows sees as key: ‘Pull it apart, wrap it up, see where the holes are, think bigger, think smaller, challenging the norms.’

Hubbard sees a disconnection between education and practice, stating that ‘courses are much more removed now.’ Burrows agrees: ‘There seems to be a huge disconnect between people learning how to build things and never touching a brick or understanding what cement is made of.’ Hugh Heatherwick raises concerns about this disconnection and highlights a fundamental lack of understanding of industry within education. He asks: ‘how much time do they have when planning education to be aware of what’s happening in the outer world and therefore structure their world of students

to correspond?’ Heatherwick highlights this was a similar issue in the 1980s when he was part of the Education for Capability campaign, (discussed earlier in this thesis). Heatherwick explains: ‘what industry was needing was capability and that depended on all sorts of systems and methods that the education system was not necessarily promoting at the time.’

#### **4.4.4 Summary**

The philosophy of the studio has clearly been inspired by Victorian entrepreneurs and master builders, but has also developed as a direct result of the 'Education for Capability' campaign to which Hugh Heatherwick contributed to. Undoubtedly made aware of these educational issues by his father, it is not surprising Heatherwick prioritised 3D design over Architecture for his undergraduate education, despite a clear ambition to design buildings. This awareness no doubt gave Heatherwick the courage to follow a non-conventional career path.

Through a 3D design lens, the studio looks for new typologies to produce exceptional projects. Whether a building, piece of furniture or Christmas card, projects emerge through rigorous questioning and extreme iteration. Making and materiality are key at every stage, as practical analysis. Continually zooming in and out enables the studio to work at human scale. Through brutal critiquing, self-inflection, and collaborative discussion, members redefine what they believe good enough is. Despite clear hierarchical structure at the top of the organisation, at project level the structure appears relatively flat. Teams are varied in ability and skills, and a considered approach is taken to hiring staff who demonstrate lateral thinking and an open-minded attitude towards disciplines. Core capabilities include: self-criticism; self-confidence; strong verbal and visual communication; a universal outlook; curiosity; determination; a sense of humour.

The design of the studio is very considered, with objects from diverse disciplines used to stimulate interest, innovation and excitement of form, materiality and colour. The flexible, open-plan layout is a statement of transparency, supports a holistic one-world view and encourages communication and cross-fertilisation. Placing the workshop at the centre of the studio sends a clear message of intent, symbolising the beating heart of the studio. Making the strategic decision to hire senior advisors with extensive knowledge of design, procurement, policy, and infrastructure, has supported the move from smaller scale projects to now primarily working on strategic projects, designing buildings and thinking about cities. As a result, the studio

has expanded from one site to five, with a dramatic rise in studio members. The main challenge for the studio appears to be the management of growth while maintaining the cultural qualities.

Studio members come from diverse educational experiences that encouraged freedom, breadth and agility. The studio's recent involvement in Secondary education, challenged students to re-define their understanding of the word design and enabled them to see that, due to the cross-disciplinary nature of the studio, things don't exist in isolation. The studio believes undergraduate education should: look for a broader, simpler definition of design and disciplinary classifications; encourage breadth through multiple models, open briefs and fluid boundaries; provide suitable studio space for cross-disciplinary working; encourage depth of thinking through rigorous questioning; emphasise process and failure over the end product. Concerns include: a disconnection between education and practice; a fundamental lack of understanding of industry within education; non-design trained designers challenging the notion of a comprehensive design education. This shared holistic understanding of the work, defining every project under the universal banner of 3D design, creates a clarity and simplicity that could have significant impact not only on the sector, but also on education and policy in terms of classification, categorisation and implementation.





## 4.5 Jason Bruges Studio



Fig. 70: 'Photograph of Jason Bruges Studio, London'. (Furniss, 2015).

#### **4.5.1 Introduction**

This study was conducted between November and December 2015. At the time of the first studio visit, the studio comprised twenty members, of which five were interviewed, in order to capture a cross section of roles. Interviewees include: Jason Bruges; Anam Hasan; Jing Liu; Martin Robinson; Andrew Walker (see Appendix 12 for interviewee details).

Situated in the creative hub of London, between Old Street and Shoreditch, the studio is located within a gated mews (Fig. 70). Modern in style, with brick, glass and wood cladding exterior (Fig. 71), the studio is split over two floors. The ground floor (Fig. 72) is predominantly a workshop, with entry space and kitchen facilities. The first floor (Fig. 73) is an open plan office with computers, meeting rooms and roof terrace. The entry space has natural daylight with a variety of samples of work displayed and a meeting table. However, the space feels temporary, more like an over spill workshop space than gallery, with a digital installation at one end. On further visits it becomes clear the entry space is a vital part of the workshop and frequently re-arranged to test ideas. The workshop (Fig. 74) is a controlled environment, with no natural daylight. Filled with work benches, storage shelves, and many project experiments in various stages of development, the workshop feels like the heart of the studio.



Fig. 71: 'Photograph of Jason Bruges Studio, London'. (Furniss, 2015).

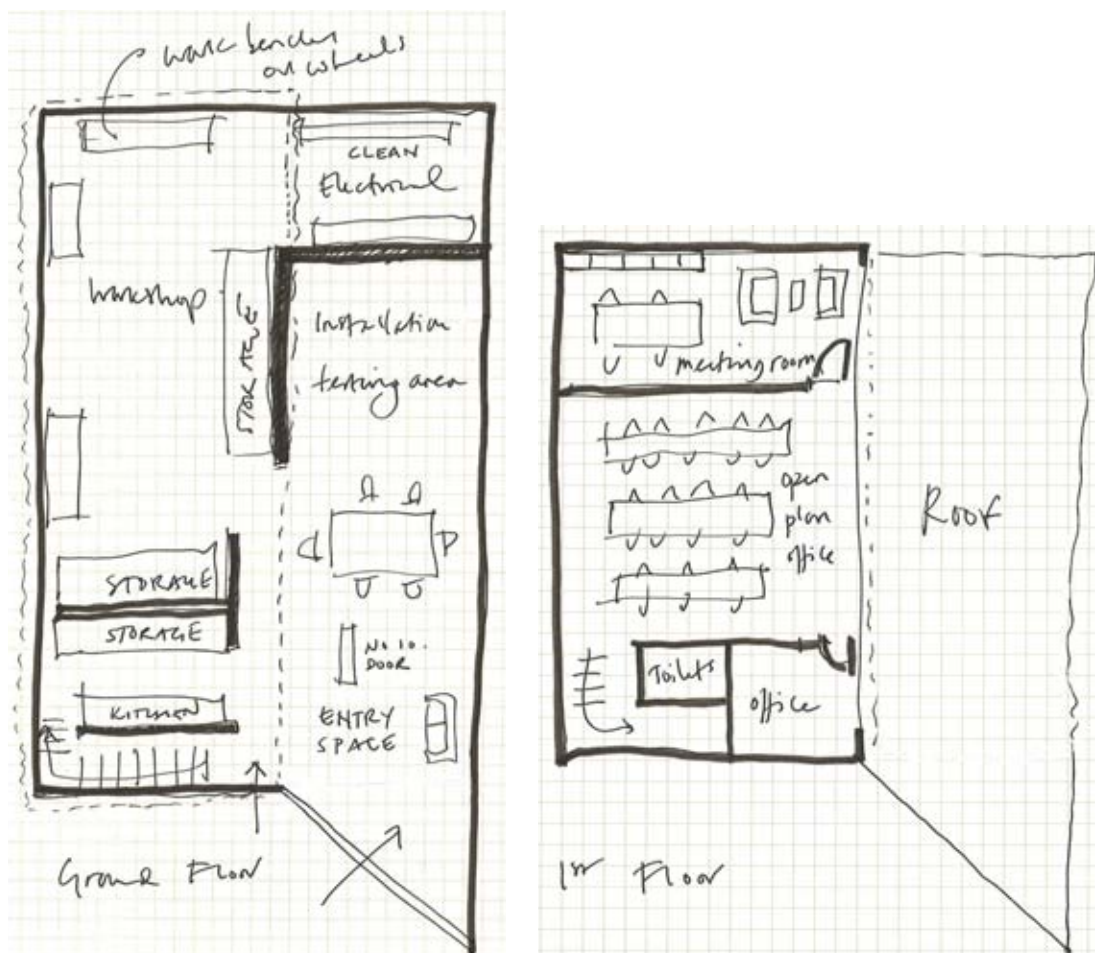


Fig. 72: 'Indicative Ground Floor Plan'. (Furniss, 2015).

Fig. 73: 'Indicative First Floor Plan'. (Furniss, 2015).

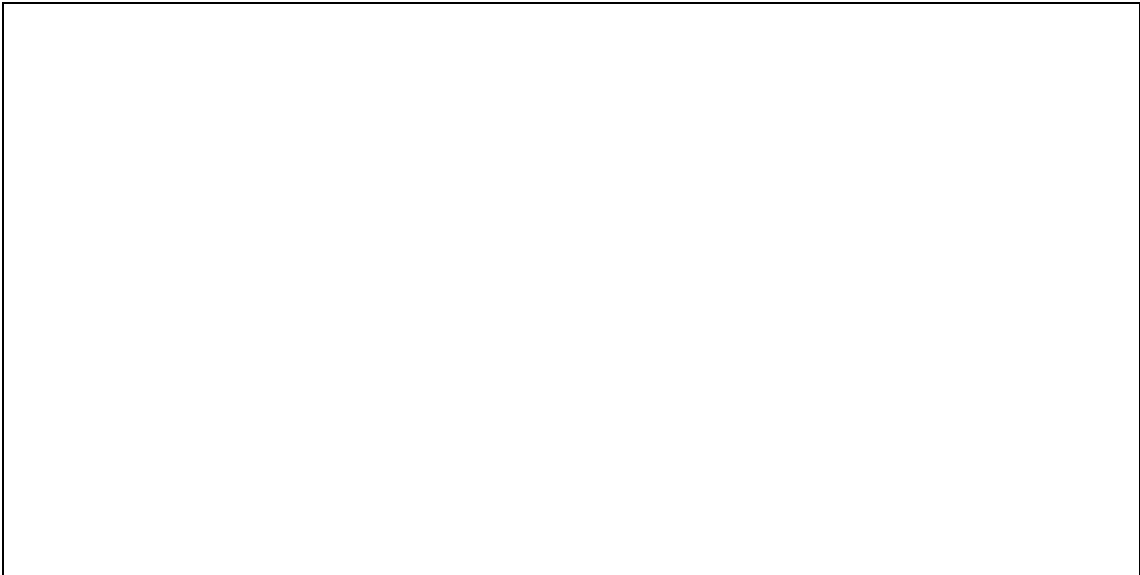


Fig. 74: 'Workshop'. (Design Week, 2015).

Bruges explains the original aim of the studio was to investigate architecture that could perform, and change, and interact: 'So the idea of interactive, responsive, intelligent architecture that took you from robotics, cybernetics, computer science, biomimicry, things that are potentially very playful and performative, but at the time there was no reason to do that.' Bruges uses a Venn diagram to demonstrate the work sits in the intersection between installation art, time based 4D architecture, and interaction design and cybernetics (Fig. 75). The philosophy of the studio is rooted in Bruges' personal motivations: 'I'm very curious, I like to innovate, I'm interested in new things, but not necessarily for new things sake, but also in order to improve the environment, to make a difference, to make people's lives better, and more interesting' (One Minute Wonder, n.d.).

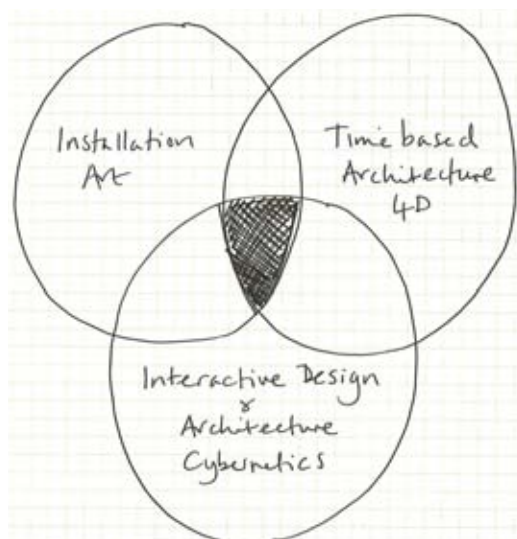


Fig. 75: 'Venn Diagram'. (Furniss, 2012).

#### **4.5.2 Practice**

When entering this new creative territory, Bruges says ‘the question was what to call yourself, to get the work. Each kind of work can be represented in many different guises.’ (Rodgers and Smyth, 2009, p. 91). Bruges is described as ‘a pioneer of this hybrid in-between space’ and that he has ‘paved the way for a new genre of design studios, artists and designer-makers’ (Global Design Forum, 2016). Bruges explains the studio has two threads of work, art commissions and design commissions: ‘Some people are commissioning us to create artwork. On the other side we’re solving problems for people. So where the brief is more function-led we’re designers, and where it’s more art-led we’re artists. It’s a blurry line in between those two things really.’

Bruges believes the best way to understand the work is through philosophy and palette: ‘it’s a mixed media, high tech architectural palette. But it’s all very much about bringing spaces to life, working with the built environment. We’re inhabiting spaces that aren’t quantifiable.’ Bruges explains projects range ‘from very small to very large, and vary in life span,’ yet what they have in common is people: ‘It’s about making people engage with their environment’ (Rodgers and Smyth, 2009, p. 92). Small projects include an interactive nano surface projected onto a foyer at Southampton University, using a laser microscope (Rodgers and Smyth, 2009). Large scale projects include London’s first responsive, illuminated architectural façade artwork (Fig. 76), that captures changing colour and light of the city’s skyline via cameras, interpreting the content into light performances (Jason Bruges Studio, n.d.).





Fig. 76: 'Showtime'. (Jason Bruges Studio, 2010).

## **Menu of Work**

Below is a range of work, both proposed and realised, produced by the studio since it's foundation. I have curated and arranged the work by scale, from small to large:

**Virtual scale** - Nano technology: a nano surface that interacts with people.

**Small scale** - Interactive Benches, Interactive Door, Lights, Digital Chandelier, Interactive Sculpture.



Fig. 77: 'Scent Constellation', Le Grand Musee du Parfum, Paris'. (Jason Bruges Studio, 2016).



Fig. 78: 'Panda Eyes, World Wild Fund for Nature'. (Jason Bruges Studio, 2010).



Fig. 79: 'Digital Double', No 10 Downing Street'. (Jason Bruges Studio, 2015).

**Medium scale** - Stage Sets, Branding Events, Hotel Interior, Multi-Sensory Brand Experience. Outdoor Installations: Shopping Centre; Roundabouts; Sea Container; Museum Gardens; on a Beach; on a Mountain. Indoor Installations: Train Platform; Cathedral; Hospital; Offices; Universities; Convention Centre; Museum Galleries; Trade Show; Exhibition.



Fig. 80: 'More4 Rebrand'. (Jason Bruges Studio, 2012).





Fig. 81: 'Back to Front'. (Jason Bruges Studio, 2014).

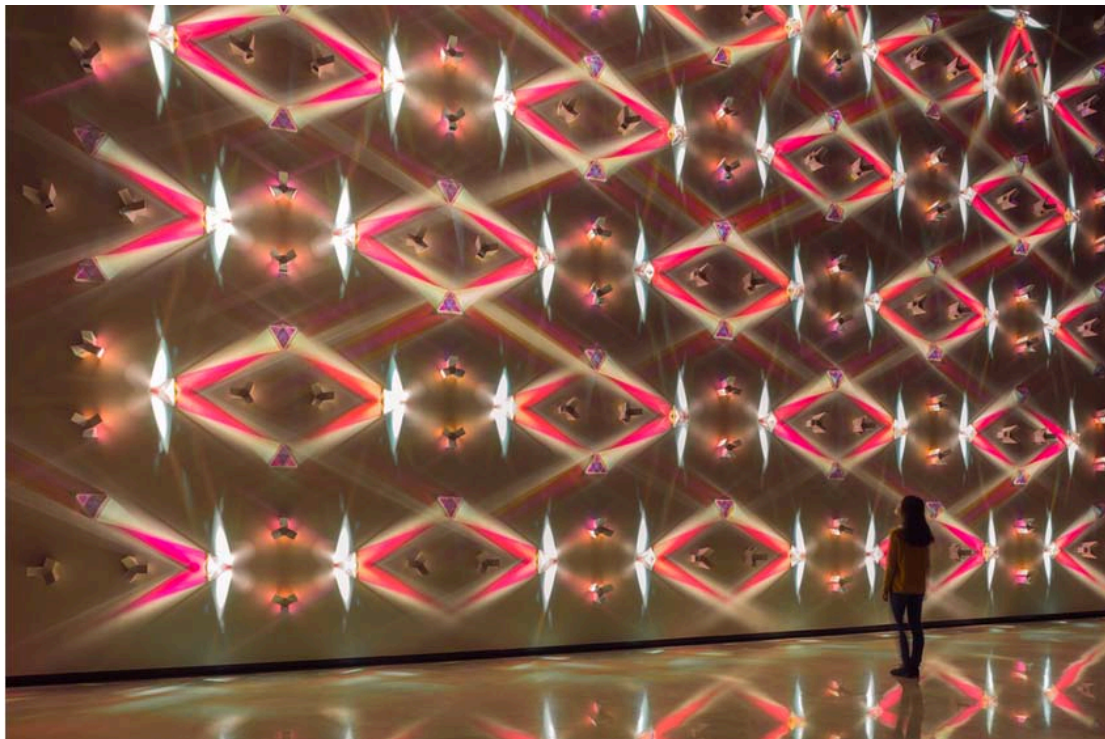


Fig. 82: 'Dichroic Blossom'. (Jason Bruges Studio, 2014).



**Large scale** - Architectural Facades, Outdoor Installations: over Bridges; along Roads; in Parks; at Race Track; across a City.



Fig. 83: '55 Baker Street – 1'. (Jason Bruges Studio, 2008).

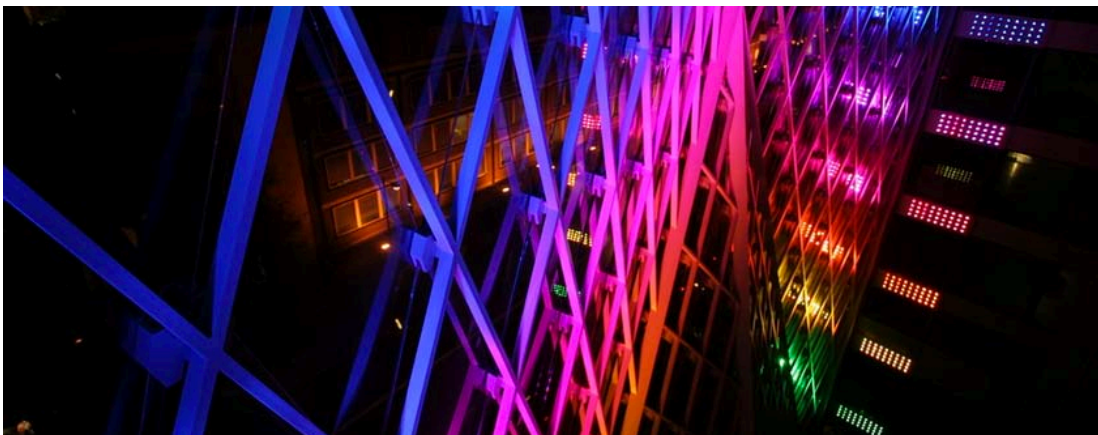


Fig. 84: '55 Baker Street - 2'. (Jason Bruges Studio, 2008).

## **Process**

Bruges describes the process as: 'the same whether it's a stand alone artwork in the gallery, an intervention in a public space, collaboration with an architect, limited edition piece, or even a piece of consultation' (Rodgers and Smyth, 2009, p. 91). Key components include: percolation; visualisation; prototyping, testing and making; pushing boundaries; human interaction.

Bruges explains that the studio operates 'somewhere between an architectural practice, an art studio and some sort of digital design studio.' On the surface, the process appears traditionally architectural, as Bruges describes: 'it starts with feasibility and concept, then you get into scheme design and detail development, then detail design and construction design, then production planning, production, handover, assessment, and maintenance.' Walker agrees: 'It's quite standardised, I'm quite surprised because I thought every project would be totally unique when I came in. But actually we have quite a well practiced ritual of design which is very helpful.' However, Bruges highlights that these eleven stages are fluid: 'it changes for each project. It's a guide really.' Using this formal structure is partly for the client's benefit, as Bruges explains: 'it gives them reassurance essentially...even if it looks risky, they've got some belief in you, in terms of being able to realise it' (Rodgers and Smyth, 2009, p. 109).

The process varies in response to the nature of the brief, as Walker explains: 'Some are more abstract, open-ended. Others are very specific. Much of our work is pre-emptive. It grows out of the soil of chance conversation or knowing a client or site.' For open-ended briefs, the process starts with analysing and picking out key points from the brief, in tandem with sketching. A series of internal reviews follows, which Walker describes as 'reviewing and reviewing and reviewing and refining. It's almost like percolating.' Within this emergent, iterative process, Walker explains that interruptions can happen: 'every now and again, through that percolation process, there will be a spanner thrown in the works...which will completely reverse our direction for the project. That happens more often than not' (Fig. 85).

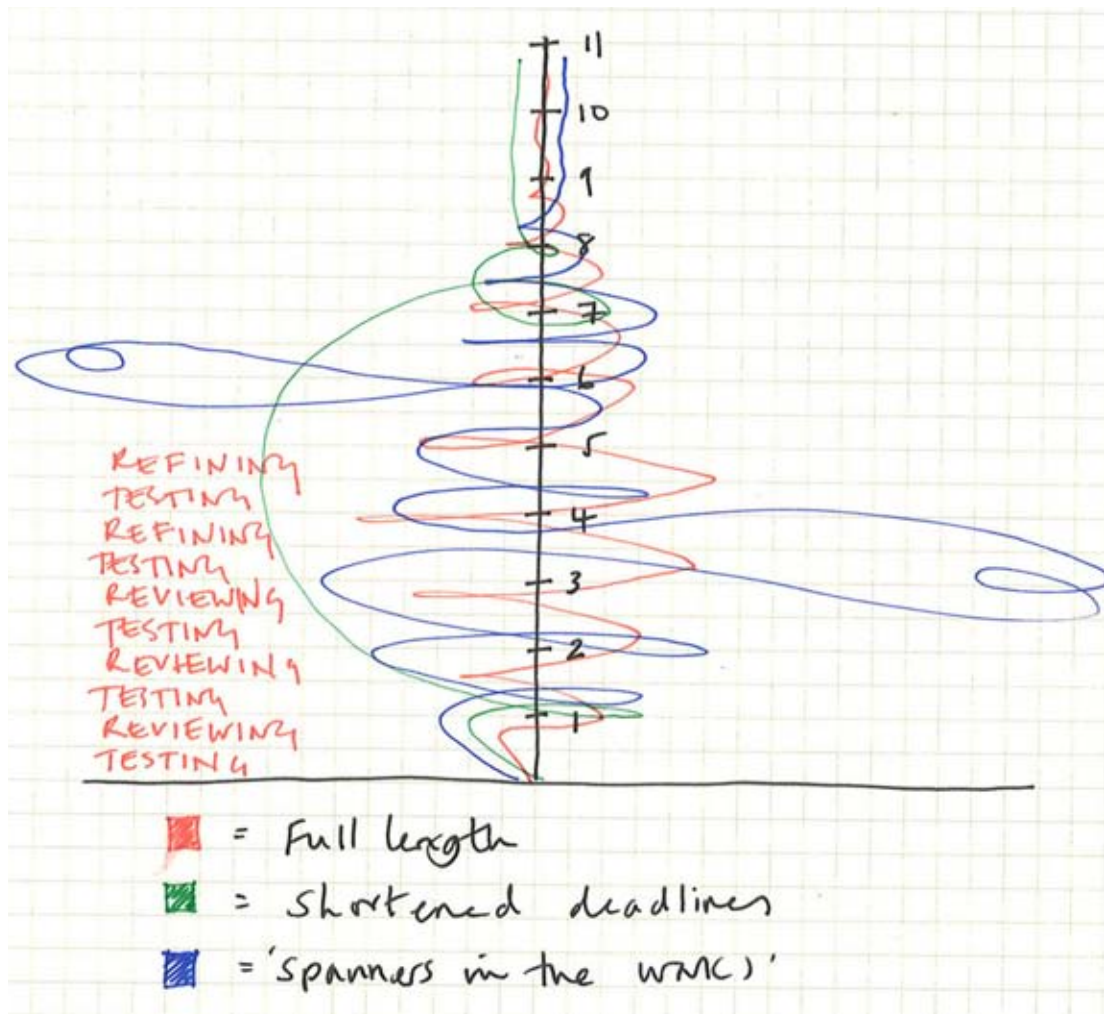


Fig. 85: 'Jason Bruges Studio process diagram'. (Furniss, 2015).

Due to the interactive, time-based nature of the work, the role of the visualiser is crucial in the process, as Liu explains: 'Most of our clients expect something animated, mobile, transformable.' As a visualiser, Hasan is brought in at the beginning of a project: 'Jason will appoint a design manager and they will work with the visualiser to come up with a strong enough concept.' As the studio invents new work, the visualisers have to invent new ways to visually communicate these ideas. Hasan explains: 'In my head I'll go through a list of ways, thinking 'let's try this'. You build up the skills like a giant list in your head, then you deploy them.' The studio predominantly uses Cinema 4D, Rhino, Grasshopper and After Effects. Hasan also uses more unexpected software including Cryogen, a game engine, and Arduino, linked to robotics.

As designer-makers, the next stage of the process is prototyping and testing. Bruges explains: 'My favourite part of the creative process has to be when you've created the first prototype and you get a glimpse of that first bit of magic' (One Minute Wonders, n.d.). Bruges also believes it is a vital part of the process: 'What we try and do is a lot of the early conceptual stuff in-house, so that we're really prototyping, making, testing, doing ourselves. It makes us agile and also means you come up with strong concepts if you're all working on it together.' Walker believes that at prototyping stage, the process becomes 'very bespoke', explaining: 'We might prototype something, test it, re-prototype it, take it apart, do something else. That's quite unique to this practice.' Testing is also necessary due to expected life span of a design, as Bruges highlights: 'We have had tests ranging from shotgun tests to full cans of coke being thrown at them across the studio, good fun but very important.'

The studio encourages risk taking, pushing ideas to their limits, whether in the choice of project, use of new technologies, or through research and development. Robinson explains: 'We take risks because we want to keep it interesting. If there's an opportunity for a small budget high risk bit of research, Jason will gun for it. Jason is always keen to break a few rules.' Pushing technology is essential for the studio, as Walker explains: 'We like to be one of the pioneers of new technology. We're currently looking at heat as a building material. Heat as a material for art is very rarely used.' The development of studio members is also encouraged, as Walker explains: 'R&D time is encouraged, not just permitted.' Hasan was supported to do a robotics course in California, choosing it because: 'When you're animating things digitally you're also wanting to try and generate those movements in real life. I made a walking bipedal robot, created a 3D interface and was able to alter the movements in real time from my computer.' Hasan credits the studio for enabling creative progression: 'It's good that you're getting that push to go off and make. You're pushed into every role in some way.'

All projects focus on human interaction, either as a tool to communicate or inspire. Bruges explains: 'These pieces wouldn't be anything without the people who interact with them' (Chalcraft, 2013). One example is The Nature



Trail, a distraction piece to improve patients journeys into theatre at Great Ormond Street Hospital. The piece is aimed at children from new born to 16 years old, and covers a 50 metre stretch of corridor walls in bespoke interactive wallpaper (Fig. 21). Illuminated animals appear through a forest to engage and interact with passers-by (Fig. 22). The animals come to life, at varying eye levels, when sensors located in the ceiling sense movement below (Wainwright, 2012).



Fig. 86: 'The Nature Trail – 1'. (Jason Bruges Studio, 2012).



Fig. 87: 'The Nature Trail – 2'. (Jason Bruges Studio, 2012).

Another example is the 21<sup>st</sup> Century Light Space Modulator, which takes inspiration from László Moholy-Nagy's Light Space Modulator (Fig. 88). Designed in 1930, Moholy-Nagy's visionary intention for his machine was that: 'In the near future, this technology might be used as advertising, or at public festivals as entertainment, or as theatre, to intensify moments of dramatic tension' (Witkovsky, Eliel, and Vail, 2016, p. 145). The studio's 21<sup>st</sup> Century Light Space Modulator takes the concept one stage further and uses motion sensors so the machine responds to, and moves with, performers. Bruges explains: 'our installation explores not just the relationship between space and light but also people's behaviour within a space' (Brister, 2012) (Fig. 89, Fig. 90).

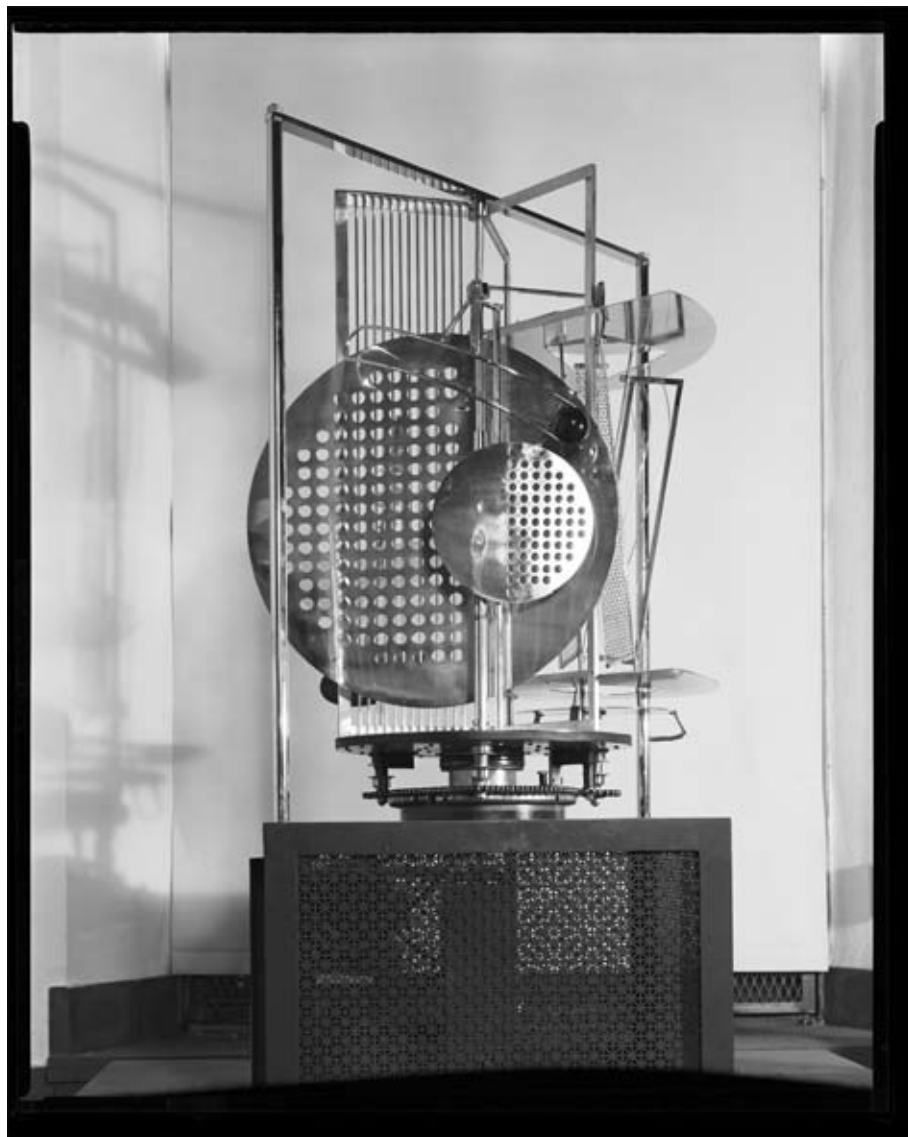


Fig. 88: 'Light Space Modulator'. (Moholy-Nagy, 1930).



Fig. 89: '21<sup>st</sup> Century Light Space Modulator -1'. (Jason Bruges Studio, 2012).



Fig. 90: '21<sup>st</sup> Century Light Space Modulator -2'. (Jason Bruges Studio, 2012).



## **Organisational structures**

Bruges and two other Directors form a basic hierarchy, but otherwise the structure is fairly flat. Walker explains: 'The hierarchy isn't so clear cut. In my experience, it's far more common in conventional architectural practice to have that almost army or military-like chain of command. Whereas here it's much more fluid.' An example Walker gives is that Bruges frequently goes out to buy milk: 'It's really hard to get across to people how rare that is.' Another example Walker gives is that there doesn't appear to be a junior member of staff: 'there are people who have not been here as long and people who might do more manual tasks than others but it's much more fluid. It's never Us and Them, it's just Us.'

Bruges describes studio members as the 'sum of all parts, like an orchestra' and team selection is based on availability and skills: 'We have a team leader and then you'll pull in people across the matrix to help out, and that team might change over time, and also might have external members as well.' Bruges' role also fluctuates: 'It goes through cycles of me getting really hands on or not, depending on where the needs of the business are. I'm quite a believer in people getting on with things as well. Giving people as much exposure and opportunity within the projects themselves.' Walker describes the fluidity of roles within projects: 'We often do, not exactly role-reversals, but act as support for each other.' Liu explains the breadth required for her role: 'So design and management all together in one person. I think it's quite unique compared to what other companies are doing. I can learn the whole process of a project and develop lots of other skills.'

Bruges thrives on the diversity of the members, the richness they bring: 'I really enjoy different points of view.' When asked what role disciplines play within the studio, Bruges explains it is equally to do with experience and skill sets: 'I think there's discipline and there's experience. It's a mixture of the two really.' Liu sees separation between design and electronics, although all members 'share a view' and fluidity between the two is encouraged. Being a designer, she explains: 'I don't think I can cross over to the other side ever, but I can gather the skills from that side so that I can understand and design better.' Robinson is an example of how traditional disciplines are not

necessarily required, as he has no formal design training: 'I've proved it and a lot of others have as well, if you've got a passion and you're driving to do something then you can get them on board.' He goes on to explain: 'We are a small studio. We have to wear multiple hats in this place.' Liu agrees: 'The reason for us to be here is that we don't want ourselves to be limited by our own discipline.' Hasan sees no limits: 'I'd say you're only in your box if you choose to be. I wouldn't have got into this animatronics course if I hadn't started absorbing a lot of the stuff around me. It's infectious.' External experts and collaborators also play an important role, as Bruges explains: 'You might just have some very specialist requirements for a project.' Many of their projects also have multiple clients and stake holders that they need to collaborate with.

### **Core capabilities**

Bruges describes the studio as: 'Very eclectic, and more often about personality and a mixture of skills' (Rodgers and Smyth, 2009, p. 108). Walker explains: 'We hire staff who are really passionate and enthusiastic about what they do.' Walker believes members are carefully selected for their compatibility: 'That could be down to good recruitment, looking for certain character types, but I've never had an argument with anyone here. Everyone just gets on really well.' Walker puts this down to a healthy attitude with no egos. In the wider profession Walker feels there is: 'A culture of delusion and spite and bitterness which I actually think originates in architecture school, a culture of competitiveness, infighting and people only looking out for themselves. They don't have that same egotism here.' Walker explains that this healthier approach enables better communication: 'This type of practice is about conversation.' Robinson agrees, citing social skills as a priority: 'Social I'd say are top of the list. It's a tight team and you've got to get on with the people otherwise you're out.'

Bruges explains a primary capability is having: 'an interest in hybrid worlds and environments.' Other capabilities Bruges lists include: 'the ability to communicate, to draw, to design, someone who has really explored outside the norm of things, who is creating novel and innovative work.' Bruges

continues: 'There are certain sets of skills and people that really suit this environment, so we're picking up architects, interaction designers, product designers, creative technologists. We've hired civil engineers, mechanical engineers, industrial designers. People that have built, tested prototypes, created interesting novel work themselves.' A can-do attitude is also key, as Bruges explains: 'Even if they don't do core software engineering, or programming or coding, it doesn't really matter. I'm drawn to people who are obsessive and interested in the things they do. They could be a jeweller, a writer, a graphic designer.' Hasan highlights having energy as a real plus, explaining: 'If you're not self-motivated I don't think you're going to enjoy it as much, you're not going to push it, you're going to stagnate.'

### **Spatial requirements**

Robinson describes the studio space as 'eclectic. It seems to have an original feel to some of the other studios I've been to. Not sterile.' This eclectic feel comes from the variety of work, both complete and in development, scattered around the ground floor area. In contrast, the first floor office is fairly non-descript and open plan, which Bruges explains is 'key to communication'. However, due to the nature of the studio's process, the workshop is the key space, as Bruges explains: 'having a workshop is really important, we can build and test and we don't just send things out and wait for them to come back. If you're waiting, you're not going to iterate fast enough.' Robinson sees the workshop as key to 'being able to play', and explains: 'We're very fortunate, a lot of studios don't have it. I think if you've got a practice like ours, if you haven't got a physical space you're missing a trick because there's no way you can design anything just by drawing it out. You need to get stuck in.' Robinson believes not having the workshop would 'change the business, it would become more about talking and planning than actually physically altering anything. A lot of the guys here take things apart and break a few rules. I think that would be extremely difficult without that space.'

Robinson also sees the workshop as key to communication: 'You can see clearly people's thoughts and the progress of projects.' Hasan agrees: 'I would prefer being down here more because it forces you to not just be at your

computer. Sometimes I come down here and work on my laptop. It's nice because you're around all the people who are making stuff.' Liu explains how the space has recently been modified: 'We just newly built the benches with wheels which is amazing so that you can move them around and spread out for bigger things.' However, Liu would like the workshop to be even bigger: 'We always want a bigger workshop. We are fighting for space for prototypes. It's too constrained for bigger scale work. You can't turn around with a large piece of timber.'

## **Evolutions**

Bruges does not feel the philosophy of the studio has evolved, describing it as: 'Twenty years of the same work really. It gets commissioned for different uses, that's the bottom line. It's still mixed media, it's still technological, it's still environmental, it's still site specific.' However, he does see a slight evolution in focus, 'depending on the sorts of people we have in the studio, because obviously you get a strong furniture maker and you're creating things in really beautiful boxes, and the next minute you've got someone in that's got an interest in something else and it sort of shifts.' This change is also due to changes in management, as Bruges explains: 'My role has changed over the time. In the beginning I came up with the idea and presented it, now I'm making sure everyone is doing what they should be doing and that it's moving forwards.'

Growing success is causing issues with growth, and space is being pushed to its limits. Bruges explains: 'Testing, prototyping, looking at how things work, really works at that size (pointing to an installation set up in the entry area). And the thing is we've typically got three or four of these sorts of things being tested at the same time.' Another challenge is the rise in London rents. Bruges explains that this is making him question the workshop space: 'The cost of that space has gone up three times in the last four years.' This has forced Bruges to consider moving: 'We're looking to move anyway, but we've got to work more cleverly. We're going to probably grow in size because of the size of projects we're getting. We'll have to fit more people into a smaller space.' The workshop is the heart of the studio, yet it is under threat due to these

pressures. Robinson explains: 'financially it's difficult to keep. I can see the business logic of saying 'We don't need this', but I think the directors still see the importance of that. Because when you bring a client in, and you've got a physical thing, you can get more sell from that than just sitting in front of a computer.'

### 4.5.3 Pedagogy

#### Past experiences

Key themes valued by the interviewees, when discussing educational experiences, include: lateral thinking; hybridity; and, wide achieving. Bruges' educational experience at the Bartlett has had direct impact on his philosophy: 'My Postgraduate Masters was about lateral thinking. Mentors such as Stephen Gage, and Sir Peter Cook, taught the process of creative problem solving to encourage disruption and new approaches to technology.' The Bartlett program is structured into units. Bruges went into Unit 14, exploring Architecture and Cybernetics, and was taught in very loose terms, with a focus on 4D architecture. Both Walker and Liu also studied at the Bartlett, in the same Unit. Walker chose the Bartlett to: 'explore new ways of thinking about architecture. That was where I first got to explore interactive architecture, programming, coding, electronics, and tried to create interesting interactive environments, not just standard bricks, mortar, and inert spaces.'

Walker experienced hybridity during his undergraduate degree, which he describes as: 'a pioneering experiment when Manchester University and Manchester Metropolitan came together to synthesise their design courses.' The course combined the architecture school of Manchester University with the arts and crafts ethos of Manchester Metropolitan University. Walker explains: 'it had a very strong theoretical underpinning with a strong emphasis on physical thinking, making, communicating and exploring through materials. I didn't touch a computer for the first two years of my course. The onus was on us to be self-directed.'

Robinson had a formal Fine Arts education along-side informal education exploring many other areas including computer engineering. Robinson found his Fine Arts education provided him with: 'a sense of freedom and I think the tuition fees just came in the last year when I finished. So, I guess that was a golden period, you could take massive risks.' Exploring other avenues along-side his formal education, instilled Robinson with self-confidence despite not having a clear end goal: 'I knew I'd get somewhere but I didn't know quite how I'd get there.' After recently reading *How to Find Fulfilling Work*, by Roman

Krznaric (2012), Robinson now describes himself as a wide achiever: ‘I’ve always been the person that’s needed another part to me to make myself more whole. I’m happy to jump sideways. Some people might see that as misguided...but for me, I feel rewarded being able to jump from industry to industry and take what I need from those pots.’

### **Present involvement**

Bruges has taught at the Bartlett, as well as other institutions, including the Royal College of Art, and recently wrote an article for the *Guardian* (Bruges, 2015). In the article, Bruges explains the importance of the education system in the UK, saying ‘we must protect it at all costs.’ Bruges highlights that many members within the studio come from abroad and are attracted to the UK because of the design schools. However, Bruges asks: ‘how do we maintain an upper hand when we might very well be hanging on by our fingernails?’ Bruges believes the key to British design education is ‘not only that it teaches the technical skills of design, it also teaches process and thinking’ and explains ‘we must keep up by staying nimble and ensuring the quality of our output remains world beating.’ A solution Bruges recommends is that private enterprise must support the university system ‘if we’re to ensure graduates are fit for purpose for the jobs available to them. More studios should collaborate and partner with universities to give back to the education system. It’s an excellent way of sourcing exciting new talent too. It’s an ecosystem that benefits everyone involved.’

Walker is also involved in teaching, both at Newcastle and Nottingham, and believes the first thing that should happen to students is ‘a complete de-programming. Get rid of all the assumptions about what architecture is, and then show them what architecture can be, and also let them suggest what architecture could also be.’ One course Walker has designed is Tracing Echoes: ‘It was basically thinking about architecture in a new way...encourage people to be curious. I taught with a partner, and she’s a dancer, so we were saying ‘What about physical thinking? What about looking at the body as a drawing tool? Basically getting them to think about architecture beyond what they see on Grand Designs.’

## **Future implications**

Key themes that interviewees believe education could learn from the studio include: cross-disciplinarity and breadth; collaboration and agility; encouraging failing; providing shelter.

Bruges believes a fundamental lesson education could learn from the studio is its cross-disciplinarity: 'I would encourage the way we work on cross-disciplinary projects, which I see people talking about but not really happening.' Robinson believes undergraduate education should be less about disciplines and more about a broad range of skills: 'I think it's less about being like an illustrator or a graphic designer. A graphic designer can be someone who is graphically aware but has a huge skill set. Studios need people with a very broad range of skills.' Hasan agrees: 'I think we need to still allow the room for exploration at that stage. But you can't really do that because you're on this trajectory and it's so fixed.' Robinson believes students should make their own titles and define themselves: 'If you're good and passionate you can make your own title.'

Another element Bruges believes should be supported more in education is collaboration: 'People working in groups rather than doing solo work is a big thing, because the real world is groups.' Bruges also highlights transferrable skills as essential for students: 'The tools that people use if they've been trained as interaction designers are very different to the tools that product designers are using or architects or interior designers. They could use each other's skills more. You could get in tutors from different disciplines.' Walker agrees: 'We need to make architecture students much more aware of the flexibility that their skills allow them to achieve in society. We need to make people aware that they're actually much more agile than they realise.'

The importance of failure during education is also raised, and Bruges explains: 'I don't think, on courses, people are told to prototype and test and do things that actually fail enough. Because we're probably doing quite a lot of that and people are upset by that, but really if you're pushing interesting things it's actually quite a good thing, and you probably learn more from it.'



Bruges acknowledges that encouraging failure in the educational environment could be challenging, but sees a solution: 'Being marked on a process that describes failure could actually be perfectly fine. You could describe a failure really well and beautifully and it could be communicated really nicely. Process, the workings behind something, is so important.'

Walker is concerned about the rise in hot-desking in education: 'We don't hot desk, we all have our own computers, we all have our own desk. And I think if you do the whole hot-desking thing then it sounds on paper like everyone's free, everyone's more mobile. Actually, does anyone really use it?' Walker also expresses concern at the diminishing sense of shelter he feels education should provide, and that the studio supports: 'I don't know if education is a shelter any more, cocoons where you can just remove yourself to have a bit of breathing space. Imagination and creativity need breathing space. I think slowly but surely it's being removed and commodified now.' Walker believes the introduction of university fees has elevated this issue: 'You can't have that breathing space unless you come from privilege.' From a council estate, Walker says: 'I see less and less people from my background doing the same thing I'm doing. I think more and more people are frightened now.' Walker concludes by stressing: 'Design is hard, it takes time, and actually we need to be more respectful to the time element. But when time is so commoditised, where are these little educational oases going to pop up, because they're just going to get starved immediately of resources.'

#### **4.5.4 Summary**

Setting out to investigate architecture that could perform, change and interact, the work of the studio sits in a hybrid space between installation art, time based 4D architecture, interaction design and cybernetics. The work emphasises curiosity and innovation, is human centered and focuses on connecting to the environment.

The process is the same for a stand alone artwork in a gallery, an intervention in a public space, or collaboration with an architect. Ideas are emergently grown, and then fluidly percolated, through a series of iterative loops, reviewing and refining. As designer-makers, continual prototyping and re-testing in-house enables agility. Animated visualising is crucial to communicate how designs will perform and react. Taking risks, breaking rules and pioneering new technologies are all encouraged. Apart from a basic hierarchy, the structure is otherwise unconventionally flat and fluid. Teams are selected on availability and skills, and Bruges regards members as ‘the sum of all parts, like an orchestra’. The studio thrives on diversity of its members who: wear multiple hats; enjoy learning new things; are inspired by each other; do not want to be limited by their own disciplines. Core capabilities include: an interest in hybrid worlds; being obsessive with a wide ranging in skills and interests; being original and self-motivated; a compatible personality without ego. The studio is eclectic in feel, with the workshop at its heart. The workshop plays a vital role in enabling agility and iteration, encouraging play, and providing an infectious environment where members creatively inspire and motivate each other. Commercial success has led to issues with growth. Combined with a sharp rise in London rents, this means the studio now needs to move, placing the workshop under threat.

Studio members came from hybrid, non-traditional educational experiences, that encouraged disruption, lateral thinking, a sense of freedom and the confidence to jump sideways. Bruges believes it is crucial for UK education to stay nimble, to emphasise process and thinking and collaborate and partner with industry studios. The studio believes education should: de-program all first year students of preconceived assumptions; encourage curiosity; provide

cross-disciplinary working; encourage self-definition rather than accepting traditional labels; provide constant collaboration; bring in tutors from different disciplines to demonstrate transferrable skills; make failure an assessable outcome.



## 4.6 Punchdrunk



Fig. 91: 'Photograph of Punchdrunk's Store, Newham, London'. (Furniss, 2015)

#### 4.6.1 Introduction

This study was conducted between January and April 2016. Visits included: The Lost Lending Library performance at Britannia Village Primary School, London; client presentation at Greenhive Care Home, Peckham, London; volunteering as a set builder at the Store. At the time of the first visit, the studio comprised twenty seven permanent employees, of which five were interviewed in order to capture a cross-section of roles. Three members were interviewed at Shoreditch House, and two members were interviewed via Skype. Interviewees include: Felix Barrett; Peter Higgin; Julie Landau; Alex Rowse; Livi Vaughan (see Appendix 13 for interviewee details).

Due to the necessity of setting up a base on location for every production, Punchdrunk describes itself as nomadic (Punchdrunk, n.d.). However, it has three fixed locations: the Store (Fig. 91) where props are kept and sets built; the Office (Fig. 92) where the administrative team are based; private members club Shoreditch House (Fig. 93) where meetings are conducted.



Fig. 92: 'Photograph of Punchdrunk's Office, Shoreditch, London'. (Furniss, 2015)



Fig. 93: 'Photograph of Shoreditch House, Shoreditch, London'. (Furniss, 2015)

The Store is a located within an industrial estate in Newham, south east London. The exterior is an unassuming red brick warehouse, but on entering



you discover a giant cabinet of curiosities (Fig. 94, Fig. 95). The interior is filled with props of all sizes, from bottles containing smells to large scenic elements. In January, designers and makers gather round a gas fire to keep warm while carpenters build furniture, dressed in hats and gloves. Shoreditch House, in contrast, is a private members club for the creative industries. Despite strict entry security, the social meeting areas have a relaxed atmosphere, with high noise levels, as every space is filled with members either working alone, having informal chats or more formal meetings.



Fig. 94: 'Photograph of Store interior'. (Furniss, 2015)



Fig. 95: 'Photograph of boxes'. (Furniss, 2015)

The studio was founded in 2000 by Barrett and Higgin. Rooted in live performance, Higgin explains that the mission 'is and has always been striving to make audiences feel punchdrunk.' Barrett explains the studio was 'born from a desire to explore new ways of engaging with an audience', creating a theatrical experience that felt 'more real, more physical, more visceral' (Ivanauskas, 2015). Sound designer Stephen Dobbie describes their approach as 'storytelling on an epic scale' and explains this is a reaction against the 'passive obedience of traditional theatre' (Dobbie, 2014).

#### **4.6.2 Practice**

When asked to define the studio, Higgin explains that he first needs to ‘take a deep breath’ due to the complexity, and usually resorts to ‘trying to describe what the work is.’ Higgin believes the easiest way is to compare it to film, except ‘you are able to go where ever you want, you are the camera to your film.’ He describes the work as radically different from traditional theatrical performances, due to the focus on: ‘Personal exploration, non-linear storytelling, epic worlds, potential for multiple viewing, sensory and visceral responses, and connecting the live with the remote’ (Dixon, Rogers & Eggleston, 2012, p. 8). These epic worlds are a response to modern life, as Higgin explains: ‘In a world of digital we are very much an analogue company. The world is real, it’s very much object based. The smells, the touch, the texture – these things that engage the senses’ (Allfree, 2015). Barrett believes the best definition is ‘Theatre Company’, despite projects ranging from Apps for brands, to large scale experiences across cities. Barrett explains this is because their work is always approached ‘with a theatrical lens.’ Critics frequently use the term immersive, but Barrett prefers ‘site-sympathetic’ and ‘experiential.’

There are two main branches of the studio, Punchdrunk and Punchdrunk Enrichment (founded in 2008). Punchdrunk’s most ambitious project to date, *The Drowned Man*, opened in London in 2013, ran for one year, and combined the play *Woyzeck* with a fictional Hollywood film studio narrative. The performance was set inside a 200,000sqft disused Post Office sorting building, with 600 audience per night, a cast of 34, and a crew of hundreds. Punchdrunk Enrichment operates slightly separately, but follows the same philosophy. Shows range from ‘encouraging children to engage with history through the medium of storytelling’ in *Against Captain’s Orders* (Allfree, 2015), to challenging ‘the ageist notion that older people might not enjoy or be able to participate in cutting-edge work’ in *Greenhive Green*, where residents of Greenhive Care Home, many of whom live with dementia, participate in multi-sensory activities (Snow, 2016).



## Menu of Work

Below is a range of work produced by the studio since it's foundation. I have curated and arranged the work by scale, from small to large:

### Virtual shows

The Séance – virtual audience experience, in collaboration with MIT Media Lab. (Fig. 96). Silverpoint App – Storytelling and Gaming App design, combining digital games and live experience, with iBeacon technology. (Fig. 97).



Fig. 96: 'The Séance'. (Dobbie, 2011).



Fig. 97 : 'Silverpoint'. (Cochrane, 2015).

### Small scale shows

Props (Fig. 98); Costumes; 'One-on-one' performances; The Yellow Wallpaper (in a cupboard within a theatre); The Night Chauffeur (in a vintage Citroen DS car); One Hundred and Ninety-two Doors (in a hotel room).

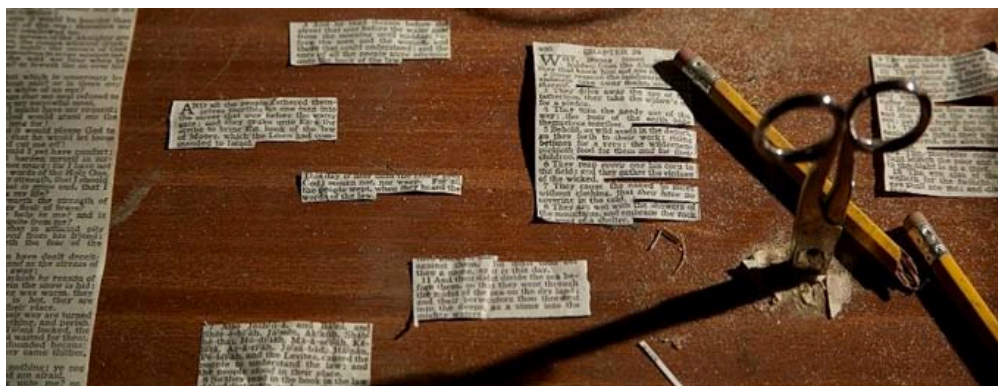


Fig. 98: 'The Drowned Man'. (Brinkhoff/Mögenburg, 2014).

### Medium scale shows

Lost Lending Library, Under the Eiderdown (touring within primary and secondary schools); Against Captain's Orders (National Maritime Museum) (Fig. 99); Greenhive Green (Greenhive Care Home) (Fig. 100); The Crash of the Elysium (touring); The Masque of the Red Death (theatre); *MCQ AW2012* (fashion show).



Fig. 99: 'Against Captain's Orders'. (Cochrane, 2014)



Fig. 100: 'Greenhive Green'. (Dobbie, 2016)

### Large scale shows

**Indoor:** The Drowned Man (disused Post Office sorting office) (Fig. 101); Sleep No More (empty warehouse); It Felt Like a Kiss (empty office block); The Duchess of Malfi (disused pharmaceutical factory); Firebird Ball (disused factory).

**Outdoor:** The Borough (across a town); Silverpoint (across a city) (Fig. 102); Punchdrunk Travel (across a county, across countries).



Fig. 101: 'The Drowned Man'. (Brinkhoff/Mögenburg, 2014).



Fig. 102: 'Silverpoint'. (Punchdrunk, 2015).

## Process

Working as an ensemble provides the studio with shared reference points. Higgin explains this has resulted in 'no Punchdrunk way, or method, or key principles necessarily written down in stone...You are often making up the model as you are doing it.' However, key components identified during the

study include: the importance of site; world creation; the role of the audience; pushing boundaries; new technologies.

The process always starts with the site, whether a derelict building or organisation. Barrett defines the process as ‘instinctual, visceral, and emotional’, and explains that when a site is found ‘the building will tell you what show it wants inside it.’ For Barrett, the large shows are sonically driven: ‘If I can find the right bit of music then I can see the show.’ Using *The Drowned Man* as an example, Barrett explains he found the space ‘very claustrophobic, very wide, like a film studio. Then the claustrophobia of it led to madness, which led to *Woyzeck*. Then it’s about the world and the music that overlaps.’ Using emotional mapping, Barrett explores the site: ‘As you map it, and as you log your route around it, you are building a picture of where the danger is and where the safety is’ which in turn creates an ‘emotional arc’. The studio also use the term site-sympathetic, as Higgin explains: ‘We use site, and we are sympathetic to any site. We are not site-specific. We are not looking to exclusively respond to the history of the site.’

The next step is to create the world, by taking a holistic approach, bringing site and theatrical performance together. Rowse explains this requires ‘a cinematic level of detail’, using all the senses, including smell, touch, atmospheric sound and dramatic lighting. Vaughan believes this detail needs to ‘hold enough information and excitement to hold an audience member just as much as a performance does.’ To develop ideas, the design team do not use traditional scale model boxes, due to the size of the shows. Instead, they create and inhabit full-size mock-ups on site, that will then either be discarded or developed as the show progresses. Atmosphere is achieved by working at light levels of 90% darkness, and props are carefully considered to direct the audience’s gaze, animate the space, and add human reference.

Once the spaces are created, performers are invited to explore and inhabit the world. Barrett explains: ‘We have six weeks in a rehearsal studio where we don’t talk about the space.’ Once on site, the performers ‘play a long three hour hide and seek, like children running amok in the space.’ The show then



continues to evolve. Higgin explains that extreme iteration occurs through ‘conversations...chopping down and refining.’ Landau describes how things continually changed on *The Drowned Man*: ‘you would set up a room and you would think it’s great. And then it would change, and it’s always changing.’ Figure 103 shows an indicative diagram of this process, starting with site at the core, then growing outwards, beyond opening night.

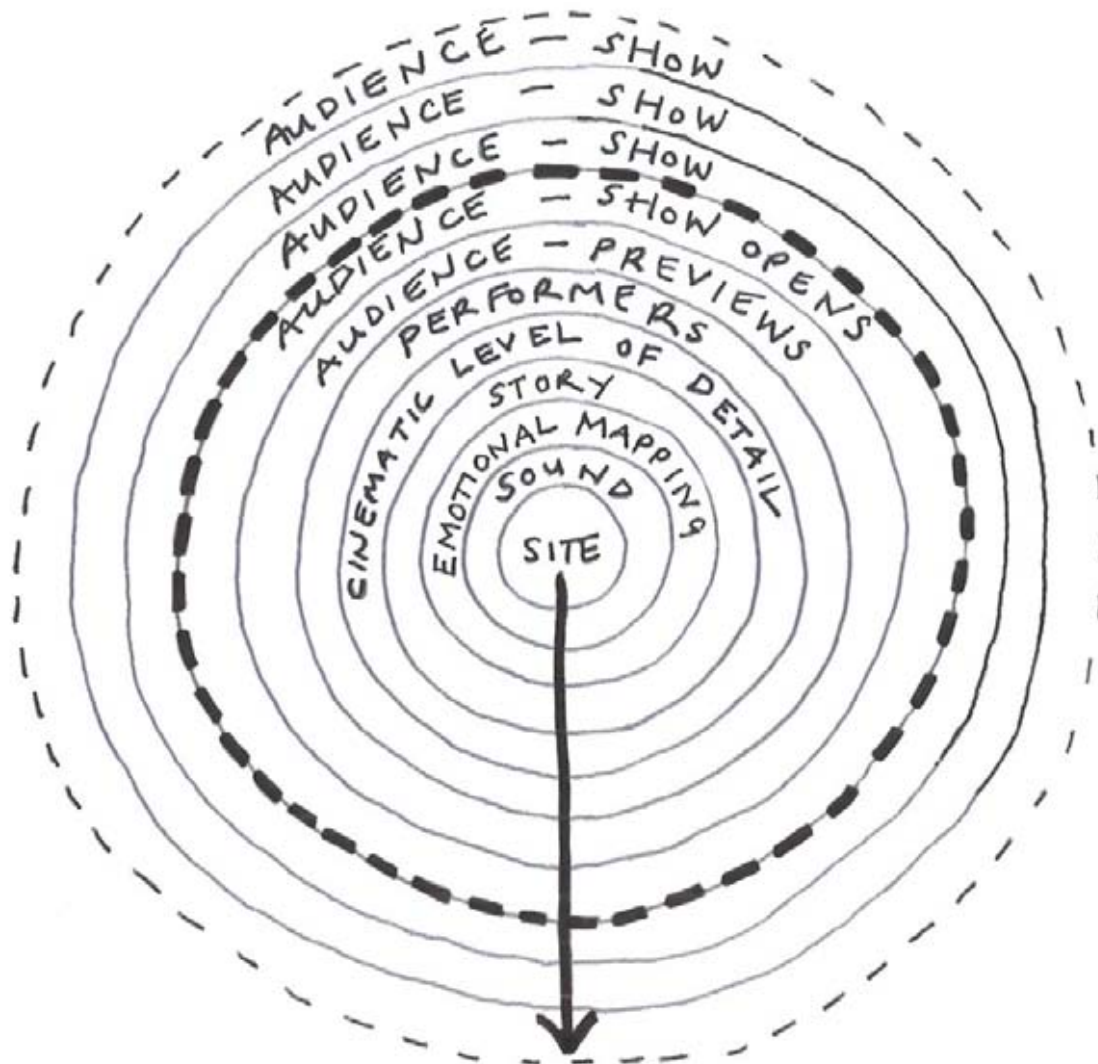


Fig. 103: ‘Indicative process diagram’. (Furniss, 2016)

This evolving process continues beyond opening, because, as Higgin explains: ‘The creative process really begins once you get an audience in, which I think is what is different about our work. Everything can exist hypothetically, but then you put the audience in and you think ‘oh, we didn’t think that would happen.’ Higgin explains that being audience focussed is fundamental to

Punchdrunk's process. A key requirement for audiences during large shows is to wear masks (Fig. 104). Barrett explains that in their early development the most interesting moment came when they introduced masks: 'Suddenly inhibition fell away and people began to exist in the stories they were watching. They became part of things' (Ivanauskas, 2015). Audiences must abide by other rules, including being silent at all times and not interfering with the storylines (Dixon, Rogers & Eggleston, 2012). Beyond these rules, the audience can move freely, interact and touch anything (except the performers). However, Higgin is quick to point out that although the audience may interact, their work is not interactive: 'It's heavily curated, but with the ability for you to make the choice to cut loose and go wherever you want.'



Fig. 104: 'Sleep No More, New York'. (Schulman, 2011).

Barrett believes the reason the work attracts such a wide audience is: 'As a culture we rely heavily on entertainment that requires the audience to be passive, and our work encourages curiosity, actively engages the audience with a sense of adventure and appeals to anyone who is looking for more immediate, physical experiences' (I-D Magazine, 2015). Random 'one-on-one' performances during larger shows have created 'superfans', who attend shows more than fifty times (Collins, 2013). To achieve this level of engagement, the audience are placed in a 'liminal state' which Dixon, Rogers and Eggleston (2012, p. 5) describe as 'mapping, understanding and iteratively designing the

ways in which an audience is separated from everyday reality.’ This enables a ‘sense of agency’ which allows the audience ‘to become self-directed....like a game’ (Dixon, Rogers and Eggleston, 2012, p. 5).

Key to the studio’s philosophy is pushing boundaries, as Higgin explains: ‘We are always looking for new ground. What’s the next challenge?’ This requires taking risks, as Barrett discusses: ‘I’m always trying to take risks. If it feels too safe, why bother doing it?’ (Gardner, 2011). An example is the development of Punchdrunk Travel, exploring what happens if the building is taken away and parameters shift to a town, a city or country. Barrett explains: ‘What would happen if, instead of stepping into the show, the audience discovered that the show had come into the real world and was infecting it?’ (Gardner, 2011).

Another way the studio pushes boundaries is through the use of new technologies. In 2012, Punchdrunk collaborated with MIT Media Lab on a digital research and development project. The aim was to test whether an online interactive experience could match the quality of the live experience (Dixon, Rogers and Eggleston, 2012, p. 10). Two audience members were joined together for a shared experience – one physically present, and the other remotely online. Higgin describes this new territory of work as ‘remote and real world interconnected theatrical immersion’ (Higgin, 2012).

### **Organisational structures**

The studio is led by Barrett, as Artistic Director, but Higgin explains: ‘There’s a sense of no ego, because this thing is so big it has to be about everybody doing their bit.’ Higgin describes productions as ‘co-created’ with ‘strong artistic vision at the top’, and explains: ‘On the bigger shows, Felix can see it and it’s a top line approach. Then, to flesh that out, we bring in a team of associate artists to help make the world real.’ Rowse expands: ‘There’s a core team of artists that hasn’t changed for a long time. They have this shared language, or maybe a developed telepathy. There’s this symbiotic way of creating that’s always a joy to be around.’

Collaboration happens across the core team, with designers rotating to take the lead, as Landau explains: ‘You get to work with so many other designers.

I'm leading on this project but I've worked on other projects where it's Hebe leading. You get to know people's skills or specialities.' This rotation helps foster deeper understanding between the team, and Landau believes they 'become a better-oiled machine.' Another crucial part of the success of the larger shows is the collaboration between the core team and a wide net of volunteers. Creating a strong sense of community is vital, as Higgin explains: 'There has always been a sense that we need to create a good working environment that fosters people's voices and contributions.'

Despite each member of the team having clearly defined roles, Higgin explains that what they do is 'multifaceted – sometimes you are doing press, sometimes you are doing marketing, sometimes you are just doing a face-to-face meeting.' The studio creates all work in-house, and Higgin believes 'there is an innate understanding that to create this type of work we need a broad set of skills. No department sits as an island. It's an organism. You have to communicate across departments and you have to collaborate.' Vaughan believes that her role covers four or five different jobs, from strategic planning and architecture to the audience experience and the physical design: 'It's being able to see a project from above and being strategic and creative.' Landau agrees, explaining the role of a designer in Punchdrunk is 'definitely a much broader role than it might be working in another company.'

### **Core capabilities**

Core capabilities that Barrett feels are essential include 'an awareness, an attitude and a hunger.' Other capabilities cited include: an audience focus; attention to detail; being a team player; a Fine Art approach. Rowse feels that an audience focus is essential, and requires 'taking care of your audience, and pushing them to take risks.' Higgin agrees: 'I think on the face of it the idea of looking after your audience doesn't sound like a revolutionary thing but...it is.' Attention to detail and commitment to quality are also essential, as Higgin explains: 'It's an extra level of care. Knowing you have to double-check every detail.'



Being a team player, and being nice, are also cited, although Higgin admits 'it might sound a bit cheesy, to be nice.' Landau supports this: 'I don't think it would be particularly bearable if we didn't get on with each other. We spend way too much time with each other.' Her advice to students who volunteer is that the people she is most happy to work with are not necessarily 'the people who have the best skills, it's the people who feel that nothing's a problem. They are the people you are happy to have around.' Landau goes on to explain that they also need to listen, follow instruction and be flexible: 'With the flexibility, it's about being able to work collaboratively.'

Despite Vaughan and Landau coming from design backgrounds, most of the design team are not formally design trained, coming instead from Fine Art and English Literature. Vaughan believes members from these backgrounds have skills in: 'Beautiful ideas and small delicate details – the way of taking an idea and running with it and feeling confident in developing it. That feeling comes from the fine art side for Punchdrunk, rather than the design side.'

### **Spatial requirements**

The biggest challenge for Punchdrunk's process is space, due to the conflict between the nomadic nature of their work requiring temporary studios to be set up at each site, versus the multiple fixed locations of the office, store and Shoreditch House. Higgin explains that being on site is critical, but not always achievable: 'We are itinerant and we set up studios. It makes perfect sense for everyone to be there. When we did *The Drowned Man* there was an office /show split and actually you need to all be in one place.' Rowse agrees: 'In an ideal world it's great to be working from the site of where you are making the show. It makes it so much easier.' Vaughan agrees: 'You have to be on site, it's really important that we are all there together because we work quite fluidly. We need to be around our team on-site in order to create the work.' Vaughan also feels that the office does not support their creative needs: 'The Office has been a really horrid place for a lot of us to work in because we are not used to being at a desk and being so sedentary. We want to be physically doing and making and reacting.' Landau feels the Store is critical for capturing the Punchdrunk visual language, as it houses 'the same weird and wonderful

things as your resource and so that also kind of helps you to stay within that world and your brief,' although the downside is 'you are taking stuff to another place and it's hard to set things up in a way.'

## **Evolutions**

Barrett describes their current evolution as being 'in the third act of a five-act play.' In the first act 'we didn't care if people saw the work or not, because we were doing it for the sake of trying to break new ground.' The focus was on experimentation, trying to prove concepts, and to shock. Police attempted to shut down the first five projects, as disturbances. Act 2 has been more structured. They became a charity, set up Enrichment and focused on reaching a wider audience. Barrett explains that Enrichment was the first step in branching out, as they realised they were able to 'use the same principles across lots of other projects.'

One key driver has been the evolution of the genre, partly supported by city developers. Higgin explains: 'In the early days...if you said you were a theatre company and you wanted to do a show, they would just walk away.' Now, Higgin continues, 'developers are actively seeking out artists in order to help regenerate.' Clear evidence of their evolving success is with *Sleep No More* (Fig. 105). First performed in 2003 to an audience of 200, the remount has been running in New York since 2011, seen by over one million. Another key driver in Punchdrunk's evolution has been collaboration with brands. Creative Producer Colin Nightingale explains that partnerships with brands have enabled the studio to take on more ambitious projects: 'We're just looking to make interesting work and if those possibilities can come through partnership, we're always willing to do them' (Peake-Tomkinson, 2013).

Growth in the scale of shows has impacted on the core team, and, for Barrett, recruitment is now 'a daily topic of conversation.' Barrett continues: 'We haven't changed structurally at all, which is something we are addressing now. Until recently we could only do one show at a time.' As discussed earlier, part of the problem is communicating the process, as Barrett describes: 'No-one can sit new members down and give them a lecture on it. It's about working

with them, experiencing all the process.’ Higgin agrees: ‘I think the challenge is how do you grow the team and share the ethos.’ One way Punchdrunk are addressing this issue is by documenting the work. Higgin believes previously there was ‘this ephemerality that has probably been used as an excuse,’ but now ‘even if we don’t show anyone it, we need to be able to understand what the world looked like, how it was laid out, how we could re-create it and how can we convey it to future partners.’



Fig. 105: ‘Sleep No More, New York’. (Kaine, 2011).

Barrett explains that for Act 3: ‘We are radically changing our attitude towards our creative process and practice.’ To achieve this, Punchdrunk are taking a new permanent space, bringing all their existing spaces together (Fig. 106). Barrett elaborates: ‘We are going to lay down roots for the first time and finally build our dream space. We are going to take over a big warehouse complex. In terms of process this is going to be the most radical. We are building a village with 16 proper structures, all with full sound and lights.’ The village is named Fallow Cross, and Barrett believes it will groundbreaking: ‘It’s going to be like being at university again where we are able to fail, because the public can’t see it. As a process it’s a living breathing research laboratory.’ Barrett hopes this will set a good example to the rest of the sector, as they are

addressing the need to grow while trying to emulate how they used to work, but ‘doing it with 10 more years of experience behind us.’



Fig. 106: ‘Cannon Factory, Tottenham, London’. (Furniss, 2016).

### 4.6.3 Pedagogy

#### Past experiences

The practice of the studio has been inspired by the education Barrett and Higgin received at Exeter university. Key experiences highlighted by interviewees include: agility; making; the importance of failure; breadth; the Art Foundation course. Barrett was given the freedom to be agile throughout his studies: 'I could do whatever I wanted, even though strictly speaking it wasn't on the curriculum.' Barrett explains that making was valued: 'They just instilled in us to make, make, make.' Vaughan had a similar experience at Central Saint Martins, where she was encouraged to test ideas: 'It allowed us to play.' Being able to test, and make, gave Vaughan her most valued skills, 'problem solving and coming up with ideas', which she feels are more important than technical skills: 'You can learn those later...what matters is to be able to come up with ideas and creatively problem solve.'

At Exeter, Higgin was encouraged to 'experiment and break free of the shackles of the traditional stage.' The course emphasised 'the importance of failure, and how that can help impact and develop your own practice.' Being encouraged to have a broad outlook is something that Higgin feels was also key: 'The drama department were actively trying not to pigeonhole you into going into stereotypical roles. I think that's vital, being able to experiment, to be able to try out mediums.' Landau had a similar experience: 'The course itself felt very broad. It was quite a strange course in a way. But I think it's been massively helpful for me to stay as a freelancer.' Landau now views her skills as very transferrable: 'I feel very comfortable moving between areas. I think it's really important as a creative person to be flexible.'

Having designated space to work, test ideas and collaborate was something that directly benefitted Vaughan: 'We had a white space and we all had a desk each. We worked so well together, and that was the foundation for the way I work now with Punchdrunk. It's about ideas, and talking things through and working as a team.' Rowse believes her Foundation course was valuable: 'It was so experimental and so fluid,' and was the perfect time to be given 'a

chance to play.’ She describes the freedom of being able to explore different areas and different materials: ‘You could do whatever you wanted. There were materials available to you, you could work as an individual or as part of a team. Moving around departments and just meeting different people.’

### **Present involvement**

The work of Punchdrunk Enrichment is having a significant impact on Primary education. Their first school show was *Under the Eiderdown*, launched in 2009 (Fig. 107, Fig. 108). Head Teacher Liz Booth from Dalmain Primary School explains: ‘The aim was to improve speaking, listening, communication and writing skills. We all know that if children have quality stimulus they will produce quality work. This project was outstanding’ (Punchdrunk, 2016). Created collaboratively, pupils first had a drama workshop with the Punchdrunk team, where they were asked what a Bric-a-Brac shop is. Secretly, the design team created a shopping list. The installation then happened over a weekend, and the shop magically arrived in the school on Monday morning. Every corner was filled with objects. Sound was added to bring the shop to life, with dim lighting to add atmosphere. A letter arrived in the classroom inviting pupils to visit the shop, one at a time, to meet Mr or Mrs Weevil, the owners. The pupils were then encouraged to write about their experiences. Teacher Cameron McKinlay explains the children ‘were in the story book... all these Narnia type books where the children go off on this great adventure and these amazing things happen to them..... it had happened to them’ (Punchdrunk, 2016). McKinlay goes on to explain: ‘It’s so rare to see five-year olds genuinely awestruck’ and describes that the children needed help because they were ‘over reaching, trying to use words they had no idea how to spell... which is how they learn’ (Punchdrunk, 2016).

A more recent schools project, *The Lost lending Library*, has been running since 2014 across many primary schools in London. Based on a similar premise, a library mysteriously lands within the walls of a school and needs pupils to feed it with new stories. Conclusions from a recent report (Miles, 2015) state that the experience: leads to excellent writing; offers scope for use across the curriculum, from oral storytelling and drama through to art and

science; inspires a sense of inclusion; operates outside of notions of academic attainment; is totally inclusive.



Fig. 107: 'Under the Eiderdown -1'. (Richards, 2014).

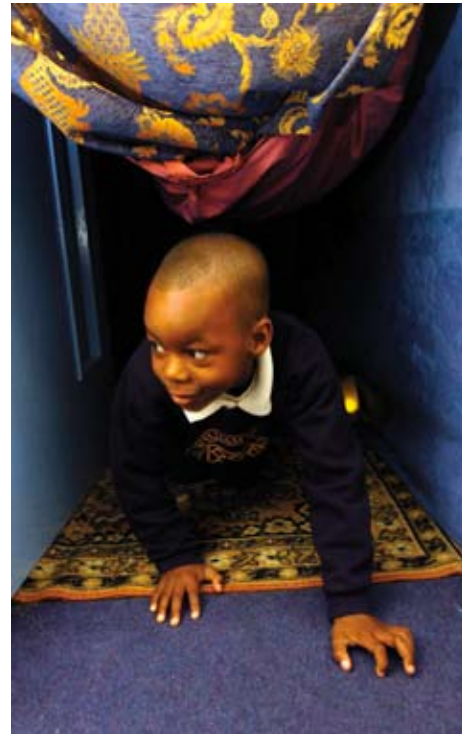


Fig. 108: 'Under the Eiderdown -2'. (Richards, 2014).

### **Future implications**

Key issues highlighted by interviewees include: disciplinary labels; breadth; failure; funding. Higgin does not think undergraduate should be as 'reductive' as 'you are going to be a graphic designer. There's no point in industrialising education in that way. You're going to change your mind by the time you're twenty.' Higgin goes on to explain: 'We need to be encouraging experimentation, because the role of what a graphic designer is will probably change radically over the next twenty years in terms of the tools they've got at their disposal, in terms of the job they do.' Barrett agrees: 'I never set out to be this, that, or the other. I didn't even know what I was even five years after graduating. You don't need to know what you want to be, you just need to know what you are interested in.' Barrett concludes: 'People are so hung up on labelling and labels get you nowhere.' Barrett's advice to young people is: 'Work hard, see as much as you can and don't restrict yourself to one art form. Be curious and don't be afraid to try things' (I-D Magazine, 2015). Higgin



believes one of the advantages of his course was ‘they were actively trying not to pigeonhole you into going into stereotypical roles.’ Rowse agrees, saying ‘working cross-departmentally is really exciting’ and cites an example: ‘There’s a university in Utrecht (Hogeschool voor de Kunsten) that has a drama department and a games design department, and they work very closely together to create experiences.’ Rowse explains this enables them to ‘imagine across everything, that is what makes it invaluable.’

Barrett believes university should be about failing: ‘If you don’t fail how can you learn?’ and goes on to explain ‘to have no rules and no idea is the perfect combination. Even if you are bad at it, just try it.’ Landau agrees: ‘There are so many people out there and they’re not sure what to do or worry that something is not quite the right thing. I always think just do something, and you will get some skills from that and it will lead to something you like.’ Vaughan also agrees: ‘I think that college is the only time when it’s important that you can fail and you can try things out.’ However, Barrett points out: ‘To learn to fail when school is about succeeding, is really difficult. It needs to be broken back down.’

The introduction of fees and lack of funding for creative education in the UK is raised as a concern. Higgin explains: ‘I came from a working class background. I got my tuition fees paid and got a support grant to go to university. Had I not had that, I wouldn’t have been able to go down that route.’ Higgin is concerned that universities, government and industry are not investing enough in creative education: ‘We are constantly being told about the economic output of the arts, but we are not matching it with the investment to begin with. We need to be creating a culture which continues to produce good artists and makers and creators. Universities need to listen to that.’



#### **4.6.4 Summary**

Through constant reinvention, pushing boundaries and high risk taking, the studio has pioneered a new genre of live performance, challenging audiences to engage in experiences that are more real, physical and visceral. Placing audience and site at the heart of the process, each show is grown through extreme iteration, ‘method designing’ (coined by the author), innovative use of technology and a deep level of attention to detail. Endless development means that shows constantly evolve. With strong artistic vision at the top, the studio work holistically as an ensemble, with shared language and a symbiotic way of creating. Mass collaboration occurs at times between the studio and a wider net of volunteers. Roles are multifaceted, requiring members to have broad skill sets, and key personal attributes include an audience focus, commitment to quality and being a team player.

Collaboration with brands and wider evolution of the genre have enable the studio to develop more ambitious work, and they see themselves currently in the third act of a five-act play. Split over three locations, with the need to be itinerant, has created an obvious conflict. However, the planned move to a new site, bringing everyone under one roof appears to solve this issue. Addressing the need for growth while creating an environment that allows the studio to work in the experimental way it did when first formed, is groundbreaking for the sector and will undoubtedly play a key role in future studies on studio practice and evolution.

By taking processes successfully used in large scale commercial shows and applying them to educational and social projects, Enrichment sets an excellent example to the rest of the sector. The impact on Primary education alone has been profound, with the potential to be incorporated into the National Curriculum. As with the larger shows, Enrichment focuses on placing audiences in a liminal state, encouraging curiosity and developing a sense of agency, all cited as vital ingredients in progressive creative educational models by leading experts, including Sir Ken Robinson (Robinson, 2009). Rather than prioritising a narrow, elite market, the work is inclusive, demonstrating how all of society can benefit from creativity and storytelling. Studio members

come from broad, agile educational experiences, where making, the importance of failure and use of space were prioritised. The studio believes education should: encourage experimentation; remove reductive disciplinary labels; support cross-departmental working; break down the notion of succeeding to value failure. They also believe government, universities, and industry need to invest more in creative education, and rethink tuition fees, to create a culture which continues to produce artists, makers and creators.

## 4.7 Assemble

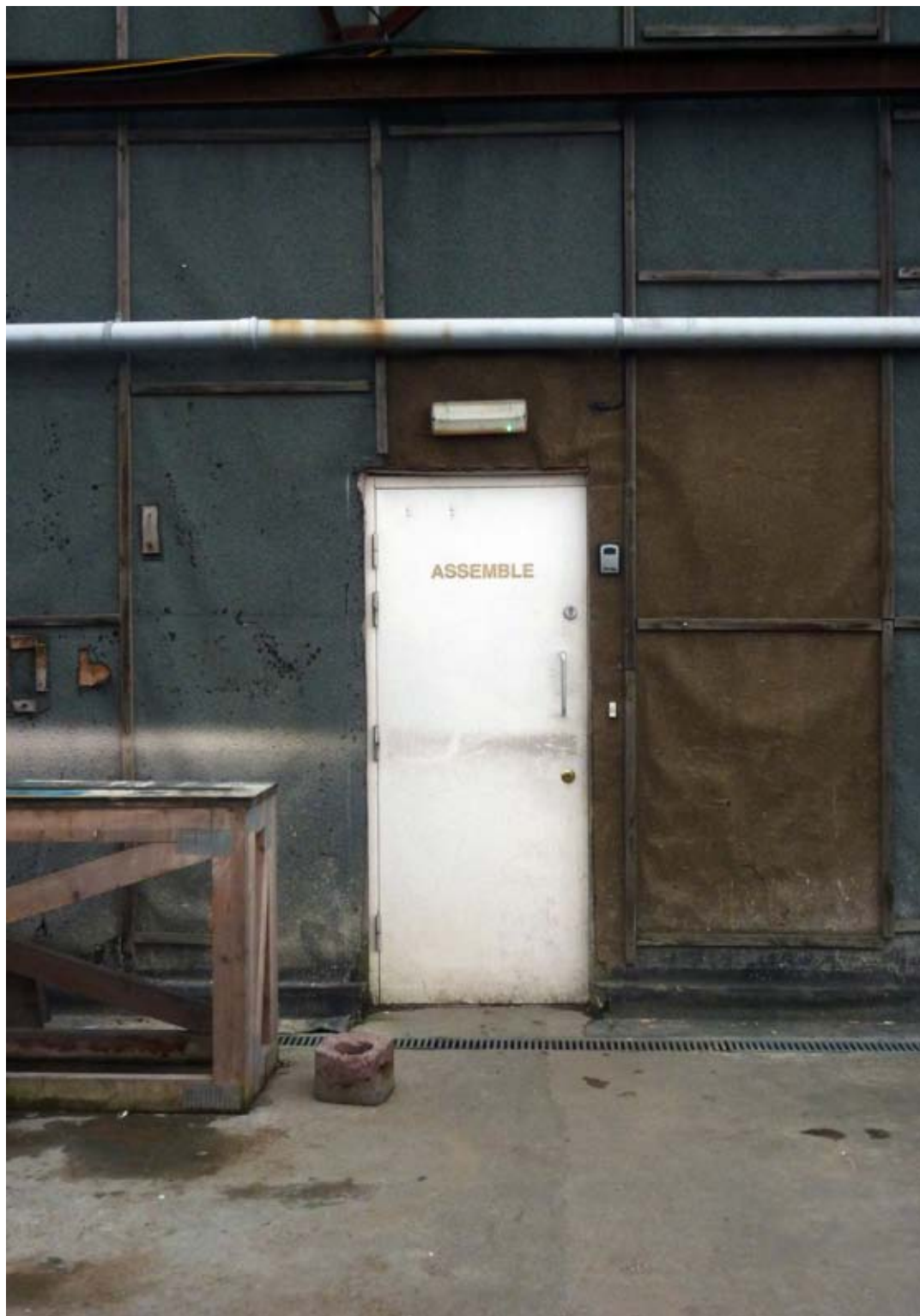


Fig. 109: 'Photograph of Sugarhouse Studio, London'. (Furniss, 2016).

#### **4.7.1 Introduction**

The study was conducted between February and June 2016. At the time of the first studio visit, the studio comprised fifteen members. An initial interview was conducted with Maria Lisogorskaya, and a second group interview was conducted with seven additional members: Lewis Jones; Karim Khelil; Mathew Leung; Frances Edgerley; Alice Edgerley; Jane Hall; Louis Schulz. All quotations given in this study by individual members are identified collectively as 'Assemble' (see Appendix 14 for interviewee details).

The studio has been located in Stratford, East London, since 2012. The most direct route from the nearest Tube station is across derelict wasteland, south of the Olympic park. The building, named Sugarhouse Studios, is situated within ruins of Victorian industrial buildings, soon to be demolished (Fig. 110). Part of a larger development site, Assemble explains: 'To save on security, the landlords have let us be here as guardians effectively, and we get really low rent. But it's short term.' Exterior street signage indicates the route to the studio, offering Workshops – Bar – Cinema – Pizza. Walking along an alleyway, lined with barbed wired, you turn into a large courtyard with two buildings – Sugarhouse Studios (Fig. 109) and Yardhouse (Fig. 111). This outdoor yard is used for full scale fabrications and social events, signified by strings of festoon lights, tables and chairs. Yardhouse is a two storey shed that the studio designed, built, and now rents out to other artists.

Through the main Sugarhouse Studios door you enter into a large multi-purpose open-plan space for storing, testing and making (Fig. 112). A glitter ball hangs from the ceiling, and a pink ping-pong table is tucked away. The office space, with computer equipment, is located through a small door tucked inside a storage wall. With a boxed in roof, this is the only water tight space within the building (Fig. 113). There is a kitchen, with industrial sized catering equipment, and workshop facilities for wood, metal and stone work, that the studio shares with other artists and makers (Fig. 114).



Fig. 110: 'Studio entry'. (Furniss, 2016).



Fig. 111: 'Yardhouse'. (Furniss, 2016).





Fig. 112: 'Sugarhouse making space'. (Furniss, 2016).



Fig. 113: 'Office'. (Assemble, n.d.).

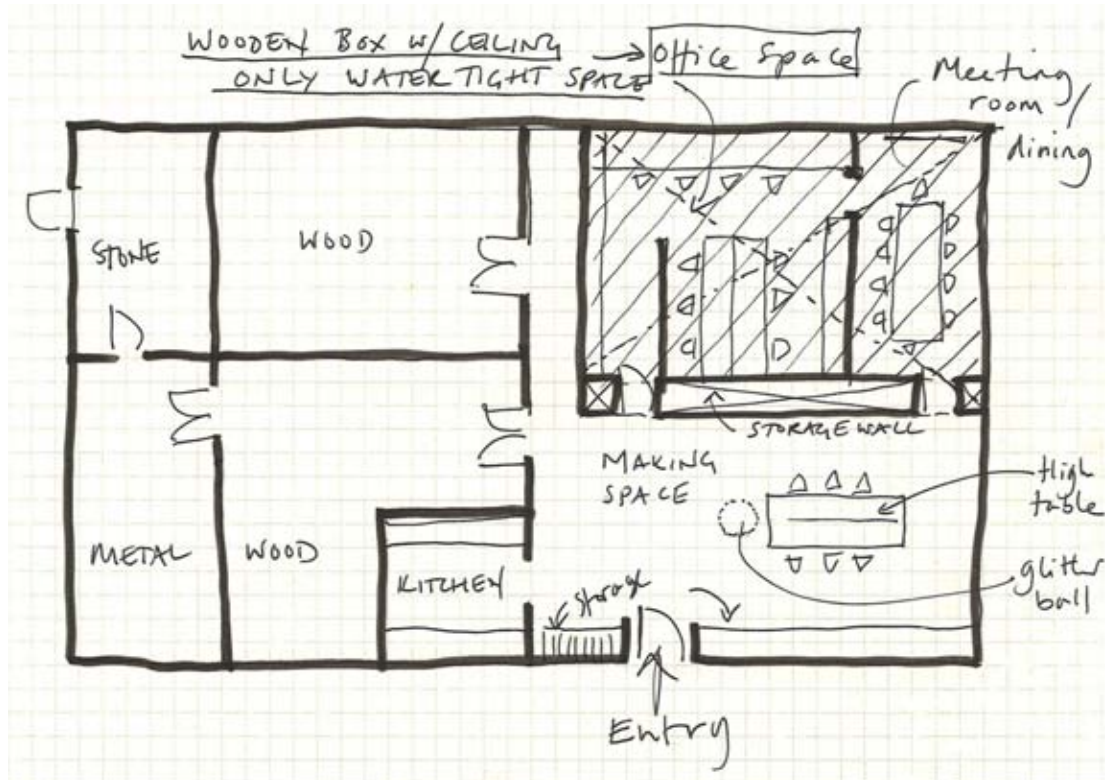


Fig. 114: 'Indicative Sugarhouse Studio ground floor plan'. (Furniss, 2016).

The studio formed out of collective frustration with the traditional 'architect as businessman model' (Bevan, 2015), and a desire to make. Coming together informally in 2010, Assemble describes the initial formation as 'a hobby' (Higgins, 2015), and that 'we didn't have a particular direction. It was mostly formed out of a single project that kept rolling because we really enjoyed that way of working with each other.' This first project was Cineroleum (Fig. 115). Reading a newspaper article discussing the closure of independent petrol stations across Britain, and the studio decided to self-initiated a project, converting a disused petrol station into a pop-up cinema (Saval, 2015). With agreement from the owner, and over one hundred volunteers, the petrol station was transformed using 'cheap industrial, reclaimed and donated materials' (Assemble Studio, n.d.). The project was both designed and managed by the studio, an important element of its philosophy and process, 'where clever management has played an equal role to design' (Cormier, 2015). The next step, in 2011, was to officially form and name the company, in order to complete their second project, Folly For A Flyover: 'For that we had to set up a company in order to apply for funding. That's why we had to think of a name, and set up everyone as a director.' The studio's mission is 'to find

affordable and locally engaged ways to deliver architectural projects, with a common idea: architecture can be co-created, communicative and locally inspired' (Cormier, 2015). With a primary focus on people, projects are driven by 'a belief in the importance of addressing the typical disconnection between the public and the process by which spaces are made' (Wainwright, 2015).



Fig. 115: 'The Cineroleum'. (Olsen, 2010).



#### **4.7.2 Practice**

Assemble describes itself as: ‘A collective who work across design, art and architecture. We work in the built environment and we deliver things that range from engagement, workshops and art events, to housing, workspaces and strategy.’ Described as ‘renegade’ by the press (Saval, 2015), Justin McGuirk, Chief Curator of the Design Museum, describes the studio as: ‘The poster group for a generation of young architects and designers increasingly drawn to the idea of working collectively. They roll up their sleeves and build. And they work with and for local communities, not in spite of them’ (Artemel, 2015).

The work is socially rooted, and could be described as Service Design, defined as ‘a human-centered approach to the design of services’ (Holmlid, 2009, p. 1). Co-created with communities, dependent on the people using them to make them a success, projects evolve over time, often with an ephemeral nature. The studio describes the work as: ‘Interdisciplinary; about research and listening hard to the needs of communities; sometimes as much about setting up an organisation or scheme’ (Higgins, 2015). People are key, as Assemble explains: ‘An analogy we use is that the architecture is more about people sitting around the table than the space they’re inhabiting’ (Dawood, 2016).

Transforming social spaces and pioneering creative workspaces are key. Assemble explains: ‘The real estate market in London threatens to drive out everything that isn’t private homes, including spaces for production and culture. These are spaces for a wider demographic of people that combine to make a really exciting city. We’re very interested in projects that support those spaces’ (Dawood, 2016). Frequently collaborating with local authorities, the studio has seen the need and appreciation for their work grow: ‘Having been dealt a soccer punch with austerity measures in the last couple of years, authorities have had to come up with some very innovative ways of providing services. Some of our projects have played a part in these conversations.’ (Dawood, 2016). Folly for a Flyover is an example (Fig. 116). The studio ‘filled an underpass with a scaffold structure whose gable poked up through a gap

between express lanes. The house-like building was clad in wooden bricks hand sawn from reclaimed timber' (Cormier, 2015). In collaboration with the Barbican Arts Gallery and local businesses, the studio 'programmed and hosted a month of performances, screenings and other activities that brought the space to life' (Cormier, 2015). This project has a legacy, as Assemble explains: 'There's now capital investment on the site, with a permanent stage, water and electricity' (Cormier, 2015).



Fig. 116: 'Folly for a Flyover'. (Vintiner, 2011).

Another example is The Granby Four Streets Project, for which the studio was awarded the 2015 Turner Prize. Local Liverpool residents formed a non-profit Community Land Trust (CLT) to take control of 10 derelict properties (Fig. 117). An investment company chose to support the CLT and contacted Assemble. Their proposal carefully and economically makes the existing structures liveable in a variety of ways (Saval, 2015). One CLT member explains: 'Regeneration is always this blunt, abstract, over-professionalised thing. But Assemble has shown how it can be done differently, by making things that people can see, touch, understand and put together for themselves' (Wainwright, 2015). The project is self-sustaining, with workshops set up to make and sell craft objects (Fig. 118): 'They craft missing hardware such as doorknobs. They are also training neighbours in the skills necessary to

continue refurbishing housing in the area, hoping to perpetuate a self-sustaining project of urban rehabilitation' (Artemel, 2015). Assemble believes winning the Turner Prize will give 'greater legitimacy to alternative ways of practice in the public eye' (Bevan, 2015). Alistair Hudson, one of the jury members, explains: 'These are artists being brought in to make the world a better place by applying artistic concepts' (Horne, 2015). Issues with terminology are not important to the studio: 'We are not in control of this perception of us as artists. For us it's not that important: it's an academic discussion. We are more interested in doing good projects' (Higgins, 2015). Assemble prefer: 'Art as a tool. Labels are a thing to be varied as and when appropriate. We don't say this is an arts project and that's a building. They are messy, blurry things' (Bevan, 2015).



Fig. 117: 'Granby exterior before development'. (Assemble, 2013).  
Fig. 118: 'Turner Prize showroom'. (Assemble, 2015).

## Menu of Work

Below is a range of work, both proposed and realised, produced by the studio since it's foundation. I have curated and arranged the work by scale, from small to large:

### Small scale

Chairs and tables for out door public interventions.



Fig. 119: 'Furnishing Lowlands'. (Assemble, 2014).



Fig. 120: 'Triangle Chairs'. (Assemble, 2012).

### Medium scale

Temporary cafes, temporary theatres, temporary cinema, temporary and permanent interventions in town squares, evolving exhibitions, community garden, Tube station kiosk (with on-site community workshop facilities), workshop and performance venues, outdoor playgrounds.



Fig. 121: 'Oto Projects'. (Assemble, 2011).



Fig. 122: 'Brutalist Playground'. (Assemble, 2015).



## Large scale

Creative studios, community workshops, community buildings, strategic interventions for city streets and parks, strategic interventions for housing communities, an Art Gallery (for exhibiting, making and discussing art), exterior climbing wall.



Fig. 123: 'Goldsmiths CCA'. (Assemble, 2014).



Fig. 124: 'Theatre on the Fly'. (Assemble, 2012).

## Process

Assemble describe their process as having two main components: ‘Collective decision making, and making by hand’ (Artemel, 2015). Other components include: co-creative collaboration; self-initiating briefs; creative management.

The studio is pioneering a new Collective model: ‘We have looked at different Collective structures, but we are paving our own way. We make decisions along the way when we see something is not working.’ Members are freelance, with many working part-time in other jobs: ‘A lot of us have worked in traditional practices and we’re learning from those.’ Key to collective decision making is: ‘Constant conversations and spending a lot of time with each other’ (Bevan, 2015). Conversation happens not only internally, but also with other craftspeople within the wider studio: ‘We all get to meet, and it’s messy, and we get questions from different specialists.’ Eating together also drives conversation. Members take turns to cook lunch for each other and everyone eats together. The studio thrives on questioning, and projects are developed through questioning, for example asking: ‘How could you build something under a motorway? That feels like a really interesting question to ask over a few pints. Being part of Assemble has always felt like the best conversation you could possibly have.’

As designer-makers, making is a fundamental part of the studio’s philosophy, as the title of their recent publication *Make, Don’t Make Do* (Assemble, 2015) indicates. From large frame construction and tile fabrication (Fig. 125 , Fig. 126), to clay tile experiments (Fig. 127), making is part of every project: ‘We will test things out by making one-to-one mock-ups, even if we will not be building the things ourselves, in terms of developing the design potential of a certain material.’ This often leads to inventing new hybrid materials. An example is ‘rubble-dash’ (Fig. 128), using demolition waste. Making models is also common for the studio, whether 1:1 housing prototypes or scale models (Fig.129).



Fig. 125: 'Yardhouse frame construction'. (Assemble, 2012).



Fig. 126: 'Yardhouse tile application'. (Assemble, 2012).



Fig. 127: 'Tile tests for Art on the Underground'. (Assemble, 2015).





Fig. 128: 'Rubble-dash'. (Assemble, 2011).



Fig. 129: 'Scale model'. (Assemble, 2014).

Co-designing with users is also part of Assemble's process. For Stille Strasse (Fig. 130, Fig. 131), Assemble collaborated with elderly squatters in Berlin to come up with workable solutions for its current housing crisis: 'As the project took shape it became clear it was about learning from their experiences. They're our collaborator rather than our client' (Ibáñez, 2015). The studio also co-create by embedding themselves within communities, often for many months. At the Croydon council estate, New Addington, the studio 'took up residence in an old kiosk on the town square' (Wainwright, 2015). After orchestrating interventions, including a stage for pensioners' tea dances, ramps for young skateboarders, and reorganising the market, the studio 'proposed permanent improvements along similar lines. The result is a low-key collage of pieces that have since taken on a life of their own' (Wainwright, 2015). The Baltic Street Adventure Playground in Dalmarnock, Glasgow, focused on: 'The public building their environment... providing a framework for kids to make a mess, build their own stuff and be in control.' This project arose due to the 2014 Commonwealth Games bulldozing the local park to make way for a transport hub (Wainwright, 2015) (Fig. 132, Fig. 133). Figure 134 shows an indicative diagram of this co-creative process, with a community issue at the heart, and increasing rings of talking, testing and making growing outwards until the project is handed over to the community. Projects then continue to evolve, often with a lasting legacy.





Fig. 130: 'Concept sketch for Stille Strasse'. (Assemble, 2015).

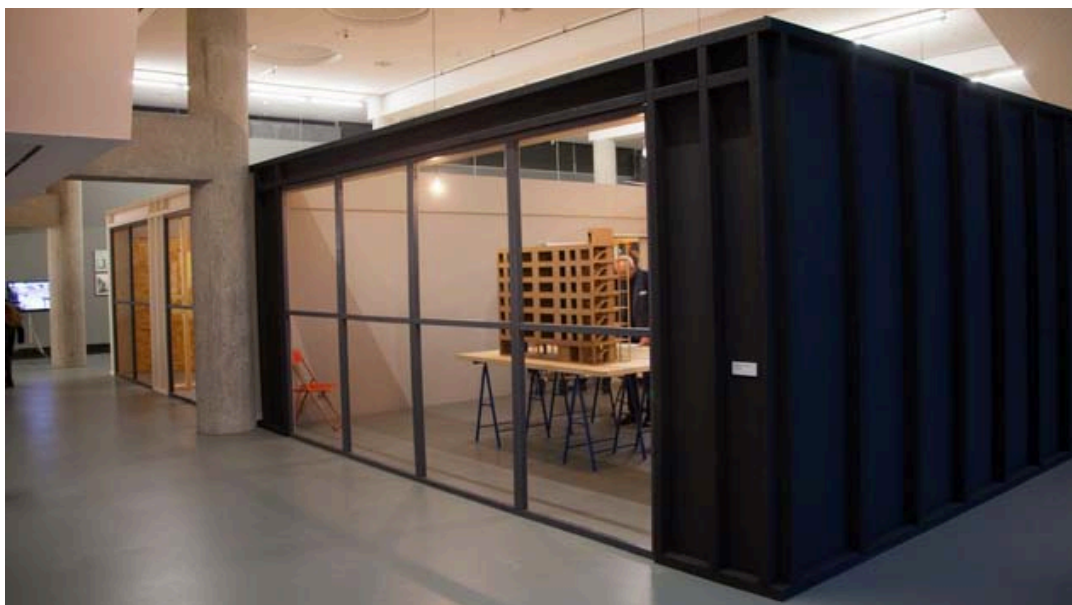


Fig. 131: '1:1 mock-up for Stille Strasse'. (Assemble, 2015).



Fig. 132: 'Baltic Street -1'. (Assemble, 2014).



Fig. 133: 'Baltic Street -2'. (Assemble, 2014).

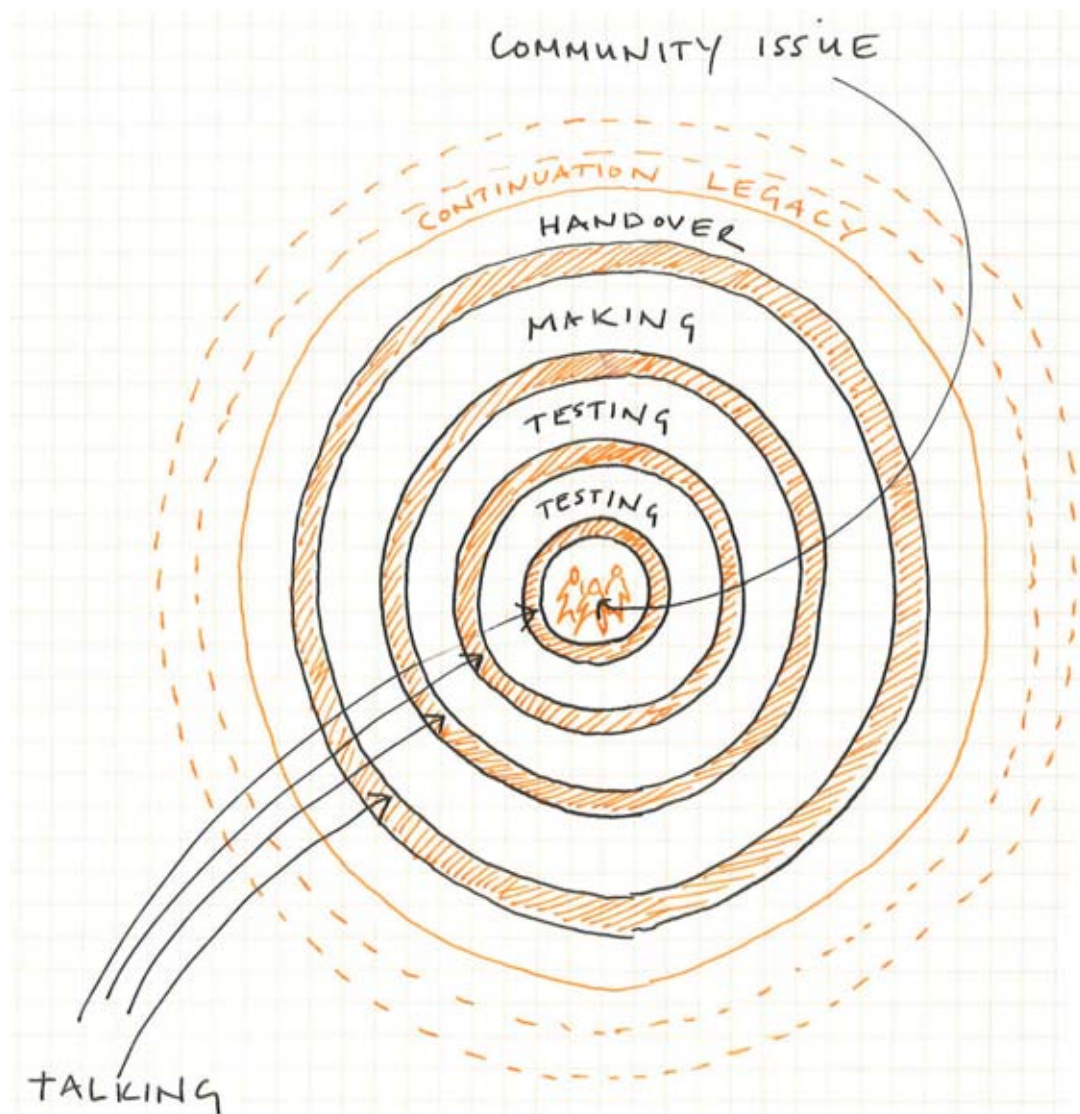


Fig. 134: 'Indicative process diagram'. (Furniss, 2016)

Self-initiating projects enables the studio to be more responsive to clients and communities, as Assemble explains: ‘In the traditional tender process, the architect comes to the table too late, when all the critical decisions have been made. There’s then very little scope to re-evaluate and ask more critical questions’ (Dawood, 2016). Assemble continues: ‘The ability to have conversations with people informally and develop projects incrementally means you’re able to be much more responsive to their real needs and desires’ (Dawood, 2016). Even with a traditional brief, Assemble ‘try to have a more holistic role, and shape the brief that lands on our desk. We try to be involved in projects at the earliest possible stage’ (Dawood, 2016).

The studio applies creative management to all its projects. Profits from the bar at the Cineroleum funded Folly for a Flyover. In creating Sugarhouse Studios, Assemble acted as property managers. Establishing a café, profits enabled the Studio to buy necessary pieces of machinery equipment for projects they were working on. Yardhouse houses even more workshop space, provides a rental income, but also tests out a strategy that Assemble felt could be applied to the whole neighbourhood. Assemble explains: ‘Yardhouse was talking about how affordable workspace could be created, but also about how vacant yards could be turned into assets’ (Cormier, 2015).

### **Organisational structures**

The studio has a flat hierarchy, with no divisions between roles or disciplines. Assemble explain: ‘Sometimes not having a boss can be difficult. I’m not saying that we want one, but it’s just you have to think of everything.’ This collective structure forces members to work in more fluid ways, as they take on all the challenges each project brings.

Team structures have evolved: ‘The first couple of projects we worked on all together. Now we can’t afford to do that because it would be a full-time thing.’ Most projects are managed by two members. Members bring project ideas to studio meetings, and so long as two members support it, the project goes ahead. This approach brings in diverse projects, which Assemble find ‘really exciting.’ Part of the agreement is that those members personally commit:

‘There’s not the same professional distance you have in an office, when somebody can take you off a project at any moment and put you on something else. When we sign up for something, we’re making a personal commitment to see it through.’ (Dawood, 2016). These two members, or ‘buddies’, are ‘responsible for liaising with the client, making sure the project is going ok. They involve the wider group at different times when a project might need help.’ Assemble explains: ‘Early on we have a charrette where the buddies bring something to the table to discuss. That gets developed, then it gets reviewed once in a while on a Monday evening by the wider group.’ These design reviews offer ‘an opportunity for the wider group to see what is going on,’ and support the buddies because ‘when you are in a one or two person team you have quite limited resources and experience as well.’ There is also flexibility to this system, as each member is able to take on multiple roles, sometimes leading, sometimes supporting.

Despite the majority of members coming from architecture, disciplines do not play a role within the studio. The diverse skills and backgrounds of members, and the wider creative community at Sugarhouse, are embraced. One architecture trained member says of non-architecture trained members: ‘They can be so much more astute and direct than the rest of us, who are loaded with the language of obfuscation and meaning with which architectural education indoctrinates you’ (Wainwright, 2015). This approach is key to enable breadth: ‘The real benefit of working with people from other disciplines is we’re able to take on work that we wouldn’t otherwise be able to. We’re also in a much better situation to ask those bigger social questions’ (Dawood, 2016). Disciplinary terminology is avoided: ‘Nobody in the practice is formally an architect yet, and none of us would have self-described as artists a year ago. People talk to you differently if you say you’re an architect – they’ll have a different perception of you, what you’re going to produce and how you’re going to listen to them.’ An example is New Addington, where the client had ‘had enough of architects – so we were just enthusiastic, young people. This versatility, and ability to be chameleonic, enables us to work in a more flexible way with different clients’ (Wainwright, 2015).

## **Core capabilities**

Core capabilities include: a can-do attitude; collective mentality; and, having fun. A can-do attitude to learning new skills is vital, as Assemble explains: ‘When we came together we didn’t have many skills. Most of us had some basic architectural training and way of thinking about things, but we definitely learned skills as we went along.’ Learning where your strengths lie is important: ‘You need to be entrepreneurial. Some people are good at making things. Some people are good at thinking through business plans, narratives, presenting a project in a particular way. There are tendencies that people have, and then over time they’ve developed and improved.’

Having a collective mentality, and the social skills to support that, are also important. Assemble explains: ‘You forget how amazing it is, and how unusual it is, to have such a large group that function together. A huge part of that is about the friendship that underlies the working relationship. People have a lot of patience and understanding for each other which is really difficult to establish in a purely professional workplace.’ The studio believes this ability to work so well together came out of the Cineroleum: ‘We now have a shared reference point which is really useful for other projects.’ They describe this social skill as ‘accumulative. It’s been six years... of patience!’

Another soft skill studio members possess is: ‘having fun. We started out wanting to have fun.’ There is an element of fun in many of the projects, especially the playgrounds. But the spirit of play is also in the day-to-day running of the studio, with many parties, collective trips, having their own football team, rounders team, and even making their own table tennis table. Also, after every communal lunch a mysterious hand game is played: ‘It’s to decide who makes tea or coffee.’ Gradually members get eliminated, and eventually the loser gets up to make the drinks (Fig. 135 ).





Fig. 135: 'Lunchtime game'. (Furniss, 2016)

### **Spatial requirements**

The physical layout of Sugarhouse is essential to the process, as Assemble explains: 'This element of informality where we can make noise and mess is really amazing, because it means we can test things out and approach design in a very different way than if we only had computers and clean space.' Having space and facilities for additional makers within the wider building is also key: 'The fact that we get to share the space with other disciplines, bumping into them, looking at what they're doing, is crucial.'

The open-plan making space inside Sugarhouse is key: 'Although it looks really chaotic, it is crucial...to have that flexibility to make big things without the pressure of having to hire or pay for a large space. It was used as a factory to make all the tiles for Yardhouse.' The studio took this philosophy of a central shared making space and applied it when designing Yardhouse: 'They have that shared bit in the middle that allows them to move out of their studios and make larger things.' Assemble also describes the outdoor yard as an essential component. With the combination of stonemasons, carpenters and artists on site, Assemble explains: 'We couldn't do this from a little office in Clerkenwell' (Taylor, 2014).

### **Evolutions**

The studio has evolved organically in order to preserve an open, collective culture. Described as 'evolution to stay the same' (Artemel, 2015), Assemble

explains: 'We started off doing things in our free time. We had our first permanent paid commission, and gradually it's developed into something which takes up most of our time.' The studio keeps evolving because 'we're getting bigger projects.' However, the studio has not really changed in terms of people: 'We don't have staff, apart from a finance person who does all of our accounts.' Since the first project, the number of studio members has reduced in size from eighteen to fifteen.

Assemble does not aspire to grow, but is considering the need to employ people 'because we're struggling to make the most of opportunities. Really we need to be more efficient.' Members see the collective structure has benefits, but 'the downsides are the amount of admin we have to do as individuals. You have to deal with everything – communication, finance, and programme.' Another issue the studio is reflecting on is their open approach to new work, always looking for new challenges: 'Obviously it's not the most efficient office model. If we were to take on similar projects we'd be much more efficient. We're starting to think about if we should try to be more strategic. No one wants to, but we have to become more sustainable.'

To address these concerns, and questions raised after the Turner Prize, a summit took place in March 2016, in 'a glorified cottage near Sterling.' For Assemble, it was 'the first time we had very formal conversations about what we imagine the group to be, and where we want to go.' Assemble explains: 'The discussions went on for a long time. But we did come to a shared way of moving forward.' The end result was a 70-page dossier. A key issue was long term commitment: 'Not to get too soppy, but the thing that was really great was realising everyone's commitment to Assemble. One of the things that is particular about Assemble is the fact that everyone is the same age, so in terms of babies and families it means we have been able to change the way we work.' The summit explored creating a system 'that better reflects what we want from each other as a group, what we want being a member of Assemble.' Part of this is to do with being freelance: 'One of the biggest challenges that has been tabled was to become less freelance.'

Assemble also need to move location. Having been paying a peppercorn rent since 2012, the current site is now scheduled for demolition. A new site has been identified: 'We are going to another similar scenario in Bermondsey, where it is also part of a much bigger development...but it is relatively short-term.' Finding space to suit their needs is challenging: 'Now that we're moving and looking for other spaces there's even more realisation of how amazing this is.' However, Bermondsey is only the mid-term plan. The long-term plan is called Open Studio (Fig. 136): 'We are working with Haringey Council. They have a property they are trying to develop. We are hoping to have a longer-term lease there.' The studio have produced a promotional booklet to communicate their vision: 'This idea of having a huge space where even more disciplines can share facilities. It's pie in the sky, but we'll see.' Open Studio will be co-operative creative workspace, that also supports public activities, events and teaching.



Fig. 136: 'Open Studio'. (Assemble, 2015).



### **4.7.3 Pedagogy**

#### **Past experiences**

The educational experience the majority of members gained at University of Cambridge has clearly defined the studio's practice. Assemble explains: 'Our education was focused on the public. Thinking as well as producing. It was friendly architecture...not about being a 'starchitect'.' On the Department of Architecture website, Head of Department Dr Wendy Pullan explains: 'At a time when the national and international media regularly examine issues pertaining to the nature and habitability of our cities, and buildings which veer between sculptural extravagance and environmental responsibility, there is a great need for serious, committed and imaginative designers and thinkers in the discipline' (University of Cambridge, n.d.). The general environment was also influential: 'It was quite a friendly one, it wasn't too cutthroat. And it attracted a mix of people as well.'

#### **Present involvement**

The studio are involved in both formal and informal models of education. In a formal capacity, many members teach, some at Central St. Martins: 'A lot of us still teach as a way of having some regular income.' Two members have recently been invited to take up multidisciplinary posts as 'virtuoso professors' at Liverpool John Moores University (Liverpool John Moores University, 2015). Assemble explains: 'We started by having open tutorials with any student from any course, for us to better understand where students are coming from, in terms of fashion versus graphics etc, and to get a sense of what was going on in the school.' They describe their role as: 'Very open. They are keen for us to work with different students across different courses and across different Universities as well.'

The studio is also exploring alternative education models, by embedding teaching into the development of the creative workshop facilities. Blackhorse Workshop is a key example. A public workshop, conceived and created by Assemble, not only offers making facilities but also training. The website explains: 'Blackhorse Workshop is...dedicated to making and mending. Here

you can build or fix anything from broken chairs to theatrical sets, bikes and furniture – and where you can grow your start-up with the support of industry expertise and a community of makers.’ (Blackhorse Workshop, n.d.). The business plan includes technicians, a creative director to run and organize the facility, and courses are offered from basic D.I.Y. to welding. The workshop offers the opportunity for novices to work alongside professionals, and professional artists, designers, fabricators and craftsmen are invited to give talks.

### **Future implications**

Key elements interviewees believe undergraduate education should support are: use of space; making; having time to fail; fluidity and breadth; collaboration. Issues raised include: the importance of the Foundation course; Government devaluing creativity.

What interviewees value most are the things they had in their education: ‘Space; facilities; and people who have specialities in other fields. But those are qualities that seem to be leaving education. It’s rare that any university is expanding their workshop facilities.’ Assemble continues: ‘Students don’t have space they can occupy. Where we teach it’s all quite corporate, and we are not corporate. The space needs to allow for messiness, experimentation and chance.’ Assemble believes education should be about: ‘Having that luxury of making a mess and meeting people from other departments, seeing what they make and just getting on with stuff.’ Part of the issue is to do with university management negatively affecting how buildings are run, resulting in ‘hot-desking - there’s no studio space any more.’ Assemble also sees the negative impact on the design of university buildings, with priority placed on marketing, rather than student experience: ‘University buildings have become such marketing tools.’ Having time to experiment and fail are also elements that Assemble believes are important, yet disappearing: ‘You don’t have time to experiment. We started this in our free time. There was that luxury of just trying it out and it doesn’t matter if it doesn’t work. But it’s a feeling you don’t have at school.’ Assemble explains: ‘The increase in fees puts pressure on people to achieve something at the end so they can’t really relax.’

The studio sees the importance of focussing students within their discipline, to gain the basic skills, but at the same time sees the benefits of looking outwards at other disciplines. Assemble explains: 'I get frustrated that students quite early on are taken on different tangents but haven't understood the basics. But on the other hand, it's really great when they do experiment because that takes them to new paths.' Assemble sees the value in fluidity: 'Definitely, with the foundation years, having more fluidity. I think it would benefit from having more influences in terms of making and thinking.' Assemble suggests: 'Maybe not every school has to be the same. Maybe just having more options.' Assemble also raises concerns at the lack of emphasis on collaboration: 'There is an onus on the creative individual, across all the creative industries education, not just architecture. But...when you actually practice, it is always with other people.'

Finally, many of the members agree that the Foundation course was key to their creative education: 'I found the Foundation by far the best year of my life, in terms of an eye opening experience. I would make the Foundation mandatory.' Assemble continues: 'You see a lot of students really struggle because they are just too young, and they have had a very didactic form of education in school. To go from that straight into a degree is really difficult. That's why the Foundation is amazing.' Assemble cites a key educational text, *Inventing Kindergarten* (Brosterman, 1997): 'It's about the Kindergarten system created by Froebel. It directly influenced Modernism and the Bauhaus. Frank Lloyd Wright and Corbusier went to Kindertuinen. It's a really seductive argument,' which, in turn, inspired the Foundation model.

#### **4.7.4 Summary**

Formed out of collective frustration with traditional architectural practice, and a desire to make, the studio is pioneering an alternative creative model. Working across design, art, and architecture, the studio prefers to avoid labels that might be misinterpreted. Socially rooted, co-created with communities, dependent on the people using them to make them a success, projects evolve over time, often of an ephemeral nature. The studio focuses on diverse projects that support urban creative workspaces and social spaces, both currently under threat from real estate markets.

As a Collective, the process is dependent on collective decision making, and is continually evolving. Through constant conversation, not only with fellow members but also the wider creative community, the studio thrives on questioning. Making is fundamental to the philosophy, and is part of every project, whether testing, prototyping or realising. Through co-creative collaboration, the public are treated as collaborators rather than clients, encouraged to shape and build their environments, and to continue to evolve projects after completion. Briefs are usually self-initiated, growing out of social and community needs, or heavily shaped through a holistic process. Creative management is key to the success of all projects, thinking beyond the initial design to look at how to sustain projects and build legacies. Hierarchy is flat, with all members assigned a Director role. Teams of two members propose and run projects, with wider support provided at weekly design reviews. Personal commitment to each project is critical. There are no divisions between disciplines, and diverse skills and backgrounds are embraced. Core capabilities include: a can-do attitude, a collective mentality, having fun, and prioritising socialising. The studio space is crucial to enable flexibility and agility, to make at any scale, and to encourage conversations with craftspeople from other disciplines.

The studio is evolving organically in order to preserve an open, collective culture. With no desire to grow significantly, members are aware that more growth may be necessary as projects grow in size and number. Winning the Turner Prize raised many questions, and resulted in a formal Summit. This

produced a manifesto, looking ahead to the next five years. Forced to move, the mid-term plan is to re-locate to a similar space. The long-term plan is *Open Studio*, a future vision for a far larger co-operative creative workspace that also supports public activity, events and teaching.

The majority of members come from the same year group of a small, friendly architecture course that focused on the public and making. As freelancers, many teach in formal education, two as 'virtuoso professors'. The studio also explores alternative educational models, embedding teaching into the creative workshop facilities. Members believe education should: provide space for students to occupy; provide sufficient time to experiment; support failure; enable fluidity and breadth; encourage constant collaboration; make the Foundation course compulsory.



## **4.8 Summary of Presentation of Data**

In summary, the aim of the scoping exercise was threefold: firstly, to generate an understanding of key shifts in evolving design practice; secondly, to identify key drivers for these shifts; and, thirdly, to establish views on the implications of these shifts for creative education and Higher Education pedagogy. The intention was to clarify these issues and identify key themes that might provide direction for the next stage of the study. The findings indicated that evolution in design practice in the UK over the last ten years had been dramatic. Contributors believed that immediate action is required by the Government, the education community and industry itself, to prevent the possible collapse of a key creative sector: one which is a locus and driver for innovation and creative thinking across many sectors of the economy. Three key recommendations were made: first, design must be nurtured; second, design must be valued; and, third, design must be taught well. The latter recommendation calls for educators to examine current practice and alternative educational models to better understand the processes and skills that young designers will require if they are to meet the challenges of coming decades. There is clearly a necessity for in-depth analysis of developing process in practice to allow for better dialogue and transfer of knowledge between industry and education. Therefore, this became the priority for the next stage of the study – case studies of five internationally renowned creative studios – and the findings informed and shaped the questions to be posed to interviewees.

The aim of the case studies was to determine commonalities and differences between the studios with a view to re-framing our understanding of evolving practice, and informing undergraduate education. Situated within leading innovative creative studios, the purpose was to gather primary data that might support greater understanding of the skills young designers will require if they are to meet the challenges of coming decades. The findings highlighted many similarities in practice and views on pedagogy between the studios, and the themes identified in the case studies are subjected to cross-analysis in Chapter Five: the aim in this next chapter is to identifying commonalities and

differences with greater clarity, and to set-out an interpretation of their implications.



## **Chapter Five: Analysis and Interpretation**

### **5.1 Introduction**

In the current chapter, themes identified in the case studies are subjected to cross-analysis with the aim of identifying commonalities and differences between the studios. This analysis will aid in addressing the research questions, which ask (a) how are shifts in practice reflected in the activities and processes of leading UK design agencies, and (b) what are the implications of evolutions in practice for contemporary design pedagogy and for design policy? This method will also address the recommendations set-out following the 'Beyond Discipline' scoping exercise (and related report), which call for the construction of alternative educational models that better reflect the skills and mindset that young designers will require if they are to meet the challenges of coming decades. As Dawson states, 'if you're not aware of what's happening out there, you can't develop people for that environment' (Furniss, 2015, p. 34).

The chapter will first look at Practice, exploring origins of the studios, perspectives on terminology and classification, the forms of work undertaken in each, and processes deployed therein, and the evolution of developmental pathways. The chapter will then cross-analyse issues of Pedagogy, examining interviewees' past educational experiences, present involvement in education, and views on the future of design education. Finally, the commonalities and differences are reviewed and insights are presented with respect to: new approaches to terminology and classification; an emergent process model; and, a combined model for pedagogy. Throughout the chapter, findings and insights will be related-back to issues addresses in the review of the literature in Chapter Two.

## **5.2 Analysis of evidence for Practice**

This section explores the commonalities and differences in practice between the studios, to better understand how current shifts in design practice are reflected in the processes of leading UK design agencies. The section looks at original motivations for setting up the studios, the types of processes used, and challenges faced with regards to space and growth. The analysis does not focus on the work itself, but the structures and scaffolding around it. What is identified is a shared language and much common ground, despite the differences between the studios in terms of output. As highlighted at the Symposium by Punchdrunk member Colin Nightingale: ‘I found it fascinating that you have found such similarity between the things that are important across all the different organisations’ (see Appendix 17).

### **Origins**

All five studios formed out of the same desires, which were to explore new ways of working, to innovate, and to break new ground. All saw that key to this approach was both designing and making. They had to invent their professions, processes and business models. By breaking with conventions, they were able to innovate, create new types of work, and new ways of working. The studios reflect the shift Coles (2012, p. 9) identifies, in the evolution and development of studio models, where ‘traditional disciplinary boundaries are exceeded.’ This approach to studio formation appears to mirror the ‘neo-avant-garde’ of the 1950s (the Independent Group), and the ‘historical avant-garde’ (the Constructivists and De Stijl) explored in Chapter Two (Coles, 2012, p. 10). Also, as with Da Vinci, the polymaths of the eighteenth and nineteenth centuries, and key twentieth-century figures like Moholy-Nagy, the studios invented their own pathways through a shift in mindset. Arad demonstrates this shift through his inversion of the client-designer relationship, when he discusses his early iPad design and explains that his client, LG, ‘didn’t understand what I wanted from them.’ Heatherwick demonstrates this mindset by choosing three-dimensional design over architecture for his undergraduate education, despite a clear ambition to design buildings. As highlighted in the ‘Beyond Discipline’ report, findings of the study demonstrate that these studios are part of a movement

‘revolutionising’ design practice by ‘questioning their purpose and re-defining their roles’ (Furniss, 2015, p. 13). To be innovative and pioneering in design, courage appears to be needed to step outside traditional models, and being both a designer and a maker is a vital enabler to do this.

### **Terminology and classification**

As discussed in Chapter Two, terminology and classification systems for design are becoming more complex, and yet it appears that simplicity is needed to de-mystify design and avoid the current ‘terminological quagmire’ (Choi and Pak, 2006, p. 352). To explore this further, interviewees were asked to define themselves, and characterise and define their studios. In doing so, it became apparent immediately that interviewees struggle to apply current terminology and traditional disciplinary labels to themselves or their work.

Asking interviewees how they define themselves when asked what job they do, is evidently a difficult question. Interviewees physically communicate the challenge of the question by taking a deep breath, pausing, sighing, slumping their shoulders or laughing. Some give simple, one-word answers, while others fall back on apparently well-rehearsed complex descriptions. Some interviewees explain that they vary their answers depending on who is asking, and the type of relationship they wish to build with that person. However, the majority of responses describe the work itself, rather than using disciplinary labels, as Walker clarified: ‘Rather than say I am something, I say I do something.’ Hirst described what he does as ‘I design stuff. Whether it’s a bag, a dress, a chair, a 30m sculpture, a step, a ring, all of this is just stuff.’ These findings reflect comments from the ‘Beyond Discipline’ report, that highlight the need for better classification, as many of the interviewees simply refer to themselves as ‘designer’, rather than denoting a discipline (Furniss, 2015, p. 26). Also, the findings support Chettiparamb’s (2007, p. 12) view that ‘the notion of disciplines is artificial and is now breaking down into a post-disciplinary world.’

The same difficulty occurs when interviewees are asked to characterise and define the studios. As with defining themselves, the commonality is the

tendency to describe the work itself. Two common terms used to describe the work are identified as *scale* and *dimension*. Heatherwick Studio arranges the work on their website by scale, from small to large. Ron Arad Associates describes the work, whether studio pieces, products or architecture, as ‘pieces, of various scales’, and Jason Bruges Studio explains that ‘projects range from very small to very large’. In response to these findings, I constructed the Menu of Work as a new tool to categorise and interpret the work of each studio, ranging from small to large, and, as argued below, this represents one of the contributions from the study. Also, rather than using disciplines, the studios use dimensions, including two- (2D), three- (3D) and four-dimensions (4D). Heatherwick explains ‘I’ve always liked the simplicity of 3D design. Rather than a trend of our time, it’s absolute if something is 3D or 2D.’ Jason Bruges Studio describes the work as 4D, and Punchdrunk and Assemble reference work as evolving over time, and being socially rooted, which can be categorised as 4D.

These findings point to a disjunction between external perceptions of what a designer is and the lived reality for the interviewees. Traditional disciplinary labels for these individuals do not support, and possibly hinder, how they communicate to and are understood by the outside world. As explored in Chapter Two, these studios are moving ‘beyond discipline’ (Nicolescu, 2006, p. 1), their desire to be more than just one thing shows a universal, holistic way of viewing themselves, and they approach designing with this ‘attitude’ (Moholy-Nagy, 1947, p. 42). The interviewees reflect Foucault’s description of ‘universal individuals’ (Chettiparamb, 2007, p. 2), discussed in Chapter Two, as they do not come from a particular disciplinary location, as well as Krznaric’s interpretation of the wide achiever (Krznaric, 2012). Krznaric argues that ‘our culture of specialisation conflicts with something most of us intuitively recognise, but which careers advisers are only beginning to understand: we each have multiple selves. We have complex, multi-faceted experiences, interests, values and talents’ (Krznaric, 2012, p. 81). These findings have significant implications for both practice and pedagogy, and possible solutions are explored and developed in depth later in this chapter.

## **Organisational structure**

All five studios are structured in different ways, reflecting their individual innovative business models. However, three commonalities between them include: relatively flat hierarchies; fluid collaborative team structures; individuals having multi-faceted roles. The studios use flat, or relatively flat hierarchical structures, highlighted by interviewees as rare, and unlike the ‘military-like chain of command’ common to other studios in which they have previously worked. These views correspond with my experience as a professional designer working in a variety of studios in the 2000s, which all had clear hierarchical structures. Team structures for all five studios appear to be fluid, continually evolving and highly collaborative. Ron Arad Associates and Assemble tend to work in pairs, with other members playing support roles where needed. As an Assemble interviewee points out, this approach is not the norm: ‘There’s not the same professional distance you have in an office when somebody can take you off a project at any moment and put you on something else’ (Dawood, 2016). Heatherwick Studio, Jason Bruges Studio and Punchdrunk all use larger, multifaceted teams from a broad range of disciplinary interests. Bruges describes team members as ‘the sum of all parts, like an orchestra,’ which also demonstrates the flat approach to hierarchy. External collaborators are highlighted as critical in varying ways for all the studios, whether it’s collaborating with co-creators, volunteers or expert specialists.

Individual members of all five studios have multi-faceted roles which require interdisciplinary thinking. Members need to be well-rounded, open-minded and open to all disciplines to enable broad conversations. This way of working means that members become experts in areas never imagined, not limited by their own disciplines, a process that interviewees describe as infectious. Multi-faceted roles and a broad set of skills appear essential to enable these studios to take on such breadth of work. This approach is not typical, as Punchdrunk member, Landau, explains the role of a designer in Punchdrunk is ‘definitely a much broader role than it might be working in another company.’ Like Moholy-Nagy, discussed in Chapter Two, members appear to move ‘horizontally across the arts’ rather than vertically in one discipline

(Kostelanetz 1970, p. 3). These findings reflect Dawton's opinion, from the 'Beyond Discipline' report, that 'generalist is almost a dirty word in the UK, but...industry needs those people that are capable of casting their eye across the whole organisation' (Furniss, 2015, p. 33).

Much can be learned from these innovative approaches to organisational structure for both practice and pedagogy. New and existing design studios could apply these approaches to hierarchy, team structure, and selection and roles of team members, to support a more interdisciplinary approach which may increase innovation. Higher Education institutions could apply these approaches to enhance flexibility and agility, which might enable them to respond more quickly to ever-evolving practice. As with the Construction School, discussed in Chapter Two, Potter prioritised people and relationships, using a non-hierarchical organisational structure. 'Communities' were created, all year groups were condensed into one, and work was exhibited and critiqued together (Potter, 2012, p. 166). Eliasson also created a flat hierarchy at the Institut für Raumexperimente, by making everyone at the Institute a 'practitioner', believing the hierarchical transmission of knowledge practised in many art schools was unproductive (Eliasson, 2014). Co-operation between departments might also help avoid what Sennett describes in Chapter Two as the 'silo effect', which creates isolation of individuals and departments 'who share little and who indeed hoard information valuable to others' (Sennett, 2013, p. 7).

## **Process**

The processes for all five studios are rooted in emergence, iteration and being human-centered. Whether it is a 'game of ping-pong', 'questioning', 'percolation', 'world creation' or 'collective decision-making', the core commonality is that each studio uses emergent logic to create a process that is non-linear, and unique for every project. This reflects Rittel's 'Wicked Problems' approach, discussed in Chapter Two, which was an alternative to 'the linear, step-by-step model of the design process' (Buchanan, 1992, p. 15). It also reflects the co-designing process, created by Sanders and Stappers (2008, p. 7), with the 'fuzzy front end' capturing the 'ambiguity and chaotic

nature' of the process as 'it is often not known whether the deliverable of the design process will be a product, a service, an interface, a building, etc' (Sanders and Stappers, 2008, p. 7).

An emergent process is defined as one that: 'denotes patterns, properties and behaviour of a system that arise out of a multiplicity of relatively simple interactions between the elements of that system that do not show such patterns, properties or behaviour individually' (Mandl, Hauser, and Mandl, 2013, p. 23). The processes of the studios reflect this definition as they start from the ground up, are fluid, and change for each project. Work is grown, and continues to grow throughout the life of the project, endlessly developing and constantly evolving. Any formal process structure is treated only as a guide. Iteration is essential to enable this process of emergence, and the studios highlight that these iterations are often extreme, messy and time consuming. Allowing sufficient time to fully develop and refine designs is critical for all studios. This level of rigour, reviewing, and refining, is described as exhausting, but necessary. Terms such as 'messy' and 'exhausting', are not commonly heard when designers discuss the creative process with non-designers, perhaps for fear of possible negative interpretation, yet they provide a true picture of the challenges these designers face. Projects are human-centered and highly collaborative in their processes. As Punchdrunk member, Higgin, explains: 'The creative process really begins once you get an audience in, which I think is what is different about our work.' Human-centered design is defined as 'the use of techniques which communicate, interact, empathise and stimulate the people involved, obtaining an understanding of their needs, desires and experiences which often transcends that which the people themselves actually realised' (Giacomin, 2014, p. 3). As explored in Chapter two, the human-centered focus of the studios reflects Sanders and Stappers's (2008, p. 10) identification of a shift from designing products and technologies, to designing 'for people's purposes...centred around people's needs or societal needs.'

As discussed in detail in the individual case studies in Chapter Four, interpretive process models were created for each studio, based on comments

from the interviewees. For Ron Arad Associates (Fig. 137) and Jason Bruges Studio (Fig. 138), a commonality is that the process diagrams are drawn in elevated view, and demonstrate iterative loops that grow upwards. For Punchdrunk (Fig. 139) and Assemble (Fig. 140), a commonality is that the process diagrams are drawn in plan view, and represent concentric circles that grow outwards, and continue growing beyond completion of a project. For Heatherwick Studio (Fig. 141), the process diagram is an amalgamation of both, showing iterative loops and growth. For Ron Arad Associates, Punchdrunk and Assemble, the process appears to be more instinctual, visceral and emotional. The process for both Heatherwick Studio and Jason Bruges Studio appears to be more structured, and is described as the same for every project. This description reflects Gregory's, discussed in Chapter Two, where he defines the design process as 'the same whether it deals with the design of a new oil refinery, the construction of a cathedral, or the writing of Dante's Divine Comedy' (Gregory 1966, p. 3). However, the findings demonstrate that although key components of the process may be the same for every project, the studios interact and move through these components differently every time. These process models were shared and tested with the studios at the Symposium in 2017, and were validated. Both Jason Bruges Studio and Punchdrunk asked for copies of their models, due to their accurate depictions and original perspectives.



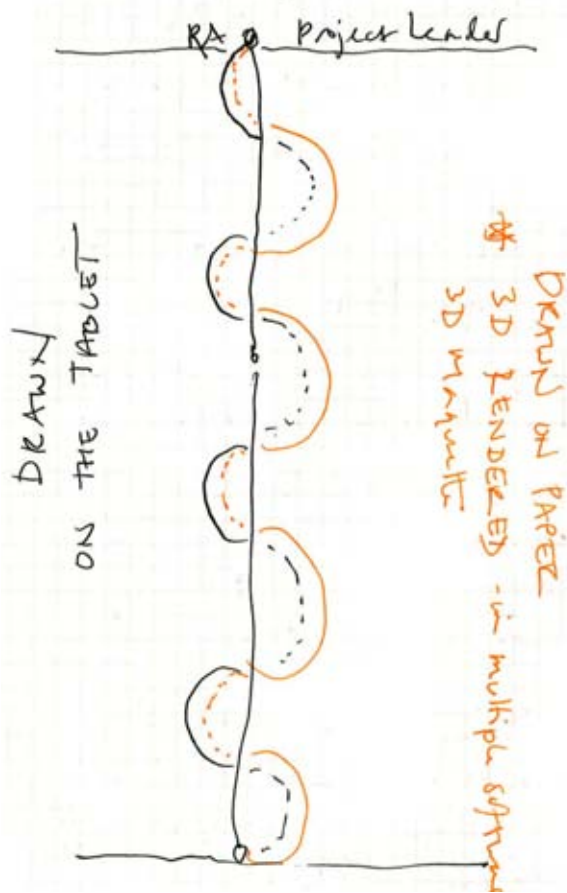


Fig. 137: 'Process model for Ron Arad Associates'. (Furniss, 2017).

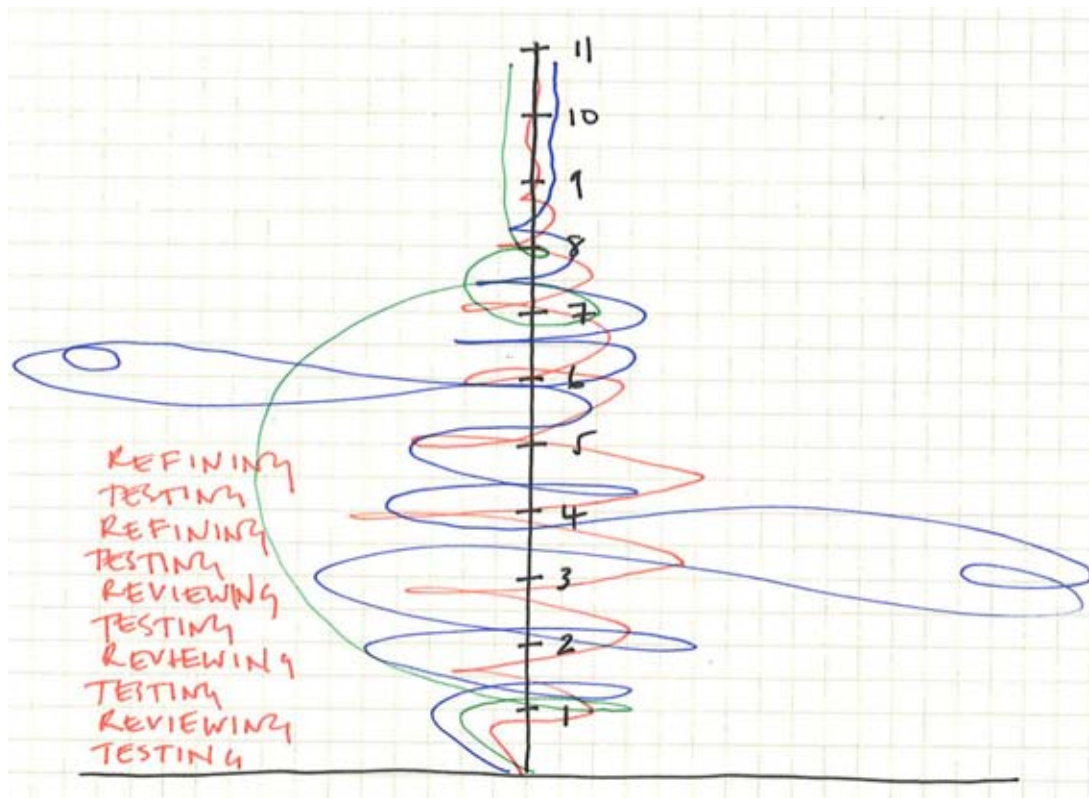


Fig. 138: 'Process model for Jason Bruges Studio'. (Furniss, 2017).

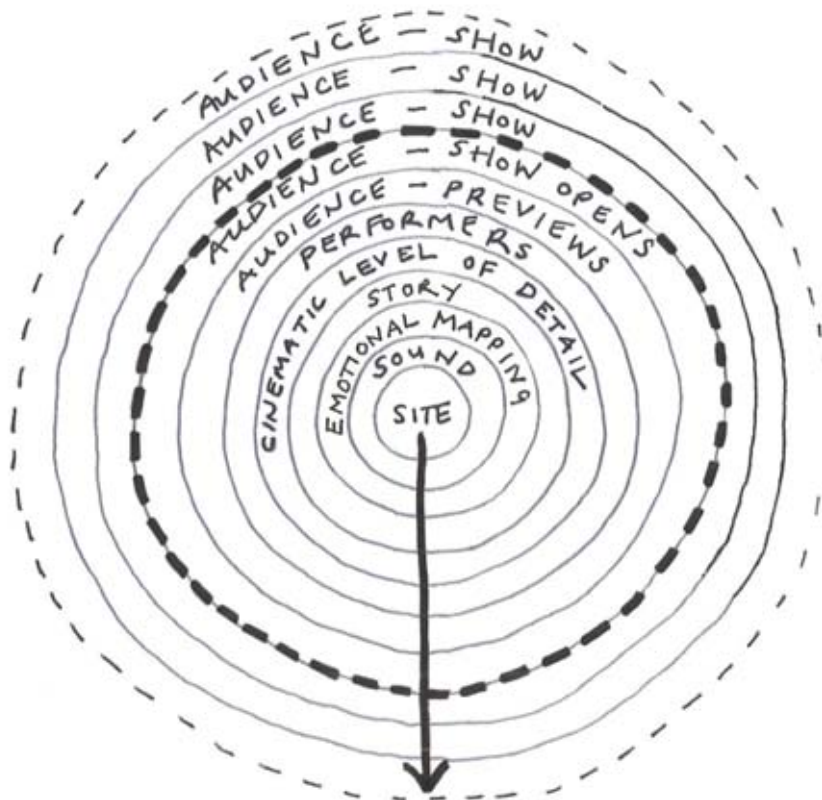


Fig. 139: 'Process model for Punchdrunk'. (Furniss, 2017).

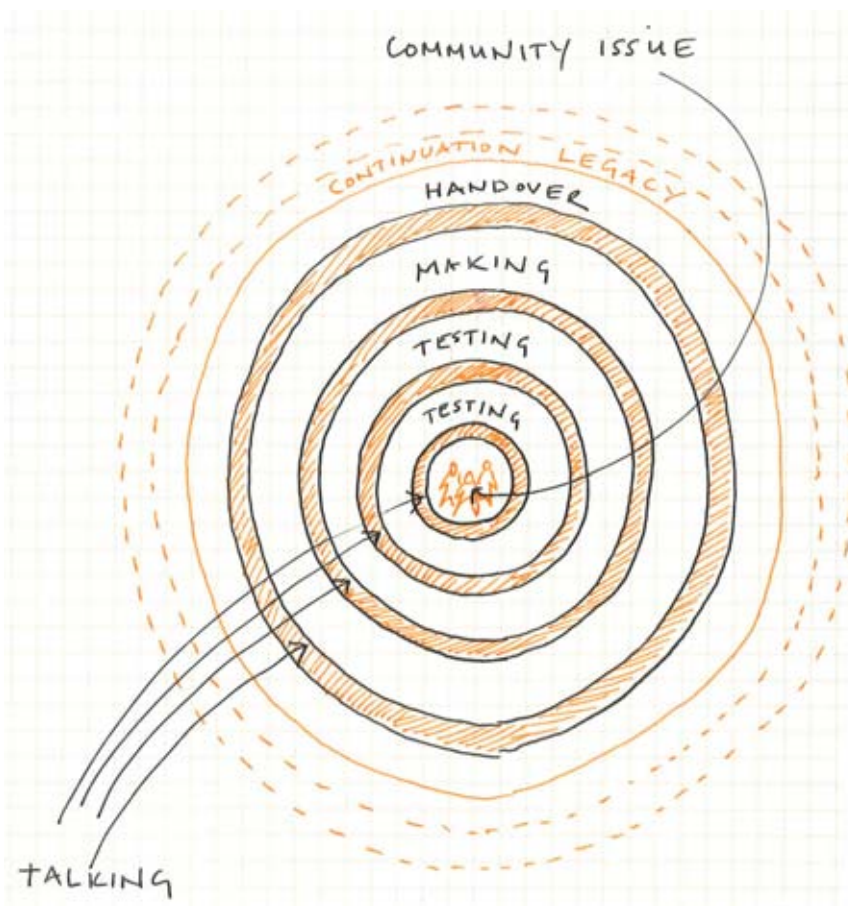


Fig. 140: 'Process model for Assemble'. (Furniss, 2017).

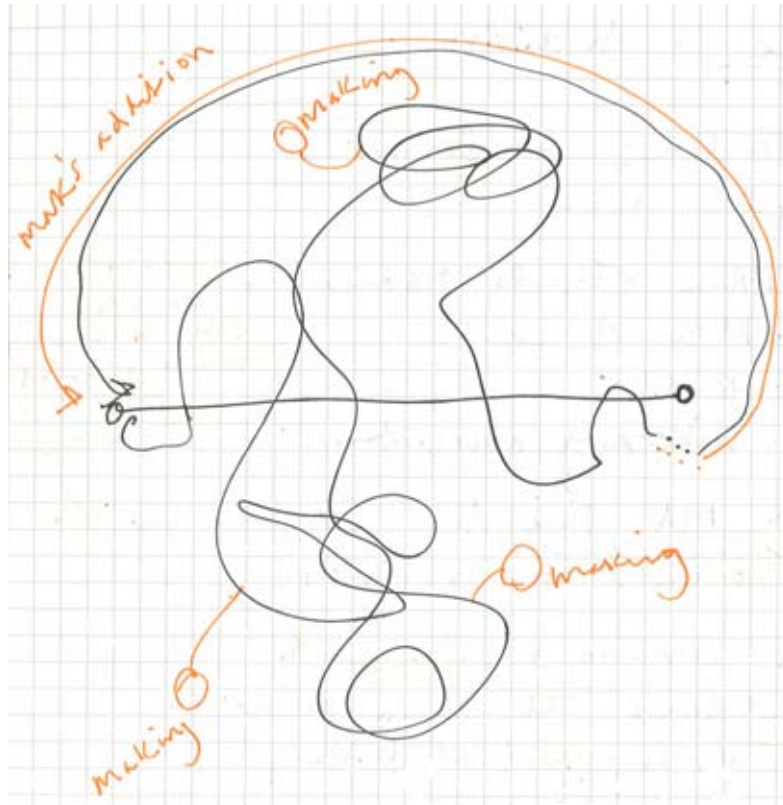


Fig. 141: 'Process model for Heatherwick Studio'. (Furniss, 2017).

The key components common to the processes of all five studios identified in this study are: Questioning; Making; Eliminating; Communicating; and, Innovating (QMECI). Rigorous questioning appears to be the common starting point, but also continues throughout each project, and enables curiosity and the pushing of boundaries. Ron Arad Associates asks 'what if?' at every stage of the process, and Heatherwick Studio uses rigorous questioning, to see the greater potential of a brief by zooming in and out between seeing details and the bigger picture. Similarly, Punchdrunk question the selected site of production, in terms of where safety is and where danger is, to emotionally map the space and explore its potential. Jason Bruges Studio and Assemble self-initiate projects, by allowing projects to grow out of early questioning. These findings reflect Dorst's theory of 'Frame Creation', discussed in Chapter Two, developed in the studios of expert designers, as a way of seeing, thinking, and doing differently (Dorst, 2015, p. 13). All five studios appear to apply rigorous questioning and re-questioning to enable 'framing' or 're-framing' of ideas and briefs, that in turn lead to innovative solutions.

All five studios started out as designer-makers, with the workshop at their heart, to encourage experimentation and play. Only Ron Arad Associates has reduced the importance of making within the London studio, due to Arad's concern of becoming a craftsman, although it still has a making facility in Italy. Prototyping, testing and making are fundamental to the philosophies of all the studios, as they enable agility, the development and proving of ideas, and also drive innovation. They are also regarded as essential tools to bridge the gaps between traditional disciplines. Making enables the full potential of an idea to be explored, and often results in the development of new hybrid materials, like Assemble's 'rubble-dash'. These findings align with Sennett's view that 'hands-off design disables a certain kind of relational understanding' (Sennett, 2008, p. 43). The findings also reflect comments from the 'Beyond Discipline' report, which highlight a return to making and a craft resurgence, due to designers wanting to better connect to materials and enable the process of iteration (Furniss, 2015, p. 18). Having making at the heart of each studio encourages an environment of experimentation and play, seen as essential for creative thinking and curiosity (Sennett, 2008, p. 270). Jason Bruges Studio member, Walker, describes the prototyping stage of the process as 'very bespoke', explaining: 'We might prototype something, test it, re-prototype it, take it apart, do something else. That's quite unique to this practice.' This view reflects Ingold's (2013, p. 45) description of the process of making as 'a passage along a path in which every step grows from the one before and into the one following.' The emergent, iterative making processes of the studios appear to capture what Ingold defines as 'itineration', rather than iteration, which he describes as 'making as a journey' (Ingold's, 2013, p. 45).

Being highly critical, exploring every possibility, to then eliminate all that is unnecessary, is another key common trait. Being able to refine ideas through this process of elimination is key to all five studios, and failure is valued to the extent that it is celebrated. Archiving all the dead-end ideas for every project at Heatherwick Studio, reflects Sennett's view that it is critical to value mistakes and 'to be willing – more, to desire – to dwell in error' (Sennett, 2008, p. 161). After the completion of a project, the studio lay out and analyse all the dead-end ideas to learn from the entire the process. This approach

appears to be the same for the other studios as well, as ideas percolate through a process of refining, eliminating and moving forward. Punchdrunk's decision to move to a new building is driven by Barrett's desire to create a groundbreaking space where 'it's going to be like being at university again where we are able to fail, because the public can't see it.' Not fearing failure enables the studios to take risks, and supports Gerver's argument that 'you only ever learn something new from the point of a mistake or the realisation you don't know something or you can't do something. Yet as we get older we lock it down and our aversion to risk gets stronger. We need to take risks as adults, and step outside what we know' (Gerver, 2013).

Both verbal and visual communication are key to the processes of all five studios. Assemble explains that communication is 'key to collective decision-making', and that their process is made up of constant conversations, often held around the lunch table. For Ron Arad Associates, the 'ping-pong' process is driven by a series of conversations, and, for Punchdrunk, extreme iteration can only happen through many conversations. For Jason Bruges Studio, high quality visual communication is crucial because the work is interactive and time based, and communicating how it is going to be acting, reacting and performing is essential. For Heatherwick Studio, being able to articulate design thinking is critical, through words and drawings. Visual work is pinned up and critiqued through collaborative discussion. The studios also value dialogics, as listening enables 'co-operative conversations' and 'requires a different set of skills, those of closely attending to and interpreting what others say before responding, making sense of their gestures and silences as well as declarations' (Sennett, 2013, p. 14).

Embracing innovation and new technologies, while continually challenging boundaries, is the final common process component. The studios are developing new ways of working by creating innovative management strategies. For example, Heatherwick Studio has grown to nearly 200 members and yet still manages to have a relatively flat organizational structure due to carefully considered management design. Taking risks is regarded as key to innovation and something all the studios relish. Individual

studio members are also encouraged to keep pushing themselves and their individual interests as a way of keeping the studios innovative. The studios are also responding to, and pioneering, new technologies. As discussed in Chapter Two, the explosion in technological developments has driven a 'leveling-out' of traditional disciplinary hierarchies, that mirrors the changes that took place 100 years ago with the Bauhaus and Constructivist movements (Marshall and Pengelly, 2006, p. 112). Ron Arad Associates pioneered new technology by developing an early mobile touch screen device for LG before Apple developed the iPad. Re-appropriating unconventional software is also a common theme amongst the studios, and at Jason Bruges Studio Cryogen (a game engine) and Arduino (robotics software) are used to create renders.

These universal commonalities in process between all five studios have significant implications for both practice and pedagogy. The process diagrams and key components are amalgamated and diagrammatically interpreted in more depth later in this chapter, to offer proposals for a universal process model for both practice and pedagogy.

### **Spatial requirements**

The studios could not apply these innovative processes without the physical spaces they have created for themselves. Their studio spaces are integral to their processes, which is why the design of these spaces is very carefully considered. Making is placed at the heart of every studio, the layouts are open plan and flexible. It can be argued that the look of each studio is a physical representation of its creator's philosophy. The only key difference between the studios is that two have multiple sites. Heatherwick Studio is split over five sites, due to rapid growth, with the original site still considered the central hub, and Punchdrunk was split over three sites. However, during the study, members of Heatherwick Studio expressed the desire to have the studio back under one roof, and Punchdrunk moved to a new site to bring all three locations together into one. This highlights that the studios place great value in working within one space.

Placing the workshop and making at the heart of each studio creates a laboratory environment, and a place of doing, enabling agility and iteration and encouraging play. This decision reflects the master craftsmen, discussed in Chapter Two, who prior to the Industrial Revolution combined the roles of builder, craftsman, engineer and designer (Heatherwick, 2012). Having a more informal type of space, where you can make noise and mess, test and build, is critical because, as Assemble explain, 'it means we can test things out and approach design in a very different way than if we only had computers and clean space.' Assemble emphasise, 'we couldn't do this from a little office in Clerkenwell' (Taylor, 2014). This is not the norm, as Jason Bruges Studio member, Robinson, points out that the workshop is key to 'being able to play', and explains: 'We're very fortunate, a lot of studios don't have it.' Placing making at the heart of each studio also affects the look, which Robinson describes as: 'Eclectic. It seems to have an original feel to some of the other studios I've been to. Not sterile.' This lack of sterility was a great surprise to me when visiting the studios during the study. Throughout my career in the 1990s and 2000s, all the studios in which I worked were fairly sterile, with a typical 'corporate' look: none supported or encouraged making and mess. In one company, I was actually reprimanded because I had spent all night working on a large model of a museum exhibition, and had to leave it incomplete to go home for a few hours sleep. On my return, I found a note on my desk informing me that I had been 'blacklisted' for messing up the clean environment.

Being open plan in layout is clearly essential to all studios. As discussed earlier in Chapter Four, Heatherwick was inspired by his educational experience in Gothenburg and applied the 'universal shipyard hanger' approach to the design of the studio space. Heatherwick Studio believes an open plan layout provides a level of efficiency, as 'the way you work when you're in a single space, lots of things just get sorted.' They also see it as a statement of transparency, openly learning from each other. Jason Bruges Studio support this view, seeing the open plan layout as key to communication. Again, this is not the norm, as Heatherwick Studio member, Cash, observes at many architectural studios desks are linear because 'teams shrink and expand and



it's really easy to move people up and down that line' which means that 'you only ever speak to the person to your left or your right.' Heatherwick Studio has created the principle of a circle with no predominant seat, to aid communication and which Cash describes as 'non-hierarchical.' For Punchdrunk, being able to bring everyone together in one space is essential as 'we don't start a production knowing what the outcome will be, so we need to be around our team, on site, in order to create the work.' Having spaces that are flexible and adaptable is also a common theme. At Heatherwick Studio, placing all the major pieces of furniture, including machinery, on wheels, means that 'everything shunts around for what we need to do.'

These creative approaches to use of space have implications for practice and pedagogy. For practice, new and existing design studios could bring making into the centre of their spaces, to support and stimulate the design process and also remove a level of sterility. They could also re-think configurations and layout to make the environment more open and flexible to support both experimentation and communication. For pedagogy, Higher Education institutions could do the same. As Assemble highlight 'where we teach it's all quite corporate, and we are not corporate. The space needs to allow for messiness, experimentation and chance.' Assemble also point out that 'it's rare that any university is expanding their workshop facilities.' There is much similarity between these studios environments and the radical pedagogical environments of the twentieth century, discussed in Chapter Two. The Bauhaus's Dessau building had a flexible plan, open internal spaces and open-plan workshop facilities, the building was 'an ever-changing space' and a 'flexible laboratory' (Barbican Centre, 2012, p. 200). Buckminster Fuller's Department of Design at Southern Illinois University in Carbondale supported 'comprehensive designers' by abandoning traditional university workspaces and moving the design studio out to geodesic domes (Wigley, n.d.). All disciplines were brought together, the domes treated as 'information gathering, visualising, extending and broadcasting machines,' and the school 'imagined itself turning into a brain, a giant information system inside a dome sustaining a world research team' (Wigley, n.d.). In the UK, Potter's Construction School placed the workshop at the heart of the design process



(Potter, 2012). Finally, as highlighted in Chapter Two, the UK still has a system of education where the different fields of production are ‘specialised and segregated from each other in the hope that the output would be greater’ (Kostelanetz, 1970, p. 191). Higher Education institutions could take inspiration from Heatherwick’s ‘universal shipyard hanger,’ and the ‘Kiva Classroom’ at Virginia Tech, by creating interdisciplinary spaces that are open and flexible in layout and function, with making at their heart, and inviting students from different disciplines to come together.

### **Core capabilities**

Key to the success of each studio is the careful selection of exceptional team members, who have both the social and technical skills to creatively collaborate. Social skills, and being able to fit into the studio environment, are regarded as the most essential capabilities, and for Jason Bruges Studio social skills are ‘top of the list.’ Ron Arad Associates agrees, stating: ‘you can have the best skills in the world, but if they don’t like you, they don’t like you.’ Having a ‘personalities over degrees’ approach also explains why there are members in every studio who do not have formal design training. As confirmed at the Symposium by Punchdrunk member Colin Nightingale: ‘I found it fascinating that ... social skills, and people actually being able to communicate, was the top thing we are looking for’ (see Appendix 17). Jason Bruges Studio member, Walker, puts this down to ‘good recruitment, looking for certain character types.’ Walker explains this is not the norm, and that in the wider profession there is ‘a culture of delusion and spite and bitterness which I actually think originates in architecture school, a culture of competitiveness and infighting and people only looking out for themselves. They don’t have that same egotism here.’

Broad-based skills, and a broad outlook, are highly valued, and core capabilities identified in this study include: a universal hybrid outlook; confidence and a can-do attitude; curiosity; commitment to quality; and, visual and verbal communication. Due to the diverse nature of their work, the studios choose to select new members who are universal in their outlook and have a hybrid, broad skills base. Finding people who do not follow normal

prescriptive routes, have a multi-faceted approach, an entrepreneurial outlook and continually want to learn new skills are also valued. These hybrid skills support Sennett's view that having a fuller skill set helps in solving complex problems: 'Sometimes it's imagined that becoming skilled means finding the one right way to execute a task, that there is a one-to-one match between means and ends. A fuller path of developments involves learning to address the same problem in different ways. The full quiver of techniques enables mastery of complex problems' (Sennett, 2013, p. 201).

Self-confidence and attitude to both criticise and drive yourself forward, are highlighted as necessary for agility, and to step outside the confines of traditional disciplines, and are prevalent throughout every studio. For Jason Bruges Studio it does not matter if a member does not have a certain skill set, so long as they have confidence to 'still hack together a test.' Having an attitude as a designer that you are more than just one discipline is highlighted as really important, and a healthy attitude means 'no egos' in the studio. These recommendations of attitude and agility reflect Laszlo Moholy-Nagy's view, discussed in Chapter Two, that 'designing is not a profession but an attitude' (Moholy-Nagy, 1947, p. 42), and Rawsthorn's contemporary interpretation of 'attitudinal design' (Rawsthorn, 2018, p. 10).

Curiosity and tenacity are highlighted as important, because, as Ron Arad Associates explains, 'quite often you are thrown into things that you might not know much about.' Heatherwick Studio highlights curiosity and determination as core social attributes, and for Jason Bruges Studio, not having curiosity means 'you are not going to push, you are going to stagnate.' A commitment to quality is clearly important to all the studios, by the fact they take so much time on their process. However, Punchdrunk and Heatherwick Studio go further, and highlight it as a core capability. For Punchdrunk, it is about attention to detail and taking an extra level of care. For Heatherwick Studio, it is about quality at every step of the process. Key communication tools highlighted include sketching, model making, 3D modelling and verbal communication, whether presenting a project or developing storytelling narratives. Being able to get across design thinking in

very clear and straightforward ways, and the ability to distil critical thought into simple communication are essential.

These findings contradict opinions discussed in Chapter Two, including Cross (2003, p. 12), who argues that experts cannot necessarily switch practice between domains, and that ‘extensive training within a domain still seems to be crucial to professional expertise.’ These studio members do switch traditional design domains, without requiring extensive training in each, but with excellent social and communication skills, a universal hybrid outlook, a can-do attitude and curiosity. The studios appear to support Sennett’s view, which proposes that experts now need broad analytical skills, deep focused skills, and the ability to combine both of these to work on ‘social explorations to frame a problem’ (Sennett, 2008, p. 247).

## **Evolutions**

The main differences identified between the studios throughout this study are connected with how they have evolved, and how they are dealing with issues of growth in terms of numbers of members and space. Ron Arad Associates, Jason Bruges Studio, and Assemble have evolved organically, with minimal changes since their conception. Ron Arad Associates’ main evolution was to go from being designer/makers to designers with making in Italy. Otherwise the studio has stayed the same size and Arad’s role has not changed. Jason Bruges Studio’s philosophy has not evolved in terms of the work, but Bruges’ role has changed, from originally being the sole ideas generator, to now delegating across the studio. Assemble describe their evolution as organic and explain that they keep evolving in order take on bigger projects while preserving an open, collective culture. In contrast, Heatherwick Studio and Punchdrunk have taken a more strategic approach with a clear visionary direction. Heatherwick decided as a student that he wanted to design buildings, infrastructures and cities, but chose a 3D design route, and this clarity has influenced every evolutionary decision. Punchdrunk describe the evolution of the studio as a five-act play. The five acts have been mapped out and they are currently at the cusp between acts two and three.

Ron Arad Associates and Assemble have both chosen not to grow in terms of numbers. Arad has been at the same location for thirty-five years, which limits the number of people in the studio, but has no intention to move. Assemble does not aspire to grow too much, despite struggling to make the most of all their opportunities, and hope to possibly hire just a few people to become more efficient and sustainable. Jason Bruges Studio and Punchdrunk have both chosen to grow as a result of commercial success. For Jason Bruges Studio, the growth has impacted on space and is pushing the workshop to its limits. The workshop is seen as a luxury, but Bruges is reluctant to move the making elsewhere. For Punchdrunk, the growing scale of its shows has impacted on the size of the core team and their volunteer network, and they are aware this will need to grow further. Heatherwick Studio stayed the same size for over fifteen years, and then scaled rapidly over the last eight years. As well as impacting on the studio physically, it has also impacted culturally and structurally. This has meant the introduction of a more hierarchical structure, and a more corporate approach.

In terms of future developments, Ron Arad Associates appear stable, and unlikely to change. Punchdrunk and Assemble have made positive steps towards future planning. Punchdrunk is radically changing its attitude towards creative process and practice, by taking on a new permanent space, bringing all their existing spaces together under one roof. They see this as groundbreaking, because it will be ‘a living, breathing research laboratory.’ It will be emergent in that they are exploring what theatre will look like in ten years time. Similarly, Assemble have a long term plan of moving to a larger space to create Open Studio, where more disciplines will share facilities. To plan this, the members organised a summit to take a long-term view, and created a seventy page manifesto, signing themselves up and committing to each other for at least the next five years.

However, Heatherwick Studio and Jason Bruges Studio appear to be at critical moments in their development. Jason Bruges Studio has issues with space, and the workshop is under threat due to rising rental costs forcing the need to move. The workshop is clearly integral to their process, and it would have a

considerable negative impact if it was removed or even reduced in size. For Heatherwick Studio, the main challenge will be balancing growth while maintaining the studio's core values. Maintaining a relatively flat hierarchical way of working and having everyone together in one space, conflicts with the current number of members and the five different locations. I would argue that for the studio to continue working in an innovative way, and to thrive, it is vital that it finds a space large enough for the entire studio population, like the Gothenburg shipyard hanger.

The findings highlight the challenges these studios face in balancing success and the pressure to grow, with the innovative models they have created that require a sense of collaborative community and sufficient space for making. However, this is a common concern for both practice and pedagogy. Punchdrunk's example of addressing the need to grow while trying to emulate how they used to work, is groundbreaking for the sector. Also, as discussed in the 'Beyond Discipline' report, many universities now 'prioritise quantity over quality at intake in pursuit of income targets' (Furniss, 2015, p.29), and this growth is putting strain on existing infrastructures. Higher Education institutions could take inspiration from Punchdrunk and Assemble, by bringing students and facilities from different disciplines together into shared spaces, that would not only stimulate interdisciplinary practice, as discussed earlier in this section, but could also save on space by sharing resources.

In summarising Practice, the most surprising discovery of this study is the similarity between these studios, from their origins, philosophies and views on terminology, to their organisational structures, processes, and use of space. The only clear differences appear to be in their size, and how they are evolving. This was not expected, considering the diversity of the work they produce. The studios carefully select members with broad outlooks, supporting Seymour's argument, discussed in Chapter two, that the design world will need more polymaths with much broader bandwidth than is common, as these designers tend to be the most creative (Seymour, 2006). Much can be learnt from these pioneering approaches, if viewed as a *recipe for practice*. Not only can other practices who wish to innovate take

inspiration from these methods, but Higher Education can also learn many valuable lessons. Looking at the innovative approaches to organisational structure, responses to growth challenges, and design and use of space, could enable Higher Education to be more agile, innovative, relevant and connected to evolving and successful design practice. There are also clear implications for both practice and pedagogy in relation to terminology and classification, and process, and these will be explored in more depth later in this chapter.

### **5.3 Analysis of evidence for Pedagogy**

To explore the implications of evolving design practice for contemporary design pedagogy, this section first draws comparisons in terms of the individual members past educational experiences, then looks at the studios' present involvement in education. The section concludes by cross-analysing their views on the future implications for undergraduate education.

#### **Past experiences**

There is a thread of unity when analysing the past pedagogical experiences of the interviewees. The key commonality between interviewees is that they either selected non-conventional courses of study, or were allowed to break the rules at their more conventional institutions. For example, Goldsmith went to UC Berkeley, and was encouraged to use cartooning (a non-traditional tool) as the main communication tool on her Landscape Architecture Masters course. Castellana undertook a double undergraduate degree in Industrial Design and Photography at Carnegie Mellon, which offered a broad undergraduate degree, and only encouraged specialisation at masters level. Three interviewees studied a Masters in Architecture at the Architectural Association, a radical school with a reputation for non-conformity, and five interviewees went to the Bartlett School of Architecture, where three studied on Unit 14, which focuses on 4D Architecture and Cybernetics. Walker studied an undergraduate degree in Architecture on a hybrid course between Manchester University and Manchester Metropolitan University, and Hubbard studied at Goldsmiths, on the BA Design, a four year sandwich course with no specialisation. Created in 1989, Hubbard describes the course as unique to the UK, explaining that 'you could be a graphic designer or an architectural designer. They were more interested in creation of ideas and the development of ideas, and the development of critical thinking. Rather than following one discipline, the course was very multi-disciplinary.'

Another common theme identified is the fact that the interviewees appeared to relish the freedom and agility their courses offered them. Unfettered freedom enabled them to make creative leaps without fear of failure. Heatherwick studied Three-dimensional Design at Manchester Metropolitan

University, and was allowed to take electives across a variety of schools and other Higher Education institutions. Barrett and Higgin both studied Drama at Exeter University, and were allowed to take ten electives, instead of the recommended one. Selecting diverse courses that offered breadth in their studies provided a hybrid, pluralist point of view, and encouraged non-conformity. Having the appropriate space for making was also highlighted as a valuable asset, as it encouraged testing, trialing, making and play. Finally, the Foundation Diploma in Art and Design was cited as a very valuable course during their education, because of its experimental, fluid nature, offering a chance to play. Interviewees described it as an eye-opener, and the best year of their education, as it was the first real exposure to multidisciplinary exploration.

These educational experiences appear to be more holistic than the typical undergraduate course structures in Higher Education in the UK today, that separate disciplines and prioritise specialisation (Robinson, 2006). Their experiences sound similar to the progressive models of the twentieth century, discussed in Chapter Two, which offered ‘extraordinarily flexible, open and experimental course of studies’ (Hall, 2016, p. 7) and ‘broad-based skills’ (Lerner, 2005, p. 220). Their courses also appear to be more interdisciplinary, in that they were ‘not synonymous with a single process, set of skills, method, or technique’ and aimed to foster ‘a sense of self-authorship and a situated, partial and perspectival notion of knowledge that they can use to respond to complex questions, issues or problems’ (Haynes, 2002, p. xvi). Hubbard’s BA Design course at Goldsmiths appears to reflect the structure of the Construction School, and Potter’s view that design courses should not be ‘irrationally divided up into specialisations with a doubtful relation to the work students may finally do, and with even less plausible reference to the situation as it could be in ten years time’ (Potter, 2012, p. 24). Finally, the interviewees valuing of the Foundation Diploma in Art and Design reflects Ranjan’s (2005, p. 1) view, discussed in Chapter Two, that although ‘originally perceived and dealt with at the Bauhaus and Ulm as a critical orientation to design thinking and action’ it is still required today, despite ‘substantial change in the tools and processes of design in the information age.’ Their view



also supports Spencer (2016) who argues that ‘we need foundation courses now more than ever. Design education needs to be connected, not specialised, because that’s how design is in the real world. If designers aren’t ready for anything, they are ready for nothing.’

### **Present involvement**

Another surprise of this study was to discover how involved the studios are in education. Much can be learnt from their innovative pedagogies, which offer significant opportunities for education at all level. Punchdrunk Enrichment is having a significant impact on primary education, from oral storytelling and drama through to art and science, while improving speaking, listening, communication and writing skills, with Mrs Weevil’s Bric-a-Brac Shop being a key example (Punchdrunk, 2016). Their approach is described as inclusive, operating outside notions of academic attainment, and engaging with children’s affective and imaginative capacities. Like the developments in Finland (Korvenmaa, 2007), discussed earlier in Chapter Two, this approach is about teaching through topic rather than subject (Garner, 2015). It also reflects the XP free school in Doncaster, that has introduced project-based learning, rather than subject-based learning (Abrams, 2017). It could be argued that this model could be adapted and rolled out nationwide, to enable young people to experience the value of creative education, to make connections between subjects that are normally separated, and to help them step outside the current focus on academic attainment.

At secondary level, Heatherwick Studio’s collaboration with the V&A was so successful that it is now being rolled out further, beyond London, as Design Lab Nation (Hunt, 2017), discussed in Chapter Two. Connecting a secondary school to a design studio and a creative institution, who then collaboratively explore an innovative brief, helps pupils re-define their understanding of design and enables them to see that things do not exist in isolation. This collaborative approach could also be rolled out nationally to help improve secondary school pupils understanding of design and its value, and potentially address the shortfall in uptake of creative subjects, as discussed in Chapter Two (Cultural Learning Alliance, 2017).

Ron Arad Associates, Jason Bruges Studio and Assemble are all involved in Higher Education in various ways. At undergraduate level, Bruges is not only a visiting tutor, but has also written articles in the national press expressing concern that the current design education system focuses only on teaching technical skills, and not process and thinking. Like the V&A Design Lab Nation, and Finland's joined-up approach to policy (Korvenmaa, 2007), he recommends that more studios should collaborate and partner with universities to give back to the education system. The Institut für Raumexperimente is perhaps an extreme example of this, with Eliasson creating a school within his studio, but viewed as an educational research project much can be learnt from the pedagogy, which links the Institut's process to the studio's innovative creative processes, using 'experimentation as a method' (Eliasson, 2014). Two members of Assemble have 'virtuoso' posts at Liverpool John Moores University. Taking a very open, interdisciplinary approach, they have open tutorials with any student from any course. This is a simple way of introducing interdisciplinary ways of thinking into existing rigid academic structures, and could easily be rolled out in Higher Education nationally with little structural impact. At masters level, by creating the Design Products course at the Royal College of Art, Arad has shaped a whole generation of designers. Declaring that defining courses by sectors was no longer relevant, Arad's Platform structure offered guided exploration, inviting students to ask fundamental questions about what design was, could and should be. This approach could be applied at undergraduate level, as Arad originally did in the 1990s at Vienna's Hochschule für Angewandte Kunst, and also as Design Academy Eindhoven have done, as discussed in Chapter Two (Design Academy Eindhoven, n.d., a).

Both Punchdrunk and Assemble are exploring informal models of adult and alternative creative education. Punchdrunk have expanded their exploration of educational models into museums, and residential care homes. The production 'Against Captain's Orders', at the National Maritime Museum, encouraged children to engage with history through the medium of storytelling, in an intense, experiential way, and other museums would benefit from engaging in this approach to make their collections more accessible.

Greenhive Green, an experience at Greenhive Care Home, enabled residents who live with dementia to participate in multi-sensory creative activities, and this type of initiative could be rolled out to enable all parts of society to benefit from creative education and stimulation. Finally, Assemble has been exploring alternatives to formal education, by embedding teaching into the development of their creative workshop facilities. Blackhorse Workshop has been highly successful, and is currently expanding in size. The project originally received start up support from the Mayor of London's Outer London Fund, the London Borough of Waltham Forest and match funding from Create, Legacy Trust UK and Arts Council England. The business plan includes technicians and a creative director to run and organize the facility and courses, offering opportunities for novices to work alongside professionals. Their future vision for Open Studio, managed and funded in a similar way, could be seen as a cost-effective alternative to Higher Education for many young people, if it was rolled out nationwide for wider access.

### **Future implications for undergraduate education**

The studios believe undergraduate education needs to: provide fluidity and breadth; celebrate learning from failure and encourage risk taking; re-define design and disciplinary classifications; provide space to make; enable collaboration; and, establish greater connections with industry.

Interviewees argue that if undergraduate students leave education thinking they are a graphic designer, or an architect, then Higher Education is doing those students a disservice. Interviewees believe it is necessary to prepare students to think beyond the limitations of a single discipline, to open their horizons to the shared definitions of design. This is because the studios do not see divisions between disciplines, fluidly moving from one to another, and they need the members of their studios to do the same. This reflects Papanek's approach at Purdue University, discussed in Chapter Two, which was 'to break down the false dividing lines between the various specialised fields of design such as visual design, interior design, industrial design, etc.' (Papanek and Fuller, 1972, p. 117). Yet interviewees warn that pedagogy in the UK is becoming more siloed, and explain that education should not be treated as a

straight line of departmentalised segments, and should attempt to capture the true messiness of reality. This would enable students to develop an attitude, by broadening their outlook, encouraging curiosity and exploration, reflecting Moholy-Nagy's (1947, p. 42) view of 'design as an attitude', Klien's (2003) 'transdisciplinary attitude' (Klein, 2003), and Celaschi, Formia and Lupo's (2013, p. 9) 'undisciplined attitude'. Interviewees propose offering as many options as possible, including modules in classics, philosophy, business and the sciences, and writing open briefs, which would enable students to start from scratch, with no pre-conceptions at the start of a project of what they should be doing. Breadth and fluidity across disciplines also builds an awareness and development of transferable skills, highlighted as essential if students are to achieve to their full potential when they go out into industry. Suggestions include mixing students up, putting a student who is good at coding next to a student who is good at drawing by hand, and bringing in tutors from other disciplines to share their processes. This would provide a broader perspective on process, not only highlighting commonalities between them, but also sharing more discipline specific tools. These views reflect proposals at Virginia Tech, discussed in Chapter Two, that recommend having 'engineers, poets and biochemists all colliding together daily, formally and informally' (Mathews, 2014). The d-school at Stanford University also follows this approach by creating 'a unique environment where graduate students in fields as far flung as medicine, business, law, and engineering can come together to work on collaborative design projects' (Brown, 2009, p. 224).

An emphasis on success at every stage of education is highlighted as negative and unproductive. As Barrett explains, 'if you don't fail, how can you learn?' Interviewees believe that giving students the time to experiment and fail, and encouraging risk taking, are essential at undergraduate level, and is something that Higher Education does not currently support. The increase in UK tuition fees, discussed in Chapter Two, are suggested as being partly responsible for this, putting greater financial pressure on students to achieve. Proposals include enabling students to prototype and test and push ideas to the point of failure as much as possible, and to actually build failure into the assessment process where students are marked on a process that describes failure.

Interviewees also believe that removing the fear of failure would give students the courage to receive criticism and be self-critical, both essential abilities in the creative sector.

Interviewees believe there is a general misconception about the nature of design, i.e. what it is, how it works, and what it can achieve: this derives partially from the reduction in funding for art and design teaching in secondary education. They see this misconception as driving the siloed mentality that a student going into Higher Education needs to define themselves by selecting a particular discipline. A re-definition of design, based on reality, would help remove these misconceptions. Understanding that design has lots of approaches and directions, and constructing a course that does that, might also attract people to design who might not otherwise think about it. Interviewees identify that current disciplinary courses need to be re-defined, and propose that students should be encouraged to define themselves rather than letting others pigeonhole them. Suggestions include looking at commonalities between disciplines that are currently not allowed to be common. Heatherwick proposes that 3D design could include automotive products, furniture, building design, infrastructure design, engineering, and construction, and that 2D design could include photography, graphics, painting. Interviewees also propose new structures for Higher Education. One suggestion includes taking inspiration from the American major and minor system, getting depth in several areas, while also getting a breadth across other interrelated areas. Another suggestion is taking inspiration from the Foundation Diploma in Art and Design course and building it into a degree level course to enable undergraduate students to continue exploring with options for specialization at a later date should they wish. This view supports many of the opinions discussed in Chapter Two, recommending extending the Foundation, or Basic Design, into undergraduate study (Findeli, 2001, Friedman et al., 1994, Boucharenc, 2006). Owen (2004, p. 7) identifies that a Basic Design undergraduate education could ‘open many doors, including science, humanities, arts, technology’ to then provide ‘an excellent foundation for a more specialised graduate education in design.’

Having space to occupy, where students can make a mess and collaborate, is highlighted as essential, and something that is currently diminishing within undergraduate education. Interviewees believe that a priority placed on ‘marketing’ in the design of new university buildings, i.e., a focus on attracting new students and impressing their parents, has resulted in environments that are characterized by a ‘corporate look’. Also, rising student numbers have resulted in tight timetabling and hot-desking. Interviewees believe that Higher Education should provide shelter and breathing space to support imagination and creativity, with the ability to make a mess and meet people from other departments. These comments reflect the developments discussed in Chapter Two, including Virginia Tech, where an interdisciplinary space was designed to support an interdisciplinary pedagogy.

It is important to note that Virginia Tech used a student experience task force to explore the future use of space (Mathews, 2014). Similarly, IDEO’s Innova schools in Peru used a multidisciplinary team to design both the curriculum, teaching strategies, and the buildings from the ground up (Brown, 2016). The curriculum incorporates social and innovation challenges, and flexible spaces with moveable walls enable flexibility in teaching style and group size (Martin, 2014). Higher Education institutions could consider doing the same, designing both the curriculum and the space in tandem, and facilitating students in designing their own spaces. Heppel (2016) supports this view that learning spaces should be designed by the people who use them, having worked with secondary school children in both the UK and Spain to design their own classrooms.

Enabling students to collaborate as much as possible while in undergraduate education is considered essential, and interviewees are concerned that there is currently too much focus on the creative individual, across all creative education. Interviewees believe that practice is always about working with other people, as Bruges explains: ‘even if you are pursuing a career as a soloist you’re still working with a lot of people.’ As the findings of the ‘Beyond Discipline’ report highlight, ‘design by its nature is participatory and collaborative, but this has evolved to the extent that there is now mass

collaboration' (Furniss, 2015, p. 13). Interviewees also believe that collaboration should be built between Higher Education and practice. They believe that there is currently too much of a disconnection, and that Higher Education and practice should come together to develop an appropriate curriculum, because, as Bruges states, 'it's an ecosystem that benefits everyone involved.' This view is supported by Higgin, who at the Symposium argues: 'Where is industry interfacing with education, where are the creative industries coming into schools, so children can ask 'what do you do?' It's about debunking myths that the system sets you up for' (see Appendix 17).

In summarising Pedagogy, there is clearly a symbiotic relationship between pedagogy and practice for these studios. Key to how, and why, the studios work in the way that they do, is that members' previous educational experiences have informed their practice and outlook, and, in turn, their practice now informs their involvement in education. The practices of the studios demonstrate that there is a generation of designers working in more fluid ways, and many of these interviewees chose pluralistic educational courses. Yet a uni-disciplinary structure dominates Higher Education in the UK, and acts as an artificial barrier. As Taylor (2009) argues, 'this mass production university model has led to separation where there ought to be collaboration, and to ever-increasing specialisation.' Also, a 'distinct, domain-specific mind-set is more prevalent in the UK than in other nations' (Marshall, 2008. P. 307-8). To address these issues, and to support evolving practice in the UK, these findings immediately raise fundamental questions for creative education at all levels. The findings support the views expressed in the 'Beyond Discipline' report, that 'we must re-define the core processes and skills required by designers in the twenty-first century' (Furniss, 2015, p. 30). As Higgin posited in the Symposium: 'We have an education system that is designed for a society which no longer exists. We are living in a world where we can't necessarily predict what the work force or what the design process will look like in the next ten years. There is a need to be thinking about constantly evolving, not formalising the creation of something when you don't know what it is you want to create yet' (see Appendix 17). Recommendations include: simplifying terminology, classification and course structures;

structuring learning around problems and themes, rather than disciplines; encouraging emergent, iterative, human centred processes; enabling greater breadth and fluidity of learning and transferable skills; providing interdisciplinary creative learning spaces; and, reaching out to practitioners to create a unified curriculum. Treated as a *recipe for pedagogy*, these findings and recommendations could offer innovative solutions to support not only Higher Education, but education at all levels.



## **5.4 Interpretation of the findings**

The current section will move on to unpack the commonalities and differences set-out above, and provide an interpretation of the study's key findings. In doing this it will propose a new approach to terminology and classification, a consolidated and emergent process model, and a combined model for pedagogy. As discussed in Chapter Three, a third-person action-orientated research methodology is used in this study, to bridge design and academia (Swann, 2002, p. 61). The intention for this research is to bridge outcomes between practice, pedagogy and research in order to inform, propose and inspire action.

### **5.4.1 New approaches to terminology and classification**

#### **Interdisciplinarity as a specialism**

As explored in Chapter two, the 'specialist versus polymath' debate has been ongoing for centuries (Root-Bernstein, 2009), with much scepticism and negativity surrounding polymathy (Nagle and Teodoridis, 2017), interdisciplinarity (Klien, 1990, Campbell, 1969), and interdisciplinary training (Cross, 2003, Lawson, 2006). During this study, I chose to move away from using the term polymath because of the negative connotations discussed (Nagle and Teodoridis, 2017, p. 2), and because the polymath of the Medici Renaissance and Romantic eras appeared to be far broader than polymaths of the twentieth and twenty-first century, who have narrower reputations (Ross, 2011, p. 403). Also, the term has connotations with the individual 'mad genius' (Lea *et al.*, 2015, p. 60). However, the findings of this study indicate that the interviewees demonstrate polymathic tendencies, due to the breadth of their work, but as a collective group rather than as individuals. All five studios are dependent on collaboration with each other and external collaborators. As discussed in Chapter Four, Heatherwick is described as 'the Leonardo da Vinci of our times' by Sir Terence Conran (Wroe, 2012). Yet Heatherwick explains the studio's process is something he could not do alone: 'It's a process. You need your team.' At Punchdrunk, Barrett is Artistic Director, but Higgin explains: 'There's a sense of no ego, because this thing is so big it has to be about everybody doing their bit.' It

could be argued that these studios are innovative because of their polymathic tendencies, which are, according to Root-Bernstein (2009, p. 863), ‘ubiquitous among the founders of new synthetic disciplines’, including electronic music and kinetic sculpture, which required a ‘melding of previously disparate disciplinary knowledge and practice.’ Root-Bernstein (2009, p. 867) argues that ‘the most important innovations in the past few centuries have resulted from integrating problems, skill sets, knowledge, and experience across established disciplinary and domain-defined boundaries’ and warns that ‘such polymathic creativity is something we cannot afford to ignore.’

These findings appear to reinforce the proposal this study made in Chapter Two, that interdisciplinarity could be re-framed, to view interdisciplinarity as a specialism, and taught accordingly. This could have significant implications for pedagogy. This proposal reflects Nicolescu’s (2006, p. 18) view that transdisciplinary experts are not ultra-specialists of a very narrow discipline, but they are still experts. It also reflects the Open University’s view that rather than being an ‘expert’ in a particular subject, or a ‘generalist’, multidisciplinary students become ‘individual specialists’ (Open Learn, n.d.). It is important to note that in March 2019, the opening of the London Interdisciplinary School was announced, offering the first ‘polymath degree’, a bachelor of arts and sciences degree spanning science, technology, arts and design and humanities (London Interdisciplinary School, 2019). The first enrolment will be in September 2020. It could be argued that this new school indicates the beginning of the shift required in education, to address the disconnection between practice and pedagogy that has been the central focus of this study.

### **Dimensions and scale**

As demonstrated earlier in this chapter, common terminology used by the studios to define their work include *dimension* and *scale*. Taking inspiration from the Menu of Work created earlier in the study, one that scales projects from small to large, the next step was to then test whether dimensions (i.e., 2D, 3D, 4D) could also accurately be used to define the work of each studio,

and, if so, be proposed as a new general approach to terminology and classification. To do this, an initial conceptual categorisation diagram was created, incorporating dimensions as well as scale (Fig. 142). The circular diagram is divided into three dimensional segments - 2D, 3D, 4D - with concentric circles radiating outwards, representing growing scale from small in the centre to large on the outside. The purpose was to complete a diagram for each studio, recording work, both proposed and realised, produced since its foundation. Using the colour wheel and paint swatch wheel as a metaphor (Fig. 143), each dimension segment is colour coded, with 2D being yellow, 3D red and 4D blue.

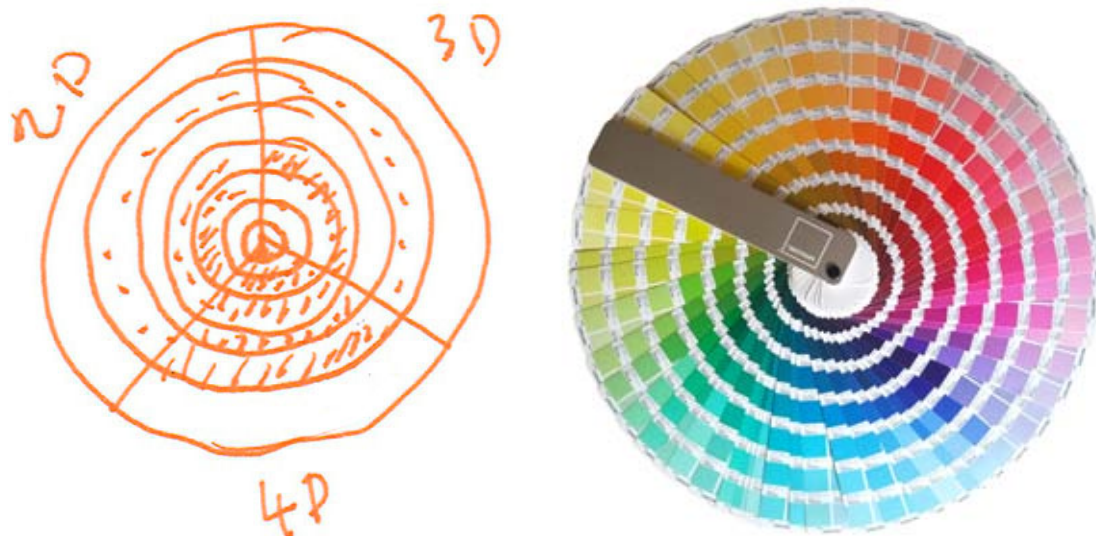


Fig. 142: 'Conceptual categorisation diagram'. (Furniss, 2017).

Fig. 143: 'Paint swatch colour wheel'. (Furniss, 2017).

Refining this initial diagram for greater accuracy, metric scale was applied to each concentric ring. With ten rings in total, each ring represents a scale from virtual scale in the very centre, to 1:1, 1:5, 1:10, 1:20, 1:25, 1:50, 1:100, 1:200, and finally 1:500+ on the outer circle (Fig. 144).

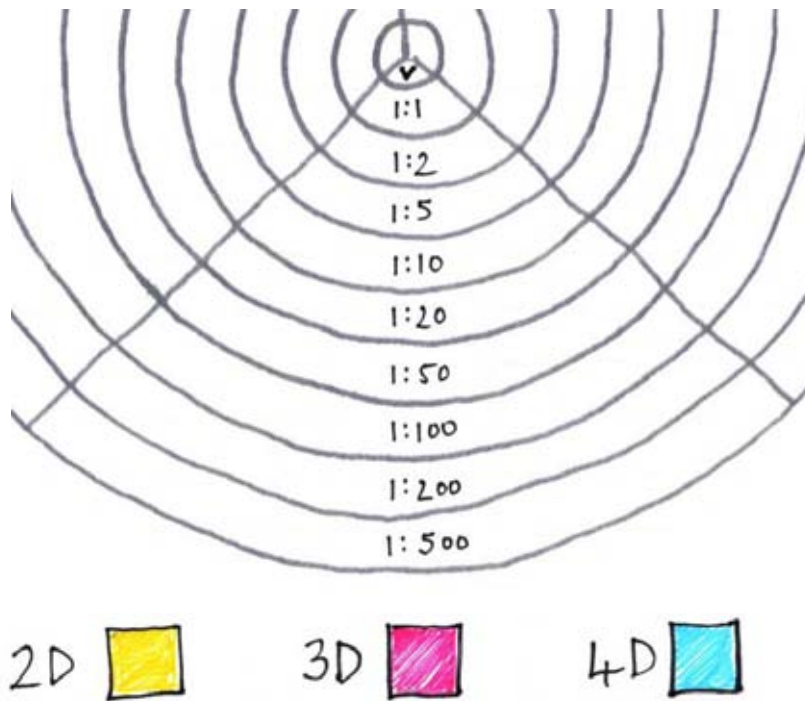


Fig. 144: 'Metric scale addition to concentric rings'. (Furniss, 2017).

Finally, definitions for each dimension were clarified:

- 2D design combines width and height, and includes photography, illustration, painting, textiles and graphics (Griffiths, 2015).
- 3D design combines width, height and depth, and includes sculpture, furniture, jewellery, fashion, interior and architecture (Griffiths, 2015).
- 4D design combines width, height, and depth, with time, and includes performing arts, robotics, interaction design, electronics arts, interface design, multimedia, kinetic sculpture, and also service design, which is defined as 'people acting in relationship to each other' (Robertson, Lycouris, and Johnson, 2007, p. 287). 4D design is defined as 'the dynamic form resulting from the design of the behaviour of artefacts and people in relation to each other and their environment' (Robertson, Lycouris, and Johnson, 2007, p. 286).

The first diagram was completed for Heatherwick Studio, and all the projects listed in the Menu of Work were mapped onto the diagram (Fig. 145). Work that required being developed at 1:1 scale, such as a perfume bottle, was placed in the 1:1 circle. Work that required being developed at 1:500 scale,

such as a large bridge, was placed in the 1:500 circle. Interpreting this diagram, it clearly represents the opinions of Heatherwick Studio, as the work dominates the 3D segment. The studio does cross into both 2D and 4D, but the majority of work is viewed through a three-dimensional lens. This principle was then applied to the other studios, and again the work of each studio clearly dominates one dimension (Fig. 146, Fig. 147, Fig. 148, Fig. 149). The completed diagrams demonstrate that each studio approaches their work through a particular dimensional lens. They mostly travel up and down the scale of one dimension, while occasionally crossing over into other dimensions. It is perhaps not surprising that none of the studios dominate the 2D segment, as they were specifically selected because they cross art, design and architecture.

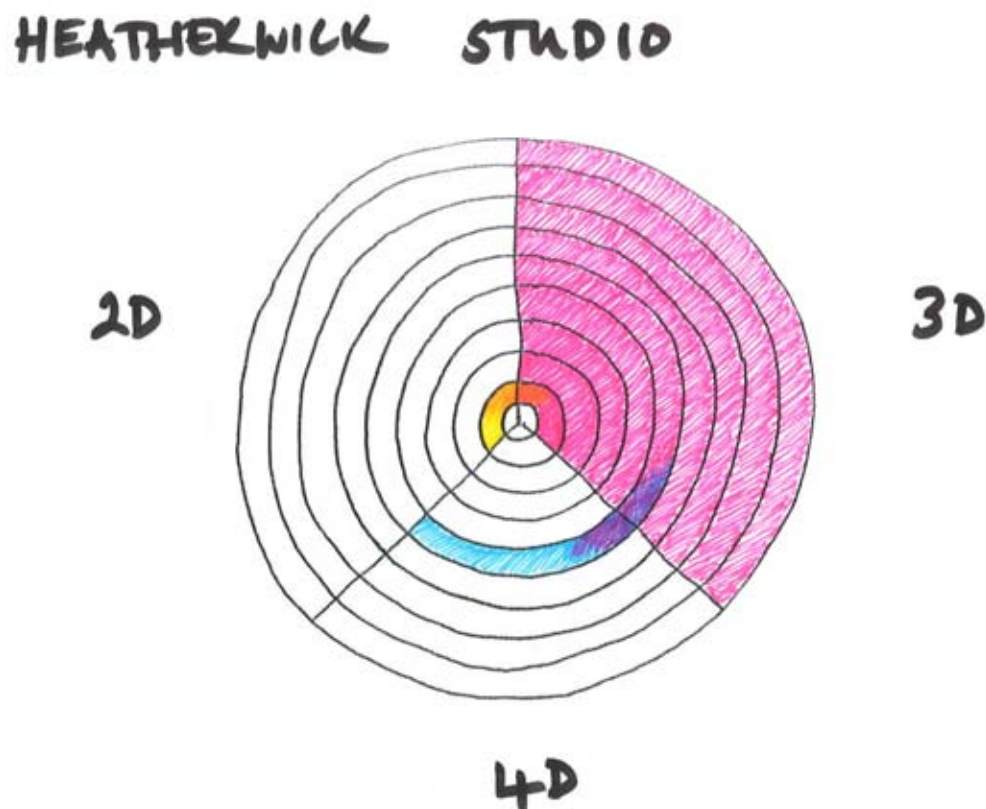


Fig. 145: 'Categorisation diagram for Heatherwick Studio'. (Furniss, 2017).

## RON ARAD ASSOCIATES

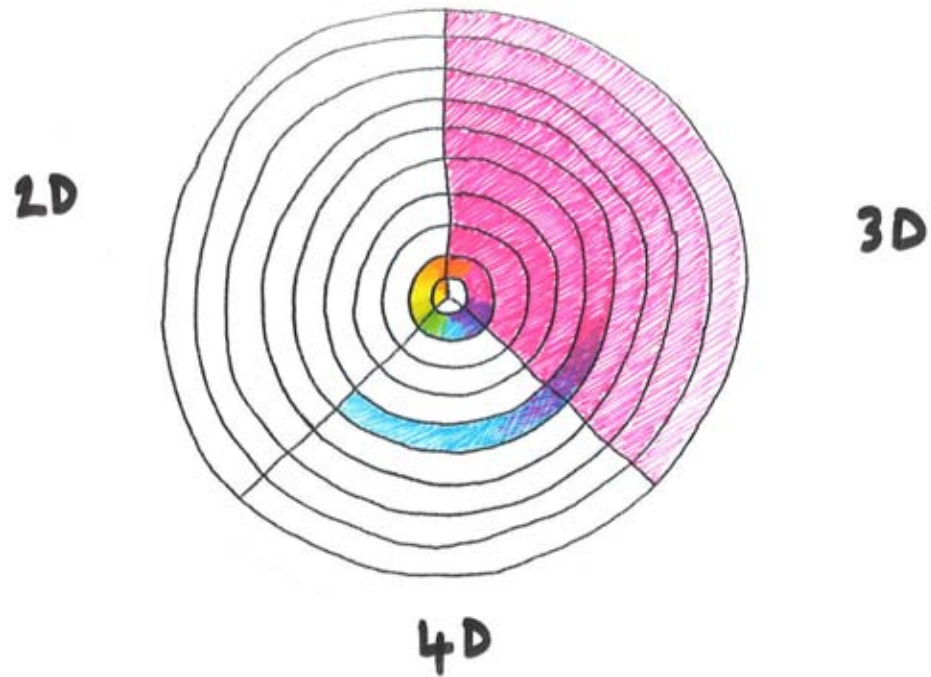


Fig. 146: 'Categorisation diagram for Ron Arad Associates'. (Furniss, 2017).

## JASON BRUGES STUDIO

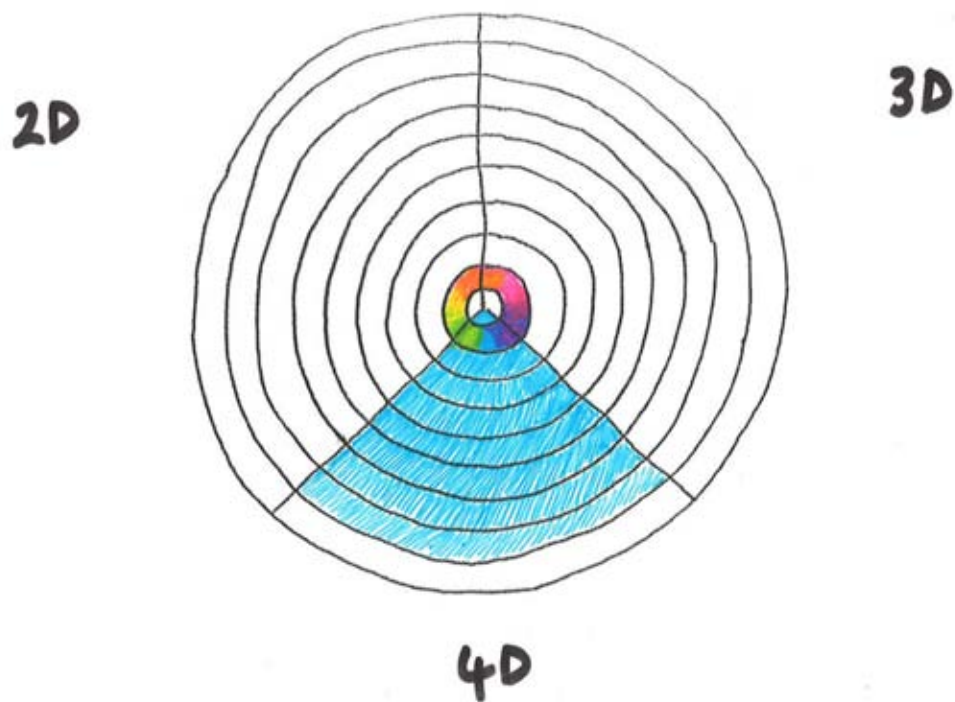


Fig. 147: 'Categorisation diagram for Jason Bruges Studio'. (Furniss, 2017).



## PUNCHDRUNK

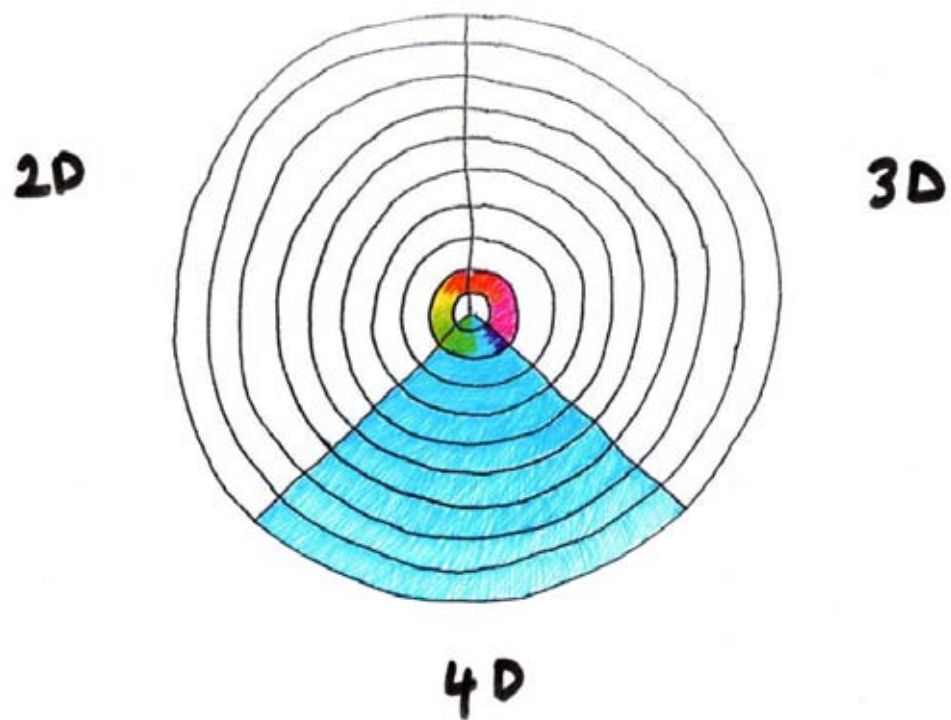


Fig. 148: 'Categorisation diagram for Punchdrunk'. (Furniss, 2017).

## ASSEMBLE

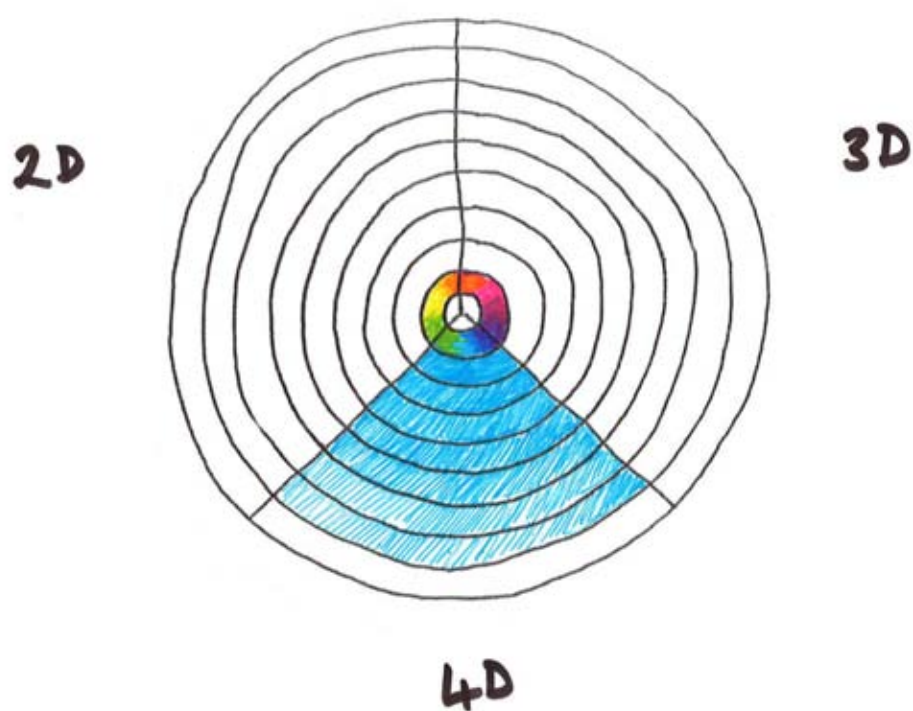


Fig. 149: 'Categorisation diagram for Assemble'. (Furniss, 2017).

In summary, these findings – embodied in the diagrams - demonstrate that our current disciplinary classification system does not reflect the reality of practice within these studios. Categorising by scale and dimension not only captures more accurately their work, but is potentially a more accurate way of reflecting current practice. Referring back to Chapter Two, this new proposal addresses the ‘terminological quagmire’ discussed, by encouraging ‘bridging and inclusion’ rather than ‘separation and exclusion’ (Lamont and Molnár, 2002). This approach to terminology and classification would also help to ‘demystify design’ (Williams, 2012, p. 30). These findings reflect Bremner and Rodgers’ (2013, p. 11) ‘undisciplinary’ definition, as practice has shifted from being ‘discipline-based’ to ‘issues or project based.’ The findings also reflect Nicolescu’s view that ‘disciplinary knowledge has reached its own limitations’ as these studios are designing ‘beyond discipline’ (Nicolescu, 2006, p. 2). Designers play a key role in defining the purpose, which could be ‘an idea, a knowledge, a project, a process, a product, or even a way-of-being’ (Findeli, 1990, p. 4). Proposing this definition at the Symposium, Punchdrunk member Alex Rowse states: ‘I think the idea of ‘purpose’ is very interesting. Because at a young age when you are in primary and secondary it is all about ‘Why am I doing this? For exams? To learn it? But what we all do is, we think beyond the discipline...and we start from a purpose, or what we want to achieve or make the audience feel.’

One of the implications for this new classification system is that it could also be applied to pedagogy. Rather than siloed disciplines, undergraduate education might beneficially be divided into dimensions, with students working across all dimensions and scales, with the option to narrow down to one scale in one dimension should they wish. In this new model, each dimension could include disciplines that are not traditionally grouped together, as Heatherwick is reported to propose earlier in this chapter. This model supports recommendations from the interviewees, who propose expanding the Foundation Diploma into degree level to enable undergraduate students to continue exploring with options for specialization at a later date should they wish. Searching undergraduate courses grounded in dimensions in the UK, several 3D design courses are identified, but these appear to focus



on product design. Central Saint Martins offers a Fine Art undergraduate course that is divided into four pathways, including 2D, 3D, 4D, and XD (which combines all the dimensions) (Central Saint Martins, n.d.). However, this is only for Fine Art, and does not include design. As discussed in Chapter Two, a basic design undergraduate education could open up to including science, humanities, arts, and technology, to then provide ‘an excellent foundation for a more specialised graduate education in design’ (Owen 2004, p. 7). Finally, this model could be applied to all levels of education, starting at primary and secondary, as a much simpler way to introduce art, design, craft and technology. This simplified approach could encourage breadth and fluidity, and encourage students ‘to extend themselves beyond specialised points of view’ (Friedman *et al.*, 1994, p. 40).

#### **5.4.2 A new emergent process model**

As discussed earlier in this chapter, the universal commonalities in process between all five studios have significant implications for both practice and pedagogy. This section will now amalgamate the process diagrams and key components, to offer proposals for a universal emergent process model for practice.

Higher Education is characterised by the deployment of one individual process for each separate discipline, which students then carry through into practice. For example, if a student wants to become a graphic designer, they are taught a graphic design process (Fig. 150). However, after initial research into evolving practice in the early stages of the study, it appeared that innovative studios had developed a unique process that could be applied and repeated across projects of ostensibly different disciplinary types. Figure 151 shows this hypothesis, with the process in the centre of the diagram, as the core element, and the different disciplines radiating around the edge.

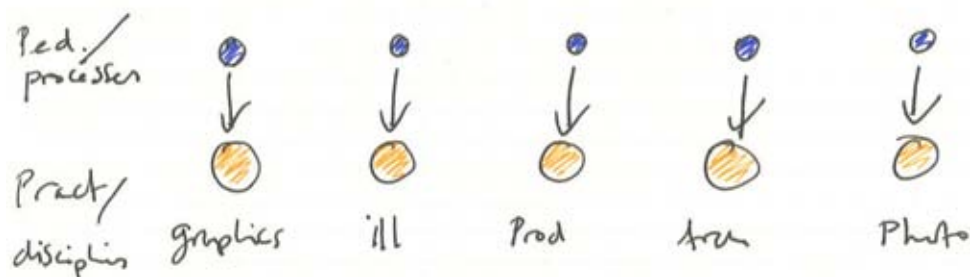


Fig. 150: 'Interpretative diagram of current model within undergraduate education'. (Furniss, 2017).

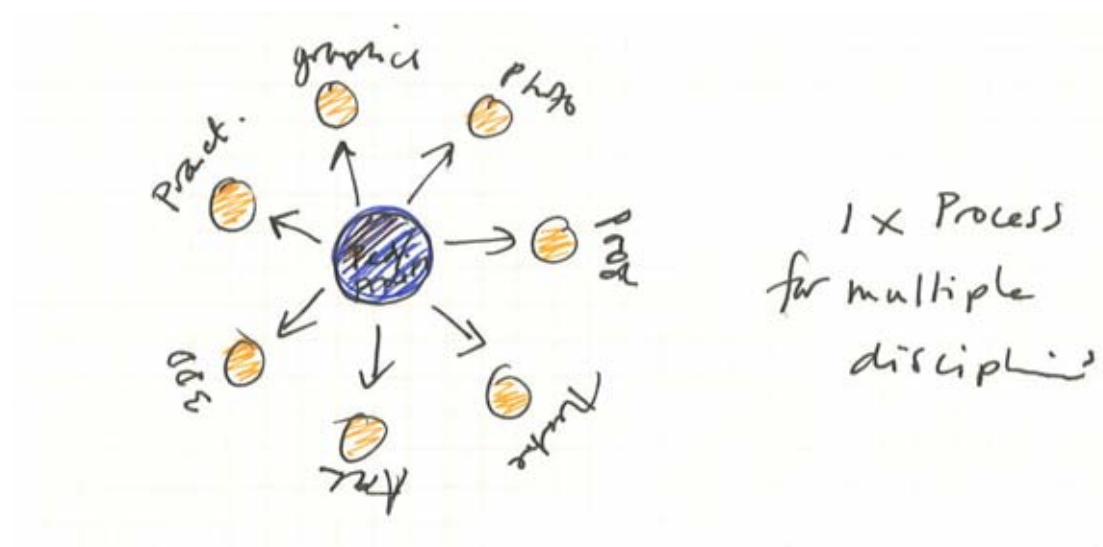


Fig. 151: 'Interpretative diagram of initial hypothesis'. (Furniss, 2017).

However, following subsequent and more detailed investigation, this hypothesis has now been re-thought and reversed. The consolidated findings of the study demonstrate that the unifying central element is not one process, but the work itself, beyond disciplinary labelling, and what varies are the iterations within the process. The same key process components appear to be used each time, but in a unique way for every project that emerges. Therefore, it was necessary to look at the diagram in a fundamentally different way, by reversing the structure and placing the project in the centre of the diagram, with the key common components of the process radiating around the edge (Fig. 152, Fig. 153).

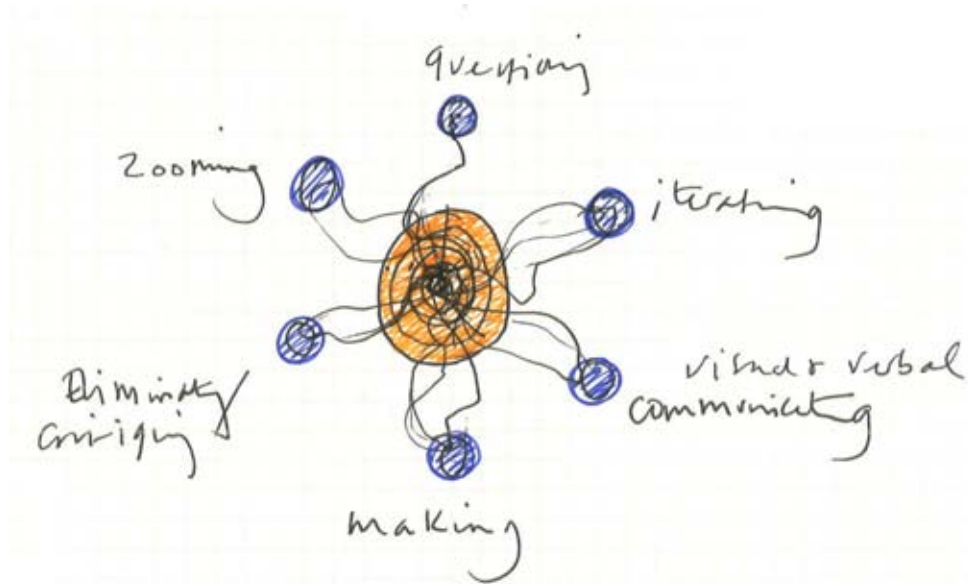


Fig. 152: 'Interpretative diagram of initial emergent model'. (Furniss, 2017).

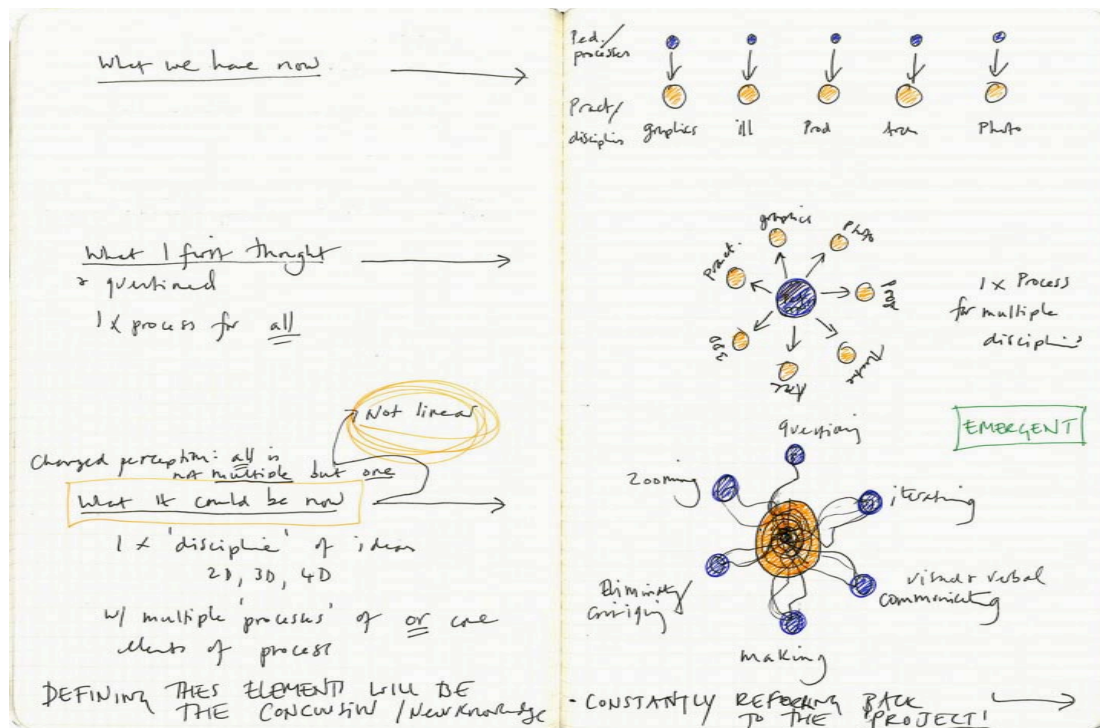


Fig. 153: 'Moment of discovery of new emergent model'. (Furniss, 2017).

In an attempt to capture this common, universal process model more accurately, the interpretive process diagrams created for each studio were cross-analysed and the results amalgamated into a new '*emergent process model*'. Representing an emergent, iterative and human-centred approach, that is non-linear and unique every time, the model also incorporates the five key process components discussed earlier in this chapter: Questioning;

Making; Eliminating; Communicating; and, Innovating (QMECI). As each project grows upwards, ideas are gradually refined through messy, iterative loops. At the core of the model is the work itself, and the nucleus within this core consists of the people that live and drive emergence. This ‘emergent process model’ can be viewed in both plan view (Fig. 154) and elevated view (Fig. 155).

The model demonstrates similarities to various others discussed in Chapter Two. It combines elements of both Koberg and Bagnall’s ‘branching’ and ‘spiral’ process diagrams (Koberg and Bagnall, 2003, p. 16) and Sanders and Stappers’ ‘co-design process diagram’ with its ‘fuzzy front end’ (Sanders and Stappers, 2008, p. 7). The model also attempts to capture Moholy-Nagy’s notion of being able ‘to see everything in relation’ (Findeli, 2001), and Dorst’s belief that we need to be ‘seeing differently, thinking differently and doing differently’ (Dorst, 2015, p. 13). As discussed in Chapter Two, being more universal in their process enabled the Bauhaus ‘to tackle a problem according to its peculiar conditions’ (Gropius, 1955). This model can achieve the same, offering practitioners the opportunity to tackle a wide range of creative ‘conditions’ and can be viewed, like *The Universal Traveler* (Koberg and Bagnall, 2003), as ‘a guide to creative problem solving.’

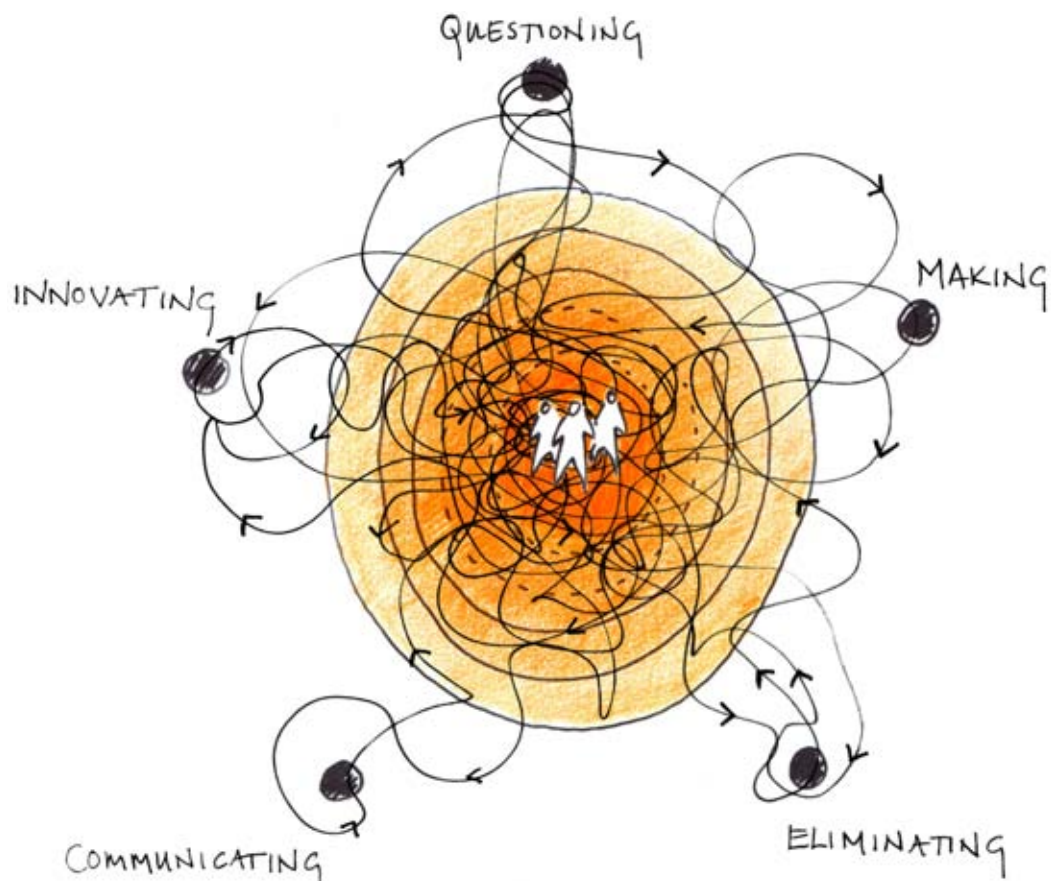


Fig. 154: 'Emergent process model – plan view'. (Furniss, 2017).

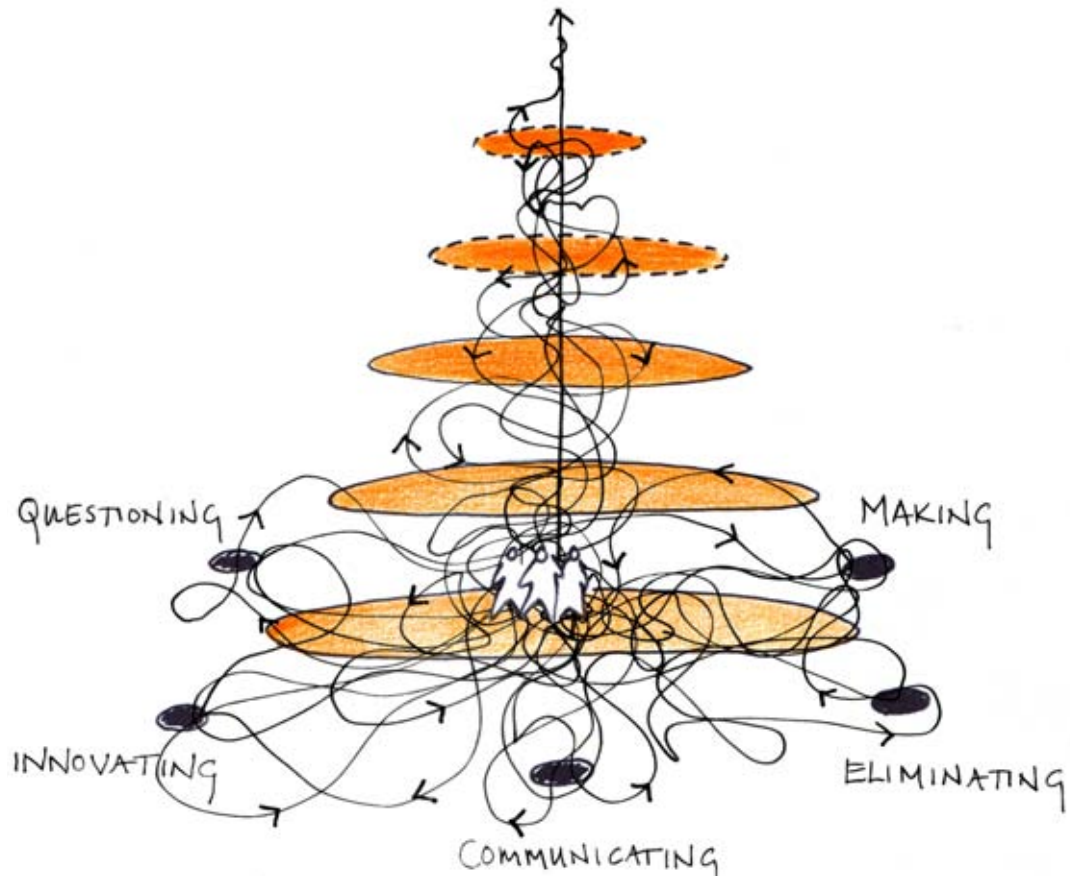


Fig. 155: 'Emergent process model – elevated view'. (Furniss, 2017).

### **5.4.3 A combined ‘emergent model’ for pedagogy**

Not only does this new emergent process model capture a universal process for evolving practice, if viewed as a potential pedagogical model, it also has implications for Higher Education design teaching. An integrative approach that combines the dimensions and scale configuration (discussed earlier in this chapter), with the notion of emergent process, provides the foundation for a novel ‘emergent pedagogy’. This model could offer Higher Education students the opportunity to work across all dimensions and scale in the early stages of a degree, with options to gradually narrow down, should they wish, through undergraduate and into masters level. Figures 156 and 157 show one possible route for students, moving through all 2D (yellow), 3D (red) and 4D (blue) areas in the first year, to then gradually narrow down to 3D with an element of 4D by the end of their masters. Other possible routes could be narrower. For example, a student who wishes to focus on commercial fashion could explore 2D, 3D and 4D in the first year of undergraduate for initial richness of breadth, then narrow down to small scale 3D work with discipline specific skills in the third year. In contrast, a student who wishes to explore fashion in a broader sense, taking inspiration from Dutch designer Anouk Wipprecht, who merges the disciplines of fashion, engineering, interaction design, and experience design to create ‘FashionTech’ (Wipprecht, n.d.), could continue exploring the breadth of 3D and 4D throughout their studies, without limitations.

This model is reflective of Potter’s Construction School, where the first three years provided general ‘employable competence,’ and an optional further two years of study seen as ‘a postgraduate specialisation’ (Potter, 2012, p. 165). It combines models discussed earlier in this chapter, including Goldsmiths BA Design, Central St Martin’s BA Fine Art using dimensions, and the London Interdisciplinary School. Treating interdisciplinarity as a specialism, dimension and scale are used to support ‘wide-latitude design’ (Potter, 2012, p. 165).



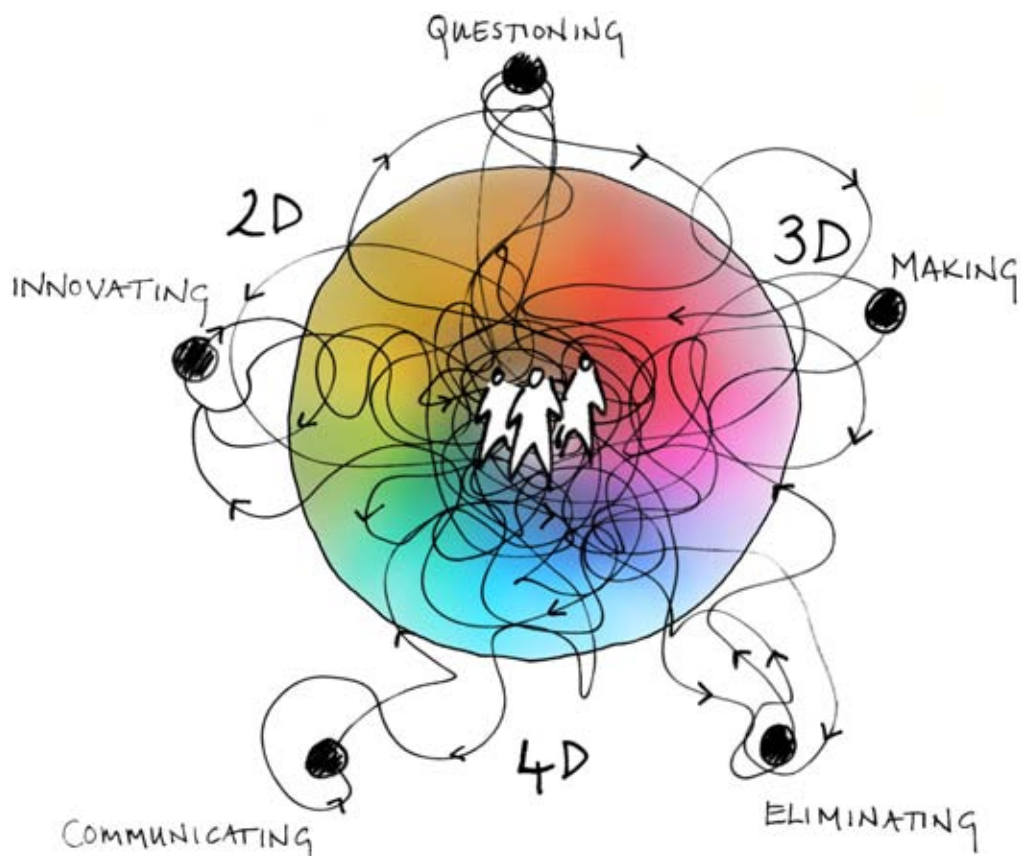


Fig. 156: 'Combined emergent model for pedagogy – plan view'. (Furniss, 2017).

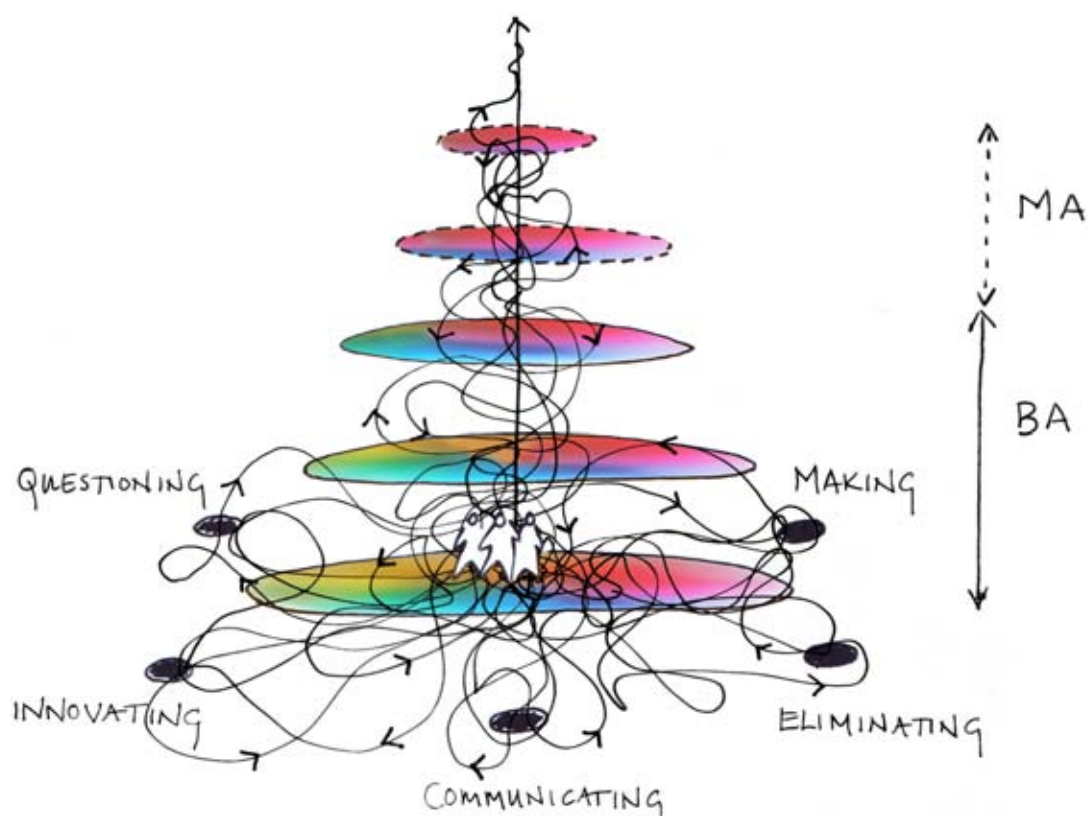


Fig. 157: 'Combined emergent model for pedagogy – elevated view'. (Furniss, 2017).

Themes of purpose could be developed by interdisciplinary teams of educators and practitioners, using a collaborative approach to course design across non-traditional boundaries, as the Open University has done (The Open University, 2019). Rather than ‘teacher-centered learning’ or ‘student-centered’ learning (as discussed in Chapter 2), the pedagogical model could be one of ‘learning as guided participation’, using emergent, collaborative, cooperative problem-based learning methods (Mascolo, 2009, p. 20). This pedagogical approach is founded on the idea that the construction of knowledge follows a social and collaborative process, and seeks to ‘decentralise the power and authority of the teacher in an attempt to empower the experience and constructive activities of the individual learner within the social process of learning’ (Mascolo, 2009, p. 20). This approach appears to reflect the processes of the studios.

As Bruner (1960, p.17) proposed, this spiral model, similar to Bruner’s spiral curriculum, could enable the transfer of principles and attitudes, focusing on a general idea, rather than a skill (Bruner, 1960, p. 17). Like Papanek, this approach could exploit design’s ‘ill-defined, itinerant status...as a truly cross-disciplinary activity’ (Hall, 2016, p. 3), applying this common process by using ‘metalevel thinking’ (Gee, 2003, p. 207) to enable a holistic model of design education. Structuring the model around dimensions could allow for commonalities between disciplines that are currently not allowed to be common. As Heatherwick proposes in Chapter Four, 3D design could include automotive products, furniture, building design, infrastructure design, engineering, and construction, and 2D design could include photography, graphics, painting. This approach supports the concept discussed earlier in this chapter, recommending extending the Foundation, or Basic Design, into undergraduate study (Findeli, 2001, Friedman et al., 1994, Boucharenc, 2006). This would also avoid the binary division between Art and Design. This is significant, considering that two key practitioner/educators discussed in this study, Eliasson and Moholy-Nagy, both began as artists rather than designers.



A flatter hierarchical organisational structure could be used, to create communities, like Potter's Construction School, by bringing student year groups together, to create a more productive transmission of knowledge (Eliasson, 2014). This could also enable Higher Education to become more flexible and agile through co-operation between departments, which might in turn help avoid what Sennett (2013, p. 7) describes as the 'silo effect'. Higher Education institutions could take inspiration from Heatherwick's 'universal shipyard hanger,' and the 'Kiva Classroom' at Virginia Tech, by creating interdisciplinary spaces that are open and flexible in layout and function, with making at their heart. Students from different disciplines could come together to create laboratory environments that might foster broad-based skills.

In *Design as an Attitude*, Rawsthorn (2018, p. 10) explains that 'the last decade has seen a radical transformation of design into this fluid, open-ended medium,' which she describes as 'attitudinal design' after Moholy-Nagy. Rawsthorn (2018, p. 11) argues: 'Not every designer will turn attitudinal; nor should they. Many will continue to study and practice specialist disciplines....Yet more and more designers...will seek to define their own idiosyncratic ways of working, often in collaboration with others.' This emergent pedagogical model offers those idiosyncratic students the opportunity to study a more appropriate mode of education to support their needs. The model demonstrates clear links to the twentieth-century examples of radical interdisciplinary pedagogy discussed in Chapter Two, with circular, spiral and latticed curriculum models. It reflects the circular schematics for the Bauhaus, and the New Bauhaus in their quest to capture a universal design pedagogy, and also echoes the Design Academy Eindhoven, with people placed at the centre of activity. The messiness and interconnectedness of the pathway also reflects Efland's 'Model of the Semi-Lattice' (Efland, 1995, p. 151). Finally, the model echoes Bruner's view that a curriculum should 'be conceived as a spiral, beginning with an intuitive depiction of a domain of knowledge, circling back to represent the domain more powerfully or formally as needed' (Bruner, 1997, P. Xii).

In summary, the current norm in Higher Education in the UK is for siloed disciplinary structures: this requires the deployment of one individual process for each separate discipline. The model has resulted in 'separation where there ought to be collaboration, and to ever-increasing specialisation' (Taylor, 2009). Also, this 'distinct, domain-specific mind-set is more prevalent in the UK than in other nations' (Marshall, 2008 P. 307-308). However, the findings of this study indicate that the model is creating increased narrowness and limitation, and a simpler structure would allow for more diversity and fluidity. The emergent pedagogical model echoes the calls discussed in the Pedagogy section of Chapter Two for a common process, as 'although the work of an architect differs in scale, purpose and technology from the practice of graphic design, a common process unites the problem solving in these and other disciplines' (Davis, 1998, p.7). The findings reflect Spencer (2016), who argues that 'design education needs to be connected, not specialised, because that's how design is in the real world.' Finally, the approach also aligns with Boucharenc (2006, p.1), who recommends 'a holistic, creative and experimental methodology that develops the learning style and cognitive abilities of students with respect to the fundamental principles of design.' This model should not be perceived as radical in the way models of the twentieth century are radical: Boucharenc does not offer an extreme solution, indeed, his is a fairly simple or basic prescription and is better viewed as a restoration of previous pedagogical ideas. Yet, as with the radical interdisciplinary models of the twentieth century, the model is sensitive and responsive to future needs and transformations, supportive of diversified competence, and facilitative of a humanistic outlook: all of these are perceived as essential elements of an adequate future design pedagogy.

## 5.5 Summary

Taking inspiration from the innovative interdisciplinary practice and pedagogical models discussed in Chapter Two, and influence from interdisciplinary practitioners such as Moholy-Nagy, the Eames', Buckminster Fuller, and Eliasson and IDEO - all of which apply their practice to inform their pedagogy - this study has distilled and utilized the processes of the studios to create a common process for both practice and pedagogy.

Much can be learned from the pioneering approaches of the studios. Treated as a *recipe for practice*, the common approaches to organisational structure, responses to growth challenges, design and use of space, and core capabilities, could be applied to help design studios be a more innovative. The new emergent process model could be applied to enable studios to build their creativity and develop breadth in their work. This recipe could also be applied to innovative businesses, and Higher Education institutions could interpret the recipe to enhance agility, relevance and connection to evolving design practice.

The findings show a much simpler approach to terminology and classification than expected. The outside world appears to over-complicate what is inherently simple within the studios, and is best described through a Menu of Work, using scale and dimensions. This approach could be applied to all levels of education, starting at primary and secondary, as a much simpler way to introduce art, design, craft and technology and to encourage students 'to extend themselves beyond specialised points of view' (Friedman et al., 1994, p.40). Findeli argues that it is currently unclear whether design is now 'an idea, a knowledge, a project, a process, a product, or even a way-of-being' (Findeli, 1990, p. 4). The findings highlight that design is now all these things, combined, and indicate that we are at the point of a certain mutation or epistemological slide (Barthes, 1971). Taking inspiration from Nicolescu (2006), Moholy-Nagy (1947) and Dorst (2015), I would argue that design has '*moved beyond discipline to purpose, and that designers employ dimensions and scale to frame each project, underpinned by a universal attitude.*'

Conclusions from the Beyond Discipline report raised concerns for the current state of undergraduate design education, and these concerns are also reflected in the comments from the design studios. An inability of Higher Education to adapt quickly is highlighted as a key issue, and interviewees propose that it is perhaps just a matter of time before industry starts to consider a take-over and re-design of degree level design education. Dawton alludes to this view, warning: ‘The industry cannot wait for education to catch up’ (Furniss, 2015, p. 31). Treating the recommendations of the studios as a *recipe for pedagogy*, could enable the creation of a more relevant curriculum, and a common language for design, which in turn could enable the sharing of methodology. Valuing the symbiotic relationship between practice and pedagogy is critical to create an integrated curriculum that not only supports the design industry, but also wider industries, enabling the UK to play a key part in the Fourth Industrial Revolution. As Root-Bernstein (2003, p. 276) argues, ‘the future of innovation will reside, as it has always resided, in the minds of multiply talented people who transcend disciplinary boundaries and methods.’ We therefore need ‘a new kind of education that fosters interactions between disciplines rather than divisions between them’ (Root-Bernstein, 2003, p. 276).

## **Chapter Six: Conclusions**

### **6.1 Introduction**

This study has explored the ways in which current shifts in design practice are reflected in (a) the activities, organisation and processes of leading UK design agencies, and (b) the implications of transitions in practice for contemporary design pedagogy and design policy. This chapter first returns to the research questions set-out in Chapter Two and presents key findings and conclusions in relation to each. It then moves on to present the contributions to knowledge that derive from the research, consider limitations of the work, and finally, set-out an agenda for further study and action.

## **6.2 Responses to the Research Questions**

The core aims of the research were to: examine the design processes deployed by leading contemporary UK design studios; identify specificities and commonalities with respect to situated design processes (in an attempt to determine the extent to which a new design paradigm might be evolving); and, examine the implications of evolving trajectories in design practices and processes for design pedagogy and support policy. This section presents a summary of the findings in relation to each research question.

### **6.2.1 What are the factors implicated in current shifts in design practice?**

This question emerged from a perceived gap in understanding with respect to how design practice in the twenty-first century is evolving, and the drivers for this evolution. If studios are working in more fluid, interdisciplinary ways, the aim was to identify whether there was a historical context for this mode of operation. To address this question, the Practice section of Chapter Two explored historical context and current trajectories in theory. The Beyond Discipline scoping exercise explored further contemporary perspectives as expressed by a broad range of expert stakeholders and commentators.

Findings of the study indicate that prior to the Industrial Revolution many artists were engaged in a variety of disciplines, and that working across disciplinary boundaries was common. This form of working became much reduced by the mid-nineteenth century as a result of growing industrialisation, however, some artists retained their challenge to perceived boundaries. Interdisciplinary practice, defined as moving ‘between or among’ disciplines (Stein, 2007, p. 93), is therefore nothing new, and throughout the twentieth-century, hybrid, ‘universal’ individuals, took a comprehensive view, re-defining design and preparing the ground for the twenty-first century (Chettiparamb, 2007, p. 2). The evolution in design practice in the UK has been dramatic, and current practice in some leading studios is unrecognizable from that seen a decade ago. The shift results from role re-definition, process re-invention, and ongoing evolution. There has been a mobility of discipline, with the sharing of skills and processes. However, there is conflict and tension

between interdisciplinarity and specialisation within the industry, with respect to domain shifting, quality and the need for specialisation before interdisciplinarity. The study proposes that these issues should be re-framed to view interdisciplinarity, or designing beyond discipline, as a specialism. Terminology and classification systems are continuing to evolve and becoming more complex, yet it appears that greater simplicity is required as a means of de-mystifying design and revealing its core intent, content and processes. This should aid in circumventing the 'terminological quagmire' that has beset design and that is reflective of the limitations of current classification systems.

### **6.2.2 How are shifts in practice reflected in the activities and processes of leading UK design agencies?**

The purpose of this question was to generate greater understanding of the design processes deployed by leading contemporary UK design studios (with a view to establishing the feasibility of characterisation and classification). If the studios are working in new ways, it is necessary to identify how they are able to work fluidly across disciplines, the key components of their processes, and the core capabilities required by young designers that aspire to work in such environments. To answer this question, an in-depth cross-case analysis of five leading contemporary UK design studios was undertaken: this analysis aimed to examine and classify the design processes deployed. The case studies explored commonalities in the origins of the studios, the evolutionary path travelled by each, the views of their designers re: terminology and classification, and the work undertaken by the studios and processes deployed to achieve this. The Analysis and Interpretation chapter cross-analysed the findings via the construction of comparative data matrices and development of exploratory diagrams.

The findings indicate that all five studios formed out of the same desires, which were to explore new ways of working, to innovate, and to break new ground. The studios struggle to apply current terminology and traditional disciplinary labels to themselves or their work. There is evidence that they are moving beyond discipline and prefer to describe themselves and their studios through the work itself, using dimension and scale as explanatory categories.

Commonalities in organisational structure include: relatively flat hierarchies; fluid collaborative team structures; and individuals with multi-faceted roles. The processes for all five studios are rooted in emergence, iteration and being human-centred. Each process emerges through responses to iterative questioning: this is frequently messy and time consuming, and the people that live and drive this emergence are placed at the centre of every project. Key components common to the processes of all five studios are identified as: Questioning; Making; Eliminating; Communicating; and, Innovating (QMECI). The studios spaces are integral to their processes, and this is why the design of the latter is very carefully considered. Making is placed at the heart of every studio, the layouts are open-plan and flexible. The look of each studio is a visual representation of its philosophy. Soft skills appear to be more valued than hard skills, and key attributes include: social skills; a universal hybrid outlook; confidence and a can-do attitude; curiosity; commitment to quality; and, visual and verbal communication.

### **6.2.3 If possible, how might one identify the emergence of a new design paradigm (and if so what are the key characteristics of this)?**

This question emerged out of the need to identify specificities and commonalities among situated design processes in an attempt to determine the extent to which a new design paradigm might be evolving. The identification a paradigm shift has implications for design practice and pedagogy: it requires a re-framing of our understanding of skills and specialisms, creative processes and methodologies. This knowledge might also help one to hasten the creation of, or support, such a paradigm. The Practice section of Chapter Two explored the evolutions of practice throughout the twentieth-century into the twenty-first century. The Beyond Discipline scoping exercise expanded on this, focusing on shifts in practice over the last ten years. Finally, the Analysis and Interpretation chapter cross-analysed the findings of the case studies to draw together and identify commonalities between the studios and to identify a common framework of beliefs, rules and knowledge.



Findings indicate that a new design paradigm can be identified, showing a shift from an existing 'norm' to a new common framework of beliefs, rules and knowledge. Practitioners are redefining what design is, and moving from designing products to designing for people's purposes, through complex, hybrid, non-linear processes. Key characteristics appear to include collaboration, co-designing, and seeing, thinking and 'doing' differently. As a result of professional, technological and economic developments, 'the creative disciplines are undergoing the most significant paradigm shift in living memory' (Coles, 2012, p. 332).

#### **6.2.4 What are the implications of evolutions in practice for contemporary design pedagogy and for design policy?**

This question emerged from the observation that a paradigm shift would have implications for design students who need to 'prepare for membership in its intellectual community by studying that paradigm' (Hairston, 1982, p. 76).

The UK Higher Education system was identified as uni-disciplinary in structure; this highlights a disconnection between practice and pedagogy. The question also addressed the concerns with respect to how pedagogy might best be supported by policy. To answer this question, the Pedagogy section of Chapter Two first explored: terminology and classification of current Higher Education courses; evolutions of interdisciplinary design pedagogies throughout the twentieth century (to better identify historical influences on current pedagogy); and, the perceived disconnection between current practice and pedagogy. The Policy section of Chapter Two then examined the evolution of policy for the design sector and design education. The aim was to better understand the current situation, and how the UK government can best support this evolving sector. The Beyond Discipline scoping exercise looked at the implications for undergraduate design education in the UK, from both a pedagogy and policy perspective. Finally, the Analysis and Interpretation chapter cross-analysed the studios' views on pedagogy, examining interviewees' past educational experiences, present involvement in education, and views on the future of design education.

Findings indicate that educators and education policy-makers need to explore the implications of the paradigm shift in order to better understand the processes and skills that young designers will require if they are to meet the challenges of coming decades. Without rapid and concrete action from Government, the education community and the design industry itself, we may see the decline of a key creative sector. Government needs to support, acknowledge and give credit to creative education across all levels, encourage continued growth, and value the potential of an important, globally competitive and ever-evolving sector.

## **6.3 Contribution to knowledge**

The study has distilled and utilized the processes deployed in leading UK design studios to establish a common language, and elucidate a common process for both design practice and pedagogy. The findings can be perceived as useful and applicable for design practitioners, students of design and design educators. However, they also possess potential to inform a broader audience beyond the design sector, one including policymakers and those in environments in which creativity is not a core activity (at least as creativity is conventionally understood). Indeed, the findings could provide a template for the practices of business innovation and policy creation, extending the work of companies like Engine Service Design, discussed in Chapter Two. The most important contributions to derive from this study can be divided into four themes:

### **6.3.1 A profound, situated understanding of how design is executed in leading UK studios**

By engaging with leading UK design agencies, this study has provided a consolidated understanding of the factors that have made these studios successful. The findings offer a structured understanding of perspectives, processes, and developmental attributes (and journeys), and tell an important story about organisational success factors in the design sector.

### **6.3.2 New approaches to terminology and classification**

The study has led to the derivation of a much simpler approach to the classification of design and the terminology used to define it. The 'Menu of Work' described above provides a clear way of organising projects, from small to large scale. Using scale and dimensions to classify design, rather than by disciplinary distinction, not only captures more accurately the work of the studios studied for the research, but offers a more accurate way of reflecting current practice. This approach to terminology and classification can be applied at all levels of education - starting at primary and secondary - as a more simple way to introduce art, design, craft and technology. A simplified approach also encourages breadth and fluidity, and inspires students 'to extend themselves beyond specialised points of view' (Friedman et al., 1994,

p.40). As noted above, I would now define design as having *‘moved beyond discipline to purpose, and that designers employ dimensions and scale to frame each project, underpinned by a universal attitude.’* In this configuration, designers play a key role in defining the purpose, which can be ‘an idea, a knowledge, a project, a process, a product, or even a way-of-being’ (Findeli, 1990, p. 4). The study proposes that interdisciplinarity, or designing beyond discipline, should be re-framed and itself viewed as a cogent specialism.

### **6.3.3 A new emergent process model**

The consolidated findings of the study amalgamate into a new ‘emergent process model’, showing a common process for all five studios studied. This takes us beyond disciplinary labelling, and delivers a recognition that the important features are those connected with the nature of iterations within the process. Representing an emergent, iterative and human-centred approach, that is non-linear and unique every time, the model incorporates the five key process components discussed earlier in this chapter:

Questioning; Making; Eliminating; Communicating; and, Innovating (QMECI). As each project grows upwards, ideas are gradually refined through messy, iterative loops. Prototyping, testing and making are fundamental to the philosophies of all of the studios, as they enable agility and the development and proving of ideas: they also drive innovation. Further, these elements are regarded as essential tools to bridge the gaps between traditional disciplines. Treated as a recipe for practice, these common approaches to (a) organisational structure, (b) responses to evolution, (c) design and use of space, and (d) core capabilities, could be applied to help to drive innovation in any design studio and thus develop breadth in its work. This recipe for practice could also be applied to innovative businesses more generally, and to Higher Education institutions which might apply the recipe as a means of enhancing agility, relevance and connection to evolving design practice.

### **6.3.4 A combined ‘emergent model’ for pedagogy**

The study proposes an emergent pedagogical model, one that captures views discussed in the thesis, that call for the establishment of a common process for

design students. This integrative approach, combining a dimensions and scale configuration with the notion of emergent process, provides the foundation for a novel 'emergent pedagogy'. This model could offer students in Higher Education the opportunity to work across all dimensions and scales in the early stages of a degree, with options to gradually narrow focus, should they wish, through undergraduate and into masters level. The model offers students with idiosyncratic needs and aspirations the opportunity to study via a more appropriate route, one that is open, and sensitive to and supportive of their developing talents. Treating the design studios recommendations as a recipe of pedagogy, could enable the creation of a more relevant curriculum - and a common language for design - which in turn could enable the sharing of methodology. Valuing the symbiotic relationship between practice and pedagogy is critical in the creation of an integrated curriculum that not only supports the design industry, but also those in which creativity plays an important role.

## **6.4 Limitations of the study**

Due to my previous professional design experience, and current role in Higher Education, I acknowledge possible concerns with respect to objectivity of results: my role might generate accusations of inherent bias or self-justifying argument. As a way to limit bias, I attempted to work throughout with multiple sources from different perspectives and to provide ongoing reality checking from a wide spectrum of stakeholders. Through a process of reflexive objectivity, I attempted to gain insight into potential prejudices whenever this seemed appropriate. In addition, opportunities for respondent validation were built-in to the research process from the outset: comments on the data (transcripts etc.) and its interpretation were sought from all respondents, and findings were tested and questioned rigorously via comment on case studies from the studios involved, and the validation symposium. The original soft hypothesis for the study was connected with issues of process. I presumed that one process was applied to each different disciplinary project. However, following subsequent and more detailed investigation, this hypothesis was reversed. The consolidated findings of the study demonstrated that the unifying central element is not one process, but the work itself, beyond disciplinary labelling: what varies is the mix, direction and outcomes of the iterations within the process. The same key process components appear to be used each time, but in a unique way for every project as it evolves. Therefore, via observation, it became necessary for me to identify and conceptualise process in a fundamentally different way.

Another limitation of the study relates to the selection of case studios. Only five studios were studied (albeit in significant depth), largely as a result of time and financial constraints. Also, all participants were based in London: despite using an emergent methodology based on purposive sampling and snowballing. This narrowness of focus is something that caused personal discomfort for the researcher, though the focus does not in any way suggest that there are no examples of progressive types of practices outside London. The selection partly reflects a practical decision to make the most of industry contacts already in place, from my education in Manchester (with Heatherwick), and my design career working in London (with Bruges). It also

reflects the need to make the most of opportunities that arose in earlier stages of the study (for example, interviewing Arad for the Beyond Discipline report). Had the study been conducted with a wider range and variety of practitioners, different (or at least nuanced) results might have been generated. Also, the selection process involved purposive sampling, i.e., studios were selected on the basis of evolving forms of practice (instantiation of concept) and no 'control' ('conventional' or 'normal') studio was included in the group. One methodological approach could have been to compare and contrast specialised studios working in the established paradigm, with non-specialised studios working in the perceived emerging paradigm. However, findings of the literature search and the Beyond Discipline scoping exercise established that a paradigm shift was occurring, and therefore the study prioritised the attempt to capture the processes of these fluid studios, rather than looking at established forms of practice. It is worth noting that I have very significant experience of working in 'normal' environments, and through my current work as an educator have strong connections with many conventional studios. It should also be noted that the study reflects how the case studios were practicing in 2015 and 2016. The nature of this rapidly evolving sector is that these studios will inevitably have evolved since then.

## 6.5 Agenda for future action

This section presents the impacts of the findings of the study so far, and outlines potential next steps for the research.

### 6.5.1 Impact so far

To test the ideas noted above outside the confines of the study, and to examine the extent that they hold true with respect to broader experience, a variety of efforts were launched to test and validate unfolding findings. The initial scoping report, *Beyond Discipline*, was published in October 2015, and its international impact has been substantial (it is gratifying that this impact continues to grow). Validation and dissemination events (and responses) have included:

- CHEAD presentation to fifty Deans of Art & Design HE institutions
- Personal letter of support from Baroness Whitaker, longstanding advocate for design in both Houses of Parliament
- Articles in leading journals Design Week and Creative Review
- International citations and dissemination within industry and academia, including: EIMAD Conference, Portugal; Sophomore Creative Education, Canada.
- External consultation for Higher Education institutions on curriculum review and re-design – including Hereford College of Arts and Sheffield Hallam University. Sheffield Hallam has since created an annual weeklong event, titled *Beyond Discipline* (after my report), that explores benefits of interdisciplinary working with students across seven disciplines.
- Invited participant at the Design Museum’s international network for Design School: The Future of the Project. The Design Museum chose to distribute the executive summary of the report to all participants.

As discussed in Chapter Three, studio participants were invited to attend a symposium in 2017, as an opportunity to hear, discuss and validate the findings. Participants described the similarities between the practices of each studio as ‘fascinating’, noting in particular that social skills head the list of



core capabilities. Some also expressed reassurance in terms of recognising that others work in seemingly haphazard, messy ways. Robinson described the symposium as a 'sharp and clearly presented analysis of Jason Bruges Studio, giving an original perspective on the studio, which is situated in an ever-evolving creative sector.' Since the symposium, both Punchdrunk and Jason Bruges Studio have requested copies of process diagrams of their own studios as these constitute useful development tools.

The findings have delivered significant value to Birmingham City University by informing curriculum design for the School of Visual Communication. They have also been disseminated to the wider university, through presentations to students, staff and senior management and can be utilised to support change across the institution. Contributions have been made to Transforming the Curriculum 2016, and the design of an introductory Level 4 module, *Introduction to Visual Communication*, in 2017. The latter brings together under a common programme students from five subjects areas namely: Design for Performance, Illustration, Photography, Graphics and Film and Animation. The findings were also recently presented to the Dean and Vice Chancellor, who have since asked that I join a new STEAM initiative at the university, to support the development of a STEAM curriculum.

Most recently, in June 2019, I was invited to present a paper on the findings of the study at the *Education, Design and Practice* conference, organised by Stevens Institute of Technology, AMPS and PARADE, in New York. The paper will be published as part of the proceedings.

### **6.5.2 Future projections**

My aspiration for the findings of the study is that they might impact in a variety of ways, namely by creating broader understandings of practice, enhancing the training of students and professionals, supporting changes in policy and practice, and stimulating follow-on interactions such as joint proposals, shared workshops and creating lasting relationships (Reed, 2016, p. 10). As Buchanan (2001, p.19) argues: 'We will do well to recognize that gathering data and assembling facts is only a small part of the challenge of

research to advance the understanding of design.’ Future projections are set-out below.

### **1. Wider dissemination of the findings**

Research undertaken in connection with the study will hopefully result in the development of a series of further publications, targeted at high impact journals, to enable the wider dissemination of the findings.

### **2. An international interdisciplinary design conference**

I hope to continue to develop the high profile network already established, and will apply for funding to host an international conference at BCU, one that will examine the future for design education. Projected participants will include leading international practitioners, educators and policy makers, and the event will provide the basis for wider interactions and further research developments.

### **3. Further development of BCU curriculum at levels 4 - 7**

I hope that the findings will form the basis for further significant curriculum development and enrichment, contributions that will underpin an enhanced learning experience for students. I hope to develop the *emergent model for pedagogy* to create an undergraduate course, seen as a continuation of the Foundation, that better reflects the skills and mindset that future designers will require. With a focus on design-led innovation, the findings could also contribute strongly to BCU’s innovation research theme, and play a significant role in both the STEAMhouse and STEAMschool activities. BCU established STEAMhouse in 2018, with the aim of encouraging the collaboration of the arts, science, technology, engineering and maths sectors (BCU, n.d.).

### **4. An integrated implementation plan for pedagogy**

Finally, as discussed above, a surprise to emerge from the study was just how involved the studios are in education at all levels. Another surprise was the symbiotic relationship the interviewees have between their pedagogical experiences and their practice. The way they were taught has informed their practice, and the way they practice now informs their teaching. Not only have

the studios created innovative pedagogical models, which offer great potential individually, but if combined, might offer a new integrated approach for pedagogy.

To aid in visualising and analysing the studios' involvement education, a diagram was created: this captures the breadth of their interventions (Fig. 158). They impact on all types of learners, from primary school children to care home residents. Connecting these pedagogical interventions creates an integrated pedagogical thread. It has been argued (Dawood, 2017c) that at present, primary, secondary and tertiary art and design education are 'dislocated and randomly structured.' The pedagogical thread could bring together educators from all levels, practitioners, policymakers, and students, to create a development group. As with the developments in Finland, the design curriculum could be created and delivered in a bottom-up way, that is established around a non-hierarchical, co-operative approach (Korvenmaa, 2007). As Gerver argues, 'if educators are the only ones that sit around the table talking about the development of education, you're going to limit what the possibilities might be' (Gerver, 2013). This could drive the integrated construction and roll-out of a new curriculum.

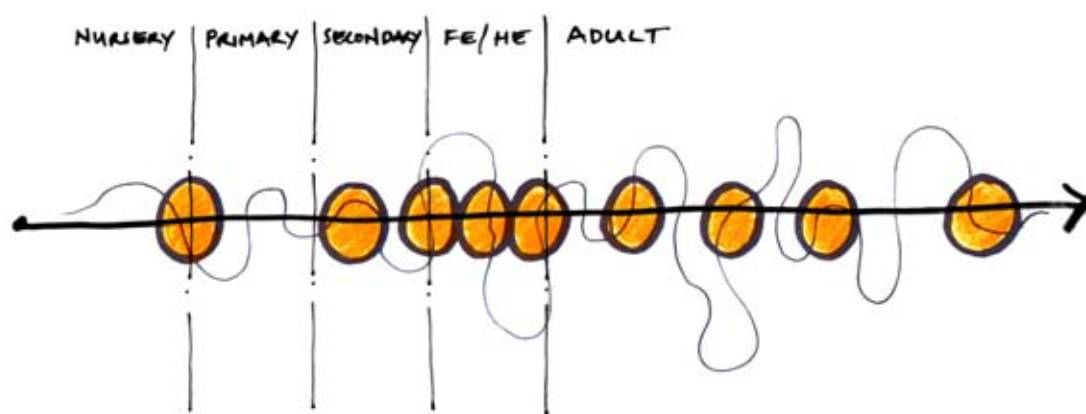


Fig. 158: 'Integrated pedagogical thread diagram'. (Furniss, 2017).

A pedagogical hub would drive the initiative forward, in the form of a pilot or trial (Fig. 159). A Higher Education site could be the physical hub, with satellite links to a primary school, secondary school, Further Education

colleges, and beyond into lifelong learning sites outside formal education. The hub could build on, and expand, the collaborative work of the V&A's Design Lab Nation, and forge relationships with local practitioners and cultural institutions (Bazalgette, 2017). This initiative could trial the emergent pedagogical model, and the content would be topic or purpose based rather than subject based. As discussed in the previous chapter, this would also avoid the binary division between Art and Design. If successful, and given the development of an appropriate constituency and support base, the trial could be taken forward to inform policy-making and implementation. As Eliasson argues, 'if crucial changes happen at a microscopic level, an entire society or worldview may in time be changed' (Studio Olafur Eliasson, 2013).

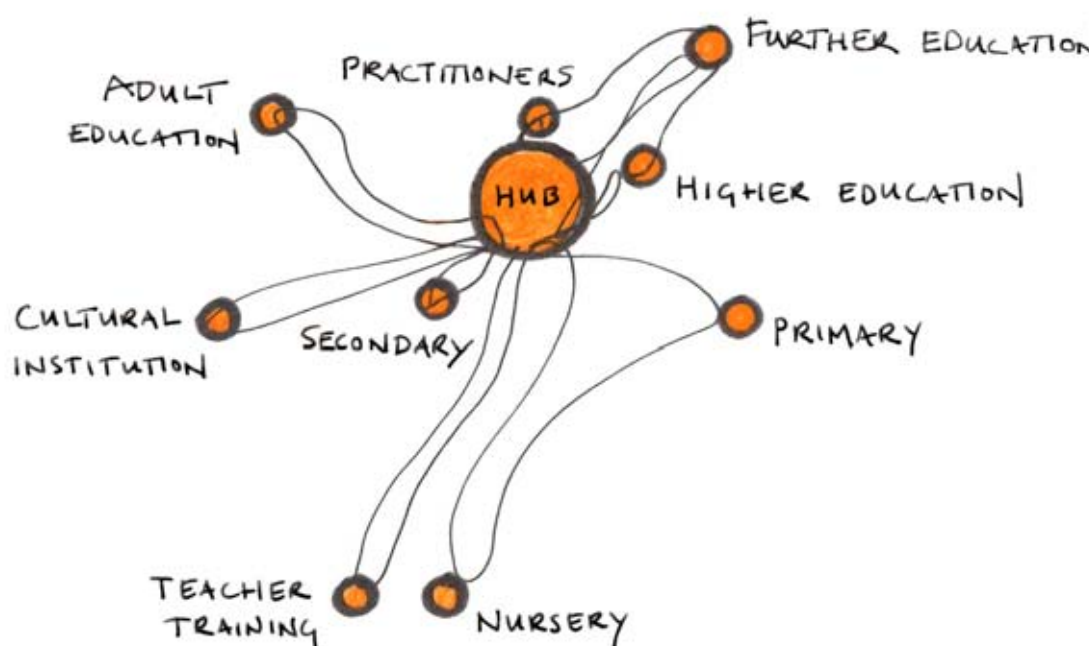


Fig. 159: 'Integrated pedagogical hub diagram'. (Furniss, 2017).

BCU's STEAMhouse is currently running a collaboration with a local primary school, setting a creative brief that is based on a theme, rather than a subject. Pupils have the opportunity to visit STEAMhouse and work with technicians and practitioners to build and exhibit their ideas. Using STEAMhouse as the 'pedagogical hub' for the trial, this initiative could be expanded to reach out to the wider range of stakeholders discussed above, to create a development

group to drive the integrated construction and roll-out of a new design curriculum.

As the recommendations from the Policy section of Chapter Two indicate, if the UK wants to play a key part in the Fourth Industrial Revolution, a national plan should be created, one that will ensure a high quality creative education at all levels. In summary, this trial could:

- Raise awareness about design, its value and its breadth of application
- Demonstrate the need to commit to designing the education and skills frameworks to support the design sector
- Explore how creative education can better be supported
- Help to build appropriate policy support for design and the creative industries as a whole
- Raise awareness of the symbiotic relationship between the evolution of policy supports and the development of the design industry.

One of the core aims at the commencement of the study was to examine the implications of evolving trajectories in design practices and processes for (a) design pedagogy and support policy. As stated in Chapter One, the key interest groups were identified as design practitioners, students of design and design educators, with the potential also for inclusion of the policy-making community. However, looking beyond the thesis, it appears that the policy-making community should now be the priority group, and my work in the near future will focus on influencing the design of appropriate policy support for both the design industry and design education.



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## Appendices

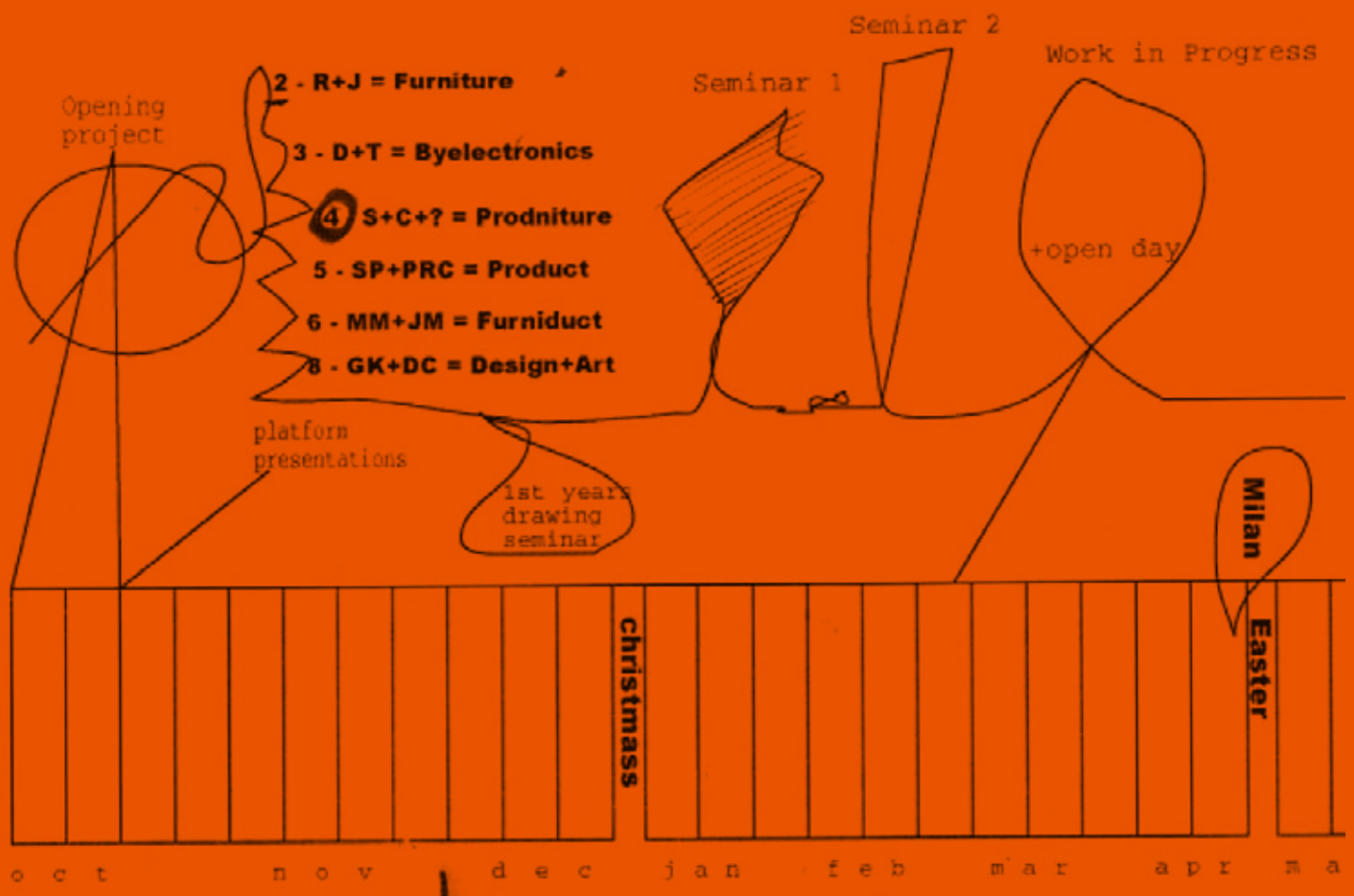
### Appendix 1: Interview questions for the scoping exercise

Interview Questions
<ul style="list-style-type: none"><li>• What brought you to your current position?</li></ul>
<ul style="list-style-type: none"><li>• What kinds of change have you seen taking place in design studio practice in the UK since 2000? (with regards to studio classification, disciplines, process, technology, structure, types of commissions)</li></ul>
<ul style="list-style-type: none"><li>• Why do you think this change has occurred?</li></ul>
<ul style="list-style-type: none"><li>• What are the implications of this change, both positive and negative?</li></ul>
<ul style="list-style-type: none"><li>• Has this change impacted on you?</li></ul>
<ul style="list-style-type: none"><li>• Do you think there are barriers hindering this change?</li></ul>
<ul style="list-style-type: none"><li>• Are there implications for design pedagogy, particularly at undergraduate level?</li></ul>
<ul style="list-style-type: none"><li>• Are there implications for non-creative industries, such as policy makers?</li></ul>
<ul style="list-style-type: none"><li>• What do you think the future holds for design?</li></ul>
<ul style="list-style-type: none"><li>• Can you suggest anyone else to talk to on this subject, or any relevant literature?</li></ul>

## **Appendix 2: Beyond Discipline report**

# Beyond Discipline

## Design Practice and Design Education in the 21st Century



Lara Furniss

September 2015



# **Beyond Discipline**

**Design Practice and Design Education  
in the 21st Century**

Lara Furniss

September 2015

## Foreword

Change is nothing new in the design sector. Indeed it is an inevitable and frequently positive experience for all involved in the industry, especially when anticipated accurately and addressed with appropriate strategies and smart adaptation. Doing what they do, designers are particularly well-attuned to change and to the creative and flexible responses that this requires. This adaptive resilience is fortunate as the UK design industry has witnessed progressive, sometimes dramatic, cycles of transformation throughout its history.

The past three decades have been particularly turbulent. The late '80s saw a significant upsurge of interest in the quality and international impact of UK design. However, in the early '90s, optimistic expansion turned quickly to shake-out and re-structuring as economic downturn gripped the UK economy. A return to economic health in the later '90s - allied with both rapid diffusion of new technologies and the UK's 'cool' factor - triggered further expansion in designer numbers and in studio start-ups. With strong demand, growth continued until the turn of the century when commoditisation and super-competition once more spawned retrenchment, consolidation and re-positioning. In the most recent period, renewed focus on the strategic role of the designer and the contribution of design to successful innovation has again stimulated expansion. However this good news has been confined largely to specific sub-sectors (and to particular regions) in the UK.

So, we see a landscape re-shaped perpetually by challenging economic, market, technological and supply factors, and a sector that has required fleet and often thoroughgoing adaptation. As torrents of change have coursed through design, these have been plotted and evaluated by agencies such as the Design Council and Nesta - both passionate advocates for the sector - that have recommended policy responses configured to support and promote a vital (and overwhelmingly successful) UK industry. So too, we have seen coordinated and intelligent responses in (parts of) Higher Education as smarter institutions have re-calibrated and re-tooled to equip next generation designers with the technical, business and adaptive skills that evolving markets will demand.

But what of the current and future situation: are we confronting a further wave of dramatic change? What challenges and opportunities will the coming decades hold? What factors and trajectories will shape design futures? What responses and strategies - from government, educators and industry - are required to maintain and build-upon the UK's success? It is these crucial questions that are posed in 'Beyond Discipline'. Taking the views of twelve global thought-leaders in the field as a knowledge platform, this report presents a candid image of the current state of the design sector, and the trends in thinking, practice and behaviour that characterise both established and emerging designers. The report engages too with training policy and practise, asking a further and centrally important question: 'is contemporary UK design and creativity education really fit for purpose in a rapidly and radically re-figuring landscape?'



The report may make uncomfortable reading for some, especially those in the policy and education sectors. However, it is timely and entirely well-intentioned. It reflects the strongly-held views of some of the UK's most widely respected and well-positioned commentators, each of whom is both passionate about the future of design in the UK, and committed to seeing the sector flourish whatever the early decades of the 21st Century may hold. The ride may not be an easy one – and recognition of shortcomings and challenges is rarely less than painful. However, a frank appraisal and acknowledgement of current realities constitutes a crucial first step in securing the sustained success of a vital and world-leading UK design industry.

Professor Simon Bolton  
Dr Lawrence Green  
Co-Directors, Strategic Creativity Research Lab  
September 2015

# Executive Summary

**Compared with ten years ago, the practice of design in the UK is unrecognisable. Changes result from role re-definition, process re-invention, and ongoing evolution.**

- **Designers are questioning their purpose and re-defining their roles for the 21st Century.** They are becoming engaged increasingly with social, environmental and political agendas, and are recognising that they can apply innovative processes and transferable design skills across a spectrum of settings.
- **The design process has been re-invented.** There has been a dramatic rise in collaborative activity as designers prepare to meet challenges of the coming decades. Design studios are operating more fluidly across traditional and emerging disciplines. Agility and iteration are now emphasised as key elements in the design process.
- **The design sector continues to evolve rapidly.** There has been a steep increase in the number of smaller design studios. Larger, more established studios have found ways to move forward by splitting into segments. There has been a steady and strong growth in the number of freelancers.

**Change is being driven by external and environmental factors, and by the choices that designers make.**

- **External drivers are directly affecting change in practice.** Digital technology has permitted designers to work and learn in new ways. Economic pressures have seen larger studios either close or strengthen, and smaller studios develop broader offers. Industry is re-shaping the landscape through heavy in-house recruitment.
- **Change is coming from inside the sector too.** New attitudes and a universalistic outlook are enabling fluid, trans-disciplinary designers to look at design practice holistically. There has been a return to making and a resurgence in craft. Pioneering 20th Century practitioners have inspired change, with Ron Arad cited as a leading influence.

**Whilst change has positive implications, there are negatives too.**

- **There is significant positive propulsion in the design sector.** Many designers profess an optimistic outlook, and this is evident in their work. There has been a positive change in external perceptions of design, with designers being afforded greater credit. Designers now understand how their skills can be transferred to non-creative environments, and are pro-actively instigating change.
- **Negatives are still holding the sector back.** Many UK manufacturing firms fail to acknowledge or exploit UK design talent, and design has been devalued by commoditization, over-supply and lack of confidence.

**Action needs to be taken to better define and represent design in order for Government to value it.**

- **Government is choosing to ignore the importance of design.** Government de-investment in teaching arts subjects has negatively affected creative education across the board. The STEAM

agenda has been rejected, and the new Design & Technology and Art & Design courses are not valued as core subjects.

- **The design sector is fractured with no clear representation.** The industry cannot agree on a definition of design, and the sector is moving faster than any existing classification system. There is no single, powerful representative body that can speak to Government and stand up for the industry.

**The current undergraduate design education system is in crisis: it is time for a new approach.**

- **Policy for creative education has placed undergraduate design courses in potential crisis.** There is a critical lack of emphasis on creative subjects in primary and secondary education. Foundation courses are being cut, and the introduction of fees has negatively re-shaped the recruitment landscape. Universities are now financial institutions, students are consumers, and intake policy privileges quantity over quality in the pursuit of income targets.
- **The current university system is not working.** It is outdated, it does not reflect contemporary and evolving design practice, and it struggles to prepare or deliver the creative talent that Industry needs.
- **It is necessary to re-define the skills and processes that 21st Century designers need, and then look to alternative educational models.** Industry needs creative workers that can collaborate, communicate and integrate activities and projects. Education should be less about discipline-specific practical skills, and more about thinking and process: alternative initiatives and approaches should be pursued (and some excellent models are in place).

**This report makes three key recommendations:**

### **1. Design must be nurtured**

**Industry should:** come together to re-consider and re-define the concept of 'design'. It should also demand strong representation from one main body that will instill pride and create a unified and compelling voice.

### **2. Design must be taught well**

**Education should:** examine current practice and alternative educational models to better understand the processes and skills that young designers will require if they are to meet the challenges of coming decades.

### **3. Design must be valued**

**Government should:** support and give credit to creative education across all levels, encourage continued growth, and value the potential of a vital and ever-evolving sector.

## **Advisory Team**

Dr Lawrence Green  
Gareth Williams  
Lynda Relph-Knight  
Prof. Ljubomir Jankovic

## **Lara Furniss**

Lara has 20 years professional experience working across many art and design disciplines, a degree in Interior Design from Manchester Metropolitan University, and a Master of Fine Arts from The School of the Art Institute of Chicago. She is a lecturer (Design for Theatre, Performance and Events) and researcher within the School of Visual Communication at Birmingham City University.



## **Acknowledgements**

The author would like to thank the 12 interviewees for generously giving their time, sharing their knowledge and demonstrating their commitment to the future of design practice and education. Thanks are also due to the School of Visual Communication at Birmingham City University for its support for this research, and to an advisory team that has offered valuable insights, contributions, methodological advice and editorial input. Final thanks go to Wallflower Creative for the design of this report and to Daniel Charny for the use of his Royal College of Art Platforms diagram.

## **Interviewees**

The roles of the following interviewees are correct from the time of each interview.

Ron Arad (RA) – Ron Arad Associates; Former Head of Design Products at the Royal College of Art

Zeev Aram (ZA) – Founder of Aram Store and The Aram Gallery

Haidee Bell (HB) – Head of Design Challenges at the Design Council

Helen Charman (HC) – Director of Learning and Research at Design Museum, London

Daniel Charny (DC) – Co Founder and Director of Fixperts; Professor of Design at Kingston University; Co Founder of From Now On

Nick Couch (NC) – Founder of Deskcamping; Business Director for Design at Mother, London

Deborah Dawton (DD) – Chief Executive at Design Business Association

Thomas Heatherwick (TH) – Heatherwick Studio

Nat Hunter (NH) – Co-Director of Design at Royal Society for the encouragement of the Arts (RSA); Founding Director of Airside

Tim Lindsay (TL) – Chief Executive Officer at D&AD

Lynda Relph-Knight (LRK) – Independent design writer and consultant; Former Editor of Design Week for more than 20 years

Gareth Williams (GW) – Design Curator, Lecturer and Author of '21 Twenty One – 21 Designers for Twenty-first Century Britain'



# Table of Contents

Foreword	2
Executive Summary	4
Introduction	11
Key shifts in design practice over the last ten years	13
Key drivers for change	17
Positive and Negative implications of change	21
Building for progressive change: tensions and blockages	25
Implications for undergraduate design education in the UK	29
Conclusion and Recommendations	35
References	36

*Are we moving beyond discipline?*

*What are the implications  
for education?*



# Introduction

In the centuries prior to industrialisation, polymaths and master craftspeople had created ‘total works of art’. However, the first 100 years of the Industrial Revolution saw the emergence then cementation of the separation and hierarchisation of arts and design disciplines at the level of both practice and education. This shift – one designed to meet the needs of rapid industrial development and mass consumption – continued throughout the 20th Century. The Foundation course, introduced in the mid-20th Century and inspired by the Bauhaus model, represented an attempt to return to earlier modes and permitted art and design students to cross fluidly between disciplines, immersing them in an open culture of technical development and creativity. In the move to undergraduate education, however, students were again required to identify one clear pathway. Whilst a handful of designers reacted against this constraint in the 20th Century, the majority regarded a disciplinary label as a necessity for success.

Since 2000, design practice in the UK has changed dramatically. Boundaries between design disciplines have dissolved, and many contemporary design studios now defy classification. These studios are reconfiguring the design landscape, yet a uni-disciplinary structure still dominates undergraduate education. This is creating a disconnection between practice and education, and posing critical questions for the current design education system. Perhaps surprisingly, few studies to date have explored this problem.

Drawing on interviews with 12 leading commentators from the UK design sector, this report examines the evolution of design practice over the last ten years. Key issues addressed include: changes and trajectories in the field of design; drivers for change and their positive and negative implications; barriers to necessary development and progress; and, future directions for undergraduate education. Are we moving beyond discipline? Are we moving beyond design? And what are the implications for education?

*The design world has been completely revolutionised* NH

*Social agendas are driving the new contemporary studios* DC

*There is a mobility of discipline, transferal of skills, transferal of process*  
DC

*We live in a much more collaborative age*  
TL

# Key shifts in design practice over the last ten years

Findings from the interviews indicate that the practice of design in the UK is now unrecognisable compared with ten years ago. Three key shifts identified are role re-definition, process re-invention and continued evolution.

## The role of the designer

The first shift is how design practitioners perceive themselves. Designers are questioning their purpose and re-defining their role for the 21st Century.

### The designer as socio-political activist

Designers are becoming increasingly engaged with social, environmental and political agendas. Some see themselves as social scientists, anthropologists, or community activists. Studios like Participle and Engine Service Design follow a social agenda and focus on service design. Dunne and Raby use design as a means to speculate about the future. Industrial designer Freddie Yauner has established MSShift (shift.ms), a platform for young people with Multiple Sclerosis. There has been a reactionary move from corporate to anti-corporate and profit is no longer the main driver, as celebrated by the D&AD 'Beyond Profit' White Pencil award.

### The designer as innovator

Designers are realising they can apply their innovative process and transferable skills to almost anything. Airside led the way at the turn of the Millennium, by crossing nearly every media, including digital, animation, illustration and branding, and now studios like Government Digital Service for GOV.UK are crossing copywriting, design and programming. El Ultimo Grito are beyond discipline, crossing art, interior, furniture, product and social services, while others, like Roland Lamb, are inventor-entrepreneurs, focusing on designing, producing and promoting one innovative product. Visionary designers like Martino Gamper are now curating, while others like Heatherwick Studio are taking a more active role as agents for change, collaborating with clients and co-creating briefs.

## A developing process

The second shift is that design processes have been re-invented.

### The age of collaboration

Design by its nature is participatory and collaborative, but this has evolved to the extent that there is now mass collaboration. Through the formation of collectives and the process of collaboration designers are now working together and supporting each other in many different ways, dependent on each other and also on those outside the design sector. Collectives are enabling designers to share space, facilities and ideas, keeping individual autonomy while sitting under one banner.

## **Beyond discipline**

Many design studios are operating more fluidly across disciplines. Crossing disciplines has always occurred to some extent, but now it appears to be a necessity. Projects are increasingly issues-led rather than solutions-led and designers need to be more fluid in order to respond. For example, design collective Assemble explore public realm projects including pop-up theatres, adventure playgrounds and community workshops, but have also been nominated for the 2015 Turner Prize. They are the first design studio to be nominated for this prestigious art award (Dezeen 2015).

## **New methods and methodologies**

Emphasis is now placed on agility and iteration as key methods in the design process. Design used to be about designing a product and then walking away. Now designers need to be more flexible and are reflecting this through fluid, emergent processes where solutions continually evolve. Designers are looking at issues, whether local or global, and then using design thinking to come up with alternative solutions. Sometimes these issues appear to be outside the normal realm of 'design' and do not have a traditional design output. Designers are taking on the role of stewardship, as identified by the Helsinki Design Lab (2013), facilitating processes by being in the middle rather than working in a top down or bottom up way. This suits design, helping with communication by bringing ideas down or bringing ideas up. Designers are also proactively self-generating work that is more self-reflective, celebrating their individual creativity.

## **The evolving sector**

The third shift is that the design sector continues to evolve rapidly.

As professional practice has evolved, so has the size and shape of the studio. There has been a dramatic rise in the number of smaller design studios: they do not require major overheads and are more flexible and able to expand and contract as projects come and go. Larger studios have also found ways to evolve by splitting into segments with different offers for each. For example, Barber Osgerby have three separate studios under one umbrella: Barber and Osgerby, Map Projects and Universal Design Studio, offering product design, product strategy and architecture and interiors respectively. Alongside these evolving studios we have also seen the rise of the freelancer with a 40% increase in numbers from 2005 – 2009 (Design Council 2010).

These findings illuminate the key shifts that have taken place in UK design practice over the last ten years. They confirm that the sector is now unrecognizable as a result of role re-definition, process re-invention, and ongoing evolution.

*The notion of disciplines themselves  
is unravelling HC*

*To be a designer in the 21st Century  
you have to be really agile and really  
iterative and you have to keep  
changing yourself NH*

*Technology has just blown things apart*  
*GW*

*We all want things faster. So designers*  
*have to think faster LRK*

*You have to be serious about overseas if*  
*you want to be a contender – you've got*  
*to be global LRK*

*Big industry is investing very heavily*  
*in the recruitment of designers and*  
*building in-house capacity DD*

*Having universal eyes TH*

*Now, more and more,*  
*there are designers who are acting*  
*independently, autonomously,*  
*inspired or led by Ron Arad GW*

# Key drivers for change

Interviewees suggested that change is being driven by external and environmental factors, and by the choices that designers make.

## External drivers

Key external drivers directly affecting change in design practice are digital technology, economics and industry.

### Digital Technology

Digital technology as a way of designing and communicating has been the biggest driver. It is an enabler, allowing designers to work and learn in new ways, to be more self-networked, self-governed and less reliant on businesses. It has also created a more global world, with global connectivity. Designers now see themselves in a much broader context, with more awareness of overseas competitors and markets.

### Economics

Economic pressures over the last ten years have affected the entire sector. Following the recession some larger, more established studios closed whilst others survived and became stronger. Many studios reduced their size, whilst offering a broader service. A Nesta report from 2008 highlighted that ‘the recent economic slowdown is making generalism fashionable again, with many design consultancies attempting to enter their competitors’ niche markets’ (Miles, Green 2008). Hiring of full-time designers slowed dramatically after 2008, triggering the rise in freelancers.

### Industry

Industry is having a major impact on the design sector, recruiting heavily to build in-house teams at a larger scale than ever before. There is a belief that businesses are starting to understand the benefits – beyond superficial styling – that design can bring to how they think and organise themselves. The design sector’s ability to move and change at a fast rate is attractive to industries that struggle to do so but see it as a necessity. There has been a rise in independent entrepreneurial ‘challenger brands’, and exporting has also risen steeply with successful markets building in other countries, particularly luxury goods exported to the Far East.

## Internal drivers

It is not only external drivers affecting change, but also internal drivers associated with the mindset and orientation of designers and the choices that they are making.

### A universal way of seeing

New attitudes and a universal outlook are key drivers. Fluid, cross-disciplinary designers tend not to see barriers, or themselves divided into segments, and look at design holistically. With no prior training available for many new emerging disciplines, designers have no preconceptions of what they should or should not do, liberating them from previous disciplinary constraints. This enables them to develop a very different mindset with respect to what a designer could be.

### **A return to making**

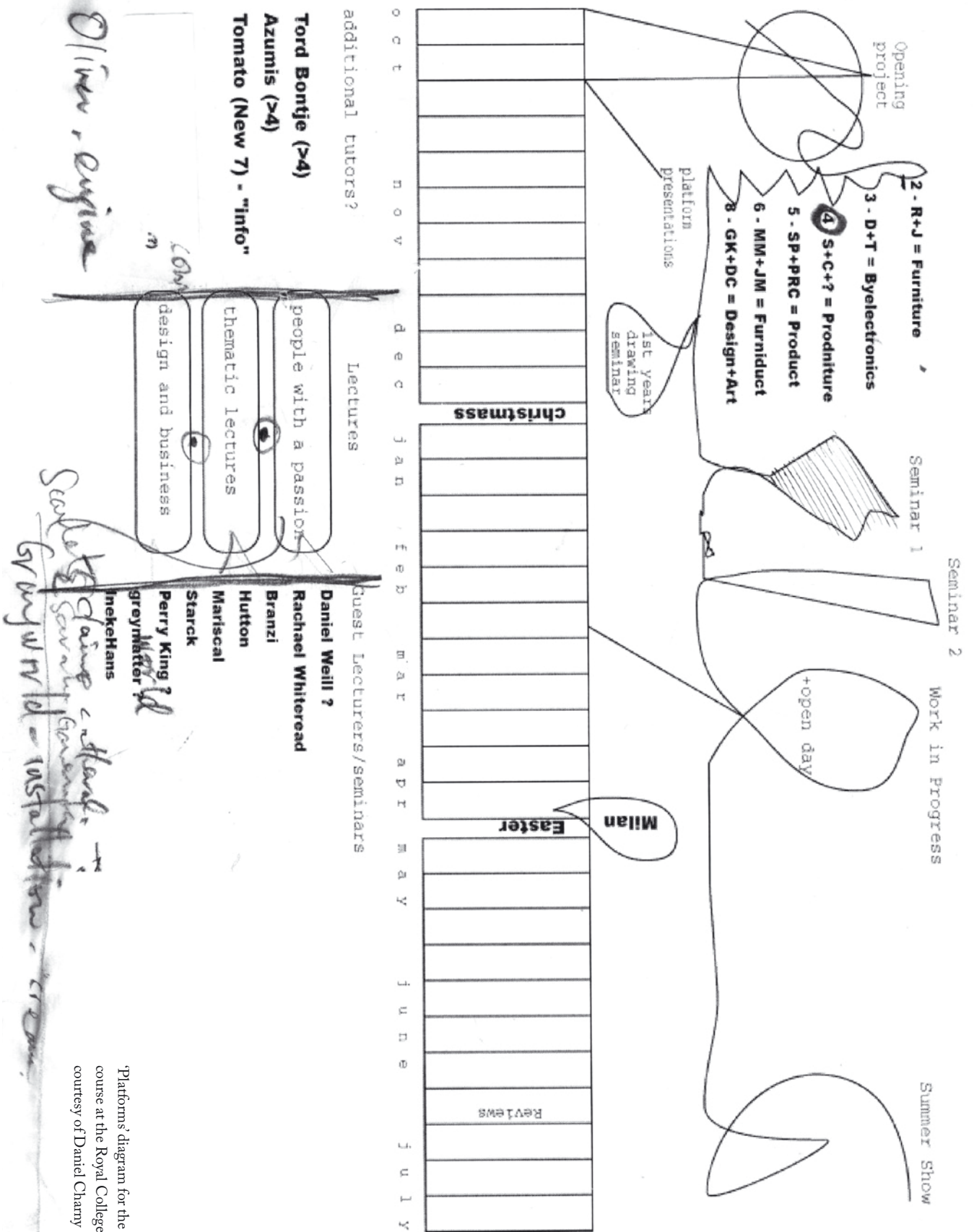
There has been a reaction against computers, with designers realising the value of ‘holding’, ‘feeling’ and haptics as a ‘fundamental need’. For many years the making process lost importance due to the rise in technology. But now that importance has returned, as making allows designers to better connect and enable the process of iteration. In contrast, the ubiquity of technology has encouraged a resurgence in craft through Internet and Google sites like Instructables.

### **Design influence**

Key 20th Century practitioners have inspired change, and Ron Arad is cited as a leading influence for 3D designers, through both his practice and teaching. As a practitioner Arad never thought he had to declare loyalty to any of the ‘clubs’, well captured in the 2009 exhibition *No Discipline* at the Museum of Modern Art, New York. He took design from a reactive to a proactive self-motivated process, creating self-generated work. In 1998 Arad, along with Daniel Charny, led the change in design education by creating the Design Products course at the Royal College of Art, declaring that ‘defining courses by sectors was no longer relevant’. ‘Platforms’ were headed by different artists and designers and were not sector-specific, but focused on process, combining theory and practice (see Figure 1 opposite).

These findings highlight key drivers for change and demonstrate their breadth and complexity. They highlight external factors imposed on designers, and reflect the internal choices that designers are making.





*Social design and social entrepreneurship  
is people reclaiming design and applying  
it to making the world better NH*

*Creative business is about being  
inquisitive and curious and open to new  
things and new ways of doing things  
NC*

# Positive and Negative implications of change

Findings from the interviews indicate that whilst change has positive implications that are moving the design sector forward, there are negatives too that hamper positive development.

## Positive implications

Many positive shifts are moving the design sector forwards.

### Optimistic outlook

Many designers now have an optimistic outlook to their work. By questioning their role and purpose in the 21st Century, and reacting against the previously dominated motivations of planned obsolescence and consumption, designers are addressing key social issues, seeing themselves as 'humanitarian catalysts for change'.

### Changes in external perceptions

There has also been a positive change in external perceptions of design. It is not only businesses that are starting to understand the benefits that design can bring. Designers are being given more credit as cultural diplomats, with events like the 2012 London Olympics, that raise public awareness. Designers are also becoming better at recognizing how their skills can transfer into non-creative environments. Moving into the social and political sphere has meant that designers are now starting to influence policy: indeed, Policy Lab was launched to explore how design processes can aid policy development and assist better design of public services (GOV.UK 2014).

### Entrepreneurialism

The rise of entrepreneurial activity is creating many positive strands with designers pro-actively instigating change. 'Deskcamping' is a direct response to the ever-expanding freelance community, and invites established studios to rent an empty desk to a freelancer. Not only does this address the negative impact of the recession on studio culture, by filling empty desks, it also encourages 'water cooler moments' where designers and freelancers (usually from a different discipline) start to explore how they might collaborate.

### The rise of non-designers

Non-designers are also making an impact. The Design Council's Knee High Design Challenges are targeted at increasing the health and wellbeing of children under five. Usually the Design Council only awards briefs to the design sector. But for Knee High it has opened up the process beyond the sector and many of the chosen solutions are from non-designers, for example mums struggling to solve challenges at home. The solutions are being realised with the support of an experienced design team using design processes, but this shows that great social innovation can come from a more fluid, non-conformist way of thinking and working.

## **Negative implications**

Yet for many of the interviewees there is a disconnect, with negatives holding the sector back.

### **Lack of support from the manufacturing industry**

The UK manufacturing industry is not supporting UK design talent. For many years The Aram Gallery hosted a design graduate show and invited industry to attend at no cost. The aim was to bring the two worlds together to realise good design. Many industry members attended, but not one commission was ever made despite many of the designs being picked up later by international manufacturers. When manufacturing does happen, there is also a concern that it is too commercial, with priority placed on fast generation and turn around rather than on quality and long-term value.

### **Devaluing of design**

Design is being devalued. It is now so quick to generate and so fast-changing that it is 'almost like fast food'. Sites like 'It's Nice That', whilst great visual resources, reinforce this issue by being more about the surface of design rather than actually about what underpins it and a way of thinking. Due to speed and a perceived need for change, design in some sectors has such a short life span that even the work itself is losing value. Design is also being devalued by the fact that there are too many designers and not enough jobs. Over-supply and less value afforded to certain design sectors is clearly evident in stagnant charge-out rates, and there is a lack of value attached to experience.

These findings suggest that there is a disconnect within the design sector. They demonstrate that while there are many positive factors moving the design sector forwards, there are also negatives that hamper desirable progress.

*I am deeply concerned about the future  
of the profession LRK*

*We export our design talent abroad...  
and then we import their design from  
manufacturers abroad to back here.  
Now if this is not absurd I don't know  
what is ZA*

*How many more toothbrushes  
do we need? HC*

*The government doesn't know what  
design is and design doesn't know  
what design is GW*

*Michael Gove's de-investment in  
teaching arts subjects is an  
absolute travesty TL*

# Building for progressive change: tensions and blockages

Interviewees identified two key tensions that are hampering necessary transformation and progress in design: first, Government's lack of understanding of the importance of design; second, factors within the design community and sector itself.

## Government

The first tension is Government.

### A fundamental lack of understanding of the value of design

Up until the change of Government in the May 2015 elections, Government has chosen to ignore the value of design, despite the best efforts of organisations like the Cultural Learning Alliance, campaigns like Include Design and numerous reports ranging from The Cox Review of Creativity in Business (HM Treasury n.d.), to the All-Party Parliamentary Design and Innovation Group's Restarting Britain: Design Education and Growth (APDIG 2011). Key commentators in the sector pose the question, 'why is Government behaving in a way that could potentially destroy the industry when design is worth 3.5% of Gross Domestic Product (GDP) and the creative industries in the UK are bigger than the financial services?'

### The new National Curriculum

Michael Gove's de-investment in teaching arts subjects has negatively affected creative education across the board, but at the epicentre is secondary education. According to Sir Christopher Frayling, speaking on Andrew Marr's Start the Week (2012), Lord Browne admitted that the creative subjects were 'accidentally' left out of the five pillars of Michael Gove's eBACC. But then why were the Arts not included in the rebranded STEM? Despite the STEAM agenda advocating the inclusion of the Arts in the STEM subjects, new Secretary of State for Education Nicky Morgan has not taken this up (Cultural Learning Alliance 2014). The new Design & Technology and Art & Design curricula were rolled out in September 2014, but are not included in the core subjects. This risks a tailing off for both student numbers and funding for creative subjects within schools. They will be seen as inferior fringe subjects that will not count on school league tables. Having the term 'design' in both also creates confusion. Nesta are continuing to push this issue with their recent plan for how Government can support the growth of the creative workforce, stating that Government should 'end the bias against multi-disciplinary education – supporting the combined take-up of arts and science subjects' (Nesta 2015).

## Beyond 'design'?

Characteristics of the design sector itself create a second tension. In a fractured sector with no clear representation, are we moving beyond 'design'?

### Lack of collective identity

A first issue is representation. There are up to 20 different organisations that speak for the design industry, from different viewpoints, but not one main body. Some of these organisations had strength in the past, but have become less relevant to practicing designers in recent years. Architecture has RIBA, film has BAFTA, but who represents design? Without it, who will set the agendas, lead the

debates, speak to Government and stand up for an industry that appears to be in increasing need of protection?

### **Defining Design**

The design industry cannot agree on a definition of design. One reason that other creative industries are easier to represent is because they are easier to define. In 2013 the APDIG organised 'Defining Design: The Debate' (APDIG 2013). The debate proposed that design is 'misunderstood and undervalued by government, underused by business and misrepresented in the media'. The aim was to 'better articulate the nature and role of design, in order that it might be more easily classified, measured, evidenced and eventually supported with sensible policy'. Many leading design actors and organisations took part, but the group could not agree on a definition.

### **Terminology**

Another issue is terminology. The design sector is moving faster than any existing classification systems. Separate standard classification systems for industry and education are full of inconsistencies in discipline definitions and groupings. Also, terms like cross-disciplinary, inter-disciplinary, multi-disciplinary, or trans-disciplinary are perceived to be unhelpful. Emerging designers do not see separation and boundaries, and therefore have no need for this terminology. One issue may be the word 'design' itself. Some designers simply call themselves designers rather than denoting a discipline, while others now describe themselves as artists, refusing even to be interviewed in a design context. Nesta has chosen not to use the word design, replacing it with terms like 'innovation'. Does the word 'design' help or hinder what designers do? Is it fundamentally misunderstood? Are we moving beyond design?

These findings illuminate serious concerns for the future growth and development of the design industry. This report argues that action needs to be taken to better define design in order for Government to value it, and in turn, protect and strengthen creative education.



*Who is leading the conversation about design in the UK at the moment?  
Who is setting an agenda? NC*

*Design is good at problem solving but it is absolutely hopeless at the problem of defining what it is GW*

*I think the more we talk about crossing boundaries the more you reinforce the boundaries. I don't see the boundaries and I think there's no room for debate. I think it should stop here RA*

*To distill the value of design education down to one thing, it would be that for young people, through design education, they can change the world for other people in the broader sense HC*

*Why are we cutting foundation courses? LRK*

*A degree has no value if you have to pay for it LRK*

*MA's are going to die out unless something happens DD*

*Last year they had no UK students so they negotiated a bursary for one UK student LRK*

*Instead of closing one hospital, close 20 design colleges ZA*

# Implications for undergraduate design education in the UK

After examining key shifts in the field of design over the last ten years, and addressing the emerging landscape and related issues, interviewees were asked what they perceive to be the implications for undergraduate education, and what the future direction of travel should be. In summarizing the data from the interviews, the overwhelming response was that the current undergraduate design education system is in crisis. But what form should it take, what are the options, and how can the situation be turned around?

## The negative impact of policy

Negative impacts of policy on creative education have moved undergraduate design education towards crisis.

### BAs are in crisis

BAs are in crisis partly as a result of a critical lack of emphasis on creative subjects in primary and secondary education, and the closure of Foundation courses. Without exposure to creative subjects at an earlier stage, how will young people know that they want to be a designer? Yet with MAs also under threat as a result of falling numbers, the emphasis is now on BAs. The introduction of fees has negatively re-shaped the recruitment landscape. Many young people are now questioning whether they should enrol on these courses and this is impacting negatively on student diversity. Universities are now financial institutions and students see themselves as clients: this negatively shifts the dynamic of the learning environment. Teaching is frequently compromised as staff are under great pressure as a result of much increased bureaucratic responsibility, and growing fixation with research league tables.

### Shifts in student intake policy

Universities now prioritise quantity over quality at intake in pursuit of income targets. This has led to a rise of weaker students, both national and international. International students have played an essential role in the development of the UK design industry for many years, as three of the interviewees in this report powerfully demonstrate. What has changed is that previously they were recruited on the basis of talent. Now the priority is money, with many courses operating with 80% international students. Another issue with quantity is that thousands of students are graduating from arts universities each year, but the traditional design jobs are no longer to be found in the UK.

## The current university system

The current university design education system appears to be flawed and there are questions regarding the extent to which it delivers appropriate preparation.

### Is a university degree the answer?

Interviewees posed the question, 'why do a university degree if a strong portfolio and life experience are what industry regards as key ingredients in securing a job, rather than qualifications?' Institutions by their nature are slow moving machines that restrict those inside them. Are academic institutions, with their inability to adapt quickly, requirement for academic rigour, and box ticking processes, the ideal environment for creative people?

### **Is the current system out of date?**

This is an even more urgent question when there appears to be a disconnect between design practice and education. The current system does not reflect contemporary practice and is outdated. Industry claims that UK institutions are not producing the creative talent that is required, and is taking the situation into its own hands. It is recruiting from abroad and creating independent schools. The Livingston School Hammersmith, a free school using games-based education, is being established by games designer Ian Livingston. Reacting against the current emphasis within schools on testing and conformity, he aims to focus on diversity and the trial and error nature of designing (Lee 2014). The London School of Architecture (LSA n.d.) is an independent postgraduate institution that works in collaboration with 40 architecture studios. With the aim of making education more relevant and cost effective, students divide time between studies and paid placements in practice, using a 'cost-neutral' financial model that balances tuition fees with salary. Whilst these are not undergraduate examples, it is perhaps just a matter of time before industry starts to consider a take-over and re-design of degree level design education.

### **What are the processes and skills needed for the 21st Century?**

We must re-define the core processes and skills required for designers in the 21st Century.

### **Does the existing emphasis on specialisation remain relevant?**

There is a clear perception in certain areas of the industry that if you want to be successful you need to clearly communicate a single specialism at which you excel. However, a strong case exists that education should reflect practice and 21st Century design appears to need people that can collaborate and integrate activities and opportunities. If there are skills relevant to all disciplines, and commonalities in process between them, why keep them divided when few sector-specific jobs remain?

### **How do you teach an ever-evolving practice?**

How can universities stay current and teach an ever-evolving practice? Is it possible to replicate industry conditions in academia? How can academic staff keep their finger on the pulse of practice and better understand the changing role of the designer? These questions were posed and many solutions offered during interviews. As well as stressing the importance of fundamental skills such as drawing, making and knowing the past, other suggestions were made with respect to process, skills and use of space. Suggestions included making education less about discipline-specific practical skills and more about process and thinking, with briefs that are issues-based rather than discipline-focused. Some interviewees argued that students should be forced to collaborate with other disciplines, taught the importance of transferable skills, and encouraged to go deep, to re-analyse, synthesise and iterate. Finally, it was perceived that making should be brought back into all areas of design, with all disciplines brought together into one space.

### **What are the alternatives?**

The interviewees highlighted existing academic institutions and alternative educational models that are currently pioneering new processes and ways of working, across Europe and within the UK, but these are in the minority.

*I don't think university is the future  
for design LRK*

*A BA doesn't get you into a job DD*

*Teaching is still very out of date,  
50 years out of date NH*

*The industry cannot wait for  
education to catch up DD*

*What you're training them for today  
is not what they're going to need  
tomorrow DD*

In Europe, the key institutions cited were Aalto University, Design Academy Eindhoven and Polytechnic University of Milan. In the UK, the Royal College of Art was highlighted as leading the way with progressive MAs, and courses at Kingston, Goldsmiths and Central Saint Martins were cited for pioneering new ways of teaching BAs. Despite being sector-specific, these BA courses were said to be encouraging students to think about the world around them in a much broader, holistic way.

The interviewees also highlighted initiatives that are pioneering alternative educational models. These initiatives are emerging in response to evolution in the sector, and to all the perceived restrictions placed on traditional design education. Examples include:

**Fixperts** is an informal education platform that is split into three layers – schools, universities and professional practice (the latter led by volunteers). It focuses on design process in a social benefit setting rather than an educational programme. It removes the boundaries of discipline, shifting education from being sector-based to process-based, and helps designers realise how they can connect to the world (Fixperts n.d.).

**Makerversity** is a collective work environment for the ‘maker movement’. It is committed to providing alternative and free routes to hands-on learning. This is achieved through work placements, events and the Makerversity D.I.Y education programme. The curriculum focuses on hands-on making and professional members of Makerversity contribute to the faculty and donate their time (Makerversity n.d.).

The views of interviewees suggest strongly that – as a result of trajectories in Government policy – the current undergraduate design education system is simply not working. Many possible solutions are advanced, but even more questions are raised. There is clear scope for the exploration of alternative approaches, models and content in education. Re-definition of design processes and re-identification of design skills is necessary to ensure that young designers are equipped for practice in the early part of the 21st Century.

*The biggest problem is  
'what do we teach'? RA*

*Start by imagining there is no  
education system existing and there's a  
world that's full of kerbs, pavements,  
posters etc. How do you train people to  
think about that world? TH*

*If we were to study like we buy music  
that would be very interesting DC*

*Design is this inherently positive, outward-looking, progressive, optimistic way of thinking. To problem solve and to improve the world GW*

*If you're not aware of what's happening out there, you can't develop people for that environment DD*

*Design thinking is such an important tool for 21st Century life. We need design thinkers in Non-Governmental Organisations, in Conflict Resolution and in Healthcare HC*

*Design is a natural resource and you have to nurture it, teach it well, develop it, and give it facility, credit and air to breathe ZA*



# Conclusion and Recommendations

## What does the future hold for design?

This report has shown that evolution in design practice in the UK over the last ten years has been dramatic and overwhelmingly positive. Yet we also see that design is at a pivotal crossroads, and without immediate action from Government, the education community and industry itself, we may see the collapse of not only a key creative sector, but in turn, innovation and creative thinking across many areas.

In order to secure the health of future design practice this report makes three key recommendations:

1. **Design must be nurtured**

**Industry should:** come together to consider and re-define the concept of 'design' (because if it cannot be defined it will not be valued). The design industry should also demand strong representation from one main body that will instill pride and create a unified and compelling voice.

2. **Design must be taught well**

**Education should:** examine current practice and alternative educational models to better understand the processes and skills that young designers will require if they are to meet the challenges of coming decades.

3. **Design must be valued**

**Government should:** support and give credit to creative education across all levels, encourage continued growth, and value the potential of a vital and ever-evolving sector.

This report has raised many issues for research. There is a necessity for in-depth analysis of developing process in practice to allow for better dialogue and transferal of knowledge between industry and education. Further evidence is also required with respect to the wider potential for (and implications of) design in both creative and non-creative environments. Armed with such evidence, we can widen our understanding of the potential of design and work towards optimal training, and optimal returns on investments in design inputs for the public, private and third sectors.

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Cover image: 'Platforms' diagram for the Design Products course  
at the Royal College of Art, 1998, courtesy of Daniel Charny

### Appendix 3: Selection questions for Ron Arad Associates

<b>Ron Arad Associates</b>
1. What is unique about the studio?
Arad refuses to be pigeonholed with disciplinary labels, and in 2009 had an exhibition titled 'No Discipline' at the Museum of Modern Art in New York (Jacobs, 2012).
2. What impact is the studio having both instrumentally and conceptually?
In 1998 Arad, along with Daniel Charny, led the change in design education by creating the Design Products course at the Royal College of Art, declaring that 'defining courses by sectors was no longer relevant' (Furniss, 2015, p. 12). Arad has impacted on practice and pedagogy internationally, creating a generation of designers inspired by his attitude and way of working (Williams, 2012), and 'now, more and more, there are designers who are acting independently, autonomously, inspired or led by Arad' (Furniss, 2015, p. 12). Arad is described as 'one of the most influential designers of our time' by being consistently inventive and challenging (Design Museum, 2012).
3. What characteristics are compelling or unusual?
Arad has 'studiously avoided categorisation by curators and critics throughout his career' (Design Museum, 2012) while designing buildings, interiors, furniture, household items and fashion (Lawson, 2006).
4. Is there a high probability that a rich mix of processes, people, programs, interactions, and structures of interest are present?
Yes, due to the breadth of work produced.
5. Is entry possible?
Yes, due to the success of the initial entry to interview Arad as part of the scoping exercise.
6. Is the researcher likely to be able to build a trusting relationships with the participants?
Yes, due to the success of the initial visit to the studio.
7. Will personal connections play a part?
Yes, as a personal connection has already been established through the initial interview visit.

## Appendix 4: Selection questions for Heatherwick Studio

<b>Heatherwick Studio</b>	
1. What is unique about the studio?	What appears unique is Heatherwick's description of the process of the studio: 'We've worked out a process of analysing and developing the thought process that underpins a building project. But we use the same process for a piece of furniture or a Christmas card. There's this building up of iterative reviews and analysis' (Gibson, 2012).
2. What impact is the studio having both instrumentally and conceptually?	Heatherwick is described as 'the Leonardo da Vinci of our times' by Sir Terence Conran (Wroe, 2012).
3. What characteristics are compelling or unusual?	Heatherwick's philosophy is to consider all design in three dimensions, not as multi-disciplinary design, but as a single discipline: three-dimensional design (Heatherwick, 2012).
4. Is there a high probability that a rich mix of processes, people, programs, interactions, and structures of interest are present?	Yes, due to the breadth of work produced.
5. Is entry possible?	Yes, due to the success of the initial entry to interview Heatherwick as part of the scoping exercise.
6. Is the researcher likely to be able to build a trusting relationships with the participants?	Yes, due to the success of the initial visit to the studio.
7. Will personal connections play a part?	Yes, as a personal connection already existed due to the researcher studying in the same year as Heatherwick at MMU, and that connection was further established through the initial interview visit.

## Appendix 5: Selection questions for Jason Bruges Studio

<b>Jason Bruges Studio</b>	
1. What is unique about the studio?	
	The Studio is defined as ‘creating interactive spaces and surfaces that sit between the world of architecture, site specific installation art and interaction design’ (Global Design Forum, 2016).
2. What impact is the studio having both instrumentally and conceptually?	
	The studio is pioneering a hybrid art form that is paving the way for a new genre of design studios, artists and designer-makers (Global Design Forum, 2016).
3. What characteristics are compelling or unusual?	
	The philosophy of the studio is rooted in Bruges’ personal motivations: ‘I’m very curious, I like to innovate, I’m interested in new things, but not necessarily for new things sake, but also in order to improve the environment, to make a difference, to make peoples lives better, and more interesting’ (One Minute Wonder, n.d.).
4. Is there a high probability that a rich mix of processes, people, programs, interactions, and structures of interest are present?	
	Yes, due to the breadth of work produced.
5. Is entry possible?	
	Yes, due to a face to face discussion with Bruges after the MADE conference.
6. Is the researcher likely to be able to build a trusting relationships with the participants?	
	Yes, due to the researcher’s previous working connection with Bruges.
7. Will personal connections play a part?	
	Yes, due to the researcher’s previous working connection with Bruges.

## Appendix 6: Selection questions for Punchdrunk

<b>Punchdrunk</b>
1. What is unique about the studio?
The work of the studio is described as radically different from traditional theatrical performances, due to the focus on: 'Personal exploration, non-linear storytelling, epic worlds, potential for multiple viewing, sensory and visceral responses, exponential possibilities, and connecting the live with the remote' (Dixon, Rogers & Eggleston, 2012).
2. What impact is the studio having both instrumentally and conceptually?
The studio is described as a 'boundary-busting theatre group' that has spawned a new movement in immersive theatre (Dickson, 2013).
3. What characteristics are compelling or unusual?
The studio are constantly re-inventing, 'explore new ways of engaging with an audience' and 'new ways of doing things' (Ivanauskas, 2015).
4. Is there a high probability that a rich mix of processes, people, programs, interactions, and structures of interest are present?
Yes, due to the breadth of work produced.
5. Is entry possible?
Possibly, due to the contacts built during the three-day design master class.
6. Is the researcher likely to be able to build a trusting relationships with the participants?
Yes, on the basis of the relationships established during the three-day design master class.
7. Will personal connections play a part?
Possibly, due to the contacts built during the three-day design master class.



## Appendix 7: Selection questions for Assemble

<b>Assemble</b>
1. What is unique about the studio?
The studio was nominated for the 2015 Turner Prize, the first design studio to be nominated for this prestigious art award (Dezeen 2015).
2. What impact is the studio having both instrumentally and conceptually?
The studio is hailed as ‘the poster group for a generation of young architects and designers increasingly drawn to the idea of working collectively. It has maintained an ethos of community engagement and a commitment to social projects... members roll up their sleeves and build. And they work with and for local communities, not in spite of them’ (Artemel, 2015).
3. What characteristics are compelling or unusual?
The studio defines itself as ‘a collective who work across Design, Art and Architecture’ (Artemel, 2015).
4. Is there a high probability that a rich mix of processes, people, programs, interactions, and structures of interest are present?
Yes, due to the breadth of work produced.
5. Is entry possible?
This is uncertain, due to the high level of press attention following the nomination for the Turner Prize.
6. Is the researcher likely to be able to build a trusting relationships with the participants?
This is uncertain.
7. Will personal connections play a part?
No

## Appendix 8: Interview questions for studio Team Members

Interview Questions for Team Members
<ul style="list-style-type: none"><li>• How do you define yourself when asked what you do?</li></ul>
<ul style="list-style-type: none"><li>• Tell me a about your design background and what brought you to here?</li></ul>
<ul style="list-style-type: none"><li>• What design disciplines does the studio specialise in?</li></ul>
<ul style="list-style-type: none"><li>• What is your role within the studio?</li></ul>
<ul style="list-style-type: none"><li>• How would you describe the creative process of the studio?</li></ul>
<ul style="list-style-type: none"><li>• How does this compare to other studios you have worked in?</li></ul>
<ul style="list-style-type: none"><li>• Does the physical design of the studio support the process?</li></ul>
<ul style="list-style-type: none"><li>• What roles do disciplines play within the studio, if any?</li></ul>
<ul style="list-style-type: none"><li>• What core skills do you need to work in this studio</li></ul>
<ul style="list-style-type: none"><li>• Based on your experiences here, do you think uni-disciplinary undergraduate education is still relevant or is it now outdated?</li></ul>
<ul style="list-style-type: none"><li>• What do you think undergraduate education could learn from this studio?</li></ul>
<ul style="list-style-type: none"><li>• Finally, with these questions, have I missed anything important?</li></ul>

## Appendix 9: Interview questions for studio Directors

Interview Questions for Directors
<ul style="list-style-type: none"><li>• How do you define yourself when asked what you do?</li></ul>
<ul style="list-style-type: none"><li>• How do you define your studio?</li></ul>
<ul style="list-style-type: none"><li>• How has the studio evolved since it's creation, both philosophically and structurally?</li></ul>
<ul style="list-style-type: none"><li>• How has your role within the studio evolved?</li></ul>
<ul style="list-style-type: none"><li>• How would you describe the creative process of the studio?</li></ul>
<ul style="list-style-type: none"><li>• How are project teams selected and structured?</li></ul>
<ul style="list-style-type: none"><li>• Does the physical design of the studio support the process?</li></ul>
<ul style="list-style-type: none"><li>• What roles do disciplines play within the studio, if any?</li></ul>
<ul style="list-style-type: none"><li>• What core skills do you look for when hiring a new studio member?</li></ul>
<ul style="list-style-type: none"><li>• What do you think undergraduate design education could learn from your studio?</li></ul>
<ul style="list-style-type: none"><li>• Based on the needs of your studio, do you think uni-disciplinary undergraduate design education is still relevant or is it now outdated?</li></ul>

## **Appendix 10: Ron Arad Associates interviewee details**

**Ron Arad** is Founder of Ron Arad Associates. Arad studied an undergraduate degree in Fine Art from Bezalel Academy of Arts and Design, Jerusalem, and a masters in Architecture from the Architectural Association (AA), London. He describes what he does as continuing what he did as a boy: ‘making things, drawing, designing, playing ping-pong, talking to people, showing off.’

**Asa Bruno** is Director, joining the studio in 2000. Bruno chose a specialist arts high school in Israel before coming to the UK to study an undergraduate degree in Architecture at the Architectural Association and a masters at the Bartlett School of Architecture, London.

**Caroline Thorman** is Co-Founder and Business Partner. Thorman describes what she does as ‘more like a lawyer now than I've ever felt in my whole life. I seem to spend the majority of my time with my head in contracts.’

**Michael Castellana** is a designer within the studio, joining in 2007. He has a double undergraduate degree in Industrial Design and Photography from Carnegie Mellon, USA, and a masters from the Royal College of Art, London. From the USA, Castellana is frequently asked to define what he does at Passport Control: ‘I've found that just putting designer means they say “What do you design?” and you can say furniture, or jewellery or sunglasses or something and that’s enough. Then they let you in.’

**Marcus Hirst** is Head of Design, and has been with the studio since 2002. Hirst has an undergraduate degree in Industrial Design Products from Sheffield Hallam, and a masters in Design Products from the Royal College of Art, London. Hirst defines what he does as: ‘I design stuff. Whether it’s a bag, a dress, a chair, a 30m sculpture, a step, a ring, all of this is just stuff.’

**Lucy Pengilley Gibb** is an architect within the studio, and joined in 2008. Gibb has an undergraduate degree in Architecture from the Bartlett School of

Architecture, a masters from the Royal College of Art, London and describes what she does as 'object-based architecture. It's about these pieces and how they fit into buildings.'

## **Appendix 11: Heatherwick Studio interviewee details**

**Mark Burrows** is Head of Making and has been with the studio since 2008. With an Art Foundation and an HND and undergraduate degree in Sculpture from Brighton, Burrows explains: ‘I define what I do as the making domain.’

**Mat Cash** is a Group Leader, has been with the studio since 2006, and is a fully trained Architect, undertaking Part 1 at Liverpool and Parts 2 and 3 at Westminster. Cash describes himself as ‘a qualified architect and a group leader in the studio.’

**Amanda Goldsmith** is the Studio Systems Co-ordinator and has been with the studio since 2013. Goldsmith studied Landscape Architecture at UC Berkeley, USA. Looking after the studio’s non-digital systems, processes and procedures, Goldsmith defines what she does as ‘making order out of chaos.’

**Hugh Heatherwick** is an Associate, has been with the studio since it was founded, and is Thomas’ father. Having previously worked across education, community development, and organisation and professional development, with a particular interest in creativity (HKDI, 2015), Heatherwick defines himself as: ‘an Associate with a responsibility for the studio as an organisation and professional development...I’m not trained in design.’

**Thomas Heatherwick** is Founder and Design Director of the studio. Heatherwick’s educational background includes a Diploma in Art and Design, an undergraduate degree in Three Dimensional Design from Manchester Metropolitan University and a masters from the Royal College of Art, London. Heatherwick identifies himself more with entrepreneurs: ‘I’m far more interested in speaking with entrepreneurs than I am other designer’ (Cheshire, 2013, p. 96).

**Neil Hubbard** has been a Designer within the studio since 2005. Hubbard’s educational experience includes an Art Foundation, and an undergraduate

degree in Design from Goldsmiths, London. When asked to define himself, Hubbard says 'I'm a building or a bus or a bridge or a handbag designer.'

**Fred Manson O.B.E** is an Associate and has been with the studio since 2004. Manson studied Architecture at the Architectural Association, spent eighteen years in the public sector as an architect and then fifteen years in local government. Officially retired, Manson views his role within the studio as one of advising and coaching, and when asked to define himself, answers 'when I come through customs I say I'm a retired local government officer ... or I say an architect.'

**Alice O'Hanlon** has been Archivist within the studio since 2012. O'Hanlon's education experience includes an Art Foundation, an undergraduate degree in English from University College London, a masters in Fine Art from Camberwell, and a masters in Archives and Records Management from University College London. O'Hanlon defines herself as 'an Archivist' or 'I work at this studio and these are the sorts of projects we do and these are the sorts of people that work here.'

## **Appendix 12: Jason Bruges interviewee details**

**Jason Bruges** is founder of the studio and Creative Director, with an undergraduate degree in Architecture from Oxford Brookes University, and a masters from the Bartlett School of Architecture, London. Defining what he does, Bruges says ‘architect-trained artist working on site-specific installations’ or ‘Creative Technologist’ (One Minute Wonder, n.d.).

**Anam Hasan** is a Visualiser within the studio. Joining in 2013, Hasan has a undergraduate degree in Architecture from Greenwich University and a masters in Architecture from Westminster University, and defines her role as ‘taking concepts and ideas and generating images, visuals and animations.’

**Jing Liu** is Designer and Project Lead and has been with the studio since 2012. Liu has an undergraduate degree in Architecture from Beijing and masters in Architecture from the Bartlett School of Architecture, London. Liu defines what she does as ‘public artwork interactive installation designer’ or ‘spatial architectural designer focussing on the relationship between people and space.’

**Martin Robinson** is Production Manager and has been with the studio since 2012. Robinson has an undergraduate degree in Fine Art from Brighton, and a masters in Photography from Central Saint Martins, as well as an apprenticeship in computer network engineering. Robinson defines what he does as ‘Production Manger for interactive art that is architecturally led.’

**Andrew Walker** is Designer and Project Lead, and joined the studio four months ago. Walker has an undergraduate degree in Architecture from a hybrid course between Manchester University and Manchester Metropolitan University and a masters in Architecture from the Bartlett School of Architecture, London. When asked to define what he does, Walker says ‘I work in interactive architecture’, explaining ‘rather than say I am something, I say I do something.’



## **Appendix 13: Punchdrunk interviewee details**

**Felix Barrett** is Artistic Director. With an undergraduate degree in Drama from Exeter University, Barrett founded Punchdrunk after graduation and defines himself as a 'theatre director'.

**Peter Higgin** is Director of Enrichment, co-founder of the studio and also has an undergraduate degree in Drama from Exeter. Higgin describes himself as 'Creative Producer for a rather strange theatre company' because 'Enrichment Director prompts quite a lot of questions'.

**Julie Landau** is a freelance designer. With an undergraduate degree in Theatre Design for Performance from Central Saint Martins, London, Landau works across a range of disciplines, from traditional theatre to visual merchandising. When asked how she defines herself, Landau replies 'I just say designer'.

**Alex Rowse** is Enrichment Producer and joined the studio in 2013. Rowse has an Art Foundation from Central Saint Martins and a undergraduate degree in English Literature from Goldsmiths.

**Livi Vaughan** is Senior Designer and has been with the studio since 2006. As well as an Art Foundation, Vaughan also has an undergraduate degree in Theatre Design for Performance from Central St Martins, and joined Punchdrunk as an volunteer.

## **Appendix 14: Assemble interviewee details**

**Assemble** - As a collective, every member has the role of Director. Twelve members have undergraduate degrees (Part 1s , Part 2s) in Architecture from the same year group at University of Cambridge. Remaining members have varied backgrounds, including: history and politics; running a framers market; working as a court clerk (Higgins, 2015), and working as a builder and technician (Wainwright, 2015). Asked to define what they do, members answer:

‘After the Turner Prize we had quite a big conversation about it, because there was a lot of press asking ‘what are you guys, are you artists, designers?’ We had this big lunchtime discussion with everyone going round asking how do you describe Assemble, and the most popular one was what it says on the website – A collective who work across Design, Art and Architecture.’

‘It’s always difficult because we have had it hammered into us that architect is our title, so it’s kind of awkward. It’s more natural to describe ourselves as part of a collective. I give a kind of vague answer that is I am part of a collective that design things and make things.’

‘It also depends on what kind of relationship you want to establish with that person. People react differently when you say you are an artist or designer.’

‘I think the easiest way to describe what we do is through the work, and so we talk about the projects that we’ve worked on.’

‘I say that I’m a builder.’

‘I’m finding it really awkward recently. I just end up doing an awkward pause. It depends on how I feel each day – ‘oh, well, today I build children’s playgrounds’.’





# **Beyond Discipline: Positioning Design Practice and Education for the Twenty-first Century**

**LARA LISA FURNISS**

A thesis submitted in partial fulfilment of the requirements of  
Birmingham City University  
for the degree of Doctor of Philosophy

October 2019

Faculty of Arts, Design and Media

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VOLUME II of II



## **Appendices continued in Volume II**

### **Appendix 15: Beyond Discipline report interview transcripts ..... p.1**

Ron Arad.....	p.1
Zeev Aram.....	p.10
Haidee Bell.....	p.19
Helen Charman .....	p.29
Daniel Charny.....	p.40
Nick Couch.....	p.56
Deborah Dawton .....	p.65
Thomas Heatherwick .....	p.80
Nat Hunter.....	p.85
Tim Lindsay .....	p.98
Lynda Relph-Knight .....	p.107
Gareth Williams.....	p.121

### **Appendix 16: Practitioner interview transcripts ..... p.130**

16.1 Ron Arad Associates .....	p.130
Ron Arad.....	p.130
Asa Bruno .....	p.140
Michael Castellana .....	p.149
Marcus Hirst.....	p.159
Lucy Pengilley Gibb .....	p.170
Caroline Thorman .....	p.186
16.2 Heatherwick Studio .....	p.192
Mark Burrows.....	p.192
Mat Cash.....	p.206
Amanda Goldsmith .....	p.215
Hugh Heatherwick .....	p.229
Thomas Heatherwick .....	p.238
Neil Hubbard.....	p.244
Fred Manson.....	p.255
Alice O'Hanlon.....	p.269
16.3 Jason Bruges Studio .....	p.282
Jason Bruges.....	p.282
Anam Hasan .....	p.291
Jing Liu .....	p.299
Martin Robinson .....	p.310
Andrew Walker.....	p.320
16.4 Punchdrunk .....	p.336
Felix Barrett.....	p.336
Pete Higgin and Alex Rowse .....	p.349
Julie Landau .....	p.364
Livi Vaughan.....	p.374

16.5 Assemble .....	p.381
Maria Lisogorskaya .....	p.381
Collective interview with eight studio members.....	p.392
<b>Appendix 17: Beyond Discipline Symposium transcript.....</b>	<b>p.405</b>



## Appendix 15: Beyond Discipline report transcripts

**Interviewee:** Ron Arad (RA) – Ron Arad Associates; Former Head of Design Products at the Royal College of Art  
**Interviewer:** Lara Furniss (LF)  
**Date:** 12.12.14  
**Location:** Ron Arad Associates, London

### Notes:

LF

I've been working as a designer for 20 years, across various disciplines, and then started to teach undergraduate education five years ago. Looking for courses to teach on, I was surprised how narrow undergraduate education had become, when, from my experience since 2000, more designers were starting to follow your way of working fluidly crossing disciplines. So that's what got me started. I'm interested in looking at these design studios who cross disciplines, to see what they do and how they do it, to then explore the implications for uni-disciplinary undergraduate education. I want to explore whether it's still relevant or now out dated.

RA

You must have some questions. Let's have them.

LF

What's most interesting about you and your studio, for this research, is that many of the people I've interviewed so far believe that the designers who are crossing disciplines now have either been taught by you, or inspired by you. So you've been a key thread of inspiration for this change.

So what I'd first like to ask is what changes have you seen in the design community? Have you noticed a change in the last ten years or so in terms of how other designers are working?

RA

First of all, when people talk about crossing over, with me in a big way it's the other direction. Not going from being industrial designer to do artwork. I grew up in the art world, and then almost by chance I found myself in this furniture business, furniture world. I did study architecture, but I studied architecture at a time in London at the AA when there was no building being built. That made room for funny types of conceptual architecture. And the outcome of a good architectural project was never a building it was always a piece of paper with the relevant available technique of the time. When I joined the AA the air brushers were the masters, before computers took over and now you don't need airbrushing any more. There's amazing renderings and simulations that you find now. So I was lucky when I chose what to do in London and the AA looked at that time more like what I imagined an art school to look like than the Slade, say. And the proof is that they offered me a place without any sort of portfolio. I cockily turned up and it's a famous story. They asked 'Can I see your portfolio?' and I said 'No, but I have my 6B pencils here.' Which some of them loved, some of them detested, they had a big argument after I left and they decided to give me a place. So I was sort of lucky with the timing, the tail end, beginning of the 70s, which is where the 60s really happened. When I graduated, I was just getting away with not training myself to be an employable architect, although I did have my fair share, I did try. I had to invent my profession, I didn't know what it was. My first sort of piece was the Rover chair that I started one

afternoon as I walked away from my employment, not very far from here. I just didn't come back one lunchtime. I went to this scrap yard to carry out an idea that I had for a while to... I did my thesis at the AA about readymades in art. When I did the Rover chair it was more to do with readymades than it was to do furniture. I didn't know how much it had to do with people like Prouve, that I adored, but he had a chair which... he copied me before I was born, you see? There's a Prouve chair, do you know it, that looks a bit like the Rover chair. It doesn't have, it's not from a car, and it doesn't exist, I asked his daughter and no one's seen it, there's just one photograph of it. Anyway, that chair sort of changed me, endorsed by Friends of the Earth because of recycling. But, yeah, recycling was there but that wasn't the main reason for it. I thought I was talking to Picasso's Toro that's made out of a bicycle seat and handlebar, I thought I was talking to Duchamp's ready made, I didn't think I was talking to furniture. But somehow I was sucked into this furniture world, and I can blame Vitra, Rolf Fehlbaum. I saw an article about Rolf Fehlbaum. There was a picture of this piece, and the caption under the picture was 'Ron Arad is one of the most interesting designers to come from London.' I didn't know I was a designer then. And it was like full of accidents and of coincidences. The Pompidou Centre to celebrate the 10<sup>th</sup> anniversary decided to invite people that represent different genres of the design world and I was the youngest person there. I represented for them 'ruinism'. I'm not surprised because of post- punk design, but I come from a privileged background and I was not angry. But when I chipped concrete, when I played with a concrete stereo it was to make a beautiful object, not to advocate destruction. People's interpretations are up to then I can't take issues with it. So I did this exhibition piece and I invited the Parisians to bring their chairs and become part of it. Then, in the art world, Documenta decided to invite me to participate in Documenta 8, I think. And all these things happened because people think that what you do suits their information and their intellectual world. So, sometimes it helps and sometimes it doesn't. What happened later was the people wanted to know 'What are you? Are you an artist? Are you an architect? Are you a designer?' I never thought I had to declare loyalty to any of the clubs. My show at MoMA (2009) called 'No Discipline' is partly to do with that.

LF

Yes, you had the best title that I could possibly want for my PhD.

RA

You can use it. You can have it. I was very lucky as well because I did manage to survive in what I enjoy doing. So, for me there was never the question of crossing boundaries. I took part in a conference in the museum that I designed in Holon, on the subject 'Crossing Boundaries' and there were different people presenting. It was like a roundup everyone said before the conference started, and I said that I think the more we talk about crossing boundaries the more you reinforce the boundaries. I don't see the boundaries and I think there's no room for debate. I think it should stop here. And the moderator she got scared and said 'OK,' and that was the end, it was a whole long day of... people were relieved of course. Like other conferences things get over time and then accumulate delays, and everyone was hungry. And I came up with the idea of 'Let's not have it, it's counter-productive' and that's the way I feel. I know all that. If I paint the Mona Lisa today or tomorrow, it will be 'Designed by,' not 'Painted by'. I have to live with that, whatever I do. I'll dance, it will be 'Designed by.' It used to bother me more than it bothers me now.

LF

I think clearly that's rubbing off on other designers, because there are more and more studios, not across the board, but there are more in this country who have the same

approach and the same attitude. In their own way they're moving into whatever areas they're interested in, and they're not being defined.

RA

The best thing that happened recently is that when I was on the cover of Wired magazine they asked me to nominate some interesting young designers – Paul Cockshedge, Raw Edges, El Ultimo Grito – and Troika – do you know Troika? – and it really cheered me up that Troika refused. They said 'We are artists, we don't want to be interviewed in a design context, as much as we love Ron.'

LF

Interesting.

RA

It really cheered me up.

LF

They're in a book called 'Twenty One Designers for Twenty First Century Britain', they agreed to be in that in the end.

RA

Yes, look, I make the story slightly better than it is. They sent them a questionnaire that they didn't like.

LF

The author who wrote 'Twenty One Designers for Twenty First Century Britain', Gareth Williams, ...

RA

Yes, I employed him for a while.

LF

Well, he's my second supervisor on my PhD.

RA

He also curated my second show at the V&A called 'Creativity.'

LF

I've interviewed him as part of this as well. Most of the 21 designers in his book were either all taught by you or have referenced being inspired by you.

RA

And now I'm sure you know they're trying to... the Royal College of Art is not the same.

I had a meeting with students one Sunday morning in a pub in Belsize Park and they said 'What are we going to do? This is not the course we joined.' I see the period that I was there as a good period for the college but they're trying to sort of get rid of all the traces, and I won't be surprised if they... I invented the name Design Products, because I didn't want to call it Product Design... because everything is a product of design, everything was designed, everything is designed. Anyway. And I'm sure they'll change the name back to Industrial Design. To me it's a sad time for the college but maybe I'm wrong.

LF

I hope so. It seems like what you think is happening with the Royal College of Art in terms of the financial issues, bureaucracy, is happening even more intensely in the undergraduate university design school system.

RA

I was lucky that the course at the Royal College was a postgraduate course, so it wasn't my obligation to give them clues about that, just to help them find out what they want to do.

LF

Marcus spent an hour and a half talking to me last time I was here, and he explained in more detail what you designed and this platform system at the Royal College of Art and how you could rotate.

RA

I copied the AA.

LF

Is that where it came from?

RA

Did you see the bit in Blueprint that they wrote about the Royal College? In the one but last they have a column called 'Listen' or something like that.

LF

I need to check. I have got a Blueprint article in here but I don't know if it talks more about the college setup.

RA

It was more about design education.

LF

Is it the one where you're talking about the economy and bureaucracy and the Royal College is under threat?

RA

Yes. I explained that when I came to the AA, it was a very pluralist place, and it didn't have the AA manifesto, it had lots of things, and lots of contradiction. And they all lived happily in this very creative place. So I tried to do the same at the Royal College and I even gave platforms to people that I wasn't really too enthusiastic about what they do. But I had to accept they have made a mark, they have followed it, and we should let them have a platform. And it's hard for people to choose who they want to work with.

LF

It sounds from hearing about it more quite similar to the Masters programme I did in Chicago at the School of the Art Institute. Different artists and designers would stand up and present and you went round and chose who you were interested in and you could mix and match and it really didn't matter where you went.

RA

The most important date or event in the academic year was choosing the new students. And then we followed it with common projects or people getting to do something. Then, two weeks into the course all the tutors presented what they were

about, and people chose and there was always the case where there were too many subscribers to one tutor, and not enough to another, a bit of a market place. But normally the idea was not to force anyone to be where they didn't want to be. So sometimes we had to carry a platform that was under-subscribed. On the following year they did better in the presentation or something or other. I believe it was a happy time.

LF

Do you think that system you designed could be applied to undergraduate education?

RA

All I know is that if you are a musician, by the age of 18 you can play a violin damn well before you go to the Guildhall or the Royal Academy of Music. And in design education it's accepted that they come knowing nothing. You ask them 'So who's your favourite designer?' in graduate courses. Why do we accept that it's OK to go and not know anything? But I think there are very good examples of very progressive liberal pluralistic open-minded places, I can't give you a list, but I know that they exist.

LF

At undergraduate level?

RA

Yes.

LF

Are they in this country?

RA

I know that in the 12 years I was at the College you tend to sense that there are lots of strong candidates from Holland. OK, then you learn it's all wannabe Droog design, and it's all so Dutch, but still. There were a couple of years that people from Valencia were good. Other years there were people from the academy in Jerusalem were very strong. And yes there were some UK courses, Sheffield's a good place.

LF

That's where Marcus is from, isn't it.

RA

Yes. Him and Paul Cocksedge I think, and other people. What's going on there, let's check it out.

LF

When I was talking to Marcus he said that he's been back to Sheffield a few times now to see the degree shows and feels that the work that he's looking at is becoming more and more specialised. And the workshop that he used, that open workshop making approach, isn't the same any more. When I was having the conversation with him he was questioning why is it becoming more narrow and less hands-on and about making there as well.

RA

Maybe it's too easy to stand back and judge trends. I rely, here in the studio, on people that are native digitals or digital natives, I rely on them. They do things that I can't do. Marcus is one of them. But actually Marcus finished the course at the Royal College not being at all a computer guy, it all happened here, so he can do it. And

now we are going to advertise for a specific job here, and we do want someone that is specialised. I don't want them for their ideas! Well maybe that as well. So maybe they are absolutely right to get rid of my project, who knows?

Who does Dyson employ? He's not into artists, or people with artistic aspirations. He wants people that can model and cost.

Thinking optimistically, maybe in ten years time you look back and there is actually the period after me that produces... I don't know. If anyone tells you they know, tells you a lie. No one knows. The biggest problem is what do we teach? The world changes and needs change and technology changes and the use of language and books changes and the thumb becomes the most important digit. It wasn't like that before. A young boy would ring the doorbell like this, not like this. I don't know. At the end of the day I'm living as an individual, not in trends, not in French design or Dutch or British design.

I know what I wanted to show you... (Hands me an ipad). It was signed by Jony Ives, he scratched his signature there. The screen is cracked and with Apple if you give it to them they will recycle and destroy it, I don't know what should I do?

LF  
I would keep it.

RA  
I showed him earlier the iPad design. Did you see it?

LF  
No.

RA  
This was 2002, we designed this for LG. We did a little commercial, which is exactly me and my iPad now, this is before iPhones (RA shows me computer animation of their pitch for the future iPad).

LF  
So when was this again?

RA  
2002, but LG didn't understand what I wanted from them.

LF  
What I'm planning to do over the next year is to go into a small number of studios, from more established to new young start-ups who work without being driven by disciplinary boundary.

RA  
Who?

LF  
Well Thomas Heatherwick for one.

RA  
He broke the barriers of disciplines, now he's into fundraising.

LF

So, he's the largest possibly and I've already talked to Thomas once. And then Barber Osgerby possibly is another one. They're interesting again because of the size of the studio, the fact that there are three studios, almost separate but doing the same thing. I'm really interested in Participle that Hilary Cottam set up which is basically a mixture of social scientists and graphic designers who are coming up with new social ideas for dealing with elderly issues, and anger in the NHS system. I'm really interested in Punchdrunk. Not because of the theatre they're producing, but because of what they're doing educationally - taking the process that they've developed and how they've developed their immersive experiences applying it to primary school education, and transforming literacy levels in primary school children, it's incredible. There are so many interesting studios, taking unusual approaches. So I'm hoping to go into a few of these over a few visits and to talk across the board a selection.

RA

How about El Ultimo Grito?

LF

Yes, I love El Ultimo Grito, they're also on my list.

RA

Do you have his phone number?

LF

No I don't. I love what they say, they describe themselves as post-disciplinary. But what's fascinating is they're also still winning prestigious design medals so you could say they're very experimental, artistic in their approach, and yet they're winning conventional awards.

RA

My contribution to the design scene in London, apart from the Royal College, is that when as a recipient of the London Festival gold medal you are on the selecting panel for next year. So you get an email asking me to nominate. So I nominated El Ultimo Grito, and Jane ní Dhulchaointigh who created Sugru. She comes from an art school and she became a business enterprise. So I nominated her to be the Design Entrepreneur of the Year and El Ultimo Grito for the design gold medal. The selection was going to happen on the Monday in some hotel. On the Friday I get the list and information about all the nominees, and my nominees are not there. So I call the organiser Ben Evans, 'Hi Ben, I don't think I'm coming on Monday because my nominees are not there.' 'Oh no, don't worry Ron, they'll be there.' And indeed. They had all the usual suspects there, that they give the gold medal too as it is a PR thing for the London Design Festival. They give it to Zaha, to this and that. And names like Anish Kapoor. I said 'Why Anish now? Is it because of what he did for the Olympic Design? Why did he do the London design? Does anyone like it? Can we take his name off the list?' Because it was not a good design. Anyway I talked about El Ultimo Grito and I described what they do and one of the people on the panel was a representative of the sponsor and he says 'I don't know the work but I like what Ron said.' And then there was this secret ballot and they won. OK, big shock to the system, but 'should we vote for a runner up in case they can't make it?' And I said: 'Don't worry, they will make it.' And I don't think I was forgiven for spoiling it. So, if you want to send a message to new designers to take risks, not that they're not financially successful yet, there isn't a better example than El Ultimo Grito. By the way, Roberto was interviewed for the job at the Royal College of Art but they gave it to this woman, Sharon Something-or-other. And he was thanked in a letter for coming to the interview but they wanted someone with a more academic background

than him. That's not what they advertised. What they advertised for people with reputation in the industry. He got a really good with Goldsmiths now. His name is Roberto Feo, number is ... (RA gives Roberto's number).

LF

Thank you.

RA

So who else do you want? I think Jane would be very good, she came from... and the best speaker of them all would be Roland Lamb. I had the system that I had at the College with a mountain of portfolios and I asked all the tutors to help themselves to the pile and put aside the ones they wanted to interview. If some tutor wants to interview someone I'm not going to say 'No'. It left me with only having to look at the rejects. So I found a portfolio in the rejects, some guy called Roland Lamb, an American. And I understood why he wasn't picked up by anyone, because he wasn't a natural form giver. But something attracted me to his application. I started reading about him, he went to Summerhill. Do you know Summerhill? It was the first progressive school in England.

LF

Yes, I have heard about that as well.

RA

There was a Panorama about it. They teach more like Lord of the Flies, where you don't tell the children what's going on. So he went there, then Harvard, and his professor's recommendation was that Roland was the most rewarding student ever to teach. Then I Googled to see if it was true, and yes, he won the Library prize etc. We invited him for an interview and it was obvious that he was by far more eloquent and educated than all of us. He speaks Japanese, Chinese, Mandarin and Cantonese. He took a project that he was given at the college, with Yamaha, inventing a new musical instrument, and now he employs 60 people and his place is a long table and all the employees eat together when they get lunch. And he won the last Emerging Talent Design Medal at the London Design Festival. So, to complete the conversation, look at this.... (RA shows a text message on his phone from Thomas Heatherwick, congratulating him on Roland Lamb success). I didn't speak to Thomas Heatherwick at the awards he sends this. He doesn't know his name, but calls him the keyboard guy. Thomas was too busy fundraising for the Bridge. So he would be a good one to talk to. Do you want his number?

LF

Yes, please (RA gives Roland Lamb's phone number)

RA

You might want to talk to Paul Cocksedge, he's a very enterprising...

LF

Yes, he's in Gareth's book as well.

To conclude, I wanted to ask how you might feel about being involved in the more in-depth study? I intend going into different studios, visiting each three times over the period of a few months, to observe and interview a few members within each studio. Your studio would help to pin all the research together. It would be fabulous if Ron Arad Associates was part of that study.



RA

You're welcome. You can be a fly-on-the-wall here, and talk to anybody you want.

LF

That would be fabulous. It would be good to come in and get a sense of how things work.

RA

The thing to do is arrange it with Clodagh.

LF

It will be after Easter time, after I've accumulated the information from these initial interviews. That would be fantastic, thank you.

RA

Any more questions left?

LF

No, thank you. You've given me an awful lot and a lot of your time. I'll stop and leave you and you can get on with the conversation you need to have.

END

**Interviewee:** Zeev Aram (ZA) – Founder of Aram Store and  
The Aram Gallery  
**Interviewer:** Lara Furniss (LF)  
**Date:** 29.10.14  
**Location:** The Aram Store, London

**Notes:**

LF

I'm looking at what's been happening over the last ten years, where there seems to have been quite a dramatic change in the design world in the UK. More and more designers are becoming more fluid in what they're doing. I worked as a practitioner for 20 years and then the last five I've been in education and was surprised that undergraduate education is becoming more specific and narrow. Thomas Heatherwick is a good example, and I've managed to have a chat with him about it. When he talks about the one process that he's developed to do anything, my initial reaction is 'What is that process, can I take it and teach it, can that process solve any creative problem?'

ZA

You can't, you can't.

LF

No. But I started to ask these questions and I'm interested in exploring a few studios like Thomas's who are doing that sort of thing. Obviously we can't do what he does but I am interested to see if there are connections between these studios that we could take into education.

I'm initially conducting a series of interviews with key people in the design community, who play significant roles, to get their view on what's been happening over the last ten years and how it's impacted on them. And to hear their opinions about education. I came to hear you speak at the London Design Festival and I think you're instrumental in this because of the pioneering way you worked in a multi-disciplinary way early on.

ZA

How did you know?

LF

From reading your articles. And then from the designers that you've championed who are particularly cross-disciplinary like Heatherwick and Konstantin Grcic who are now inspiring another whole generation of designers. That's why I've come to you. I found your talk extremely inspiring to hear your whole background and to finally listen to someone who's been a true patron, not just of design, but of young designers and education. And to me it seems like people tend to be in one camp or the other. They're more committed to education or their more committed to design. But it seems to me that you're strongly rooted in both, which is quite unusual.

ZA

As you know I'm a qualified designer, I'm an unqualified business guy. That possibly shows through my attitude, attention, etc. The design group at my design office was formed just before the commercial side. The commercial side was simply a desire to be able to supply my future clients with products which were not available, which I knew were available on the continent, but not available here. So that was the only reason for me prompting to say 'OK, so I will not be purely a designer but I'll also

have a commercial side.’ And therefore it gave me a sort of a wider view of design. I like to use design with a small ‘d’ because it’s one of the most important things, as we know, we know that it touches every walk of life in every day we use it. And it’s a very important thing for the country. The thing is when you’re saying about ‘How come some designers do wider field and some don’t’ the same thing you can ask athletes. It all depends on talent and ability to understand what’s going on. And a guy like Thomas, he is not divided inside into segments, it’s just one of these things. And you can ask any creative good designer, by good I mean in that sense not getting lots of money but is creatively well-grounded, you can ask anyone ‘How come you can do this and that at the same time?’ And he’ll just look at you in surprise and say ‘What’s the difference?’ I did furniture, industrial and interior design and then I was given a project to design electronic equipment, at that time we’re talking about 45 years ago, I had no clue. I had no clue, but because I had no clue, I also didn’t have any inhibitions. I didn’t have any conditioning ‘Oh no, I can’t do that I’ve done that and that doesn’t work, I will do it this way.’ I approached it completely in a sort of creative ignorance. There are so many examples when we just say ‘How do we eat this bit of food?’ and then slowly you apply yourself and there is no magic bullet, I promise you. There’s no such thing. I know designers. None of them have got a sort of sudden thing going out from their head saying ‘Here, I can do wonderful architecture, I can do wonderful graphics and wonderful product.’ No, it’s very much in their makeup and it all adds up to a talent. These guys are doing completely opposite things in sport. The cyclists are doing more the cycling, so there are the students who are just concentrating on this narrow thing. But the other guys are swimming, running and cycling and shooting. How come? The muscles are not quite organised, the brain is differently organised. Talent, and of course, ability.

LF

So, what sorts of changes do you think you’ve seen happening in the last ten years in the design world?

ZA

Well, to my mind the biggest change which makes designers’ lives easy and difficult at the same time, is the electronic introduction of computerised drawing, and the 3d printing. And to think that because of this availability it makes life easy... I can tell you sometimes I want to change some text that we wrote and I say ‘increase the size and change this to heavier weight in the letter’ and it’s done instantly. Whereas when I remember in my design office when I did the same thing it would take another two hours to put letters – and you know what Letraset is? – or to do with the templates which you used to run around with the pen, it took an hour or two hours. And now it’s not even two minutes. So that makes life easy. At the same time if you can leave a programme on your 3d printer and go home and next day you come in and you find the model, it’s all there, very intricate which a model maker will take 3 months to do, this makes life easy for the designer. The converse of this is that everybody else has got it. So suddenly if you want to shine with an idea you have to polish it much harder, because everybody has got it so everybody can do it. And if everybody can do it how can you stand out from everybody? By talent. By creating something original, creative and talented, and interesting. And that’s where the quality comes in. And in the last ten years it’s developed horrendously fast. When one guy does wooden frame shelving, within three weeks not only all the country knows about it and can do it, but all the continent can do it. So whoever does the best wooden shelving is the one who’s going to shine. All the others are also-rans. At the moment the world hasn’t changed, only the peripheral assistance for your work has changed. Much easier. But as I said paradoxically it makes life much harder at the same time. You know the saying ‘In the land of the blind the one eyed child is the king?’ It defines everything.

LF

I designed a theatre production of that, HG Wells' short story, 'The Country of the Blind'. So that's interesting, you think it's not so much the people who are changing, it's the technology around them. It's not so much that there's more talent suddenly with people crossing disciplines, but it's the tools around them are enabling them to do that. But just because they have the tools, it doesn't mean they're going to become a Thomas Heatherwick, because at the core is the talent that they need.

ZA

The proof is there are not many Thomas Heatherwicks around and yet they all have these facilities.

LF

Yes, you need that combination of tools and talent. So my next question was asking about this change and the positives and negatives. You've already addressed that. Both the positives of technology but then also the negatives at the same time making it harder in a way.

ZA

The trouble is because there are so many design colleges. Do you know how many design colleges are in UK?

LF

A hundred?

ZA

Yes, well over 100. I used to visit 50-60 in the summer, year after year and afterwards I gave up. A. the quality of the intake of the students, and more importantly B. the quality of the teachers. This guy who graduated last year, today he's teaching, come on! That's the tragedy. And we produce wonderful, wonderful designers. There are some other very good ones, apart from Thomas. But more importantly we export our design talent abroad, and I can name you several, and then – even in my company – we import their design from manufacturers abroad to back here. Now if this is not absurd I don't know what is, and I don't know what the gentlemen in the DTI or whatever *they* are called, the industrial ministers or whatever, why don't they encourage industry to pick up this talent and do it. They now start, because it's fashionable to do it, in the electronic industry. So you've got Silicon, very nice, good. Compete with California, wonderful. But we have got very good talented industrial designers, they go abroad! They go abroad and become famous and then we import their stuff. In my mind this is a shame. But going back to the first point, numerically there are too many designers. Therefore we've got this plethora. Although I think, by the way, architecture and design education is the best for a young man or woman. Somebody who studied architecture, never mind if he'll never build a building in his life, but he'll be well prepared for life as an education background. It gives you a wonderful platform to develop, because it touches so many things, all sorts of other things. If you go to study geography or law or history you're only in that segment. But design and architecture is so wide with almost conflicting things which the guy has to study. So, my point is that I think design is a natural resource and you have to nurture it, teach it well, develop it, and give it facility, credit, air to breathe. But if there are so many who are rushing after every little bit, and if you go round the London Design Week, yes there are here or there a few interesting bits, but it's pathetic, it's a shame. And then you see the foreign guys coming in and you see all the foreign guys getting the British designer jobs, that makes me very angry.

LF

Do you think it's just because of the quantity of the designers who are going through now or do you think the way that it's being taught?

ZA

I won't go into the way it's being taught, all I remember is the way I was taught. And all I know is if you've got too many colleges, and the teacher body is depleted so the good teachers are very few and far between, and in between there are lots of others...take red wine, if you pour too much water in it, it becomes red water and not wine anymore. I have full respect for design teachers, it's not their fault, especially the ones who are not successful designers, and they take the easier way because there is a lack of teachers so they go and teach. Now tell me. An unsuccessful designer, how can he teach young guys to be developing...I had the best teacher in the world in the form of William Turnbull who was an artist. Because he didn't say 'I want you to do chairs or tables', he said 'just look at the world, look at the colour, look at the shape, look at the proportion, and do details.' And we did that, and that was important to get from a teacher. Not the focus on preparing a portfolio and so on, and sending it by email. The whole thing becomes very easy. But in the end it becomes slightly paradoxically difficult.

LF

From the students that you're still championing and exhibiting here in your gallery, you were saying you've got seven or eight at the moment, working here, are there any schools in particular that keep popping up that the students you're drawn to are from?

ZA

I wouldn't like to nominate, because a) it's varied, and b) it's unfair. Because don't forget one thing. Like a university education of which you are one of the products they look back and say 'That was a good year.' Why was it a good year? 1974, that was a good year because the products of that year you can see them flourishing and also the tutors of that year they were good.

LF

A sort of magic when things come together more than anything else?

ZA

That's what makes it a good year.

ZA

The college is almost like a platform, a container, for enabling this to happen.

LF

If you decided you wanted to put an undergraduate course together, with all of the experience you've had, are there key things that you think are most important for a designer?

ZA

I'll reply to you in...I was asked recently what would you advise a young designer, which is not unrelated. I wouldn't put it in an academic form. I was saying first of all, study the past, what went on. And then look around, just look and observe. To look is one thing, but to see what you're looking at is another thing. So if you study the past and you look around you, you observe what's going on, and then you stop and you've got something in your mind, let it incubate, let it develop. Because from there something may come out, and don't rush it, take your time. The trouble is that

now, we rush through things. Like in a train not looking out of the window, on a bus you just look at the screen and say 'Are we there already?' 'Yes, we are', 'Lovely.' So you know nothing about the trip, and the trip is very important to my mind anyway. Because to look out of the window and observe, that's exactly what I'm talking about looking around and observing what's going on. And if you take your time, hopefully...and not to be afraid of mistakes. Mistakes are the best tutors in the world, because you made the mistake, you learn from it. Somebody cannot tell you 'Come I'll tell you an experience.' There's no such thing. Putting it very simplistically, experience has to be gained by experience. So take it on board. And also don't rush for fame. Because what you have is that everybody wants to be on emails, on the screen, on the printer, whatever. If you're shining, they will find you. Not to worry. But if you rush after it, nothing. So to my mind that's what I would give to students to start with. I would formally ask them the first week to go out and make sketches of what they saw which they think is something most valuable they've seen in the last few days. No clicking (photographing), just sketch. It doesn't matter if the drawing is not so good, what motivated the drawing is the important thing. That they saw something and it really meant something, that leads you to really, not only look, but really observe – even if it's a wall of bricks.

LF

That's great. We have some beautiful old sketchbooks from the 1950s when the Theatre course which I'm a part of first started, and obviously there were no photocopiers, there were cameras but the students didn't go round taking photographs. So these books are just absolutely beautiful. Everything is by hand and they're obviously recording all their thoughts, drawing it all down, going out, anything they see around them. They might find a tiny brick detail for inspiration for a piece of detail in a set. And I show those to the new students just when they come in and they've never seen anything like it, they're absolutely captivated. It's a foreign language they can't even imagine simply only drawing, and not relying on any kind of electronic machinery to do the looking for them and the recording for them.

ZA

It's very nice to take out your mobile click...click...click. And they tell you how many pixels you have and how fast. That's the curse, it's the negative side. I have got another bugbear on colleges and that maybe unfair, but they became a financial institute. I mean it's incredible. You're getting subsidies, you're getting paid taxpayers money, and yet to work hard, to make money, to be able to be a college...so close ten. Instead of closing one hospital, close 20 design colleges. Because at least the others will survive and won't be so needy and be able to get better teachers and better facilities and so on.

LF

That might be the only way to do it. At the moment, and this is part of what's driving me looking at this, I just see over the last two years of the fees coming in, and the students reaction and the concern, a) they don't want to do a Foundation which is so enriching for them, because it's an extra year they're worried about, and b) how many more will continue to do the Masters.

ZA

They have to have the wherewithal. And then suddenly... I'm all for the world population, I've nothing against them...but when the LSE relies only on the incoming students from abroad...that's terrible.

It used to be tradition, a very positive tradition in England...I am the product of it when they would take in happily foreign students because it will serve them well

afterwards in relationship, they'll absorb the positive English spirit. I came here for three years, I'm here after 55 years so it's not too bad. It will pay dividends eventually. So there was encouragement for students to come. But it wasn't for the money it was for an entirely different reason, a much more commendable reason. I was actually surprised also the fees which I was paying even at that time was a pittance. And if I would have applied to the LCC they would have helped me to sustain myself but luckily I managed for a while. Difficult.

LF

The last thing really is looking to the future. I'm interested in where you think design is going? You seem a very positive person with design and always have been, but how do you feel about the future of design at the moment tied to education?

ZA

They're two different things. Design education and design in the future, it's difficult because I'm not a clairvoyant. But you see the thing is, again quantitatively they'll be all there. Quality-wise I'm not so sure. We're celebrating now our jubilee year, 50 years. So for 50 years I'm going every year to fairs, Milan, Cologne, Paris and so on. There is more of the middle, sort of not-bad not-good, sort of mediocre but passable. There's no such thing as a chair like that nowadays to find (a modernist chair in the office). But even well-known designers, I won't name any names, suffer because manufacturers are so demanding that they themselves cannot regenerate in themselves. It's not cookery, you put in the ingredients and out comes the cake. And now you want chocolate, and now honey. So all you do is change the ingredients. The trouble is that these people who are good designers in Italy, Germany, Switzerland, here, they cannot come up with the goods. I mean the 'good' goods. Quality goods. The goods which we always say 'Mmm, that was something significant.' So none of them are bad... Listen in the first year or two when I went to Cologne – it's an enormous exhibition – and I was passing up and down and taking the stairs, and nothing was there. Nothing to my mind. There was big business there, everybody was buying and selling I don't know what. Now the standard is much better, much, much better. Whether it has got any highlights? That's a very big question and therefore troubling me. What's troubling me is I took part in a discussion three years ago and I was just saying 'What I don't see is manufacturers, because they are so also tight on their budget, turnover, profit, they have to do new things. And they don't care if the moment they show it, it's already *passé* and it won't sell anything, but it made the press, paid for the publicity and promotion of it, it becomes terribly commercial. I'm in this business so I cannot see anything fantastic happening because nothing is happening. We have students here, we just finished Future Stars? We'll it's a big question mark because Ellie wanted to make a small question mark, and I said 'Make a BIG question mark!' I'm willing it, yes, but you can will it but if it's not there, it's not there. And that's what worries me about the future of design, it will be all beige. Not bad, not good, not highlights, not exciting, not drama, not big or small, just beige. The manufacturers will keep on pressing these designers 'There must be a new one, a new thing!' and the guys say 'Yes, yes'. I like designers who say 'No, I don't want to do that job, thank you.' Very few of them have the courage to say that. Not that they can't do it, but they don't want to do it. It's like ploughing a field, how many times can you grow the wheat on the same patch, unless you let it rest, fertilise it, let the rain come etc. etc. and then start getting the crop going. This is similar.

LF

The studios that are popping up in the research are taking time out, a portion of their time, for experimentation, nurturing, research and development, practice in their workshop. And their whole schedule is not just about churning over and doing it again. I thought that was nothing like the world I worked in ten years ago, I didn't know anybody doing that.

ZA

Yes, that's the pleasing time. The incubation time. The time when things ferment. Yes, it's very commendable. But these are not start-ups. They're ones who already have income. But attitude is important, and actually you can start on a piece of bread. It's not the wealth that is important. It's about what you are doing and you need to understand that creativity is not something you find by just opening a computer.

LF

It feels as if there is this positive thread to follow.

ZA

Yes, do it and let me know where you get to.

LF

They are more socially aware, wanting to work on social issues, not just things that glitter. Nurturing themselves seems to be a key part of it, and not letting the financial side of it drive what they're working on.

ZA

By the way, how did you like our anniversary library here?

LF

I love your library. I've been there for an hour. I thought I should have been there for three hours! I have written down loads of them, I'm going to pop back next time I'm here. They are fantastic books.

ZA

Any time, you're welcome.

LF

Do you know where you're going to leave it?

ZA

I won't mention it now, but I'll let you know because we've got a couple shortlisted, and the important thing for me is that it will be available to students. Because some of the books are quite interesting, and some are quite expensive too, especially to get them. Ellie did a fantastic job to get them, she went through all sorts of markets etc. and programmes, until she found it second-hand. To make it available and be kept together. Because librarians are funny animals, they've got certain ideas 'No this book should be going there, and this one there, and I would like to keep this and this in my study, because it shouldn't be given to the students.'

(When later editing the text, ZA tells me it is going to Central Saint Martins).

LF

In closing, my hope is to try and contribute in some way to help education.



ZA

Well I really wish you could, because that's the important thing, that's the nurturing time when they grow up. That's the time when you plant the seeds. We used to do this design graduate show, and every year I did it on purpose for industry, in September when all the captains are back after they had their summer holiday. We used to have it most of the month of September if not into the month of October. Central London of course. Every year we showed about 50, 60, 70 students' work so it was a big show. People came, and the CBI (Confederation of British Industry) they organised their members because they think special evening and drinks and canapés. They all came and it was 'Hi, hello David?' and 'How are you, Mike?'. Students on the other hand after the first year wrote postcards and letters to me saying 'Thank you for showing my work, I've got now a commission from Spain or Switzerland or wherever and I showed it to these people at the CBI and they said 'Well, what can we do?' and I said 'Just tell them that the purpose of this exercise...because they know.' There was a very good woman there, and I said 'So one year, two years, three years, my God! What's going on?' Meanwhile all these guys got commissions, sometimes good, sometimes bad, but here the industry just refused, or at least it didn't click, that it's a wonderful source here for them. I overheard some conversations which were almost mind-boggling. Two guys just talking about a third guy who opened a new paint factory, I remember because it stuck in my mind, and the guy – a student from Colchester – designs something to put in the standard three sizes for the paint tins, small, big and bigger, which you put on the top when you open the can, in plastic. A) it had a little cup where you can rest your brush when you want to do something and b) when they do that on the rim to remove the excess paint it used to dribble out, well this one guided it back into it. Now these two guys were talking and saying 'Listen, this would be ideal. We must get a card. Can I have a leaflet?' 'Yes, of course, read about it in the leaflet.' I never heard from any of them. And I didn't charge, neither students nor colleges nor anything. And we had a little leaflet with all the names of the students, their contact telephone and address, and what they showed, what colleges they came from, so they could get in touch with them. Nothing. That really brought home to me...I don't want to get frustrated. When I used to run around the country. So you can also teach lots of students what we talked about before - Design is important etc. etc. But if they don't hear the third time then they go abroad, or they get very mundane or boring, or they go teaching. There you have it.

(When editing the text, ZA highlights that the key point here is that UK industry did not pick it up, but foreign industry did).

LF

That's great, thank you very much.

ZA

So what are you designing?

LF

I did Interiors at Manchester then a Master of Fine Arts at the Art Institute in Chicago where I built large installations with projection that you walk through. Then I was asked by a theatre company to design for them so I started to design for them as a resident designer. I spent 15 years doing experimental theatre, mostly in America but some in London. I fell into museum exhibition design, and loved that, and then I've been at places like Imagination doing events and branding.

ZA

Do you know for example Pearson Lloyd? They are OK. Of course you know Barber Osgerby. And do you know Martino Gamper?

LF

The design author Gareth Williams is one of my supervisors and he wrote the book 'Twenty One Designers for Twenty First Century Britain' looking at a lot of the designers coming out of the Royal College of Art. There were a lot of product furniture designers, but many of those were crossing into a lot of different areas as well. So yes all of those I'm aware of, I really hope to go into Barber Osgerby as one of the studios that I study and watch. They seem very interesting as well.

ZA

I wish you luck.

LF

Thank you for your time, I really appreciate it. And I know you're busy downstairs with everything.

END

**Interviewee:** Haidee Bell (HB) – Head of Design Challenges at the Design Council  
**Interviewer:** Lara Furniss (LF)  
**Date:** 08.01.15  
**Location:** Design Council, London

**Notes:**

LF

I'm aware of the time constraints that you've all got so I don't want to take up too much of your time. So what I'm trying to look at is how design and the design process have evolved over the last ten years to then look at the implications for undergraduate education. So far I've been talking to key organisations, publications, authors and educators to get an overview. After this phase I'm going to go into five or six design studios to do in-depth studies to document how they're working, to see if there are common threads between them, and, finally, to explore the implications for education.

HB

That's really interesting. I'm interested to see what comes out of it.

LF

Well at the end of this initial interview phase my aim is send out a report to everyone who has been involved summarising the findings. So I'll send it to you, hopefully in April.

So, I am particularly interested in Design Challenges because the briefs that you've been setting are not the traditional design briefs that you would probably see in undergraduate education. It's fantastic to see how the briefs are taking design out of normal confines of the graphic designer doing the poster and the product designer doing the product. But what really struck me was that the people who are winning, and I think she said this applies particularly with the Knee High Design Challenges, are not actually formally design trained.

HB

No. So, the story of Design Challenges is that they've been going for about seven years, and they've always focussed on social issues. Most of them are focused on Health and Wellbeing in some form. Initially we used to run those more as a sort of open innovation challenge to a group of designers, largely all kinds of designers and entrepreneurs. The most recent of those was around reducing violence and aggression in accident & emergency departments, and again that was a fairly traditional challenge. And so what we got from that one was a series of solutions which were often product and service focussed. There was a service element but they were obviously, as you say, led by existing design school teams or emerging designers. So with the Knee High Design Challenges, I think for all sorts of reasons, we decided to go much more open, partly because you're closer to the issue. Design and ideas on how you solves problems comes from anywhere, and how do we support anyone to innovate on the back of that. And we started with about 200 pitches and that went down to 25, to around ten, to six, to now three teams that we're supporting. There have been designer/social innovators depending on how you'd define designers as such, I suppose people who've done some kind of design for social innovation in some form or another, within those teams. But in many cases there have been people who wouldn't even call themselves an entrepreneur or wouldn't ever have set themselves to make this a part of their life. They just saw a problem that they wanted to solve. So people who are mums struggling to solve challenges, they see as mums in

particular context and how they solve it themselves, and therefore others at the same time. So yeah there's been a real spread of solution finders rather than designers.

LF

So how does that work then if they come and they present their ideas and you start to work with them? Nat mentioned that they still use design thinking and design process. So do you bring in support in some way to help them develop that?

HB

Absolutely. In some cases I think they've not really used this process before, and essentially what we want them to do is to be proximal to the challenge at heart and that to be the thing that they bring. Depending on who the teams are we've made quite a bespoke programme for the challenges, where people have needed to learn a lot about the design approaches and methods we would use. Everything from the kind of user research and design research through prototyping, the whole design process we've supported them right through that and given them the right amount of support with their own groups. Group cohort sessions as well to up skill, if they've needed it. But I suppose the other thing about process is we've... the kind of methods that we're evolving through doing that, not just with Design Challenges but evolving through the Knee High programme in particular which are looking at what other skills are we needing to bring to them. Maybe it's useful to your study, which is one about... I think one of the things the Design Challenges team goes very deep into is user research and the scoping phase. With the creation of Knee High, we've spent more than six months getting very deep into understanding what the challenges are. And writing those design briefs. So doing lots of research, not like that's new but doing it really in a deep way. Training researchers on the ground to do it themselves and really going much deeper than I think is often common in any social design challenge to understand what the problem is at the heart. We've got a team relationship with Warwick Business School called the Behavioural Design Lab so we've been bringing in researchers, as in academic researchers, to support that process as well. Later on in the piece that kind of behavioural design capability, we try to make sure that's something they're growing and understanding some more. So how do people respond to these designs as they're being iterated in a kind of data gathering research sense as much as a more human sense, and how might we learn from that about the impact at scale of these innovations. So how a) can they start to tell their impact story at a very early stage, but also b) how do they change based on that, how do they use that to really inform the iteration process? They are components of a classical design process but I think we've gone quite a lot deeper in that. And because we're working with people who this is all new to there hasn't been a standard set of 'This is the way we work on our design process' so I think that's helped to open it out.

LF

Because it's perhaps new to them they have no hang-ups in terms of how they expect the process to work, so they're much more open to it as well. But it allows them to go all the way through the process from beginning to end and be in control of it to make sure it still goes where they want it to. It's fascinating.

HB

Yes.

LF

My fascination with this is that if they're not designers and you're able to give them a process with which to solve major issues, it questions the whole point of education,

what we're doing in education and the linear disciplinary processes we are teaching. Have the team ever talked about how this might impact on education?

HB

I don't know about in terms of that project, but we have done a couple of sessions recently with more postgraduate courses, so MA in Sustainability Design at Kingston I think and another one at Brighton. We're also doing a session at Loughborough, so there are a few of the Masters programmes that are looking at design for social or sustainable impact in one form or another. And they're quite interested in saying actually how some of these practices work in the programmes that we run. But also we're setting them live briefs that connect back to the programmes we're running. So I suppose that's been one interaction so far that we've had with higher education, but it's at the postgraduate level at the moment. There's another project here which is looking at Design Skills Academy for Higher Education in its broader sense. It might be worth you connecting with Bel who's heading that, Bel Reed is leading that programme. It's at quite early stages but we've run a version of it with creative and cultural skills over the last year or two. But I think we're evolving it as more of an offer that we might be able to provide to educators in some form or other. But she's looking from undergraduate to postgraduate and where else we might be able to provide some value. Whether you've got a more traditional design course or indeed the courses that have some sort of link through to social innovations, or social change of some form. Whether we can offer some modules. That's quite exploratory. We've done a bit of offering modules here and there for a few courses, but not a lot else. It's never been an explicit aim of Knee High I suppose in itself. In that probably a lot of teams in the end may not have even gone through a more formal higher education programme. I don't know actually but there are plenty of people who are coming from all sorts of backgrounds and probably education at an even earlier level that you might need to look at for that. Although that's not your focus.

LF

It starts to make me think that core design thinking skills, which you're applying to these challenges now, should be embedded in the curriculum from the beginning of schooling. Are you finding with the other Design Challenges that are won by trained designers, that they are not perhaps from the discipline that you expect?

HB

I know less about that but I could check with some of my colleagues. The big one we've had recently is the Knee High one and we're running an accelerator now which is quite open. So the latest model we've been running since I've been here in the last six months is more... as I understand the one that was the most recent that I know a bit about is the Accident & Emergency one. The project within that that we supported most and got the most through it in the end was a team from a design agency called Pearson Lloyd. So they've definitely come through that sort of schooling and are great to work with. We've created some fantastic solutions that show lots of impact on stories in some ways. Some of the others I'm less familiar with where they've come from, but I'm sure we could find out.

LF

Pearson Lloyd crop up quite a regularly when asking people to recommend studios. They're perhaps one of the more established studios that cross disciplines.

HB

They do a big range from what I know.

LF

It would be great to try and find out more about who wins the challenges and what their backgrounds are.

HB

I say previously they've been designers, they've been designers/social innovators of some sort. So one of the things we've clocked is that there are people who... I was previously at Nesta, the Innovation Agency. So there are people who've come through Nesta and then come here or vice versa. There are people who are very good or able to demonstrate the impact they can achieve through their projects to kind of hop from one programme to another. So things like Castor Oil Club which is a future government-funded programme and is part of our programme looking at ageing independently, independent living, and they supported that. They also had money through Nesta and actually now have got some investment through Nesta. So I suspect there are some... because they've done small programmes of support here and then they realise there is an opportunity to scale up the existing idea there... Broadly we're often looking at similar areas in the Design Council and the Young Foundation or Innovation Unit at Nest. There's a sort of overlap, thinking about ageing or younger people to some extent. There's some overlap in themes. Obviously there's going to be some opportunity to hop around a little bit. But I was surprised when I joined that there were some of the same folk that come through the same programmes. And then we probably work more so with the classic design teams that have come through design training and deep design with a big 'D' I suppose. But that's more what I've experienced. There may well be some stuff that we can share. We've been doing some longitudinal research of the teams we've been supporting, I'm not sure how much of that I can make available, but that lists a lot of the teams we've worked with over the last seven years, I can check on that.

LF

That would be fantastic. It's a very interesting thread.

HB

It's probably too early to be able to make that... because we haven't done that more longitudinal study with Knee High yet, to be able to compare that with the other kinds of sets, I guess. But of those with design school training versus those who have come through a more social innovation process....it may be interesting to unpack that. I don't believe we've done that yet. But I'll see if I can find any longitudinal information.

LF

That would be really helpful.

So, putting a lot of time into the brief at the beginning, with the market research and everything that you're doing to find and clearly define an issue makes it easier for somebody who has not had any more formal design training. It's the quality of the brief itself and the thought that's put into that at the beginning that's going to make a much bigger difference.

HB

And I suppose on the other side of that I've experienced, more probably through Nesta than here, is the sort of open call for people who have got a solution to fulfil a particular social need. But there often isn't that kind of depth of research to really answer the briefs, rather than this is the problem and how might you solve it. There's quite a difference in that. So the details which we're able to provide through things like Knee High, I think we had a really good response. Clearly you get a whole range -

200 and something pitches originally, and I think most people had got what we were after, whether they were right for the programme is another thing. So really preparing the ground for our programme is really useful. But also to say 'This is exactly what you're fulfilling, so how do we have your account of impact right through and how do we know, how can we demonstrate change at the end of that.' That's what we're concerned with. Probably less so than other types of programmes like this, I don't know. I don't want to pre-suppose any other kind of relationship designers might have on other parts of social challenge in other areas, but they live with it for quite a long time, in fact many people will go on and make that their life, their purpose if you like, through Knee High in particular. You're kind of engaging with it in the long term, and you've bought into the impact because we've got a clear sense at the beginning. As opposed to delivering on a brief, this is more the classic, delivering on a brief that says 'This needs to be delivered in order to get to there, and at that point that's great you've done your job and you can move on to the next thing.' I don't know what the difference is enough, I haven't worked enough in that side of the design world.

LF

If you feel like you're coming to a point during a design project and then that's it and you have no more to do with it, you're going to feel disconnected and not going to have the same mindset as you would working through the entire process. Being involved all the way through means you will have much more commitment to it.

HB

Absolutely.

LF

With your roles at Nesta and at the Design Council, have you seen changes over the last ten years in the design world in terms of how designers are working, with many studios becoming more cross-disciplinary.

HB

Yes, totally. I did a little bit of work with designers at Nesta, designers and content providers of one form or another as the whole swathe. So, I suppose what I was seeing in the six or seven years I was there was a move into the social I suppose. That was definitely a kind of push, and therefore created the need to build the disciplines you need in-house. I don't know if this is a trend or this is just something I'm observing more here or seeing a need for, but actually that's not nearly enough to go deep into the complex issues. The Design Council itself experiences this. Do we have enough of the deep skill sets ourselves to be able to deliver on some of these big complex social challenges and who do we sit side-by-side with? So it's more about building and working more with others and actually being a part of a delivery team to tackle something that's moving on from something which might be about a tool to enable somebody to do something better, or whatever form of life that is, civic or personal or whatever, who does something which has maybe much more complex social issues. And the realisation that actually design can have a part to play in that and probably maybe The Design Council along with the design community is quite cocky about its ability to think human and think differently about that, but actually we're realising that it's only really one part of a pie and still feeling like it's trying to work out what the other parts of the pie need to be to make that really stack up and start to see some more impact on the big society challenges. As opposed to the ones that are easier to pull off and put your arms around. We sort of fell somewhere between those two schools with Knee High. We'd tried to put the briefs together so they were kind of manageable, they were still pretty chunky issues – how you encourage more play, build confidence in parents, quite tough things to say 'Have we

done that?’ at the end. I don't know if that is a trend, but that's certainly something we're feeling quite a lot internally, more so than I can speak for design agencies themselves.

LF

Great. Do you have any thoughts on why this might be happening? Why do you think they've become more socially aware? Is it because of organisations like the Design Council pushing these issues? Or do you think it's because there's a change perhaps in their desire to want to solve these issues?

HB

I don't know. I wonder whether there's a push or a pull mechanism in place where the people suddenly from the market are saying 'actually we are increasingly seeing this kind of drip drip drip' and there have been small drips and maybe the Design Council's had some role to play in saying 'design has a really important part to play in this whole agenda', and 'everything's broken and we don't think the human is at the heart of it'. And the fact that big corporates are increasingly taking designers seriously. So it's sort of feeling like design has a different part to play... I was just reading a Wired article that came out over the Christmas holidays which is about how design is playing a much bigger role in quite a lot of big business nowadays. And whether there's a sort of general acceleration and therefore everything from public sector funders and others who are sort of saying 'Actually we recognise, all be it at a really small scale, the need for the design part of this.' So it's been a gradual opening of that. Or whether it's indeed that the studios themselves are seeing... whether there's anything post- the way that there's kind of reflections on the recession, kind of post-'What am I here for?', 'What's my purpose?' The Big Blue move from banking into doing something much more socially valuable. Whether that happened to a smaller extent in this industry, I wouldn't know about that, it's just kind of a theory. But I certainly feel like I've seen growth in the case for design, and the economic case as much as the sort of social case that is generally growing.

LF

In another interview I was told that in certain banks, designers have been positioned high up now to solve not typical design related issues but major banking issues. And it's fantastic for design because it is being valued in a way it wasn't 15 years ago.

HB

I think designers seem to have been quite smart at doing that and recognising that and going 'actually there's some business value in that as well, and it may not suit all of us on our team but that's the sort of thing we can certainly try to build some of our business around'. I've worked with a lot of other creative industries at Nesta and there was definitely less of a focus on social issues. In the role of games for instance it obviously has huge social value in some areas but it's not gone big, where design has gone big into more social use or purpose.

LF

It's a shame then that as the design world seems to be blossoming in a way, and the value of it seems to be higher, on the other side you've got the government not supporting design and devaluing creative education. Design is taking these two different paths really.

HB

I was quite involved in a big push at Nesta to look at encouraging kids to make more. It largely grew from kids coding. So that was a kind of trend that took a lot of pushing and lobbying. But the government got quite excited about it and there's been more



emphasis on putting the kind of making... which I suppose can stretch to design but it's definitely rooted in people's minds about technology and coding. It's a shame that it hasn't been given the full status, exploring what making means in its broader sense and how to encourage people to learn through their hands and do their creations in technology or otherwise. I don't know why. I guess the very simple edition is seeing lots more software businesses coming through, there's a whole brand new industry for the UK, and I suppose design has always been there as a stronghold. But it hasn't had the same new growth. I don't know.

LF

The next question is looking at positives and negatives of this change. Design Challenges sounds very successful, but are there any negatives?

HB

How protective do we need to be – and I definitely don't feel that we do – of the word 'design' and the design approaches versus various people. Nesta had its own set of ways of describing this and never used the 'design' word, but by and large they were similar processes, and I suppose the more you're broadening this, does the 'design' word lose status? I probably don't care but probably it does as it's more of a common practice around whether it's about open innovation or about human lead innovation in one form or another. I think we often get stuck using the word design because what people assume you mean by design is often very different from what we deliver. I think in some ways it wouldn't be a bad thing to open that out and have a discussion about what we're talking about here.

LF

I think that's spot on. I was given an article on a conference that happened in the summer of 2013. It was about trying to define design, and many people from the design community were there. No one could agree with each other and many didn't even want to be called designers. But what came across very powerfully was that if you can't communicate clearly what design is, then it can't be valued, and if it can't be valued then it's not logged, and if it's not logged and charted it's not valued by government, and then it doesn't exist. Already for me design as a term doesn't seem to quite cover what I'm trying to explore.

HB

No, absolutely. I was just thinking my other half works for the Knowledge Transfer Network which is part of Innovate UK and they have all these themed areas of growth for the UK. He works on the design part of that and there isn't a design themed area that the UK government has put money into saying 'Let's go forward with design.' It's seen as a kind of cost-cutting thing, you would say there's benefits as it's not serving a series or cause to innovate a team, but on the other hand I don't think people necessarily understand all its applications whether it's high-value manufacturing or the future of flight or cities and stuff, where design fits in. It fits in really different ways into all of those things. There's a lot of sense in trying to unpack that. Even in this organisation as we're working in business, as well as social, as well as a more environmental city context. The 'What We Do' bit is distinctly different enough, or distinctly involved or not in some way. So yes, I think it would be useful to lose that word, but I'm not allowed to because this is my organisation.

LF

That's great - the Design Council questioning whether you need the word design any more or whether it should be something else.

What thoughts do you have on undergraduate education? As I said before, my concern is that more students are less likely to do Foundations and Masters degrees because of the fees. So undergraduate has to get it right.

HB

It's exposure to all the different ways in which the set of skills can be applied at the earliest stage, probably before undergraduate, or whether that happens in any other way. But certainly in undergraduate... I suppose part of the challenge is sometimes in social spaces around, that have been criticised on the role of designers, is the sort of sense of ego of the designer. How do you stop the designer feeling 'this is the idea that I've got to solve this thing, and I'm going to own it.' But how do you encourage the behaviours as well as the understanding of 'Who are all the parts of that jigsaw?' at as early a stage as you can in somebody's design education so that they know 'I've got to find all those other bits and I can help to steer it, but I'm not the person that's leading the solution. I'm not the only one leading that solution.' And that's a bit of a stereotype but possibly true in the instances. People struggle to know how to work that for sure, and there isn't an obvious system that you can swap into to do socially oriented design in the market place. It's growing really quickly. So exposure to that I suppose. I don't know how much of design education goes in depth into unpacking complex issues, as opposed to saying 'You'll respond to a brief' and how many briefs are set during their course or whether their course involves maybe several months of work going deep and re-analysing and synthesising and talking to a wider group and testing and the role of experiments in trying to iterate and develop new solutions when they're running a project. The whole sense of how this fits in the world when it's something quite complex. And it doesn't need to be complex and social it could just be... largely, most complex issues are social... but those sorts of things are popping in my head.

LF

Yes, trying to follow a more iterative process that you talk about doing here with Design Challenges. Modules tend to be very structured from beginning to end, they're very finite because of the structure of a three year course. It's not built to allow students to develop then go back and continue developing. But it must be possible.

HB

On that, why would you develop and go back if it's something you're developing all the way through? There's criticism levelled at the entrepreneurial culture that's developed through various creative courses in the UK. Could there be a scenario where you come into your course and say 'This is the thing I want to build my business on, I'm going to spend my three years working on developing a business. Of course I'm going to study, and you can kind of pack that into that, but what I come out of the end with is a very clear sense of what my business looks like.' And I know there are programmes like We Hear and others that are doing this more formal education programme, saying 'What do I care about and how can I draw on methods that somebody is going to help me learn about to make that a reality at the end of it?' And wouldn't it be great if courses were popping these people out at the end of it as much as just opening up the system to them.

LF

I suppose now some MA courses are like that.

HB

Yes, not all of them, but some. And more business schools are looking at that as a design approach, which may or may not have a social benefit. Well, not there, but if it were almost part of it you could go through one tranche that says... you could try to

select and say 'I do feel that there's actually something I want to work on...' and any entrepreneur probably doesn't start with exactly the same idea, it changes and iterates, but to come with something and a kind of sense of what they care about. That would be part of the selection process, asking 'have they got the passion as well as the creative skills or the design skills?'

LF

Yes, it would look very different. The student following their thread, with the building, staff and facilities within the school just there to support that thread, that path that the student's taking.

HB

They could collect bits.

LF

Yes, they go through and just take what they need. It would even give the opportunity for two pathways – one for someone who wants to develop a specific craft skill and that is their path, and another for someone who's going to be more of a generalist, a thinker. Two possible paths.

HB

At 18 I don't think I ever would have been able to make a decision.

LF

That's the challenge. It's so young to have to be able to make a decision. That was the great thing at least with the Foundation, there was an extra year of maturity and it did make such a difference. You had that time to really start to think about who you were and what you wanted to do.

HB

And how much of the Foundation level is social? It's more about the practices isn't it?

LF

In the portfolios I see some good Foundation courses will give them a social brief. But for the most part it's developing practical skills. But the majority of students now applying are straight from A-levels.

HB

I'll see if there are any more people who have been through our books on the Design Challenges.

LF

Brilliant. That would be really helpful, because that is what really surprised me. But it's clearly to do with extremely well-researched and written briefs in the first place, and then obviously this support network that you have set up and spent a lot of time carefully structuring.

HB

A lot goes into the support around it for sure. We constantly question whether we've got the right business model, it's not like it's a streamlined approach at all.

LF

It's what could be picked up and put into the university model - a structure of support to allow students to not only come up with but develop and realise ideas.

HB

If there's anything else you think it would be useful to get feedback on, let me know. I can ask around the rest of the team, who've done this for longer than I have.

END

**Interviewee:** Helen Charman (HC) – Director of Learning and Research at Design Museum, London  
**Interviewer:** Lara Furniss (LF)  
**Date:** 26.11.14  
**Location:** Design Museum, London

**Notes:**

LF

I found this paper of yours, and it's fantastic... in a way it summarises exactly what I'm trying to do. But you're obviously tailoring it to education and relating it to the Design Museum. It's acknowledging all of this change that's going on in design, and that it's not silo-based any more. You quote Nigel Cross saying 'you need to go into practices and see the processes and then somehow systematise it to then see how you can apply it'. Which is exactly the structure I'm trying to follow. So this first round now is a series of interviews with people within the design community who come at it from different perspectives to try and get a handle on what has been happening. Then I will do an in-depth study with ideally five studios with repeat visits, to interview and observe, to document exactly how they're working. I will conclude by seeing if their processes can be systematised and synthesised and how it might then be applied.

HC

I think that's really interesting because as a design practice it doesn't start from 'this is our practice this is our approach' it's much more emergent. So what you're doing is talking back to design practice to look if there are any similarities or trends emerging and how that then connects to design education. Or doesn't. And my sense from reading your research is that potentially the interesting knottier areas are what's not happening in design school, and just figuring out how that might need to evolve to be more commensurate with design practice. Or whether it can never necessarily be and actually design school is about laying some groundwork signalling that a practice is constantly evolving, that's the nature of design, and actually as a professional designer when you're out there it's one of the key features of your practice in that things are always changing. So, from a museum perspective, it makes it particularly interesting because if we're in the business of providing a reflexive space to look at design, its impact, what shapes design in the many contexts, in a way it's constantly realigning itself. So we can put some markers down but what's really interesting is what's happening next. There's a wonderful Hegel quote and I finished my doctorate with this. He says 'the owl of the Minerva is all about knowledge and wisdom and it only flies at dusk'. So there is this notion that you're only aware of the existence of a set of knowledge or a structure in that moment of passing because it's in that moment of passing that you can look, reflect and have the opportunity to make an object of it. Whereas when something is in flux you are in the middle of it anyway and it's really hard to step outside of it.

LF

That's a beautiful way of looking at it.

HC

So that's my initial reflections on your original research questions.

LF

So I want to quickly just start...if you could give me a little bit of your design background in terms of getting to where you are now.

HC

My background is actually in museum education not design. I started out formatively, professionally at Tate Modern – I think that's the most significant aspect of my journey to where I am at the moment – setting up the Schools' programmes at Tate Modern. That was hard hats and wellies, literally when the spaces were being hung. And what was interesting with that role, which continues across sector, is the extent to which the museum typology really informs your pedagogy. Informs your whole sense of professional practice. My doctorate was on the Exhibition as Environment for Learning as a Pedagogic Construction. So my work is really at that nexus of curatorial practice and learning rather than formal learning per se in the classroom or in college or in university. So museums are a particular context for learning in the broadest sense. So in the art museum our concerns were very much around contested meanings. Because with Fine Art and Contemporary Art it can be both a) and not a) and it's all in that iterative meaning making space...and our practice sort of sits in that area as well. So then coming here from there I became really aware of just how different conceptually, philosophically most of the practices in art and design are. And without wishing to be too sort of clipped and cabined about a particular practice what I found through my PhD research was that the way that visitors redesign an exhibition context and the way that designers want to work with us is in many ways the counterpoint to working with art. In that design is underpinned by the weight of the brief, even with emergent practices, even though you're looking at the intangible – service design, experience design – even with a shift towards more collaboration, there's still something about an end point which looks outside itself. It creates a certain set of situations 'in purpose of...'. Whereas I think with art there's much more of an open-endedness and it wasn't necessarily that the experience in and of itself could be sufficient and that's not what happens with design. So the questions that we ask here with our pedagogy are all about the knowledge and processes that sit within...let's just talk about an object for now, and product design – everything that sits, the stories that sit within that object, in order for that object to exist in the world. So it's the Why – what situation was the designer addressing, what needs were being met, what opportunity – all of that process and thinking process behind it that's the interesting part. As well as the manufacturing – how was that table manufactured to be so thin etc. And then it's what that design does in the world which is then the second part. So it's a sort of Janus-faced approach. And actually the object in and of itself isn't that interesting. So it's very different from an encounter in an art space. There's a wonderful essay by Stephen Greenblatt 'Resonance and Wonder'. Greenblatt is a Shakespearean scholar but he writes a lot about the encounter with a material object and he has this lovely essay where he's talking about this amazing historical artefact. So he's looking at the notion of engagement in the museum with the history object, and whether the resonance lies with being the real thing. Whereas with design that sense of resonance and wonder only comes when, as a viewer, as a visitor, as a learner, it's predicated on understanding the design thinking and the processes that sit behind this and then what this object does in the world. It's the interested gaze – you have a Kantian concept of disinterest, the pure unchannelled gaze. Everyone might critique that. That's philosophically where – obviously where Kantian aesthetics sits – design is so far from that, it's all about – you want to know the whys and the what's and wherefores. So, from a pedagogic perspective we have quite different starting points. But a critical approach absolutely underpins that form of thinking. That's a very long-winded way of saying that my background in terms of where I come to the role of design is through the notion of critical engagement with material culture. And in a sense whether it's design, whether it's an ethnography museum, whether it's the Wordsworth Trust, I don't situate myself as a design specialist. It happens to be that after 7 years here I've become very passionate about certain types of design and I find the way that designers work very refreshing. They're always on the front foot,

wanting to be involved, very creative approach very connected, and it's a pleasure to be working with the design community. But actually my formative engagement and my first love really is the museum as a context for learning. Providing that critical space for debate and reflection, taking a step back, a pause, a hub where you can meet like-minded individuals, share some thoughts on material culture, learn more about ourselves through different societies and through this engagement.

LF

So, what I'm trying to gauge with everyone that I talk to is their take on what has been happening over the last 10 years, any sort of major triggers and transformations within the design world, as you see it?

HC

I think a lot of it is covered in that paper, so I would go to that in the first instance. I think some of the other shifts that we've seen, think about Designs of the Year, that's our flagship exhibition. It's a brilliant place to come and take the temperature of where designers are engaging their practice and where innovation is happening. So probably 6 or 7 years ago when I first started here I remember these sustainable designs – despite Papanek etc. – it was still a relatively new kid on the block in terms of being singled out – this is a really interesting quasi-emergent area of practice and we need to treat it as such. Whereas now that's just par for the course. The stories have really moved on from that I think. So one of the areas I can see there's a little bit more interesting work going on is perhaps the notion of citizen design. So collaboration, participation, almost design as community activism and I'm thinking there of Dunne and Raby, Kennard Philips, design that shares perhaps more sensibility with forms of participative practices of the arts. But still nevertheless is all predicated on inculcating a change for the good, it tends to be more aligned with a leftist agenda. So that's one strand. I think then in terms of business practice that that is borne out of the collaborative approach between client and designer. So designers having more input in shaping briefs. I would say Thomas Heatherwick is an absolute case in point – you wouldn't necessarily commission Heatherwick, but he would be the person to come up with those proposals and the solution - not to put it in too much of a generalist nutshell – a more active role of designer as agent of change. And then I think there's also something around global connectivity. Design practice seems more in a global context, more connections between the markets. Which makes things more difficult but the way that designers think about their practice is in a broader context. There's an interesting balance, it's the global thing isn't it, the big picture then looking at the local concerns and holding those in tension. So as much as there are some really interesting evolutions at that end of the spectrum around collaboration, participation, issue space, human experience, approach all of those complex 21<sup>st</sup> century concerns that designers as those socio-political catalysts can address. But then at the other end of the spectrum, how many more toothbrushes do we need?

LF

It's an interesting split at the moment, and it seems to be getting worse.

HC

Yes, I think so. A couple of years ago we did a strand of debates with Puma. It was all about sustainable design, which when it started seemed like a really interesting area to be working in. But over the 5 year course by the time we got to the 5<sup>th</sup> one the issues had moved on really. I remember meeting one of the crew that sailed Plastiki (a ship made from recycled plastic) around the world and she's now working on the ocean-friendly toothbrush and that's a really interesting area of design. Where you're taking the everyday, the practice isn't necessarily changing, but the outputs are

changing in a very humble way. Bringing that quite urgent global sustainable context to the piece. So maybe more issues-based design practice. But I think also, speaking from a museum context, that's the work that we're interested in learning. Because this is the hub of debate and critical engagement and a reflection on practice. So I wouldn't think that I would be speaking for design practices as a whole, it's where there is more of a questioning approach of 'what is a designer, what's the role of a designer in a very complex 21<sup>st</sup> century life?' 'Where does being a designer begin and end?' which is where the collaboration piece comes in. We can talk a bit more maybe about the STEAM (STEM to STEAM) agenda in schools. That's all part of the pull for me of what we understand by design education and what a designer does. But in the end I would still come back to this notion of the brief and the outcome. Whether that's experiential or an object in the world, there is always an endpoint, which is a catalyst for some kind of new situation or experience.

LF

You've touched on this already but what do you think are the implications both positive and negative – you've talked a bit about the positivity, inherently there are a lot of positives in those things – but I just wondered about negatives?

HC

Well coming back to the positives as well, last year's '2014 Designs of the Year' was the last exhibition review on the last ever Review Show. That exhibition was so optimistic. It showcased nearly 80 designs and the human experience end of the spectrum really showcased the creativity and the application of designers to roll up their sleeves and really get involved in these global/local issues. It was very inspiring. Here are a couple of really interesting examples from that, and then I will perhaps go onto the more critiquing side. There was a piece called 'A Behaviour Changing Syringe – ABC Syringe' by David Swann who is from the University of Cambridge. It was fantastically clever little bit of kit. It was a plastic syringe, which has some kind of nitrate coating inside, and when you use it, it changes colour, it changes to red. So 1.3 million lives are lost every year by the use of infected syringes in areas where there isn't access to high quality healthcare. So this little intervention is so clever, fairly straightforward. So I see that's where designers in that realm where we're looking at those sorts of issues which are systemic and meta-global issues for me is really why I'm interested in working in this field. That's just amazing. There was another one - Mine Kafon in 2013 was an interesting GPS device which looked like a big dandelion clock thing that would be windblown across fields in Afghanistan and would explode when going over a mine – it was a really interesting solution. And the other one I love, the earthquake-proof table, which was designed by some graduates from Israel at the Bezalel Institute. It's straightforward of course if you're building schools in an earthquake zone then have that table that can withstand huge amounts of mortar etc. coming down on it. So that's all for the good. Not so much about the practice per se as it is about the subject areas that the designers are locating themselves in. And they're seeing themselves as very strong humanitarian catalysts for change, design for the good, for the 90%. So all of that is brilliant, I love it, it's urgent, important. But then on the other side, how many more design objects do we need in the world. At what point does the profession fundamentally evolve into a different form of practice where it's not design-led it's issues-led. And then the skills are brokered that are the requisite skills for whatever those issues might be. I think that's where it's really interesting with housing systems or healthcare systems. How do we design a more efficient multi-billion pound NHS with all the issues around managerialism etc.? How do we train designers to be able to flex themselves in these really multi-disciplinary ways in order to catch up with need, be ahead of the curve, identify what those problems might be before. And the designer consumption model doesn't fit these changes. So that's why I think it's a profession in flux.



LF

Do you think that might be to do with how many designers are being educated and coming into the design world?

HC

I'm not sure. We're almost moving towards a moment where even the notion of the design world, the design fraternity, where does it begin and end really. Isn't it more about being effective in the world, whatever the sets of skills that you need to bring to that, and some of those will be design skills in quite a narrow sense. Some of them will be much more open, and I'm sure this has ramifications not just for design education but also for many other professions. But there's something around the solution-focussed approach of design, which somehow talks back to the extant profession now and the school in which designers receive their education that is quite unsettling. I haven't really thought it through further than that.

It's about finding new ways of working. And I would say in our last Puma lecture – the last one where we wanted to look at sustainable design – we invited John Thackara who has a lifetime of experience in this field. What he spoke about was nothing to do with product-based approaches. It was all about community activism. Designing situations to foster collaboration, togetherness, to meet needs. And I think one of the examples was a soup kitchen, almost a food bank project, with design thinking and design process rather than the designed object as the outcome. And it think that is just so interesting. But it occupies a really different space from perhaps the more traditional notion of product design. And maybe it takes us right back to the beginning of this conversation where when I came here I could see that design and art are in quite different spaces, but maybe this is where they start to really share some conceptually common ground. The educational turns were incubating – turning more towards audience, towards collaboration, a genuine partnership. How that works in the market is difficult I would imagine, the marriage of culture and commerce and design sort of sits in the middle, starts to unravel a bit when we think about design as that socio-political catalyst.

LF

I was then wondering if there are any barriers hindering the positive change and the positive side of things. Education is obviously one of those things, and as you're already saying, the consumer market....

HC

I think there are loads of barriers, although I don't necessarily think that 'barrier' is the right word. But there are all sorts of tensions. Even going back from university education into schools, we have a new Design and Technology curriculum, which was rolled out in September, and it's good. It's much more cognisant of professional practice. It talks about enterprise and business as part of young people needing a different set of skills. As well as young people being able to hone a beautiful dovetail joint it talks about the importance of making. So in some ways that's good that we've seen that curriculum for those maintained schools, which are only a third of schools now. When we talk about the national curriculum that's not the majority of schools now delivering that. Academies can all follow their own curriculum. But obviously lots of people look to the national curriculum for the backbone. So that's now rolling out. But around that is a cohort of teachers who have their work cut out for them in teaching Design and Technology in a context in which the practice itself is evolving. So how do they as teachers plug in to exactly what you're research is into in order to understand that and then make them cognisant of that, create curricula which will start to lay the groundwork for their pupils to have a better understanding of the

application of design in the wider world. One of the limitations is then that you might end up with, if I see another acrylic clock, really the world does not need more young people who design acrylic clocks. It's just that movement's passed, if we ever had that moment. How that curriculum opens up to be much more connected to issues-based design and the role of the designer. But of course you've got to start somewhere, you've got to lay the bedrock. The making, the technical skills are really important with that. You know technology, that's another interesting evolution within design education. Where does design begin and end, where does technology begin and end. Are they the same thing? There's some complexity there and there's also the fact that in the school curriculum we have Art and Design as another subject. So that's weird. There's design in two places and that's quite confusing for young people who want to align themselves. So are we saying that the Art and Design bit, that's the creativity bit. Whereas Design and Technology, that's the functionalist bit. Well no, because creativity is at the heart of design. So I see that's a little bit of a challenge, just understanding what we mean by those terms. But there's something systemic there, and something around teachers having enough, having their fingers on the pulse in terms of contemporary design practice and it's broader view of the role of the designer, and that design is an agent for change. With other barriers, not to be too cut and dried about it, there's obviously what's happening with the EBacc in schools. Obviously with the Art and Design and Design and Technology not existing within those five core subjects, which means that we've already seen a bit of a tailing off of numbers. Although in the last year the Cultural Learning Alliance, you should definitely look at their website and see that they have some really good data on take-up for GCSE Design and I think the numbers are really picking up with that. So it's not all doom and gloom in that way. However it goes back to your point about so 'do we actually need all these designers?' – we're actually educating lots of young people to go out and think of themselves as designers but the jobs aren't there. But my response to that is maybe it's not those sorts of jobs that are the jobs that need to be done. It's thinking about this professional practice in a different way, in a broader context. Design thinking is such an important tool for 21<sup>st</sup> century life. We need design thinkers in NGOs. You know who is designing the conflict resolution process for the conflict in Syria, for example. That's design thinking. Conflict resolution needs to be designed. Healthcare etc. I don't know, I'm not familiar enough with what's happening in design schools at university level, I don't know the extent to which that is emerging as an area of curriculum. It's so exciting when you hear of some sets of thinking skills that can be applied and I suppose the RCA is doing that through their Service Design MA. Really interesting. From what I've seen the partners are mainly still fairly corporate at the moment. And then we are in it as a cultural partner. But wouldn't it be interesting to see a service design brief coming in from Oxfam or the Red Cross or Save The Children or NCCC?. Using those sorts of design thinking skills to come up with something interesting. It may already be happening and I'm just not aware of it. But it's certainly something that we're really interested in. The concept of agency that comes out of design education, design practice about being able to effect change. If I was going to distil the value of design education down to one thing it would be that, for young people, through design education they can change the world for other people in the broader sense. And that's really one of the most important skills that I think we can equip young people with. Rather than knowledge per se, that lovely acrylic clock, it's a questionable output. Whereas an approach that's able to say 'well here's an issue, there are lots of elderly people on my road who are lonely, and have not spoken to anyone in a month. What solution might I design as a 16 year old?', to 'maybe I'll design a local tea group – this is what it'll look like, this is what the markets for, this is how often we'll meet, this is who we'll be working with to provide the cupcakes'. I don't know what it would be but it's about design of an intervention, rather than an output per se.

LF

And then the tables completely turn. The idea of lots of students going to university and taking 'it', choosing 'it', whatever 'it' is called, and coming back out at the end. You could imagine a completely different world if they do that.

HC

And different motivations, a different understanding of the application of design. I always think that 'design in the expanded field' would be one way of thinking about it. Or 'the designerly turn' if we were going to theorise it, in terms of what's happening in curatorial practice. And it's nascent, which is what's so interesting about this field.

LF

Well that leads on to the implications for pedagogy. We've got the issues with the EBacc at secondary school level but then if you're talking about the new curriculum then at least something is starting to happen, even if it is confusing.

HC

Yes. It's a more contemporary curriculum for the 21<sup>st</sup> century.

LF

My focus is on undergraduate. Generally, undergraduate education is uni-disciplinary. We see design students coming in more and more without Foundation because they don't want to take an extra year because of the financial implications, and it seems like less will potentially go on to do Masters because of the fees. So it's that one moment of three years that you have to educate them and that's it, as opposed to potentially five or six years. What are your feelings about this?

HC

Well, its very interesting because that's what this project is about (HC points to a written document on the table). We're just partnering up with Northumbria University, which has Jony Ive as an Alumni, and we are just putting in this bid to the AHRC to develop a research network which is essentially looking at 'what is the design school for the future?' given the emergence of technology, a more global world, different subject hierarchies. We tend to put paintings near the top of our hierarchy. In some areas of Asia calligraphy would be nearer the top. Things just sit very differently. There's all of that complexity when you start looking at global need. So from the meta-issues. It was really around where subjects begin and end and this idea of multi-disciplinary, inter-disciplinary...it's almost that the notion of disciplines themselves are unravelling in some way which mainly to me, I'll come back to what we were talking about earlier, it's a mode of thinking, a mode of engagement and actually that can turn itself in many different ways. But then there are also some thinking skills, some design skills, which need to be taught as well. But that's not the thing that you lead with. You lead with the issues that the 21<sup>st</sup> century world is connected and complicated. We need to equip our designers to work with that.

LF

And I think you start to see very quickly that those core skills cross all disciplines.

HC

I suppose that does also pose a question that within disciplines there will be design skills which are largely only pertinent to that discipline potentially. So if you think about fashion – we've got a fashion exhibition at the moment, Tailoring, those skills - that nestles largely in one field. But actually the practical applications are a fairly long way down the line – the thinking and the engagement with the 'what if?' Which is the leading concept in a designer's education, to look at the world and think creatively

and then analytically to ask 'what would this look like in this way or that way?' A recursive process of design thinking, rather than 'I'm going to design a blazer' – which is probably a more straightforward way of looking at it, but potentially not where we're at now. However there's also the need to be quite pragmatic about the skills that are needed to produce designers who can effect change. Our proposals articulate this much more clearly so I'd just like to check with my colleagues if they're happy for me to share this with you. At least it's another bit of context, some common ground really.

LF

So you're setting up some sort of relationship between you and Northumbria?

HC

Yes, there will be three research seminars internationally with different Deans of design schools, which we will host at the Museum. The questions are 'what is a design school in the 21<sup>st</sup> century?' 'how far can you have an international perspective on that given there are these more localised concerns?' But we don't know the answer to that which is why I want to do this project.

LF

I'll have to try and come to that.

HC

We're working on the budget as we speak. It's interesting that your research is also in this area. It's good to know we're not barking up the wrong tree.

LF

I'm surprised that there's not been more going on. I have to say two years ago, when I started thinking about this, I thought I would find threads of debate everywhere.

HC

It's emergent, that's what's so exciting. When I bring it back to the museum context in terms of curating design it's only now really that museums are beginning to think 'hold on, we kind of know how to curate design so that we're not curating it as art, and we're not putting objects on plinths. We're exploding that and looking at more process orientated approaches, more experiential engagement for visitors, knowing that it is everything behind this cup that is interesting and not the cup an and of itself. So that's one area, but then the question that arises from that is 'what happens when we're talking about service design, experience design, how do you curate that for public engagement?' In the sense that that's what museums are about – public engagement, critical thinking with design out of the market place and in a cultural space – which is that space for reflection and debate and thinking about value in a different way. So it think your research is really at that nascent point. It's only when a conception is passing that you can actually reflect on it and see it for something quite discreet in some ways. I referenced in that Designerly Learning paper a Design Council conference where the themes were around 'identity of design' and they had one about 'storyteller', I can't quite remember, but it's that paper or it's another one, I'll see if I can dig it out. And that was quite interesting, the notion of different roles that a designer can take in working with clients where it's not just 'we are meeting the brief' but 'we are working together to shape the brief' or this outcome might be something completely different from what you'd envisaged. The other thing I was going to say was about making. So when we had the Barber Osgerby show – did you see it?

LF

I didn't, no.

HC

It was beautiful. I'll use that word advisedly in this context. Really interesting. So their proposal was to look at a number of objects which had been interrupted in the manufacturing process. It was because from their perspective they very closely have intimate interest with making and manufacturing. All of that in a context where we are increasingly divorced from the more analogue engagement with making because of CAD programs etc. So they were really articulate on the value of making and how important it is in their design practice to put that at the centre. And the extent to which in design education there's a real question about how many opportunities designers have to do that kind of tactile engagement. We know from other projects around design and creativity that making is good for you. Just the experiential engagement with material is almost part of what it is to be human. The tool-making and opposable thumbs side of things contributes to our brains evolving and whether there is something that we stand to lose there as well. There's a wonderful book about the value of the hands-on and making, what happens with the workshop notion in design education in schools as well as at university level and how important that is.

LF

I have read Richard Sennett's 'The Craftsman' and he's talking about that but he doesn't really go into the educational side.

HC

It's an American guy, he was a professor of philosophy and then he decided that he'd set up his own bike maintenance shop so he's very interesting on anything.

LF

I wonder about whether it's like when Ken Robinson talks about the need to dance and stimulating the brain and Einstein playing the violin to solve things. I think there's a lot of that in that. Sometimes it doesn't actually matter what the outcome is, it's actually doing it that's generating the thought behind it. I'm now teaching in a new building, but there is limited space to make a mess in.

HC

It's so interesting isn't it. 'No sacred spaces'. That's the problem isn't it. When you have these sacred spaces you can't then muck them up by drawing on the walls.

LF

That would be a fantastic book I think linking to education too. Yes, and Barber Osgerby I'm hoping will be one of the studios.

HC

Yes, I think that would be brilliant and you'd get so much. Unfortunately we don't record our public programs but we have copious notes and I can dig those out as well from when they did their talk with Jay.

LF

So I think just the last thing is just if there's anyone else you could perhaps suggest Studio-wise?

HC

Yes, I would ask around actually. Because with our Design Ventura project which is around design enterprise between Year 9 and 10 we do a lot of work with design

studios and designers. It may be interesting for you to talk to earlier career designers as well. Perhaps some of our alumni from Designers in Residence – Asif Khan, Bethan Wood, they could be very interesting because they will be closer to design experience in terms of education.

LF

I'm trying to get as much of a variety as possible so those who have been established – perhaps Barber Osgerby or Heatherwick – they've always been a lot longer but...

HC

You need some service designers in there. The ones who don't work with objects or 'stuff' at all.

LF

I'm really interested in Participle, I think they fall under service design and they sound fascinating because they're doing a lot of what you're talking about as well. They seem to sit down together and come up with their own brief, identifying the problem they want to solve, put it together and then go and pitch it to whoever the relevant body is.

HC

I love that. That's really interesting because it's extrapolating from that isn't it. How did they get to that point?

LF

I think she used to be the head of the Design Council, and was a Social Scientist.

HC

Oh, ok. That makes sense then because it's more around that broader policy context which is really needs focused rather than commercial, and about social policy. Maybe that's what we have been skirting around. This notion that actually designers, a certain type of designer, needs to think of themselves more as social scientists, anthropologists. It's that area that we're talking into.

LF

It's interesting because part of my background theatre and as a theatre designer you're more naturally an anthropologist because everything you do is around the human beings on stage, the characters whoever those are, as well as the audience. It's much clearer to understand audience and people. It's perhaps one of the qualities in that area of design that's slightly different to the other areas.

HC

So maybe you just need to make sure there's a social science module and an anthropology module in every design school course. It's your elective. I don't know what that would be but that's quite a different complexion isn't it from 'I'm going to do my CAD course'. Not that those are not important but there is something more about a core curriculum which isn't about design as we know it. It's exciting. There's all this and this and all that journey to get there to be able to do it. It will be interesting to see what you think about the new Design and Technology curriculum because in the Statement of Purpose which it opens with there's a really nice, kind of much broader inflection with the wider world of design and the application of design. DATA will be good for you to look at, Design And Technology Association, they're the main subject specialist organisation for design and technology in schools.

LF

I haven't read the statement on the new curriculum. There are some of the new emerging designers and studios I think that would be fantastic to get a broader mixture.

HC

OK, I can certainly send you some contacts for that. And I would say Designs Of The Year definitely. Look at the catalogue for last year. I think we open in March next year but that's so good as a litmus test for where designers are positioning themselves. It's a catalogue we've still got in our shop, £5 or something.

LF

That will lead me in the right direction. Thank you so much, I really appreciate that.

HC

Yes, it's the beginning of a conversation Lara, rather than the end. It sounds really interesting. That's probably a more cogent paper (Designerly Learning).

But isn't that interesting as well if you think about the design object as a prop, a prop that creates a situation, a prop that can mean many different things according to its context, that isn't inherently meaningful, that can be provocative. It depends on who's using it but...design as kind of performance, that's very interesting and going down a different route.

LF

So thank you.

HC

Ok. It's a pleasure.

END

**Interviewee:** Daniel Charny (DC) – Co Founder and Director of Fixperts;  
Professor of Design at Kingston University; Co Founder of  
From Now On  
**Interviewer:** Lara Furniss (LF)  
**Date:** 18.02.15  
**Location:** From Now On offices, London

**Notes:** Daniel requested to see the interview questions ahead of the interview, so he had already prepared answers. Therefore, none of the prepared questions were directly asked.

DC

I apologise I've got a very dry cough from a very long flight, I've been teaching in Kyoto in the Kyoto Institute of Technology. I ran a workshop which was based on a course I used to teach 10 years ago that's called One Too Many, it's about the relationship between ideas and the production technology you choose for them. And so if you're using craft or you're using mass production techniques and it was very interesting, it's actually connected to your area because their training is very linear and this was a real non-linear process driven workshop. They found it really hard and very rewarding. So they recorded. We'll see.

So you teach as well?

LF

I do teach. I was a practising designer for nearly 20 years, half in the UK and half in the States.

DC

Where...?

LF

Chicago. I studied at The School of the Art Institute in Chicago. A Master of Fine Arts. So my undergraduate was in Manchester, at the polytechnic there, it was Interior Design but it was a very broad Interior Design course at the time. You crossed over a lot of disciplines. But I went to Chicago on exchange first then applied to do the Masters and I now realise talking to Ron Arad that the way it was set up there is actually similar to the way he experienced the AA and the way he set up Design Products. During the two year course practising artists and designers came in, you chose who you were interested in.

DC

I've got the drawing we did when we were thinking about the platforms because I was there with Ron. He came with the concept of these AA type studios, and we had this conversation about keeping them a bit more open than the studios and that's why we chose the word Platform because it's a point of departure. But also I think I might have that drawing somewhere if it's relevant for you. I did a quick computer drawing of the platforms and cutting across them with a group so it's 'how do you mix these?' Part of the principle was to give work groups but also how do you cross over between them, and what things does everyone do?

LF

Yes, Chicago was more of a fine art approach. There was no limitation to it.

DC

Who was running it then?



LF

I have no idea. I need to go back and investigate more as to how it was structured.

DC

One of the graduates from Design Products is teaching in Chicago now, I think Tim Parsons. He wrote an interesting book about process - 'Object Thinking' - which might be relevant because out of all the process books I've got here he did a lot of interviews about their practice, so that's part of your last question.

LF

I will do that.

So, I started teaching, this is my sixth year now, I got the opportunity to do a PhD. I am interested in why the design world has become so much more fluid in the last ten years and the factors driving that. And reflecting back on education, to explore whether this uni-disciplinary approach is still relevant. I've interviewed eleven people who are in the design world in some way, whether they're authors or leading publications or organisations and designer/educators. And so far I think every single one has referenced you in some way. The course at Kingston is the only course that everyone thinks is doing things in the right way, otherwise it's abroad.

DC

I didn't shape the course at Kingston. I'm part of the thinking through design making kind of approach. I joined Kingston two years ago.

LF

Maybe they're referencing Kingston now because you're there.

DC

Possibly. I don't know who it is...

LF

It seems to be your way of thinking. It's everyone from Lynda Relph-Knight to Helen Charman at the Design Museum, Ron Arad of course, Nat Hunter at the RSA, the D&AD, the Design Council.

DC

Now that I don't know.

LF

So that's how I've come to you.

DC

I think it's really important, what you're doing in terms of identifying this. And we were really into that debate, well Ron was, leading the change in design. So it was industrial design and furniture and I think I was very lucky to be there at the time with both these backgrounds. I studied industrial design and practised in furniture design and was into education and it was just a completely perfect storm for me, a joy. And also my personal interest as well has been to move away from the sanding paper to the strategy. I think there's one key thing that was identified then. Ron's observation led on it which was defining courses by sectors was no longer relevant, this was 1998. That's an MA level and maybe it filtered down to others who were thinking the same. It's harder to change things but he was in a position to say 'OK, let's look at design and not the sector' and that's what you're talking about I think. For better or worse, that's my approach, it's very much process driven. Also the

combination between theory led vs. practice led has always been interesting and I think within the platforms in Design Products you could see different approaches to first, do you understand the situation and then go into the workshop, or go in to the workshop to figure it out and then understand... Our platform was very much about both at the same time, that's always been my thing, to start making and do the strategic thinking from the beginning, both of them. So it's not one after the other, not linear approach. And it's kind of both, make an example before you even know what it's for, but also think about the principle and move between the example and the principle. So every prototype is an example of some principle. And this movement between the overview and the detail means working with materials that might give you an idea about the overview or having an overview that might give you... so for me that's the key. And then that type of ability is very much first of all an approach or an attitude, then you get good at a certain skill or language or discipline so you evolve a way of communicating your ideas and that's where people discover what or how they do this. And it might be through computer drawings or model making or drawing or talking or writing or film making. But there is first that process of working out what you're doing, then communicating, then producing. And I think in retrospect this separation between what are the things that you do for yourself, or your newer process, what are the things you do to externalise to others, and whatever things you do that are the product. These help me understand what students are doing and also form teaching. It is very much a process and all the projects that I set up like Fixperts are methods, yes there are aims and values, but actually they are kind of briefs, they are design process in different guises. So this move from education based on sector, furniture design, to design products, was very much putting design as the process and then each person decides where they go. So it can reflect what you're talking about. However there is this issue of reduced skills, so if you take an A level and take people out of their sector – that's OK because they've got some language that they know and they can reflect on others – but if people arrive with less and less skills and knowledge it starts falling apart. Because they're thrown into no discipline or all discipline can be detrimental to people who don't have enough skills. On the other hand there is an argument that if you don't have a discipline you're more open to do stuff, anything. And also there's this issue that you identified about specialism and professionalism. There is a rooted reason for it being stronger in the UK than other places. Because if you look at the forming of design in the UK you can go back to the internationalisation of design in the Great Exhibition, which was looking out. And then say in the 40s to 60s there was a real professionalisation with research. The Research Unit, the V&A exhibition on what is industrial design, there was a professionalisation that happened, led, driven, very strongly. And then in the 80s there was this need to work abroad more because there was a lot less industry to work with. So communicating out and being known for one thing, being very clear about what you're good at was important. And also in the 1980s there was this critical reflection on the profession. To this day it does really impact on people's need to have a very clear flag of what they're doing. I'm not saying it's a good thing but I'm saying that's how it's evolved. One of the reasons design education in the 80s here reached the peak and still is very strong, if you see industrial designers and others are in commercial companies in leadership positions, many trained in the UK if they're not even from the UK. So that kind of reinforces the education system but the education system hasn't moved on. So I agree with your premise.

This thing about the flag 'What are you? Are you an exhibition designer, interior designer, retail designer, event, experience' I think I personally confronted it about 15 years ago when I started curating. I had the chance to curate the Aram Gallery for eight years, it was an amazing lab to try things out because it was a non-commercial gallery so we didn't have to sell the things we were showing. So that meant the selection was really about the actual story of each project, rather than will this sell or

not and who are we representing. So the generosity of Aram allowed for this to be a real place about process and the main thing that we did there was this format called Prototypes and Experiments and mixing between disciplines. There were six Prototypes and Experiments as a format for exhibitions and it was between different disciplines, so architecture and product design, and jewellery, and sometimes fine art and fashion a bit. But it was really about how prototypes are used, for what, different types, and it became an almost external research gallery. It didn't belong to a university but it could have easily been within a research culture, opening up. What happened there is that people from the same discipline, from different disciplines suddenly saw how others were working. It was significant I think with architects, they're really head down in their practice, they don't even know how other people work, they just see results. And in the gallery suddenly they were seeing how other people try out different ways of communicating, prototypes, some feasibility, some more atmospheric, some combined.

LF

Was that with undergraduates or graduates?

DC

In the gallery? No, it was professionals. It started with recent graduates because that's what Zeev Aram used to do, but when I came in I had the period where I came back and said 'No I think we should move on' because too many people are doing graduate stuff. So this was young professionals, very established professionals, and graduates mixed. Again to kind of be focussed on the subject not the group of people. Zeev Aram has always had a real interest in showing that there is a path to a creative life. So he wanted to really focus on recent graduates, and I thought 'OK that might be the objective but not the way to do it.' The way to do it is to show successful companies that are still experimenting. He agreed and we called the gallery For Experimental or New. And this 'or' meant that we could show someone like Castiglioni because he was experimental but not new, or we could show someone new which we didn't know what the impact would be. And this brings me to the point that within the education sometimes it helps a lot, sometimes it doesn't like this last week. There is a use of ambiguity in education that leaves a space for people to function. This ambiguity of openness of interpretation within some given structure or starting point is something that is almost counter-intuitive to sector-driven briefs. Or the kind of specific objective conclusion-driven brief. But it allows for a more personal process. And that's the area that I'm usually interested in - brief writing for education has been the thing I've enjoyed the most, unpicking a brief that feels like it has a lot in it but there's no way that I can know what people will do with it. And I found that works. Initially we'll talk more on postgraduate level but it works at undergraduate. Depending on if people understand why. And this kind of thing that you have to find out in order to make something happen, which you're not told, is that space where I think creative reactions happen. It's also when you're making and you're not quite sure what you're making, if you're still happy to continue making, that usually is a very rich territory. If you're worried and you don't make, then you're stuck and you don't know why you are not making or why you are making, then that's not helpful. But I think when you know which sector you're going to, everything is closed and the route is linear and clear, then you're being trained for a specific thing. Sometimes it happens in vehicle design, for instance. You know where you're going to work and then maybe it's relevant. And maybe then it's more about skills because you assume that you have the language. But the employer that you're going to work for, you need to learn their language and so a linear process might be more relevant. But I think within design increasingly, most applications of design now include all kinds of technologies and means of production and therefore you might need to be able to move between them. There used to be a very packaging design level, very

specific like exhibition design or theatre design, where there are enough things to learn. If you know you're going to go there and if you don't have any interest to go elsewhere it might have made sense. But there are less and less sector specific positions now.

There are a few drivers for the changes. One is definitely economics, studios getting smaller, people needing to do more things with unexpected clients they haven't worked with before. There is the technology driver that enables people to do stuff and learn stuff in a way that they didn't before. And there is the social context changes. For many designers the drivers for designing, so younger studios, the reasons they do stuff are different from previous generations. The things that drive them are not necessarily economics. There are groups that prefer to be working towards a sharing economy and not to industry. So we are seeing new types of studios and new types of practices. Open design, sharing economy, social benefit, social enterprise. A lot of these designers have a shift in this idea of working for industry. They want more direct contact with the users, or maybe they have to have more direct contact because industry is not picking them up. They are parallel to others that are really interested in tech innovation. They end up being more producers of a certain product rather than design studios. So the other thing that has happened is because of these tools and industry may be being more conservative and working with the same people again, the younger designers are driven to entrepreneurial practice but the entrepreneurial practice has also a manifestation of the one product company. So a very talented designer ends up designing a scooter, ends up making it, ends up producing it, he spends 12 years on that scooter where he could have done a lot of other things. So it's actually gone in two ways. So some people are doing a lot of practices, so they're doing art and interior and furniture, product, social benefit. So there's both of these reactions. And others that are becoming very product focussed on their product and are promoting it. Inventor-entrepreneur type, like Roli the piano maker, he could be doing a lot of other stuff but because he's decided that his company... he might do with this technology in the future, and maybe he has a kind of overview and possibly will do that. But it's not become a design practice it's become a producer. And there are more and more of these that because of the capacity of the digital networks and tools they can become producers and leapfrog the relationship with industry, but as a result they end up very co-dependent on the product. So they roll out the same product, they improve it, and both of these things we are seeing. The other thing we're seeing is the split into art. So where previously studios would have called themselves design, or design art, they drop the design now completely. They will not accept to be called a design studio in publications.

LF

I find that fascinating.

DC

Some of it is an economic driver, so they can charge a lot more as artists.

LF

Oh.

DC

Yes. With the clients collectors if they design art they tend to be in the lower bracket. If they're artists they can go higher. So some of it is that, and some of it is kind of ideological-philosophical as an openness to the practice. So companies like Troika who are unequivocally controlling the communication around them if they can to be in the art sphere. They want to be defined as artists. I've seen a few in the last few

years that make a point of that. Another thing that's happened is the groups that work together more. Say 15 or 20 years ago there was a lot of discussion about collaborative, and it's become applied, there's more and more collaborative work. To the extent that there's mass collaboration and collaborative sharing and a lot of people actually hiding in these collaborations, and there's too much of it. Education also has to counter-balance. We were very busy getting people off the author-designer thing 15 years ago. Now there's not enough of it. We're paying a price for people hiding in collaboration. I think there is a role for design education to counter-balance what's happening in industry not always just reflect it. But that's a bit different from what you're describing. But we are seeing more collectives and more groups. And they're supporting each other in an interesting way. So collectives is another contemporary reaction, particularly in London just on the cost side, but also on the building their own identity and maybe learning from the YBA 'Let's do it ourselves' rather than being dependent on someone discovering you or representing you. And finally I guess there's the social agendas that are driving the new contemporary studios. So industrial designers that end up setting up a website for a community, for instance, MSShift (shift.ms), it's for younger people with Multiple Sclerosis. That's a designer that ends up working with someone to develop this amazing platform so that would have been communication design, but it doesn't matter to them anymore in which sphere they function. So there is a mobility of discipline, transferral of skills or transferral of process. Because they have a strong process then they can do that. In smaller countries you get people with very wide portfolios, and here you kind of have to say what you are because there are more people. And when I started curating I was teaching, curating and designing and people were asking and said 'What are you? Are you a designer, curator, teacher, educator?' And at the time there was a research assessment exercise and we had to say what we were. I've always tried not to define in order to be able to do the next thing that I come across. My progression has always been project leading to project rather than 'OK I'm going there', climbing. But I found that I had to raise one flag here very clearly, particularly in the UK here in London, so I said 'I'm a curator'. Because as a curator I was a different animal because I came from design, I didn't come from history of art, or history of design, or curatorial practice. And it meant that I was able to make exhibitions rather than curate them, more facilitate and capture things and commission. And the curatorial practice evolved into a more strategic practice, which is us now. From Now On is already a programmes consultant research unit. So we work as a consultancy, sometimes for other creatives. We've done work for Heatherwick Studio, Mariscal Studio, the Design Museum, the RSA, or for Crafts Council, the British Council, always kind of thinking about a project, never at a full company level, always project based. So we're like an external research unit. Sometimes we produce things, not always. But that process of research and feasibility and application and prototyping is a design process. As far as I'm concerned I'm still using my design process. The education I got was industrial design, very straightforward at Bezalel in Jerusalem, BA, and then MA in the Royal College of Art under industrial design. And actually the discipline has allowed me to have a good base out of which I can work. So it's not counter-productive to have that. But having put the flag up as curator it definitely helped me in terms of my career steps here. Because then 'Oh you're a curator, you do this?' and then moved on and worked with the Design Museum and worked with the V&A. So it's almost like you have to be like these musicians who have a number of labels. And I think that's also happened for design. You have different labels for different practices you do. There are a number of different practices here, contemporary studios that function differently. And a good example is for instance Barber Osgerby. They have Barber Osgerby, Universal, and Map Projects. The one person to talk to there is John Marshall, have you come across him?

LF

Yes, another interviewee suggested John as well.

DC

Yes, John really opened up different doors to the same kitchen. They have all these designers working their process but if they have three fronts and they're doing different things. Or El Ultimo Grito, if you've come across them. I would really recommend you talk to them, because they're deeply ingrained in design education forward thinking. They commissioned the Pilots Project. So Kingston's Stanley Picker gallery - it was called 'Next Models of Design Education'. Roberto Feo has just started as Professor of Design at Goldsmiths with the remit of looking at design education as a research practice. Not looking at design education, but how design education is a research process that can be seen as a valid research process that can be applied beyond education. One of his arguments which I thought was very strong is that a lot of universities are trying to submit their teachers' work as research, but they're teaching full time so their practice is diminished. But then when it comes to their research profile they're being asked for their practice. Whereas their real practice and where they innovate is education. So how come no one is going to look to that as a model for research. So he put that proposal across to Goldsmiths and I think that's the reason they established that. And he's looking across disciplines, he's working with people from different faculties to capture the thinking that goes into design education. But not in order to teach other people to teach in the same way, but in order to look at it as a resource of challenging paradigms, or rethinking research itself, non-text based research and so on. And they've been also teaching in Geneva, writing new MAs, which are not sector-based at all. Rosario Hurtado is an amazing teacher as well. I would be tempted to say it's probably worth talking to them separately. I've worked with them a lot and if you talk to them together you'll get one view, whereas if you talk to them separately you'll get two composites. They work amazingly together but also I think it would be worth looking at that.

LF

Well the next phase of this was to try and pick five or six studios, as diverse as possible, that would allow me to...

DC

Because they do fine art, product design, events, installations, commissions, they kind of cover everything. They're less in industrial design and mass production. But they're a good example.

In terms of design education I'd say that they are the leading experimenters. As much as I can I collaborate with them and I taught with Roberto Feo for close to eight years at the Royal College of Art. And these books actually come from that, I'll get to them in a second.

LF

And Barber Osgerby was another one on the list.

DC

That's a really interesting practice where they have opened up these different practices or offices towards the same hub. Ron Arad's office is split between two, anyone would be happy to have access, but because it's such an expensive sounding studio, no one with a start up would go there. But what Barber Osgerby did was they opened up almost an anonymous shop front Map Projects and they get people who would not think 'Oh well I've not got a chance to work with them, or with Ron' so it's interesting in that sense. So when you say a contemporary studio or practice there

are the very established ones that have found the way of opening other doors, and there are the younger studios which are evolving in these different ways. I think there are still very strong very focussed studios and offices that have expertise, it hasn't disappeared at all. You have Priestman Goode, Seymour Powell, Pearson Lloyd. They have increasing expertise in their areas. One of the things that happened because of economic pressures is that some offices closed and some offices remained and got stronger. The other thing that's happening is the curatorial thing. People like Konstantin Grcic is curating, or Martino Gamper is curating, Industrial Facility are doing both art direction, creative direction and their products. So I think when you say contemporary studio I think that's a lot of things. I don't know which one you're referring to. It sounds like maybe more the smaller practices but I don't know.

LF

It started as a mix.

DC

You have Bridge, you have IDC, they're more technology studios. Events are massive. Or fashion labels.

LF

I'll go on size from small to large and ones that cross over as many of the disciplines as possible so there's a breadth to what I'm looking at. There's El Ultimo Grito was the smallest, just two people. I met Thomas Heatherwick early on, they're the biggest on my list.

DC

How big is Pentagram today?

LF

I don't know.

DC

And Imagination?

LF

I used to work at Imagination. When I worked there in 2000 it was about 400. But I'm not sure now.

DC

Yes, they've changed a lot. They wanted to go more into UX and media and you can still talk to Damien Ferrar there. He's been there for a very long time as head of innovation. It's confusing a bit when you say design sector, that's a massive territory. Are you talking about design for manufacturing, design for user environment, retail or audiences?

LF

I hoped I might be able to pick one studio from each main sector, that kind of crossed over, but whether that's feasible or not I don't know.

DC

There are two tensions. One is the tension on the traditional discipline versus the reaction to do across the board. And then the tension between that and education.

LF

It seems that one issue is that there's no documentation on how these studios that are fluid are working. With Thomas Heatherwick there's no documentation on how he does what he does. He talks about it a bit in Making, but you still don't know how that studio works.

DC

There is a robust organisational backbone. There are robust working methods, management, HR, there's a support structure. It's still the author designer model, it's not the team model. I think El Ultimo Grito is a team, but they're still the author designer model with a very strong voice. If you want to counterbalance that it's to look at a non-personality based studio. You're interested in the fluidity not the specialism. So there are 12 to 15 size practices. Are you looking at architecture as well?

For instance if you take Urban Salon they have architecture, a lot of exhibition design, product design, and now develop products from their own house for market. I think these are reactions to economic pressures. There are practices like that doing more diverse work. Jason Bruges.

LF

I used to work with Jason at Imagination and I did contact him last summer about the possibility of taking part

DC

You've got big anonymous studios like Poke, it's not a personality thing, it's a brand. They've done a lot of interaction design and other things as well. The interesting person there is Nick Roope, who also has a company called Hulger, which is a lighting company. Someone like him is a creative but he's also a multiple-entrepreneur. Or someone like Simon Waterfall, who used to be part of Deepend and then Poke and is now in the States. There's Berg.

LF

Berg have stopped, haven't they?

DC

They have stopped. But Berg were very interesting because they did a very retrospect curious move between being culturally edgy and trying to go for a bigger consultancy mass production. They were culturally active pushing boundaries. And they moved into a wider facing product development company. Whether that's the reason or whatever I don't know because I haven't really talked to them since. But they were a very interesting practice. They swallowed in little practices, they did a lot of significant experimentation within a cultural sphere and then they moved to production suddenly and maybe that's been a difficulty, but they did what they wanted. The people from there would be interesting. There are other practices like Postler Ferguson, I don't know how many people they are, they're still small probably. I guess what is called interpretation design is one of the areas that I would say cross sectors. In fact it's one of the areas that I would love to see Kingston develop a stronger presence in, because if you think about theatre, retail, events and up to fully fledged museum, heritage, all that territory, when you look at that if there was not narrative environments but the next step, which is a kind of cross between interior design, communication, products, lighting all these things when you look at them through a filter of interpretation design, so that's not sector based but it's process based, that would be an ideal MA for all these people coming from all these courses. If you have BA that does give you some skill set but also an education that



allows you to use that skill set not in the traditional sector. And then you have MAs that bring together different process approach, then I think when I say were you asking how to look ahead, that would be it. So for instance experimentation happens in all of the fields but to have an MA or a research centre that looks at that process, and what you experiment, who experiments, what's experimental as opposed to experimenting, all that is relevant for all the disciplines, that would be great if people from all different sectors did that in education in order to raise the bar of their process. So maybe it is that Kingston has, because it didn't change as much, it's actually got that structure ready to go of the strong BAs and looking at new MAs that are composite rather than continuation. I don't know if that's what will happen but that's one of the ways that design education can happen. The other is that I think the mono-institution education is going to be challenged. That will be a very interesting time, when people can study a field and get it from different institutes and combine it. I don't know how, legally or credentials or fees, but if we were to study like we buy music that would be very interesting. Back to the studios I think the fluidity is a lot to do with chance as well. How people come across clients. Some people are known for being able to jump into a new situation, and some studios are known for being good at a certain area. So they're likely to get more of that, and the first group are likely to get approached for new ventures. You're probably looking at the first group for people who do different things. And you're only looking in the UK at this point?

LF

Yes. My plan is to go in maybe three or four times into each studio over a series of a few months.

DC

So I'd recommend to find a technology design studio. If you have environment, interior, experimental, maybe to some extent Map Projects are technology design.

LF

And Jason to an extent is technology.

DC

They use technology but they don't design technology or production. They might be designing a few things but they don't do internet of things, products, or technological products for mass production. Like Fuse, or Apple. It would be interesting to find one of these groups. There is an interesting company called TWSU Technology Will Save Us. They are based in Viner Street in Bethnal Green area. They're creative technologists. It's two practices actually. Hirschmann and TWSU. They have an experimental installation art side. And a product side which is TWSU which are interactive kits based on very accessible circuit boards and plugs. It's learning electronics and coding. They would be a very interesting technology company, also how they are set up as two different companies. Plus they employ 30 people I think. And they have their own factory there. I think they're a very good example of a contemporary design led company and studio that feed off each other and I'd say they are reacting plus they're interested in education. Their kits are about education to technology. Bethany Koby and Daniel Hirschmann. They could be interesting as they're very different from your others.

LF

The other studio I have my eye on is Participle because of the social science and graphics side.

DC

There are others. Engine Group, Joe Heapy who is an industrial designer that turned into service design very early on and wrote a book through DEMOS called The Journey To The Interface, user centred design. Joe is trained fully as a product designer that got into service design 15 years ago. Different from Participle because they do design, they have a social agenda but they also use that same process for completely commercial environments. They help with the signage in airports. Oliver King and Joe Heapy. FutureGov you know, just to counterbalance Participle to see others. I think Joe Heapy would argue they're not designers but they're using design, I haven't spoken to him for a few years but their practice was fascinating. And very early on. They're quite big in service design. FutureGov are interesting as well, lots of good people there. Are you looking also for very specific ones?

LF

I haven't, no.

DC

In terms of methodology you might have to have a parallel. There's an interesting one called Quinine Design who are so specific they only do mobile phone stores around the world, it's like a super-expertise in that. It's interior design, point of sale. It's very male dominated.

LF

I know, that's the most depressing part about it. It's better than it was.

DC

It is. But let's think about it, else you'll go mad. It'll just be reinforcing the same thing.

LF

There is the young architecture group, Assemble, with many women. Their Black Horse workshop is a fascinating thing.

DC

There's a small group Kirsty Emery, Ben Alun-Jones and Hal Watts. They're called Knyttan. Ben, Hal and Kirsty. She's a fashion designer, he's the engineer, and one is a programmer, a really interesting combination. She is very good on why their practice is using digital and industrial knitting. They're based in Somerset House, they're part of the Makerversity. Makerversity is in the basement of Somerset House, it's a work environment for the maker movement type... lots of studios together, lots of young graduates and businesses. Bethnal Green Ventures are there. So a lot of contemporary new practices, clustered, sharing some facilities, it's kind of an advanced collective.

One of the changes is where people work and how they keep on learning in informal learning environments like maker spaces. The growth of the maker space as part of people's education, informal, before or after. So informal education I think is an interesting territory. The group are part of Fixperts as informal education system but we've split it into three layers – schools, universities, professional volunteers. Each of these has their own guidelines. We've actually started working with primary schools, we have a teacher that joined us, an amazing graphic designer that did her teaching cert and does DMT and she's joined us and is leading our schools programme. Universities, we're doing Fixperts now in 11 universities around the world. Some of them in curriculum, some out, some as a kind of user centred design process or community engagement workshops. And we're doing professional

volunteers which is our individuals at really high level working with occupational therapists so it's really split. We have projects in 17 countries now. It's not set up as an education programme but it is all about a design process in a social benefit agenda. Very applied, very hands on. But on the other hand you are taking part in a bigger picture project. So for me that's an informal education platform. And one of the reasons I left teaching day to day was to be creating briefs that were across different institutes. But before that I was talking about Makerversity. So Knyttan are based there, they are interesting. I don't know what the other projects they are doing but one of the projects is knitting, whether hacking or changing the programming of an industrial knitting machine to produce products that are part designed and also with user intervention into customisation. They are really relating to redistributed manufacturing, user engagement customisation levels that are digital enabled and also tapping into the high street factory. Very interesting I think. There's a book about stewardship 'Six Stories About The Craft Of Stewardship', it's from Helsinki Design Lab but you mentioned Government Digital Service – GOV.UK, and they are one of the examples in this book about how design is used in a stewardship approach which is not top down or bottom up. It's about what happens when design is in the middle and works with the management and grassroots. As a design process how do you train people for that very suitable position. Design really suits that position of helping the communication, bringing ideas down or bringing ideas up. Facilitating. And they call it stewardship, and where do you study that? And that's a process again. The other book that has quite interesting articles about design education now is called 'Open Design'. It's an editorial with lots of articles, some about user centred design or creative commons design, platform design, open design. In terms of a bit of commentary on design from the side in Kingston there's Dr Catherine Rossi, she's a contemporary design historian, but she experiments with teaching. She will mix furniture and product designers with her history of design students. She'll ask the design historians to learn a skill and write about the learning of the skill which is a different approach to them engaging with making. She teaches sometimes with the historians in workshops. She's an interesting educator. That's one of the changes to breaking those silos. Not in the UK but comes here a lot, very interesting Unfold Design Studio - Claire Warnier, Dries Verbruggen. They are designer-makers-educators. Based in Belgium, but really worth looking at their practice and their process. They are reacting to technological changes. And they teach by collaborating with their students, they do joint projects. They don't come and teach the students to do what they're doing, they do joint projects. I was recently shown a project they did with Jesse Kirschner who is a student of theirs so they literally turned the teaching into a joint collaborative process and by the time the person finishes (and they've done it a few times) they are collaborators no longer students and they have a robust project which they can continue. So it's a different model. I think they're very interesting people. There are things that you look at sometimes, teaching practices, that we tried to do for instance in Platform 10, was more of a real collective approach where the teaching was more like coaching, or enabling the projects to happen rather than saying what they will be and assessing them. But really group projects that happen in environments outside and these books are some of the results. Coaching is a particular sort of thing so it's like a coach rather than coaching. We used to produce this once a year with the projects and you'll see there's a lot of joint projects and a lot of both fast and long projects. The model being that each person does ten briefs a year but one of these briefs is going to become more important to some people, others will do a short one. We moved quite fast between briefs but when someone locks in they lock in and keep going on the thing they locked in on. So you'll see this brief number 4 was a very straightforward shape capture, they had to move on from a shape and move on to whatever it led them to. Or this project of thinking through making which we ran, which means that they mustn't decide what they're making before, but they discover it through the process. Or on purpose starting from

drawing. But each of the briefs would really work for someone and not for another. This was an exhibition that we did about creating a living space. We try and do as many projects outside where they have to engage with a real environment or a real client.

LF

You mean over one academic year?

DC

Yes. He for instance was looking at family, and he did this speaker and we pushed him to a project called Land Space and how does that same system manifest if you're doing in environment or doing in the cinema. Moving between scales. And people discover their interests. Giles Miller now has a company, he would be interesting, he does interiors, products, very texture based, multi-faceted digital production. The same course, but he's a proper inventor-engineer and he's a kind of surfaces person that does lots of interesting things. They went through the same education process but their orientation was very different. They always did their own publication as well. In the same way with Fixperts we always ask them to do their own film, so the levels of standard are different. In this case we talked about design as an umbrella. An umbrella of society, of technology, of culture, so what's under your umbrella? They have to fill their umbrella. That's very ambiguous, but it's enough for someone to go 'What's close to me?' We invited someone to help do a project that started from writing short stories. That's not traditional industrial design process but it does introduce a very strong narrative. And before they do shapes it kind of brings up their world. They wrote these stories and then out of them they used these stories as references to their design. So they didn't have to go to an external source of inspiration, they had their story. And from that we developed an exhibition called 'Sleepers of the Great Eastern' where each one of them found a relationship to the hotel. How did the story pan out in the hotel? If you describe that in terms of curriculum, and you say 'OK, they will learn to evolve their own practice' but we didn't work that way because it's an MA, you don't have to. But if you do something like this in a BA you do have to prove what it's going to develop. But actually that's not difficult because it develops the ability to communicate, conceptualise and find a way that suits that person to conceptualise and so on. And they need to use skills – making, drawing, computer skills. Though they're not sector specific, it's process. It's very strongly to make them into a group to do things together but also to keep individual drive. This is a project where they each were given a shop in a museum and they had to design something for the shop that reflected the culture of the museum. They have to learn the museum, they have to learn the retail offer, they have to design something that would stand in that. So for instance this was in the Imperial War Museum, and these were dolls that had to be repaired, so it enables you to talk about recovery in war. And so people would see torn dolls and buy them with the kit and repair them. So it's a very different offer but not a bad idea for communicating the culture. Now as design education you still have to do all the things you do with the products that are there. It still has to be producible, it has to communicate what it is, be within a certain cost bracket, depending how much you want to push it. But fundamentally it's open to their ability to interpret the coaching into product. What kind of design is that? Product, interpretation, packaging, it could be all of them. But the process is being attentive to the context. So all these projects were very much about that. Yes, you might have an idea but how does that idea suit the place you want it to be part of, and who is it for. Some people call it user centred design but I think that just limits you from thinking about the design holistically, because we're too much centred on sustainability. You suffer from that specialism. These are ten years ago.

This book is 'Critical Making', it's a guy in the States, he's in Canada now. He's reacting with new MAs. And he's mapping the whole critical design. Have you talked to Dunne and Raby?

LF

No, but they're on my list.

DC

They've really shaped design education, way ahead of practice sometimes. Also Fiona also teaches industrial design in Vienna. If you're interested in critical or speculative design they are the forming source.

But if we're talking about speculative design there are plenty of young practices like Daisy Ginsberg. In terms of design education Goldsmiths a few years ago had Terry Rosenberg and Martin Conreen wrote a programme for a BA which was a comprehensive rethink of what happens to you during a BA and how you develop as a student into practice. And they actually took a step back and described the journey that happens in a BA and then wrote the programme. They reacted very strongly to existing curriculums before. The person that would probably have best access to that is Matt Ward who runs it now. But that roadmap they did was quite strong and as a result they have a very good programme which leads to thought leadership and speculative design is one of those. So they're a feeder to Design Interactions for instance. BAs are becoming clearer, so Goldsmiths, with the Communications process, and Kingston with thinking through making. There are reactions too, but it's still very much sector defined, that's the problem.

LF

Thank you very much, that's amazing, I haven't had to ask one question.

DC

Well you did, you sent them off.

LF

That's really helpful, and all the contacts and books to look at.

DC

Daisy Ginsberg has a book, but it's not design education book so I don't know if that's relevant. Synthetic Aesthetics, I think. Part of speculative design. There's a recent online conversation about speculative design, critical design, design thinking, the whole span of who teaches what and what are the schools of thought within that. So the question would be is this fluidity that you're interested in relevant to be taught as such?

LF

That's what I'm trying to find out. Sometimes I start to get the feeling that it is. And maybe other times like you're suggesting it has to be the counterbalance.

DC

Can't there be an overview where some institutes do this and others do that so you have the balance. Not everyone is doing the same thing.

LF

You were talking about two paths earlier on. For those who know they are wanting to go down the specialist route there are the specialist courses and for those who want the fluidity there are the fluid courses. It's just the concern with the fees, if students

stop wanting to do MAs which they seem to want to be doing, you only have that undergraduate. We're getting fewer and fewer from foundation applying, so you're stuck with these three years.

DC

When you said what are the barriers hindering this change, I wrote funding and assessment. We didn't talk about implications for non-creative industries, so this whole movement of what's happening in the States or in Germany, with this D School. Have you come across it?

LF

I have come across the D School.

DC

Set up or came out of IDEO and said anyone can be a designer, here's the process. So has that worked or has it completely backfired? And has design lost its relationship with creativity. Because if everyone can do the process that means that the people that did it before but actually... So IDEO when they started doing this was amazing because they also had very creative designers. When they do that process you do get amazing results. But when people who don't have that creative contribution do the process they don't get amazing results. But they get results which might be better from what they did before, so has that compromised or damaged design? And this brings on the whole design thinking ethos? Is that counter-productive to actually understanding the value of design? And to some extent it is and in some places it's great because it allows disciplines that previously did not know or use a design process to bring out things from themselves because they are creative actually, they're called non-creative sectors but they're full of creative people. You look at alternative energy or the next big territory which is science crossed over with design, medical healthcare and science, that's going to be a really interesting territory soon. It already is. And what kind of design education do we want or do we think could be good for these subjects, or for governments. And I think the biggest thing that needs to happen is that the relationship between learning design and values, so not just value but values and not just profit but benefits. And this is the big move that lots of the younger studios are trying to engage with. And how do you create a design education environment where people do tap into the values that they're interested in. Or should the education provider be setting those values. Traditionally schools set the values and you went to the school according to their values. Then it opened up and it became very non-value based, but professional, and I think that's coming back, this interest in values and benefits. So you need better designers for these situations.

LF

When I was talking to the Design Council they were talking about Design Challenges that they set, and a lot of the people are not designers. But I suppose the difference between that and the D School is that what they were saying is to support that person and take that person who's not a designer and has come up with the idea from beginning to end, there is a design process in place managed by designers. So it's not that anyone can do it, they can come up with the ideas, but there is still a very strong experienced design process in place.

DC

But it's respecting that the creative input that kicks off a process doesn't come from design, but how you translate it into the most value does happen through design. So should design education create enablers, and facilitators and stewards and so on. Rather than authors.

LF

It feels like it should. Brilliant, thank you very much.

DC

Email if you need anything.

END

**Interviewee:** Nick Couch (NC) – Founder of Deskcamping; Business Director for Design at Mother, London  
**Interviewer:** Lara Furniss (LF)  
**Date:** 05.09.14  
**Location:** Mother, Shoreditch House, London

**Notes:** Interview questions were sent out prior to interview

NC

It's felt a bit like therapy, looking at the questions this morning. I think also what's interesting with the questions is that, especially around what you think has changed since 2000, it's quite hard because you can only draw on your own experiences, and if your journey hasn't been very linear career wise, if you've changed roles and gone to different types of agencies, it's hard almost to know what the changes have been to design studios. Because it's not as if I've been in one place for ten years. I can easily see that things have changed because my role has changed. Also, the types of agencies I've worked for have been quite different.

LF

I think the fact that you have moved around is really interesting because you are someone who has been interested in exploring different design areas and approaches.

So, what brought you to thinking about Deskcamping?

NC

I was asked by Design Week back in 2010 or 2011 (Lynda Relph-Knight) what advice I would give to graduates leaving college that year. I think it was just a Voxpop thing in the magazine that week. It really started me thinking about what I would do if I was graduating. I was creative director of Figtree at the time, and we had been going through a rapid stage of expansion. I was interviewing lots of creatives and really felt that other people were starting to work in a 'project-centric' way. Years ago when I left college it was really about finding an agency that you were excited to work for, and then spending a good period of time with them. You would get loads of experience and would grow your network and experience from that starting point. I felt like I was meeting people who were a lot more 'project-centric', weren't so interested by the draw of the agency but more about their portfolio and the sort of projects they wanted to do.

Also, it was around the time of the Lehman Brothers and the whole economic situation and not many people were hiring. I thought that graduates leaving during that time would find it really difficult to find full time work, and actually what was more interesting was groups of people coming together forming their own little creative collectives, working on projects in their own right. Not worrying about getting a full time job or getting on the first rung of the ladder, or working for that particular agency that's got that particular reputation. But actually finding your own way with likeminded people and working in cafes, working on projects and just not throwing yourself into this need to get a full time job. If your rents are quite low and your living expenses are quite low, then you can just relax a little bit and think about doing some interesting projects with people.

I think also a couple of years before that I had looked to find a creative space as well with the thought of starting up my own agency, probably in 2007/2008. It was just really daunting to think about signing a lease on a building for 6 – 12 months. So, I wanted an alternative where you didn't have to just work in a café or in a friends bedroom, if you were starting up your own thing, but could actually find space where



you could rent it on a weekly monthly basis. But where you were also in an environment with other creatives that you could collaborate with. So, that's where the idea of Open Studio Club came from, which was something pre-Deskcamping. It was just a notice board on line for people who had a spare desk in their office to be rented out to a new freelancer, and for the freelancer to feel like they have got a bit of a home and an alternative to working at home or in a café.

I started off thinking that this was a really nice solution for freelancers working on their own or new graduates and I actually ended up feeling it was more of a benefit to studios, especially if they had let staff go and were going through the recession. They had spare desks and that had a negative impact on the culture of the business, when you see people leaving. Especially when you enter the studio and see that a third of it is empty. Actually it is a really great way of bringing in fresh minds that have different experience and a different background. A graphic design agency could rent a desk to a writer, even though they might be working on separate projects. Those water cooler moments or those times when you go for a beer on a Friday night, you start to think how you might be able to collaborate together. It felt like it was a great way for small agencies who couldn't afford to hire a writer, or an animator to get them into the studio. All of those great talents that we had at our disposal at Imagination (NC and LF worked together at design agency Imagination from late 1990s into early 2000s). But for these teams of five or six creatives, it could be a way of getting other talent into the fold without having to pay them a salary. And, they were getting exposure to a different skill set, getting a different talent and experience that you probably couldn't afford.

So, that's where it started as an idea. And Airbnb was doing really well as an idea and I thought it would be great if there was an Airbnb thing for work spaces. Also, from a creative idea point of view, I like ideas that are quite parasitical. You know it's not about creating a new building with office space, its about making something out of space that is unused or under utilised like a desk in the corner of an office that's just gathering dust. You can really put it to good use and have a real impact on the culture and it's a good way of making money. So, I quite like the idea, sort of 'make do and mend'. It felt right for our times that you make something out of nothing. If you imagine London, we are in the centre of London right now, if you imagine all the space that is unused and under utilised and yet we are building new buildings and we are constantly knocking down buildings and putting up new ones. There's just a awful lot of wasted space that could be put to better use really.

LF

So that starts to answer my second question, looking at the kinds of change you have seen taking place, and obviously Deskcamping was a direct response to what you were seeing?

NC

I started to look into this idea as I felt that more people were freelancing and less people were hiring, because of the recession and everything. Around 2009, it was a real banking crisis, with people saying that if you had more than £50,000 in your savings account you should disperse. I think we have forgotten how bad it was. Agency were not willing to hire and there were more and more freelancers.

I did a bit of research and the Design Council issued a report in 2010 (Design Industry Insights – Comments and conversations on the business of design in the UK 2010), which showed a 40% increase in the number of freelancers between 2005 – 2009. I also started to look at statistics in the US as well, around the increase in freelancers across all sectors, and it showed that by 2020 in the US about 40% of the

entire work force will be freelance. That's pushed by things like the Healthcare system in the US, and the reluctance of businesses to hire fulltime because of Obama-care and things like that. But, overall it's a general drive towards more people freelancing in the world. So I think it's partly recessionary, but the reason I don't think it's going to go back to people just working in full time posts is that technology and the Web and Linked In have enabled people to be much more self networked. So our networks and our careers are less reliant and focused on the studios and the businesses that we work for and we are much more self-governing in terms of our career and the direction it takes. We are just much more connected. You see graduates leaving college with their own website, their own fully fledged Linked In profiles. They are sort of ready to go. When I was a junior designer you would try and meet someone within an agency and then you would have a beer on a Friday night and you might meet someone who was from another agency. That was sort of how your network grew. It was very slow and very organic, and very much social and physical. Now we have people that can be contacted on a weekly basis for job offers. It is a more promiscuous labour market than it was ten years ago. So the recession has increased the freelance thing, but I also think technology has enabled people to be much more self-networked so they don't rely on the business or the studio as much as they used to.

I think also one of the big changes is that there will be more smaller design studios. Because I think we are still a project based industry and projects come and go. And because the labour market is so much more flexible now, whether that's a good thing or a bad thing, I think it means that agencies will expand and contract much more. You sort of have this uber layer of WPP and Omnicom, these massive global networks, but below that you have now smaller teams that come together are loosely called agencies and they enjoy working together. If they get projects they get bigger and when the project ends they get smaller. They are much more embryonic. That is very different from what it was ten years ago, definitely.

I also think the way design is perceived has changed as well. Definitely when I look at Graphic design. Sites like 'It's Nice That'- even the tone of this site is quite flippant. I feel as if design is slightly devalued from what it was. Because there is so much of it and it's so quick to generate and it's so fast changing. Its almost like fast food. So, an example of this is ten years ago if you worked in Branding, you would create brand guidelines and you would create a lever arch file of, say, the BT brand guidelines, and Interbrand would do it. It would sit on the shelf of the global head of brand or the marketing director, and that would probably stay that way for a long time. Now, we see brands and identities changing almost every two years or so. It's much more rapid than it ever was. There is just so much more change in things. Whether that's driven by technology, or new competitors that come into the market. We have much more awareness of new competitors in lots of sectors in the world. It has made me feel that the output of what we do is much less fixed and much less long term than it was when I look back ten years ago.

LF

So, with all of this change that you have highlighted, how do you see disciplines fitting in with this. With these smaller studios coming together then dissipating, depending on the project, who is coming together? Is the mix still people within one discipline, like graphic designers, or do disciplines not really matter. Is it more about people with like minded thinking wanting to work on the same thing?

NC

I would like to think that it is, and I think that that's the case at a certain level. But, I think the bigger the client the more siloed the disciplines are, and the more the

central governing bit that leads all of the disciplines is research and strategically driven. Then that sort of sets a direction for all the different disciplines that might feed into it. Then I think that is quite siloed and I don't think there is a lot of crossover. I rarely sit in a meeting where we have a big client and we have got a varied interesting bunch of people that are there because they can just bring an external or sideways perspective on a problem. I think a lot of agencies like the idea that they do do that. They might say that they do that, because it sounds quite nice. It's a nice thought to have.

I have just been talking to someone this morning who worked with Wally Olins (Identity, Branding and Communications designer) for a long time. It feels like that idea of just having really amazing thinkers that are almost agnostic of discipline, who can all get together in a room to solve problems, feels like quite a luxurious amateur world which doesn't really fit the reality of commercial projects. We are sat here within an advertising agency and my background is branding and brand consulting and brand agencies, and I feel that the people you get together around a big commercial project will be structured. So, if it is a brand project there will be brand strategist, and a brand creative. If you have an advertising project then you have a planner, art director and a copy writer. These are the teams that you tend to have. I don't really see much of that thing where if you have, say, a brand problem, and it's framed as a brand problem, which might be where it is wrong in the first place because actually it's an issue of how a company identifies itself and presents itself to the world broadly or philosophically. But what we don't do is answer by saying "here are some amazing thinkers who can apply themselves to anything, so let's just put them in a room and see what they come out with". It tends to be that if you have a brand related problem then you put together a brand team to answer it. And that brand team tends to be quite skilled brand strategists or brand creatives.

I also think that the idea of the design thinker, who I would characterise as some like Wally Olins, feels like a sort of personality that is very rare. They are a brand in their own right. Maybe it's that we don't have so many designers that can leverage that sort of role where they can almost sit in a room and it's justified that they are there to answer any problem. You could imagine putting Wally Olins in a room and for any problem he would have something interesting to say about it. I wonder whether he would be put in that room because of the confidence of who he is, and his type of personality. But I would say from an overall process and culture and how people work, the norm is that it is much more siloed on bigger projects, unless you have these uber personalities who just seem to transcend all ways of working and just plug in somewhere else. I don't know if that's a depressing thought.

But can I just say that at a smaller job level there is a kind of openness about putting different types of people together to solve problems. But these aren't big programmes of work that have hundreds of thousands of pounds attached to them, compared with projects that have twenty thousand attached to them, and it's some kind of community project. That could be quite an interesting thing, to put a few different types of people together. I think that probably happens a lot more at that level than it would do at the bigger commercial end of things. But, I also think years ago, people like Wally Olins, because it was less research driven, less professional marketers leading and writing the briefs on the client's side, it's just that there has been this professionalisation of the industry over the last twenty years which has almost locked down processes. That slightly depressingly means that there are certain types of disciplines that need to be slotted in at different points.

LF

That's interesting, because looking at the research, reading what others are saying about what has happened in studios over the last ten years (with some studios seemingly rejecting disciplines, calling themselves post-disciplinary), these studios tend to be small, like you say. So, a lot of the studios I am looking at are smaller. Jason Bruges Studio was around thirty people. So part of my questioning is how do they survive if they develop a way of working in a small group but then start to grow? Heatherwick Studio which is now apparently up to about 160 staff. How do they possibly continue to work in the same way? But, part of my research will be to discover whether they truly are working in this post-disciplinary way or whether they just say they do but are actually still siloed in some way.

NC

Can I just say on this point that, I am currently figuring out the offer for Mother Design so I am looking at how other agencies present themselves. Consistently agencies say "we are agnostic of outcome, what ever the outcome is, and we are all about the idea, we are all about solving problems. We all live in that space of the outcome being what ever is appropriate for the client and the problem". Everyone says that, and that might also be true in the outcome. But, then if you ask practically..... Your question is around multi-disciplinary teams, but what is the opposite of multi-disciplinary?

LF

Uni-disciplinary?

NC

You might have a uni-disciplinary team that is still able to think about a problem in a broad way. But if you go in and you ask an agency that says they are 'problem first - outcome could be anything', what are the different types of people they have working for them under their roof? They might say "well we've got 160 people (like TH) but 150 of them are architects or product designers. So, they are not multi-disciplinary. But maybe you can still be free of solution.

The problem is I don't think you ever are free from solution in reality. Depressingly, if you are a business of graphic designers or a business of architects, the outcome will tend to be biased towards the discipline you are trained in. So, it's a constant thing. My journey was from being a graphic designer to working in branding, where graphic design is one component of it, one outcome. But a brand can be as much in how the staff behave, how somebody answers the phone, what the feeling is you get for a space that you are in. That's what I love about branding. It sits at the heart of all those things. But talking to an early days fairly junior designer who works in branding, trying to get them to think about branding beyond what the identity looks like, is quite a struggle. They try to solve the problem, which might actually be a service experience problem, through design, which has nothing to do with it.

LF

With Deskcamping, if you have a graphic designer who ends up in Jason Bruges Studio (JBS offers a Deskcamping space), you start to wonder what possibilities might develop over a cup of tea. The graphic designer will be watching all the technological interactives and the interactive designers will be watching the graphic design, and there is going to be a crossover that is possibly difficult to define.

NC

Yes, I love that, and I think that is still at the heart of what a creative business or agency should be. That it is exposed to outside ideas, whether that is somebody

physically from a different discipline that sits within the main space, or whether there is something in the mindset of people working there that they are constantly looking outwards, beyond the walls of the business they are in. I think that the life blood of any creative business is about being inquisitive and curious and open to new things and new ways of doing things. Whether that actually informs work or not, even if that writer that goes into the graphic design agency of the graphic designer that goes into Jason Bruges (or upstairs there's Poke, the digital design agency and, through Deskcamping, a filmmaker went in from New Zealand and they are now collaborating on film projects together). Even if that doesn't happen, it's just great to be around people who think a bit differently but are still facing creative challenges.

I think there are commonalities in terms of the process of how you work, regardless of the disciplines. It is still quite painful being a creative at certain points in a project when you don't know what you are doing. It's like the dark room where there are no answers. Whether you are an interior designer or a graphic designer or a filmmaker or a musician, that dark room is a slightly uncomfortable space where you are trying to do something original that hasn't been done before. So, everyone recognises that and that's a great bonding thing across all the creative disciplines regardless of what you do. It's that feeling of if you are really in it to do great work then you recognise the discomfort of not knowing quite what the answer to this brief is or not knowing what to do. Because, by definition you are creating something new. Just being in an environment where people are collectively feeling that, is a really important thing psychologically. More than if people just end up working on their own at the kitchen table where you could end up just becoming very inward and feeling very isolated. Where as it is really good to recognise that actually there are lots of people who feel the same way as you. So, I think on multiple levels it's not only that discipline A can work alongside discipline B and the result be C. I think it is that sense of camaraderie that people can feel about things and the sharing of that discomfort or pleasure in doing interesting stuff.

I don't know if I've answered your questions?

LF

That's great, you have answered a lot of them all together. You've talked really well about why this is happening. Obviously there are these issues, like the recession and the patterns of hiring that are affecting designers, but do you think this is choice as well? You say they are choosing to be more project-centric?

NC

Yes, I do. Maybe it's a bit of a bubble of London as well, as there are so many options in London to go and work with loads of different agencies. There is a scene here which will support you if you are good and I think there is a point that you can get to in your career where you don't have to worry about paying the mortgage/rent too much. There is enough of a scene to support you. So, I think if you have that confidence you can think about the project because you say "I am now going to focus the next year on projects that are going to really interest me". If you do that, combined with doing a little bit of freelance work with an agency like Mother to supplement your life and pay the rent, then within the bubble of London there are enough opportunities for you to do that. So, I sort of feel when I talk that I do have to remind myself that my experience is a London one, whereas people outside London might not have that same feeling of being quite so carefree about their careers, of being really flexible and being all about the project. So, that is a luxury for me. Also, I am part of a scene where I have been lucky enough to work with some of the best agencies as well. So, the talent I see are really smart and great and employable. So, everything is caveated by that.

I think that there are huge positives in finding your own way, if you are genuinely interested in the creative journey within the discipline that you are working. I think that working for an agency 9-5 can feel a bit of a slog and a bit repetitive, and you might end up doing things that you are not so interested in. And that thing might not just be for a week. Like the Ford account at Imagination, it might go on for ever and a day. So, the fact that people feel more self-networked and feel more autonomous and have more of an individual window on the world, through sites like Behance, Linked In and all that, they can feel a level of independence and work on projects that they really want to work on.

I met this guy when I did a talk at Camberwell recently, he was one of the lecturers, and he felt really pained about this rise of the freelancer. He felt it was the state and the government working this to their advantage because people don't have job security any more and can be gotten rid of according to whether an agency expands and contracts. I hadn't really thought of that side of it very much and think maybe there is that issue for people who do want a job and security. There is less and less of that in this industry than there was ten years ago, because we are a project based sector. It is easy to get rid of people and hire people and it is a very flexible market place.

Also, there are a lot of designers out there. The supply and demand is a bit weird. In digital I see rates going up and up year on year. A senior designer for digital might be earning £500 - £600 per day. A senior graphic design is about £250 a day and I feel like it has been that level for about five years. That's because there is a lot of choice, a lot of supply, and it may also be an area where the value isn't there quite so much as there is for good digital creative people. So, there is a bigger question around how much of a long term career there is in design. I don't really mean that, but it's weird that salary levels and day rates for freelance graphic design has just stayed still for such a long time.

LF

That links really well with the last question, which looks to education. Do you think there are any implications for education at undergraduate level particularly?

NC

I have never really actually gone into a school and met students. Camberwell was a one-off. But, I was actually meant to do something at Central St Martins this year, it might still happen, around Deskcamping. So, I went to their degree show this year and saw everything from Graphics through to Product. I guess my overall feeling on the state of design industry is that things have become very fast moving and quite devalued. I'm not blaming sites like 'It's Nice That', but I do think that it creates a culture for just constantly seeing design and it constantly changing and its everywhere now. So I think if you are a design student as an undergraduate going through that three year process with the backdrop of so much stuff that you are seeing, I worry that design ends up being much more about the surface than actually about what underpins it and a way of thinking. So those great people like Wally Olins or Michael Wolf are all great design thinkers. Really, that's what great UK colleges and universities should be preparing graduates for, is thinking. That is the one thing that is still at the heart of everything if you are a creative. Me talking about this common feeling that you have, regardless of discipline, for coming up with ideas, emotionally how you deal with really challenging yourself to be original and do great work. I don't know what colleges do on the psychology of that in really preparing and talking to their students about how you deal with really pushing yourself. That kind of black room – I talk about it as the black room because that's what Michael Wolf described it as. He said there were four rooms in a house. I can't remember all the

rooms but one is everything that has been out there in the world, so you just go into that room and you just copy. One room is this black room where you don't have any doors or windows, and you don't have any idea what you are doing, but that is where great work emerges from. I don't see anyone in design education talking about how to prepare creative people for dealing with the black room and conditions for dealing with it. I have developed techniques for working in that way where I right off time. So, if I have a brief and a deadline at 12:00 noon the next day, I right off time for myself. I say "right Nick, you don't have to do anything until 5:00pm. Go and have a coffee". It's like a displacement activity that frees my mind. And the moment you free your mind you start to think about the problem in a more relaxed way, and then you deal with the anxieties later. Instead of focusing on the deadline and putting together a presentation, you give yourself a period of 4-5 hours where you think "it doesn't matter if I don't come up with anything in 4-5 hours and then I will get on it after that. Let's just enjoy the next 4 – 5 hours". Then, something always comes out of that. Design education, in my mind, doesn't talk about how to deal with those things.

I think going back to 'It's nice that' and the surface of how things look, I worry when I see design shows that they have made something look like it's part of the fashion. There are lots of 1980's styles around at the moment, and you go to the degree show and you see lots of 1980's graphics. Yes, it looks on trend and it feels like it fits, and there have always been design trends and it's good to know about them. But, what you really want to see is whether somebody has thought about that in a really interesting way? Since hiring junior designers and interns, I know within one meeting if an intern is going to be good and if I'll want to offer them a job because they think about the problem more than telling me what the outcome is going to be. They have a way of thinking and understanding and they get it. They may not fully understand the commercial business thing that's driving that problem, but they get it. And you know that immediately and they are people who sort of think about design rather than just view design. I don't know how much emphasis there is in education around thinking about the problem of the design rather than the execution. The execution, when you are an undergraduate doesn't matter to me that much. It's whether you can really think about solving design problems.

We are in an Ad agency here and I had this great thought the other day. I think advertising reflects the world we live in and design reflects the world we want to live in. I think designers are always trying to think about how to make the world a better place. Great designers will do that, or imagine something better. Whether it's a better kettle or a better piece of communication. And that's what I think design education should focus on. Getting designers to really think about how they can have an impact on the world and make something better. It's a big thought. It's not about making 1980's graphics.

On the education side of things, I think D&AD, the Design Council etc have less relevance in the lives of a practicing designers than they might have done years ago. D&AD for me used to have the Annual (printed) and the annual awards, and it was something really talked about. Maybe people just liked looking at the Annual, to see all this great work. Now there are all these blogs and site. So, you get your thirst for great work in other ways. I can see at any moment across a whole range of websites what the latest work is that is the best sort of work – like 'It's nice that'. And, I know some of the people at D&AD (Tim) and met the president of the DBA (Deborah Dawton) recently – you could talk to her actually. I think they are in crisis. I think they are rubbish. I think all these institutions are rubbish. They don't have a purpose any more, and they don't know how to be relevant. You look at the Tech scene in London, in Shoreditch, and they are putting on drinks evenings every week. Everyone is there with their branded t-shirts for the latest start-up. There is so much

energy and enthusiasm. When does the design scene get together? Who cares about the D&AD awards? The Design Council feels very government run, very businesslike. It feels like it's James Dyson.

LF

What about Nesta and the RSA who offer funding support to designers and students?

NC

I haven't heard of Nesta. Tim at D&AD invited me to dinner at The Groucho, with thirteen others of the great and the good. They were asking how they could be more relevant to the design community, almost like they were in crisis mode. So, I said "why don't you set up a work space and open it up to new freelancers and agencies of 3-4 people?", and they said "oh no, we can't do that because we are a charity and it might affect our charity status". So, they are so inhibited in actually doing things that might help them engage a bit more with the world around them. Why aren't they putting on events and why aren't they a bit cooler? The Design Museum is such a stuffy institution. Why aren't they in a bar? That Shoreditch thing, yes it's very tech and it's new, but it just feels like everyone is just having drinks in pubs around here, with conversations. Who is leading the conversation about design in the UK at the moment? Who is setting an agenda? Creating a sense of community and pride and all that? It's not D&AD, DBA etc. They have sort of devalued themselves because they became just about awards. And the Design Council just feels like such a removed body that it sort of doesn't feel like it's in touch with design. I hate them all.

LF

Who do you think is leading the design conversation? Is it this neighbourhood?

NC

I think it's really small groups of people and agencies, in London. Do you know the agency Adam and Eve? They are a product of how advertising agencies have changed in that they call it the de-coupling of production to creative. So you can now have advertising agencies that are just creative people that can then plug into production houses to do all of the global media and all of the art working. So there are places like Tag and Hogarth that are production companies. What that has enabled is that you can have smaller, say 18 Feet and Rising and Adam and Eve, who are fairly small agencies of 15-20 people, but they can service global accounts because they plug into these media production companies that can distribute campaigns across every market in the world. Now 10-15 people can do a global campaign for VW. It's smaller agencies now that don't need the big overheads, the big production, the big statements. They are the ones doing the more interesting work. And it's a global world as well, so it's small agencies in NY and San Francisco as well as London.

END



**Interviewee:** Deborah Dawton (DD) – Chief Executive at Design Business Association  
**Interviewer:** Lara Furniss (LF)  
**Date:** 21.01.15  
**Location:** DBA offices, London

**Notes:**

LF

It would be great to initially hear a little about your background and how you got to the DBA.

DD

So the potted history is that I trained as an industrial designer at Newcastle Poly as it was then. I became aware of the fact that I was only an average designer, before I finished the course, and actually ended up marrying one of the best people on the course. I didn't fancy a life of him designing cameras and phones and pens and suitcases and me designing vandal proof hand-dryers for public toilets which was probably what I was destined to do. But I enjoyed talking about it. Although it took me six months to work out how, what I did eventually work out was how to use all of the skills that I'd developed in a design training course and apply it to another area of work. Career-wise, the career found me, as opposed to me finding it, just like a lot of people. It's a series of steps that have led you to something that you wouldn't have otherwise planned. My first job was with the Royal Society of Arts when they used to run a big student design awards scheme and at Poly I'd won one of their awards, my husband had won one, so I was familiar with the scheme. He'd won kind of the Grand Prix of the RSA so he'd won a placement with a couple of companies. So in fulfilling that we ended up in London. For the type of work that I was looking for, really broad organisations that I was interested in, were the DBA, the CSD, Design Council. At the time what I wanted to be was Event Manager. So I was going to have to wait until someone popped their clogs to get one of the jobs because there really weren't many of them. Because design really was the passion. And short of that happening I set up my own company and ended up servicing all of those organisations, organising competitions, so we did the D&AD awards one year, we ran a major initiative for the Design Council called 'Millennium Products'. So you got to understand how the organisations worked and what they did. There was a commercial entity, or parts of the business I ran which was the bit that made the money, because the design stuff generally didn't cover its costs and you weren't going to get rich servicing the design sector. Then I got a call from DBA asking if I was interested in the job, 12 years ago. I flatly refused because by this stage I'd seen so much of the workings of these organisations, I thought why be hamstrung working inside one of them. They phoned back a year later and said 'This time we'd really like to talk to you,' by which time they'd been without a CEO for a year, they'd actually offered the job to someone who had subsequently turned it down. I didn't want to know who, but I wanted to know why. I spent Christmas deliberating as to whether it was the job for me, and came back in January and accepted the role. So I then had to close down the business I had, because there was an element of conflict of interest. I started this in April 2003 and I've been loving it ever since, it's a fantastic job. I'm privileged to work with some of the best people in the industry through to those who are just starting. To look at how we can better equip them to cope with the challenges that come with the industry at varying stages. To develop the strategy and the impact and influence of DBA across the board. We're going through a big strategic review at the moment. I think for me, you'll have met a lot of designers, the day I'm asked to manage something is the day I walk out the door. So this continual iteration in an industry that is so fast moving is actually what's kept me here for this length of time.

If you'd asked me before I would have said two or three years and then someone can manage it, and actually the nature of what our members are doing changes so fast, that what we did last year is not necessarily appropriate this year. And so having to keep fairly fleet of foot, open-minded, we always question what it is we're running and why, and what needs to be brought in that's new that will push them to that next level. It's a really exciting role to be in.

LF

It's fantastic that you got the chance from a design point of view to work with all the organisations first, so you've got a great perspective from both the design side and the business side.

DD

I think the epiphany here for me here was in understanding that we can't make them better designers, that's actually very hard to do and you could argue that's the job of education. But actually we can help them run better businesses. And I personally am in two minds as to whether you do that in higher education or not. I think if you're training truly talented creatives, concentrate on that. The jack of all trades isn't going to survive in the future and you need brilliant creatives that are then supported with all of those services as and when they need them. I remember at one stage at Newcastle they were toying with the idea of us learning Chinese while doing industrial design and you just think 'No' we're not linguists, and you'll end up with a poorer industrial designer at the end of it. And that's very much a personal view, as for a DBA view, but I'm pretty convinced now that to cut it as a creative takes so much training and development or self-development, it doesn't just happen through university but actually concentrating on that. The other stuff will come. As long as the support mechanisms are there in the industry you'll get great creatives who should quite frankly never be running businesses and that's where we need to find those people who are good at running businesses to work with the great creatives. Because to ask someone who is truly gifted to run a business it's stupid, it's like asking someone to cook who doesn't know how to switch the oven on. You can argue nor should they. We're all designed differently, we're created differently, we have different skills, abilities, gifts and talents, and it's really about how you bring all that together and those companies that do that really well – I'm thinking of the ones that excel, those businesses that recruit a bunch of people who look like themselves will end up looking like the thing they always looked like. Eventually that goes out of date. But I love it. It's a great place to work.

LF

The next question is what you think has changed over the last ten years in the design industry as a whole - any significant changes in terms of how those studios are structuring themselves differently or working differently in terms of the process, and what they do.

DD

So what do I think the big changes are? I think if you look at... at the end of the day I think we're in a sector where we're selling our skills to a group within a market and the market needs to understand what those are in order to buy them, and understand the relevance of those skills that are being applied to their businesses. I think sometimes there's a perception that designers think they're developing their offer themselves, but actually I think they're reacting to what they see every day, even though I don't think they would articulate it as that to you. The reason that I think this happens is that, I can remember when we first ran DBA we were doing lots of courses and stuff – it still happens now – and we get evaluation after all of the events we do, and one of the comments that usually comes back from people is 'It was great

to come along because it reinforced everything I already knew'. I sit here thinking 'Why would you come to something if you know it already? Surely that's a waste of a couple of hours. I think it's to do with the way that creatives learn so that actually by the time they've finished reading a page of stuff they believe it, and they so believe it that it's going to be practised the next minute. And I think that what's happening in the events is that they're hearing wise counsel being put to them on different subjects, and if they think that what they're hearing is better than the view they currently hold, they shift on to the next view. It's a way of maturing ones attitude or perceptions or understanding of certain things. I think in our sector, I really believe this, I think there's an unusual thing that happens which is if you expose mediocre people to better people in terms of quality of thought, maturity of thought and so on, the capacity for the mediocre to significantly scale up or move up that trajectory of development of maturity of thought is exponential. So, if you keep them in a corner and they're not exposed to anything like that, then actually they stay in that corner. But I think there's something about our sector that says not everyone will react in the same way, but a good proportion of them will actually move on and develop their thoughts and ideas. Their capacity to understand the things that they learn. Of course their frame of reference as they get older and wiser becomes broader and so they become more valuable. I think there can be an issue around the value that is attached to experience. It's a change, I don't know if the change has happened yet, or whether I'm predicting this is something that will happen, which is that sometimes there can be an emphasis on using any designer, and I'm saying 'No, you need to use the appropriate designer'. Because actually if your business is at risk because you're spending all the money that you have to invest in design, actually you want to work for someone that's done this before, who has the experience, who can cut to the chase, they're not having to learn with you. Actually they're taking you there in a very short space of time. And I think generally as a conception we should cut all of the young companies a break and they should get to work on these projects. But there is a risk of doing that, they simply don't know as much, they haven't experienced as much. And so our advice to businesses is to buy the most experienced amount of design that they can, that is appropriate to where they are as businesses. So what you tend to find is that SMEs or very small companies or startups may actually work with startup design businesses, a lot of that happens. But actually if you look at the level of risk associated with the startups investment and design it's got to be comparable to GSK (GlaxoSmithKline) but even more so, because the proportion of their money that they're investing is probably a far bigger proportion than someone like GSK has. So the idea that you would then invest that with someone who knows virtually nothing about the market that they're operating in, so that they understand the process, you couldn't argue is preposterous and you could almost do a complete swap. These startup businesses need the best possible advice at that point because they're going to be making life-impacting decisions, business-impacting decisions. The idea that you pair inexperience with inexperience, for me is a thing of the past. They need to be able to buy the best they can. Quite often I think what's surprising is that because these people are an hourly rate-based industry, because the experienced can get there so much faster, actually costs end up being not all that incomparable, you can compare the costs, they're alike. This lot will take longer to get there, this lot get here faster but they charge more per hour. It's what makes navigating our industry really difficult.

Structurally I think the sector has an issue with structure. If you talk to most designers they will say that they run their businesses on a flat model, there's very little hierarchy. Sometimes it works, sometimes it doesn't. If you've got someone who's a very clear leader that people are happy following, then that tends to be the sort of model that you see that can work. But their own capabilities to manage becomes the limiting factor on the business. So structurally you probably saw a lot of

businesses in the UK get to a certain size and couldn't grow because the barrier to growth wasn't the market it was actually the management capability of the people running the businesses. I think there's an appetite in young people now to want to do more and better. They understand that actually whether they hire in that management capability or they develop it themselves or some of the designers who know they're not going to be good designers shift into these other roles because they want to stay engaged in our industry, I think that sort of thing will become far easier to do and in a way far more respected. Because not all of the designers we're training can be designers, nor should they be. I think that if you look at what happens in big industry you get big pendulum swings. So at the moment big industry is investing very heavily in the recruitment of designers and building in-house capacity. So suddenly you get a Hoover sucking people into that machine. They don't want people that are any less capable than the people that go into the design consulting industry and it will be interesting this time, and it's happening right now, to see what impact that has. Because what hasn't happened in the past I don't think is the scale at which this is happening. And part of the reason big industry does that is it's cheaper to bring it all in-house. You might solve your problems better, create the mechanism for solving those problems on an on-going basis, businesses are starting to understand that design is a bit more than just the wrapping on the business, it's the culture of the organisation, it's how it thinks, how it reacts to market conditions and so on. And I think maybe I'd love the transcript back from this because I don't know that I've ever thought of some of these things before. I think that maybe given the speed at which the design industry is able to change and the speed it's happening in industry, industries inability to change at that rate, they've suddenly found a group of people who can. And if you're able to realise the capability of the design sector to absorb and adapt to change then maybe we'll see businesses changing that much faster. I think one of the reasons it's changing so fast, and this goes back to your education question, is that the design sector's ability to adapt and it's chameleon-like behaviour, it's so adept at doing this. You can talk to them one day and they're something else the next day. It makes life very difficult for education because what you're training them for today is not what they're going to need tomorrow. So for me there's a really big question mark around whether that is the mechanism of training anyway, because it takes four years for someone to go through a system and it takes however many years to define it properly, unless there is curriculum re-definition on an ongoing basis as they move through the course then what they come out knowing is four years out of date. So those mechanisms of training probably need to change. I think the big industry thing is sometimes a red herring, so what you can find is that if the markets then take a nosedive the pendulum swings back, those people are made redundant because it's simple economics and they need to clear their balance sheet of big salary overheads. It's happened before so there's always a danger I would say that that investment could be de-invested three or five years from now. But it feels slightly different this time now and I'm struggling to understand why. I'm hoping that what it's about is more of a culture change than just bringing in designers because it's cheaper for us to do it internally than it is to appoint that external partner. There are conversations, there was a very good article I read about the death of design consultancy as a business. There are bits that I agree with and bits I don't, but I think that the design consulting industry is going to have to really get its act together because those businesses are developing the capability to do for themselves what a lot of the mediocre agencies were doing so a lot of business is being sucked back into the organisation. But one of the benefits, unique outlooks that design consultancies have is this cross-industry outlook, so they're quite often working with people in different industry sectors. You tend to find the really good ones in the front line of everything, so they'll be in the front line of mobile comms, retail whatever it is they're working on and that's the sort of consultancy that big business wants to buy. It's almost the trend stuff, you're not going to get your internal team developing stuff

or understanding necessarily what ten years from now is going to look like because you've got all of the pressures of working in a business and not putting yourself out of a job to consider. Whereas this lot can be completely impartial, so if you look at the retail sector at the moment and what's happening online, so if you look at food retailing, it wasn't in the interests of the interior designers and packaging designers necessarily in Tesco to predict that all of the retail was going to go online, particularly for the interiors lot, if there were going to be less shops in the future. So actually the drivers are maybe coming from elsewhere. So you've got the rise of the user experience people, they've been sucked into these businesses. The CEOs are now taking their advice from this group and yet they've got this latent talent sitting within the business in other areas and I'm just using Tesco as a kind of catchall for that sector. Yet for me they're still just using design as the add-on, it's saying 'You've got to go one step up from there to determine how you use all of these things because they're all part of developing and delivering a service to the customer. I think one thing that will change is that we will see far more, of far bigger understanding of design management coming in to corporates. They're going to have to understand how to manage these things. And of course design management faces in both directions so it's both the management of the people it's delivering, but it's also delivering and helping to develop the strategy within the business to then use design strategically. At the moment I think that's where there is a hole. Businesses understanding that they need these design managers or these Chief Design Officers, so people who are capable of looking at business objectives in the organisation are translating that into a design action plan. So I think there's going to be a lot of development in that. The consulting lot will have to get much better as they will be working with these people who are that much more strategic. So it puts pressure on a small company to develop a strategic ability, but they can do it because they have this unique insight into multi-industry sectors. Their challenge is going to be where they draw their talent from because they're moving and changing so fast and the education system doesn't, certainly not in this country. So actually what we need to do down there to make sure both of these machines are being fed. I could go on, shall I stop there.

LF

So the next question was why do you think these changes have occurred?

DD

Part of it's market led. There are different sorts of businesses though aren't there? A lot of it is market led, so one of the reasons why the DBA's opened its membership up to corporates is in order for us to be able to get under the skin of what those businesses are doing, in order to be able to better advise the consultancy sector about what it needs to do to meet their future needs. But having said all that, that's for those people who want to operate at that level or in that sector of the market. I don't know what percentage of the business community are small to medium sized businesses. They're not going to be employing design managers I would suggest, so there's the appropriateness of the offer to fit where the company is at. So I suppose if we can encourage design businesses to be challenging the businesses they work with, then all of those businesses will start to move up and for those that are the challenger businesses of the future they are getting the right level of challenge from the designers they're working with, and for others it's simply not what they want to do. They employ ten people, pay their mortgages, come to work and go home, and there's an appropriate agency that would work in that situation. Of course that sector is a lot less likely to employ people in-house. They need an accountant like they need a designer, a lawyer. And I think if we can... so what do I think is happening in that sector? It feels as though there are more businesses being set up, or there is more entrepreneurial activity happening. You need to find out if there actually is or not.

You could argue that the need for designers is always there, but I think if we can develop their capability to offer just that bit more each time then my hope would be that every business they touch is left having had a good experience and something has been transformational, if that's not too big a word for what a lot of them do. So there's the big innovation stuff, re-thinking business and service and so on, and then for the vast majority it's incremental, it's making that yoghurt pack look a bit more appropriate to the times we're living in, in order to sell more. It's very much what the Design Effectiveness Awards are about, it can be something like this (points to display boards) which is changing the paradigm for how pills and tablets are sold from a retail point of view. So very not like the sort of things that you would normally see on the shelf. You know if you're buying your paracetamol or an ibuprofen. And of course there are those businesses that are happy to challenge in that way, and those designers that are happy to help create that challenge. So it's horses for courses. But I think the big changes are broadly those. I think there are some other things that are unique to the UK from my experience of the industry in Europe. We have the largest proportion of large design businesses than any country in Europe, second to the States. We also have a tendency to develop businesses that offer specialist design services in an area of discipline which again you don't see on the continent. So you tend to get the all-encompassing broad breadth of a designer and they could be designing a house one day to designing some packaging the next. But you've got that in the UK as well so you've got, I was thinking about the people that you're interviewing, the Thomas Heatherwicks who do the bus one day and the bridge the next.

LF

It must be what his days are like!

DD

So bus maybe for three years and bridge for another three years. But it's that sort of thing. There's the studio type business who are using the skills they've got and applying them to all sorts of products and services. Building the teams that they need to deliver at that level, across that variety of industry sector. One of the things we're seeing in the UK at the moment, we're at a crossroads and it's where the depth of an offer is the thing that will be sold more, or the breadth. It's whether applying design to the breadth of the challenges that a business has is what business needs in the future. As opposed to the depth of the challenge that a business has in one area of the business. So it does feel as though we're going to see, and generalist is almost a dirty word in the UK, but it does feel as though certainly big industry needs those people that are capable of casting their eye across the whole organisation in order then to deliver the expert advice in the individual streams. Because of course they see those things and are able to bring them together in a way that business doesn't almost have the capacity to do. What was the question again?

LF

Why you think these things...

DD

I think market.

LF

Even with Thomas Heatherwick, he says that it was the early clients that made his name, people who were very creative and open-minded and willing to give him the opportunity. That allowed him to build up his reputation and the diversity of his way of working. It was down to them, driving it at the start.

DD

And then your reputation attracts those sorts of people to you. I think it's very difficult for young businesses starting out today because it's so easy to fall into the rut of... I think sometimes Thomas strikes me as being someone who wouldn't compromise, and I think there are traits that we see in people. So for me he's actually in a category of very few people. You've got someone there who is an awesome creative who for me sits, this is my own personal theory, sits on the edge of the autistic spectrum. You normally find there are other ineptitudes, usually social ones that are manifest as the result of the right brain just being so 'ginormous'. There are one or two of them dotted around all over the place and actually creating the environment in which that gift, and I think that is the word I am going to use, they are gifted individuals and that's something that not everyone has. You can't train this stuff. And if you can create the environment in which those people operate, and I think Thomas was very lucky to have some benefactors who could spot this very early on and created the environment in which that was going to be made possible.

LF

He talks about the business management side, and it sounds like he had Zeev Aram right from the very beginning supporting him. Terence Conran. His father, with his alternative creative education background which was perfect for helping him manage the studio teams.

DD

And we try to change these people at everyone's peril. I had an agency not all that long ago say they had this creative director, and they were at their wits end about what to do with this guy because he didn't seem able to teach other people what to do. He continually produced great work but he pissed people off. He was incredibly articulate. I just said 'You're looking at raw talent.' And the problem is if you start to try and change that, who's to say they're not the normal ones. There is no normal, so it is about the environment being able to be creative for those people to flourish as well. If they don't behave or work in the way that we want them to then you don't ostracise them, it would be crazy. I call them the trump cards. And there are very few of them, just two in a pack. You use them wisely. I would say those people who know how to manage those people are as talented as the people they're managing, because they realise what they've got and they know how to get the best from them.

LF

What interests me, in linking to education and how that works, is that obviously he, or someone like him, is unique. And somehow he's created this one process, and that's what he says the studio applies to everything. But the studio has become too big for him to be in total control. Somehow there has to be a level of communicating and passing on the process. I suppose what I'm interested in is whether you could take the core principles of the process and apply it to education.

DD

I've not seen it. They say don't they that as you go up Everest you see the devastation of the people who have gone before, the litter has been left behind. And there is the same in the industry of those businesses that were the real high fliers, the front runners, and they're just littered by the wayside. Because I think there's something intrinsically difficult about trying to encapsulate something of the way that that person is and thinks and behaves in any other person. So you can't recreate them and cloning is about the only thing that you could do. It comes down to them, and not anybody else and typically in the design business you'll find a creative director can well manage a team of six to eight creatives maximum. They kind of go round in little posses of six. If you look at the big businesses it's just lots of little groups but

they just happen to be sitting under one umbrella and a creative director in those businesses is not someone who has got a finger in every one of those pies because they physically can't do it. But if they're trying to create as best they can the environment in which all of these teams can develop and deliver, I suppose to a company ethos but also to client briefs. I think the challenge for people like Thomas is that it would be a bit like being Leonardo da Vinci and then asking a junior to finish the bottom right corner of the picture. If one's going to know it wasn't him that did it. And he's in the category of da Vinci, like the virtuoso musician, and you wouldn't stop a pianist half way through a concert and stick his understudy on stage, because we would all know. And regrettably I think it's just one of the challenges we've got, if you have that raw talent. If you look at Thomas Heatherwick, a hundred years from now, could the brand and the business Thomas Heatherwick exist? Yes, but it certainly couldn't exist as it does today. It would be something quite different, because those geniuses that set those things up are who they are and you just can't emulate that.

I think it's a gift. It's not something that's developed. They're like it from the very beginning and I think even now there's probably a better understanding of the fact that these people exist. It's funny. We're prepared to accept them in other industry sectors and I think there's something about the creative industries that means we have to, it's just brilliant and it's something that he's been blessed with that the rest of us haven't. It's just how it is. So the idea for me, we can all be taught the processes, I was taught processes, but I'm not going to be a Thomas Heatherwick. And if the business wants to buy a Thomas Heatherwick they're going to have to buy Thomas Heatherwick. But fortunately there are as many businesses out there as there are different types of offers. I think that's one of the changes as well, is that agencies have had to get much better at developing their own propositions to the market. And there can be real arrogance sometimes that says 'Well, they're not buying from me, they don't understand what I'm doing.' I would said 'Well, you're not a business, but if you want to survive you've got to be selling something that they want to buy.' And that can be a real challenge for a lot of people, so it would be interesting, without talking to him more, and I think from my experience of what I've seen in other design businesses I think the challenge for businesses like Thomas's is you normally find there's a maximum that they can grow to within which he can still function, and then it can't go beyond that and then it has to become something else. And it usually means that person exits and they start again. Something that I've seen in other businesses is there are other people, a couple of people that are just like Thomas, and they're serial setter-uppers. And they'll come in and do something for eight years, then they're out. And there are some really clever ones who understand that they're like this, and it could be someone who sits in the business dimension who is like this. I saw some very clever things, too. A guy came out of one agency, set up a new one bringing in two bits of creative talent, set something up, who's offer and proposition to the market was so unique that it just took off and left it eight years later. I remember talking to him saying 'I can't believe you're leaving,' and he said 'Oh, I've not had my best idea yet.' And that's what propels these people. If you ask Thomas what he did last year, he'll really play it down. He'll tell you what the problem was with it before the good bits. Because they're just on this drive to do better and get better. So the idea that you will want to print something about what they did last year... when they can't tell you this year yet. There's an awful lot of that as well.

LF

The last thing is looking to education, particularly undergraduate which is where I'm focussing my attention, primarily because with all the changes with the fees and the risk of fewer students doing Foundation. And also fewer potentially taking up MAs as



well. So we may only have three years realistically within which to try and help them as much as possible.

DD

Would the MA be constituted as undergraduate?

LF

No, just BA. It seems more and more likely that most students are only going to do those three years and that's it. They're less likely to do a Foundation where they would get that exposure to the cross- or lateral-thinking. Northumbria's been highlighted as being quite progressive and Kingston's been referenced by several people but otherwise the majority of the places in the country are still uni-disciplinary focussed.

DD

I think there's a real danger... Where do I start on this one? There's the money issue. There's the actual teaching. There's international. There's industry. If I was going to try and summarise all of that, Government I think has allowed education, particularly university-based education, to turn into something that maybe it should never have become. Because the last thing that happens is the teaching. I was sat in a workshop... I upset some people recently, I upset quite a lot of people, and it was being run by two professors, there were a load of academics in the room, and everything was about what are we doing for the students of the future. And I made a comment and I said 'I have a problem with this discussion. 1. There aren't any students of the future in this discussion. 2. We don't seem to be putting them at the centre, so we're asking what education's become. We're not asking ourselves what do they need to become. So what is it that we're launching them into and how do we make sure we deliver people who are capable of doing something or are equipped with a set of skills or needs. And of course if you're not aware of what's happening out there, you can't develop people for that environment. And it felt to me as though, I don't understand the higher education system particularly well, but it does feel to me when I have conversations with people that there's a tension between actually teaching students and making a name for yourself. So whenever I see the doctors and professors and the publishing and the research and all of that stuff it seems to be pushing in that direction because it's the league table for universities, it's the brownie points, and by the way this list lot over here the students sitting in the corner who we're supposed to be teaching who feel as though they're getting less and less time with lecturers, to the point where I even heard of a course which is make it up as you go along yourself type thing and we'll just feed in. So the idea was it's a degree in almost self-expression. I have to admit I just didn't understand what on earth they would be coming out with, because the idea that someone could teach themselves in three years, I don't know. So this tension with the money that has to be made to feed these machines. There's obviously the implication of fees being charged, which as you point out is going to make people question whether they do these courses or not. I watched a programme on TV which was absolutely fascinating and it was interviewing some kids who had just gone to university and there was one girl in particular who actually said 'I'm paying these guys £9000 and they can't make it interesting enough for me to get out of bed and go.' And I just thought it was a really interesting attitude and I thought she's a consumer now, that's what the money thing has done. Had she gone to something and she was being sponsored or grants or parents or whatever, it's a different dynamic to the one that says 'I've just given you what could be a considerable amount of money at the sacrifice of the whole of my family, I'm now doing something that I don't find motivating at all.' There's a question around how they might have selected it, were they the right person for it or not, but basically if you've got money you can probably get in anywhere which means

that actually we've now rocked the foundation on which people went in the first place. And if it's just going to be a matter of consumption then they're certainly not delivering at that level. So you've got this issue of teaching and the pull of research and academic achievement, but a bunch of people – and I'm being very simplistic here – who go through this system who might be there under the wrong pretences, brought on self or lured by great marketing that's coming out of universities now about the quality of life they can have and so on – I think that's getting very very smart that stuff, because they're all competing for the same people. You've got lip service being paid to the fact that industry needs to be more involved because maybe if we involve industry in this we'll end up with students that could end up being useful to industry. But actually I'm not sure that industry is co-ordinated enough to be making the right sort of impact. So you'll get a couple of really good guys from local agencies coming in and lecturing or guest-lecturing or when they mark stuff, we had them at Newcastle, external assessors, that type of stuff. So you'll get great people doing that, you'll get great placements and so on. Funnily enough I do think that the model we went through in Newcastle was possibly one of the best. We certainly nearly all got jobs but it was a sandwich course, so you'd done two stages in industry by the time we'd finished our four year course. So we started to have contact, we started to see what it was like to work in a studio, and funnily enough I think what that did was accelerate us up this thought process so suddenly you're in there fighting for airspace with people who have been in the industry for a long time and there's no other way of replacing that. It's invaluable. Because you go back to college thinking your professors are all useless because they've never worked in industry or they haven't recently and so the education system changes that and says it's OK to have lecturers who teach and practice at the same time. Then you get the university turning it into a bit of competition for local industry because they start selling that practice into the market and they want the industry to hire their students. But then they find they're in competition with the university consultancy that's going into the local market, so the whole thing's just gone tits up, if you don't mind me saying. And everyone ends up in this really big mess. Then you get museums trying to solve the problem as well. I'm being a bit flippant but I think that... industry is capable of finding a solution without education. And I'm going to tell you. Because if I think about that kid who's paid £9000 for three years and that's £27,000 assuming it's just a three year course, and I walk into one of my top members in London and say to them 'If I found you someone – so if we put people through a sort of assessment process – you can see where this is going – and they pay you £9,000 per year to be in your office could you create the environment for them to grow and develop if the day release system was in place and the other 20 like them who are in the other 20 top agencies are all part of a network that means that those 20 kids come together on a Thursday and Friday and the money that is in that pot is what's delivering the Thursday and Friday educational piece.' So two days training, three days practice. You just have a really good assessment system for pulling people in. Do I think those sorts of things will happen? Yes. Because the industry cannot wait for education to catch up. And I don't think the students will want the disappointment of going through three or four years to find out it's not quite where they need to be. Something needs to happen in there, I think other things are going to pop up, they're obviously not the mass education model, but they could be though. And if you look at how networks work, I was talking to the Professor of Industrial Design at Eindhoven and she was moderating a thing I was on, and I put it to her, I said 'If I was offering you a job for,' we sat down and did the maths there and then, and we worked out that's £200,000 per year for 20 students, you could give someone £80,000 so they'd need to be someone who's quite broad that knows how to get what industry has out and then apply it. I said 'Would you do it?' and she said 'It would be fascinating.' And the problem, and I don't think education has quite twigged on this one yet, is that we don't need the qualifications. A BA doesn't get you into a job, and

this industry quite apart from any other industry sector, is one that places quite a lot of emphasis on life experience. So portfolios are portfolios are portfolios, whether there's a BA attached to it or not. And there probably does need to be... there is a grounding obviously that you get and whether that grounding can be fast tracked into people or not, I believe it can be, so I think the pace at which we do things in higher education might need to change. The idea that you could fast track... if someone had the choice of working really hard for one year for £9,000 or taking it slow for £27,000 over three years, I think you might find a bunch of them want to do the £9,000 one. The problem is it's the whole fee thing has suddenly brought market into education. But of course what we do know is that maturity doesn't accelerate, so you do end up with a disconnect between the capability of a person, if something like this was able to happen, and actually a maturity of the person who is coming to the business. But I think something else that's happening at the moment, if I talk to my 16 year old niece I was not like her when I was 16. So in a generation what these kids know and do is probably three or four years ahead of where I was at. I'm not saying they're more mature, but just the exposure to things seems to be very different and I don't think we quite understand what we're doing to them all yet.

LF

Your solution would be ideal if they knew where they wanted to go, if they knew the studio. But they would need some kind of training initially to enable them to make those decisions.

DD

I'm not saying that's the solution to it. In the same way that you've got lots of agencies working in very different ways, and maybe it's this melting pot of options that are open to people. I think lecturers can spot the high fliers from day one, and I remember someone calling me a Nazi when I suggested that they might actually fast track the people who should be fast tracked and do something else with the others. And they said 'Like what?' and I said 'Deliver the skill into them but then point them in the right direction,' and I said 'Where's the responsibility in the education system for starting to guide people in the right place.' So if I think, and I'm not saying this for any personal aggro I have, but it took me six months to translate what I'd learned in design, in terms of the transferable skills, I could do all this stuff but no one actually told me that what I could do was this, this, this and this. At one stage I had six CVs on the go because I was so desperate to get money because we had such great overdrafts. And there was the one for the shop job where I just didn't mention my final year project at all, and the baked potato shop I'd worked in was on that one, because the emphasis on what I did changed across them all depending on who I was talking to. The point I was going to make was it doesn't feel there's going to be a one size fits all thing. I don't know what the solution is.

LF

I think it's a very interesting concept, because you could have a Foundation type course that's even more intense to develop these transferable skills and to give you the bigger picture of what's out there. This would then enable you to make the key decisions needed to then place yourself within a studio. You could go into a different studio each Term or stay put in one, depending on whether you wanted to be more generalist or more focused.

DD

I had a very weird experience once at a black tie dinner where there was a guy on another table staring at me. The person who was sitting next to me disappeared at one stage and he came over and he sat next to me and I thought 'Oh, for goodness sake, I'm too old for this,' and he said 'Are you Deborah Dawton?' so I went 'Yes' and

he said 'You changed my life' and I went 'Oh' and I said 'For the better or for the worse?' and he said 'You came and did a seminar at Brunel and you went through 73 things we could do with a design management degree' (because I feel quite passionate about this) and he said 'No one told us this stuff so we had always been destined to...' and actually they'd been encouraged to set up their own businesses which I think is a big mistake – get employed and learn off someone else for three years at their expense – and apparently I'd said something about working in business and trying to wake businesses up to the potential of design management within their own organisations and so he had specifically decided to carve himself out that career. And he said 'I didn't know that was possible, and now I'm sitting in this company' and it had come full circle where it happened to be a company that was sponsoring the DBA, but we just hadn't made the connection. And it wasn't his department, so he was in products, and this was the marketing department that was doing this. And of course it kind of fitted, I thought actually yes, it's a bit of an odd company to be sponsoring us, but actually if there's a culture of change that's going on in the organisation and there's an association within the industry, actually it's a clever thing to do because if they're trying to attract people, one way of doing that is to align yourselves with the other businesses or brands in the area. But I used to get really annoyed at the universities' lack of responsibility for what happens the day after graduation day. Quite frankly that all needs to start before then. I'm sure a lot of them have changed as a result of that. But you look at the quality of CVs, you go to new designers, you see the plethora of what's there and that's a fraction of what's just started to hit the market. I feel the brunt of the impact from our members because they suddenly get 200 CVs a week landing in their inboxes, every week for about ten weeks. It's like locusts hitting the market place and this industry just doesn't grow at that rate. That's what I was saying to these guys, if I look at our membership, if they employ 7,000 and our salary survey says they expect to grow by this, that's 70 form drops that have been created in the top agencies across the industry sector. So unless you're really shit hot you're not going to get one of those, so let's realistically look at what the options are. I don't know what we went through, it obviously struck a chord with him. I think there's more of that type of thing that needs to happen. You're saying 'Actually you can do a design degree but unless you are going to be great at designing that stuff, that's not the career for you.' So there needs to be that extra course which is the translation exercise, the thing that looks at what have you learnt and how can it be applied. Then how do you persuade someone that the skills that you have are useful. There's a lot to consider and I think one of the complaints we're getting from big industry at the moment is they want to recruit at this rate of knots and they can't. We're not even within the system that we've got, we're just not producing the creative talent that they're looking for. And that for me is just unforgiveable...

LF

When there are so many graduating.

DD

Yes. I've recommended to two of our members now that they recruit overseas. He's a creative director who's trying to find three senior creatives to run major programmes of works, they've just won a lot of new business, and they just can't find them. He said 'Because I need people who can do this, this, and this' and I said 'I'll introduce you to someone at Aalto University and this woman at Eindhoven. I've absolutely no idea if they can help you or not but I think you'll get a different shaped person coming out of those two institutions. And of course they train them through MA level as well. I think my finishing thought is that I remember talking... the woman at Eindhoven is really impressive. The Aalto lot were impressive, theirs is quite new though so it's hard to determine what they're going to come out looking like.

LF

I have heard of them, people have talked about the course.

DD

They're very good at talking about their own stuff basically, the marketing machine is prevalent there as anywhere else. They're more European in their outlook, we're not. So we attract the overseas students for all the right reasons, but we take them on for the wrong reasons. They come here because they want a great education, but we take them on because we want £9,000 or however much they pay.

One of the reasons I did a two year technical illustration course before I went to Newcastle was because I couldn't afford Newcastle because I was not resident in the country. My parents were missionaries, and I was one year short of three year residency to qualify for normal UK fees. So I had to put off going to Newcastle for a year and went and did this two year course just because my parents couldn't afford to pay my way. So that's the international lot. If you then pull out of the UK and you say 'Right, Europe needs to be able to compete as a continent' and the European Commission is all about developing competitiveness of European businesses so their concern is the whole thing, if you then take education across the whole space, the dynamics change of what's happening. So you've got these experiments happening in different places, you've got a culture in a country that takes education – not more seriously – but treats it very differently. So there's a part of me that thinks 'OK' - and this is going to sound like blasphemy - 'if we're just not getting it right and someone else is, leave it to them. Let's concentrate on the things we can do right. If we're just not getting this piece right at the moment, and the industry will go where they can get talent, and what those guys need to get better at is advertising the fact that they've got it, and it would be interesting to get some feedback from these agencies to see if they're finding these people. Because the other thing that is not unique to the UK but there's a lot of it, is that we work internationally. So suddenly the language skills we've brought in are really useful. And if you've got a Scandinavian that you've recruited but you end up working for the number 1 lift manufacturer in the world which is Kone and actually it's useful to have those day to day conversations in Finnish, then it helps. It's going to win you the work over the agency who might not. I don't know what's going to happen, but if members say to me they're really stuck I'll have to say 'Look more broadly.' Because it feels as though the change that we're waiting for is going to take too long. And then I suppose you could say if we start to get used to recruiting in that way, and of course it's what the Commission's trying to encourage – movement of youth is one of their priority initiatives – so the idea that they might not get what they want in the country they're in but they can get it somewhere else is great. And then you've got crazy things, was it Theresa May who was saying 'Once we've educated them they've got to get out' and we're thinking 'Actually you can't possibly do that.' Anyway. Lara I don't envy you this one at all!

LF

No, it's tricky but it is fascinating to be going through this, hearing what everyone is saying.

DD

I can't wait to hear what everyone is saying.

I went back to Northumbria, I left under a bit of a cloud because I was a rebel even then, and I shouldn't have been given a degree because I was crap, and the thing was if I'd wanted a job I could have walked into any job because I was a female, and I reacted against that as well. I remember going for interviews, I got the best placements because I was an experiment.

LF

Oh no!

DD

Yes, if you can get more women into industrial design, if we take a larger intake, will we end up with them coming out the other end. So there was seven intake into our year, four of us graduated. I'm trying to think is any one of us still actually practising as a designer? Definitely three aren't. Oh, the fourth one is. She is at Philips in Eindhoven. The year below there were three girls so you've got gender imbalance and stuff. That's a whole other issue. The cynic in me went back into this environment and it was stunning, I just thought 'If I'd actually gone through this education system in this environment would that have changed me?' But I couldn't tell if the environment was there for the benefit of the students or for the people who worked with these students. Because I still couldn't see any lecturers anywhere. And I just thought 'How much of this is about luring the next intake?' Because if you were going to pick one university over another and I've seen other environments, I mean it was fantastic premises' that they've got.

One last thing, and I don't know if it enters your research, but I mentioned it slightly, is this idea of competition. I think there's such an emphasis on higher education to find a way of making ends meet that it's having to become far more commercial and there's a real danger that it's about to run into a headlong fight with the industry it services, that it's meant to be delivering graduates into. It's happened already. So Northumbria won a European project to do something. To cut a very long story short a membership organisation that we know shut the project down because they wrote to the Commission and said 'There's a whole profession of people sitting in this industry who should be doing that work, why is a university doing it?' And so £2,500,000 gets taken back into the Commission and that project didn't take place. The European funding thing is a blessing in some ways, but also a pain in the backside in others. Because it's allowing universities, and they're well resourced businesses to be able to access funding to do things, and I don't think necessarily they're considering the implications of what they're doing. And there's an argument going on in Wales at the moment on market displacement issues. So there's a very strong feeling against the university system. None of the industrial design businesses there that are involved in that bun fight are taking any students on from the universities concerned, because they feel that the universities have contributed to market failure because of the consultancy service that comes out of Cardiff Met. There definitely needs to be more dialogue between the two and I'm sure the industry could actually help the university sector to do what it needs to do and go where it needs to go, that then doesn't create this friction. And I've spoken to members who've had students come in and do placements with them, then goes back - Royal College of Art so postgraduate placements - goes back and finishes, and in a year's time a major client moves to the student's start-up business. So they're not going to touch the students again. In industrial design you need the industrial placements. The business practice is absolutely crucial, but not at the point where it's going to start impacting on these commercial organisations and businesses.

So I think there's a real danger or opportunity depending on who you are that industry will sort out its situation for itself. You'll still get the plethora going through there but the people at the front end of the industry don't want the average, they want the elite. And they'll know how to spot them, they employ them every day of the week. It's to belittle education, so please don't go away thinking I don't understand what educators do. I'm also adamant that industry cannot educate so it's a bit like someone saying 'I can organise an event,' well event organisers get very upset when that happens because it would suggest that there's no skill in doing what they do and

of course there is. So there is a skill to educating and developing people and bringing them on and those of us that have had the benefits of going through those types of systems appreciate it. There's a danger that industry is forgotten, the decision makers are so far removed from that experience now, they think that 'Well if I can't find what I'm looking for let me make it myself.'

LF

It's almost like the design manager role you were talking about before. There needs to be someone in the middle who can understand both worlds, who has enough awareness of what's happening in the industry, how fast it's moving and what those processes are, to then be able to feed it back into education. And vice versa. Because those in education are too overwhelmed to be able to even look at what's happening and fully understand it.

DD

I've got a meeting with Nigel Carrington at UAL I think it's next week and it's about the MA question. MAs are going to die out unless something happens, and how do you make them more attractive? Is there a way of involving industry at MA level that would mean that those people who desperately want to get into work are encouraged to stay and move into MAs because work comes to them at that point. So if you drop me an email I'll let you know what the outcome of that conversation is. We're always open to conversations and to offers, I once had a meeting with seven universities but I would never repeat that, it was the most antagonistic thing I've ever sat in. It's worse than having ten designers around the table. It was fierce. If there had been guns in the room there would have been duals. The reason we had the meeting was that we said we've got a databank of design-effectiveness case studies and we need to get published results into the market place. And to cut a very long story short a university convinced us that they were the people to go with, and by two years later we still had nothing in the market, and I had to tell them to get lost.

LF

They couldn't work quickly enough?

DD

Because of all of these other pressures. Unless you can get it to fit into the streams they have, and actually I'd far rather find £50,000 and pay someone to do it and know that I've got it in six months. But it seemed crazy because it seemed like a good opportunity. We'd done seminars into students around design effectiveness and you can see that suddenly the light bulb goes on and they understand why they're doing what they do. Every university brief is usually design this or design that and they miss the bit out which is the why. So 'this business needs this to happen otherwise that's going to happen so can you design a product that will achieve this, this and this.' It's really interesting when you go in. I'm not convinced there are universities that even understand that is how industry works. They need to grow their market so how do you respond to that as a brief? Anyway, that's another non-conversation.

LF

Perfect. Thank you. Lots of food for thought here.

END

**Interviewee:** Thomas Heatherwick (TH) – Heatherwick Studio  
**Interviewer:** Lara Furniss (LF)  
**Date:** 19.03.13  
**Location:** Heatherwick Studio, London

**Notes:** Before the interview starts I am told that I will only have twenty minutes and that I will be given two warnings before TH is taken away.

LF

Thank you for meeting me, I know you are very busy. What I was hoping to do was to spend a few minutes explaining my PhD research project, and then get your response.

My research has really come from what I perceive to be a big disconnection now between what's happening in the design world and what's happening in Higher Education. So, about 6 months ago I decided I wanted to start a PhD to explore this in more depth. What I noticed when I came back into H.E., was this disconnection between the two, with the design industry becoming more diversified, with hybrid practices, and yet H.E. has become more specialised. I was surprised.

I want to look at changes in the industry over the last ten years, and identify leading 21<sup>st</sup> Century post-disciplinary designers to analyse their processes to look for common threads that could be pulled together and then look at the implications for Higher Education. I am interested in what education could learn from these processes and the way someone like you describes your process. I know it's not simple, it's like a deep simplicity, but with a simple way of looking at a problem you can solve any problem. If so then why are we not teaching that, or why are we at least not encouraging students to realise that that's possible?

So, can a simple process solve any problem? And I heard a radio interview with you when you were in Spain. You mentioned that if you sometimes find things difficult you go out on the street, look around you and you see that there are problems to solve and in a way that makes you feel better, focused and energised. So I started to wonder where does this potential stop. Are you just looking at design issues you can solve or does it become greater.

The questions for you are:

- What are your thoughts on H.E. and whether it should still be specialised, or whether they should become more about process?
- What do you think the wider implications are for your creative process?

TH

I like your point about deep simplicity. I mean almost a starting way to work with your project might be to start by imagining there is no education system existing and there's a world that's full of curbs, pavements, posters, bus stops, power stations, places people want to put art, places where people try to get educated, needs to transport people, the full world around us. And then say well how... and even the parks and science... and then say all of that is devised by man. And so for little human beings everything is design, absolutely everything is designed. The art works are designed that stand on the street. It's all designed. Or maybe design is not the right word. It's that someone has thought of it, and their thoughts have turned into something for reasons - however conscious or unconscious those reasons are.



Then say 'How do you train people to think about that world'? Because the problem I keep having is people saying multi-disciplinary, because I don't feel it's a multiple discipline, I feel it's one discipline. And when they go blur the boundaries I go all right what ever makes you feel comfortable to use what ever words you use to talk about it. I see it as one thing. And I keep having funny things where people say to me 'oh you're not an architect, so do you have architects to do the work for you? Do you have an idea and they make it work'? And they're totally missing it, it's nothing intrinsic, you're not programmed (in a robot voice) 'I went on this course and I am now a programmed thing, because I did I'm programmed differently'.

The biggest difference is people, their individual character, intuitions and the way they respond to things. This is so much greater than whatever course they've been on. And then almost reconstruct from that world around us – where do you end up? Work backwards from there, rather than starting from where we are. Start from the world out there, and work backwards. Where do you end up? With an architecture course, an interior course, product, design engineering, theatre, graphics. Would that be where you'd want to end up? Or would you be training people to think about the world around us? And then thinking about how to think about that.

So, from that you might end up with a new way of educating people. Rather than the critique outwards.

I mean I just find it interesting the word design is a verb – it doesn't imply a judgement, whether something is good or bad. You just do it, and so you can design a book, you can design a chair, you can design an aeroplane. And there are some of those things where there is this funny judgement implied in the title. And Architecture implies a judgement in my opinion. And I've sat a number of times with people saying 'hummm, is this Architecture?'. And I experienced it even at Manchester when I built the building I did on my course and I had one of the senior lecturers on the Architecture course telling me that my design for a building wasn't architecture. So I looked at him and said 'Ok, so it's a big cabinet for people then. Are you happy?' I just find it hilarious, that it's a compliment. And that to me is a funny place to be. And the word Art is a compliment. It's very subjective. So I think where as you design a building, you design a chair. To suddenly create a whole notion that implies an isolated elitist difference from the practical. Everything has the potential to be extremely practical and mundane or very esoteric and artistic or philosophical, or some combination of all those things. The polarised thinking.....

My favourite moment that I enjoyed was when I went to Gothenburg on exchange when I was at the RCA, and they were re-doing the art college. And while they were re-doing the art college they had had to move everyone, all the students, out into a giant shipyard hanger on the harbour. There was this gigantic space which had everybody in the whole Art and Design course in one big space. You looked out and there were sparks and there was this raised walkway that you could see sparks of someone welding over there and drawing tables. It spoke of one world and one way of thinking about the world around us. And that's my ideal art college.

And so there are these trends of ways of using language like multidisciplinary and blurring. And I just have to go 'what ever you want to say'.

LF

I suppose that's part of the challenge of universities. They always feel the need to have to define, and that's how they sell their courses and promote their courses. Everything has to be defined and fall into the boxes.

TH

If you've read some of the things I've said, you will have probably picked up that I find if you do something that interests people, people ask you to do all sorts of things. And that your process is more or less the same. The process is the way you start with nothing, and gradually grow to the point of something that you understand why. You've rationally grown something into a project. Whether that's rational reasons for why a building should be hairy and have a quarter of a million seeds – which was completely rational because to achieve the Government's goal of being in the top five. What people expected wouldn't have achieved that. So rationally we had to do something that people may not instantly perceive to be as rational was our rational way to achieve the governmental goal.

Or whether something is a bus. Do you know what I mean? It's a way of thinking about it and growing it. For me each project is grown. It doesn't spring, it grows. And growing is a process. That growing process is something that I am not talented enough to do by myself so I work with a team. And we together do that. So I feel like we're a gang, this might over romanticise it, but it's like we are trying to solve a crime, a team of detectives. And we are just trying to work out and eliminate from our enquiries, so that you can present a good case, and have certainty, or what ever the words are in your head, why something is the right thing. And that you hopefully have got the best possible thing you could possibly do.

LF

One of my supervisors is looking at emergence and design as a process of emergence and how nature designs. And when I first talked to him and started to develop ideas for the project I described the quotations I had gathered from you about how you work. And his instant response was have you looked at how termites build. This was not exactly what I was expecting but it was really interesting. In his analysis of design as a process of emergence he talks about nature designing in a bottom up way where as humans tend to design in a top down way.

I think there are a lot of similarities between a few of the key creative practices I'm looking at. An obvious link is the workshop in the centre of the studio, where you've got all your materials and are able to build around them.

TH

The thing I think is really important in the romance of it, is nurturing and developing the criticism.

I think this is the tricky thing. How do you develop the critical eye of everybody, because the world would be better if you have the confidence to criticise it. Because in the act of criticism there is implied change. And so I'm very interested, in a lot of the projects, I try to look smiley and nice. But actually you start from absolute criticism. Because if you say why is that like that? Surely that's not right. Then you are half way there to a solution- you go 'if the problem with that is that' – that starts to lead you to what the solutions would be. So whether something's a poster, a building, a paving or a seat. The person, the student or the individual has to have the confidence to be able to criticise themselves, and the communication skills to criticise others – whether openly or quietly – without it being seen as a negative thing. People can be very defensive, but there's no progress without criticism. So you can be lovely and cuddly, but unless there's the ability to say why is that wrong? why is what I've done not right? or why is what we are doing not right? or why is what exists in the world not right? or could be better. This striving for better means you have to be very critical. And that's the hard thing. There are a lot of stories about the romance of working with materials but unless you've got a critical eye ... say I've just done that, haven't we

all had a lovely time, but it isn't very good is it! we may have had a great process but unless the outcome is good.... So, I think within this it's how do you teach being critical.

My father studied child development and is really interested in this and in a way it's the skill for your life. Because how can you make the decisions of your life. They are all design decisions – where are you going to live, what clothes are you going to buy for yourself, how are you going to solve your sight issue etc. What ever it is. And so that's the ability to choose, critique, analyse and then make a decision. We all need it what ever we are doing. I think that could be an interesting thing. Because people like the romantic side of the arts and design. But it's only good if you are willing to be critical. A lot of my time is spent being very critical. At the beginning of a new project I'm there being asked 'oh could you come and help us finish our church' and I'm going 'Why is your monastery rubbish?' Why do you like living in an old people's home?' Try to smile as you're saying that to a monk who didn't want to talk about that, but wanted to talk about something else.

There's too much romance about artistic work. You can't convince anyone unless there are reasons and critical analysis. So a lot of our work is about critiquing, analysing, convincing, and that's the rationale. So I think in the world of design, rationale is key. Maybe you can say there is an artistic world where you don't have to justify it to others – maybe, or maybe you do. But to me there's a whole world where you really do have to justify design. Building cost too much money – you can't go well this is my design for a building so shut up, I just want to build it. They would say 'you are asking me for 150 million pounds to build it'.

So teaching that skill would equip you for what ever – you could put anything in front of someone who's got the self confidence to dare to look at the world and think 'ooh, why's that like that?'. Whether it's a poster, or a piece of jewellery, or toothpaste.

Maybe that's the universal thing – having universal eyes. In the work here (in the studio) I'm trying to see absolutely the same. I'm trying to see a double-decker bus with the same eyes that a two story building would have. Because they are two storey buildings. What's the difference? London's planning system sees them differently. They panic about a two storey building in the centre of London, but 7,000 two storey buildings with no control over what they'd be like for many years, they just say 'oh but that's infrastructure'. I was trying to see how they have an impact on us, they have a job. So I think that's the opportunity of what you're talking about. The opportunity to see all around.

When I lose track and go out I see opportunities and it reconnects me.

LF

That must be challenging, to look around and see problems/potential everywhere?

TH

But most people aren't asking me to do those things, and I only have limited time.

LF

Do you have to blinker yourself?

TH

No, because you don't start solving them, because you know your process. It's a process. You need your team.

LF

Before you go, I just have one final question. I was hoping that if this is something you are interested in, you might want to continue being involved in some way. The main way would be if I could come back at a later date, over the next year, for a more in-depth interview, to try and map the key elements that you perceive as your process. What I would like to do is do the same to a few other key design practices who are similar but different, coming at things from different angles, to then try and thread things together to come up with an initial structure of what this common process could be.

TH

Yes, I just don't want to promise anything. Things are very hectic at the moment and I'm very torn because there are lots of things that aren't designing that I'm under a lot of pressure to do, and I'm struggling to do designing with my team. But, I'm really interested, you can tell I'm really interested in what you're doing. So, maybe you could send me an update. And if there is a possibility... I just can't promise anything at the moment. I wish I could. But it sounds really interesting. I like your simple, fundamental idea – because that's how it feels to me.

END

**Interviewee:** Nat Hunter (NH) – Co-Director of Design at Royal Society for the encouragement of the Arts (RSA); Founding Director of Airside  
**Interviewer:** Lara Furniss (LF)  
**Date:** 26.11.14  
**Location:** RSA offices, London

**Notes:**

NH gives another email address, as she is leaving the RSA at the end of the year.

NH

I don't know how much you know about me, but I've been here for almost three years and one of the things that I love about the RSA is that they are looking at the leading edge of design, which is how design can be applied to society's pressing challenges, which I love. But from a cross-disciplinary point of view, I ran a design company for fourteen years where we were probably one of the pioneers of cross-disciplinary design.

LF

That's fascinating, because I am looking at changes in the design world from 2000, as it seems to me that this is when things started to change.

NH

Yes, it was very new then.

LF

I am trying to look at how dramatically the design world has changed, especially over the last ten years, as it appears to be exploding with these new ways of working.

NH

It is completely revolutionary. It has been completely revolutionised.

LF

And yet, at the same time, education is still very silo based, particularly at undergraduate level. So, I am interested in exploring this apparent disconnection, to explore whether we need to change undergraduate design education.

Looking at your background, I am interested that your background was originally in psychology.

NH

Well, I think the reason Airside was cross-disciplinary was because the three of us who started the company had not gone through formal design training. We came from slightly different angles. I started doing environmental chemistry, wanting to save the planet. But then realised from a cultural point of view, I didn't really get on with chemistry, the chemists. So I ended up in Psychology and there was a module called Human Computer Interface Psychology that lit my fire for the first time. I thought, 'Oh my God this is amazing, computers, people, all the possibilities'. Then I trained on the job as a graphic designer. My life has been a series of random events that have turned into something. So, very briefly, I studied this Human Computer Interface Psychology, left University not knowing what I wanted to do but I was mucking around with video cameras, as I had got into programming a bit at University. I wanted to make a film, so I needed money, and I met someone who worked as a programme, a systems analyst at the Royal Bank of Scotland earning £12,000 a year. I thought 'I am going to do that, I am earning £4,000 a year at the

moment, so £12,000 is so much money that I will leave after a year and make my film'. So, I trained a very bank type programming language but again I found it very stifling, so I left after a few months. Then I bumped into a friend who said they were working in a graphic design company and they needed an administrator. I've always been a sensible, rational, financial person, so I took the job. Within a few months I was their trainee junior designer. Partly because they had just moved to Apple Macs and I understood computers from a psychological point of view and also from a technical point of view. Actually, I think I always should have been a designer, it's just there wasn't any design in my school or in my family. No one knew about design, I didn't know what design was. It was really interesting, training for four years in this very good, very cool, graphic design company in Edinburgh that was only working in the music industry. It was a twenty something's dream, working on every Scottish record sleeve, band poster etc. It was brilliant. But what was interesting is that we didn't place ourselves. It was run by people who also hadn't come from a design school background. So I knew nothing about the rest of the design landscape. I just thought, 'I'm making a record sleeve, this is how you do it'. I didn't think in the tradition of so-and-so, or look at other designer. Of course it's the days before the Internet and sites like It's Nice That. So I wasn't in a culture of design, just in our microcosm of being a jobbing designer.

Then, that faded out and in 1993 I applied for the first MA at the RCA calling for students with either a psychology background or a programming background, or a graphic design background. It said if you are from one of these backgrounds you might be interested in this course. I had them all. It was brilliant because it brought everything together. It was my first experience of art school. At MA level your experience of art school is very different from BA level. Because it was a new course, and a new discipline, again there wasn't really a culture of looking at what other people are doing, or this is how things are done. There weren't any other designers on the course. We all came from unusual backgrounds.

So, after graduating and working freelance for a few years, we started Airside. I started it with Fred Deakin, who had done English Literature and fell into graphic design because he needed flyers and promotion for his clubs. He then went on to do an MA in Graphic Design at CSM. So he was an accomplished graphic designer. Then there was Alex McClean, who had come from Architecture, although he didn't really want to be an architect, and had ended up working in 3D virtual worlds. I had got him a few jobs doing websites – the brand new world of websites. We realised very early on that when we wanted to use illustration to engage people, because it is very good at story telling, but we never once hired an illustrator. When we wanted to use animation, we never once hired anyone with an animation background. We did hire Henki Leung who still runs Airside Tokyo. He was a graphic design typographer but the reason we hired him was because he had done a really great animation storyboard for his degree show. We had no training in what the difference was between graphic design, and illustration, so we didn't see any barriers. I think that is the crucial thing. We weren't told, 'this is what a graphic designer does, and this is what an illustrator does'. Right from the beginning we said we are making websites, we are one of the first companies in London to make websites, but we would ask 'why do you want a website in the first place'? You might come to us asking for a website and we might send you a way with an umbrella. It depends what you wanted to do. We were anti people just wanting a website because they had heard about these things called websites. We always went back to asking what are you really trying to do? Maybe you need a poster campaign or a performance on the street. Something completely different.

One other thought I have about cross-disciplinary is that I think it's all in the attitude. The graphic design course at Kingston wins a lot of the Student Design Awards. The teaching there doesn't make you think like a graphic designer. The teaching makes you think about the world. They enter a lot of our design awards - it could be a brief about design a product that gets better the more people use it, or improve peoples every day mental wellbeing. They are very abstract briefs that their tutors help them engage with. The students leave Kingston with a very different mindset of what a designer could be in the world.

One more thing about cross-disciplinary, do you know a project called Fixperts? I am really passionate about this project. It's not really even an entity yet, and has only been around for about 18 months. Again it blows the boundaries of discipline and it helps people realise how they can connect to the world. It started with Sugru – do you know the fixative superglue? Well a guy called James Carrigan for Sugru and Daniel Charny, who is Professor of Design, based at Kingston, curated the Power of Making exhibition and taught Product Design at the RCA. They started Fixperts because James got an email from someone saying they had tried to fix a lady's electric wheelchair, because a knob had fallen off it, but that Sugru had failed and could he help. Realising that the people lived close by he went around to their house. He tried to fix it and it didn't work, so he went back again to make another adjustment. After fixing it he thought, 'wow, that was about 3 hours of my time, I felt brilliant about doing that, I much improved their lives with this intervention and as a designer/maker/problem solver person I am able to do things that other people may not be able to do'. So, now it is this movement, where you identify yourself as a Fixpert, and you find someone who needs something fixed. They are initially going for older people or people with some kind of disability as a key demographic. And some really beautiful inventions have come from it. But the reason I thought about it was because I am an external examiner at Kingston on the Illustration and Animation Course, because I really believe in the power of Illustration and Animation to communicate. It's a brilliant course. But it really does teach people to be animators and illustrators and I, to be honest, am constantly agitating to try and take their thinking into different media or different areas to try and slightly change it from people going and doing nice drawings of flower markets. I was talking to one of the students there after Fixperts had been and done a project College wide at Kingston. The student asked if I was connected to Fixperts, which I said I was, only in a very lateral way, and she said 'Oh that project was amazing, we were given a primary school down the road, and they had this problem that they had to have two classes in one room and there was a real sound pollution issue. We thought maybe a kind of screen would work. But I didn't know how to make a screen so we had to go and talk to a product designer down stairs and then I had to go to the textiles department because we wanted textiles. We all worked together and we came up with this amazing screen that really baffled the sound, and it looked really nice as well, and we solved the problem and the school was really happy'. I could see that her whole body language had completely changed because she had had to think about how being an illustrator was actually confining her and that extending her world to being someone who could go out and work with people in other disciplines and come up with solutions to problems really changed her whole being.

LF

What a great thread that you could imagine running across all design education.

Why do you think these changes have happened, with designers choosing to work in these different ways? Is it due to technology, to the economy, through choice?

NH

Good question. I think technology has played a huge part in it. It's not the whole story, but it is a huge part. As someone who was there at the beginning, first of all, no one was trained to be a web designer so all sorts of people had a go at it. And actually the architects were pretty good at it because they were able to think in 3D space. Product designers were good at it. The discipline had to emerge and it was a discipline you could make a lot of money out of, so all sorts of people had a go at it, which brought people together. A hell of a lot has changed in the technology landscape. At the very beginning you had graphic designers and programmers and they didn't speak each other's language. It was a battle. As a designer you would say I would like this website, I know about human experience and the programmer would suck their teeth and say well no that will never work. In fact that has completely changed – you now have coders (programmers) who understand the value of design and you have designers who understand the nuts and bolts, the basics at the very least, of technology. There is a common respect that there never used to be.

The other thing about the Internet is the ideas that float around the Internet. So, Lawrence Zeegen at LCC, says his students go on It's Nice That three times a day. All those blogs, tumblrs, all that digital stuff was not there. And other things like Dezeen, Pick Me Up – this whole culture of designers making things. Now that wasn't happening in 2000. We were one of the first design studios to make T-shirts, and now every design studio wants to make something. We had a whole on-line shop and we were pioneers in that. And now that whole print club, pick me up, illustrators as product designers is a whole landscape.

I do think there's blurring but I would also offer the other opinion and say there is not enough blurring. Too often you still get people graduating who say, 'I'm a graphic designer', 'I'm an illustrator', 'I'm an interior designer' and actually there is not enough of what you would call the T-shaped designer – someone who has an understanding of other disciplines. I think that causes problems. I think the teaching is still very out of date, like 50 years out of date. I did a workshop with an MA Communications course in Norwich last year, running a student design award brief. This was Communication Design MA, so they had all been through at least three years of training. To me Communication Design should be communication design in whatever medium you need to communicate in. You should be thinking how can I communicate in an exhibition, a website, a flyer, a performance, anything. So we were talking about user experience, designing for users and someone said 'can you explain what user experience design is?' I said 'Really?' And they said, 'yes, we keep hearing about it, but we don't understand what it means and we don't understand how to design for users'. So, I explained it to them and took about half an hour. I said don't say you are designing for nurses or single mums. Drill down into one person:

- Who is that person - who is that single mum, who is that nurse
- What age are they
- Where do they live
- Why are they in that situation
- What drives them
- What else do they do in their lives

Then be that person. Wake up in the morning, what does your room look like? What do you do first thing in the morning? Is it to look at your iPhone? Or do you not have an iPhone? Literally walk through that person's day. I made the students actually make a video and perform it, act it out, engaging with someone at the bus stop, going to Tesco. It took about an hour in the end. But you hear again and again and again, that people haven't got the first clue about how to design for another medium



because they are not taught the very basics of how to design for people. They are taught how to design a poster, or how to design a kettle, but they are not taught what you are actually trying to do.

LF

So, why do you think this has occurred? Because of technology?

NH

Yes, that's the main reason. It's been a massive enabler – a provocation and enabler.

LF

Do you think then that the making side has been a reaction against this in a way? To have the balance?

NH

Yes, absolutely. So, two things on that. Recently I went to a talk at the V&A, and a Product Designer from the RCA, a tutor, was speaking saying that up until the early 1990's Product Design students coming to the RCA knew how to make, knew workshops inside out. They could make prototypes, they could make things. And then there came a point where 3D CAD software became very popular and then they could model an object virtually but not really. It was the done thing to then send your model off to China to get made and then come back again. My brother worked for IDEO for a long time and professional practice backs that up as well. So they used to have two or three model makers in house and then suddenly they didn't have any model makers and the 3D models went off to China and came back. What you lose there is the iteration, the ability to see if something doesn't feel right, to shave a bit off here. You lose the connection. So that completely disappeared. But what's happened is that has come back in the last five years, with a different mentality. So, instead of someone who has gone all the way through school and their first degree learning the skills in the workshop, there will be a 'yes, I can do that, I'll go on the internet and Google how to do it, I'll go on Instructables, I'll work out how to hack it'. So there has been a break in making and then this bit coming back. Personally, from making very tactile things in my graphic design days to then moving into a very digital world, I felt, probably in 2001, 2002, a bit bereft that I wasn't making things any more. One Easter a whole load of us from Airside brought in sewing machines and printing equipment and we just started making things. That was one of the things that drove our on-line shop. The act of making and act of holding something is so different. I think if you live in a completely virtual world there is a backlash, you need to hold something as well. It's a fundamental need. It's why there has been a Craft resurgence as well, which has also been aided by the internet because you can look things up. So making went and it has come back in a bastardised form.

LF

So, there are clearly lots of positives here for these changes. Do you see any negatives?

NH

Well, I suppose you could say the 'Jack of all trades, master of none', and there is always going to be a place for the experts. But, I think you need to collaborate now and you have to respect other people's skills. It might be that there is a student at University now who will be the world's expert on some kind of type or colour or material, and you need those people. You also need the people who can join things up. The thing is to know who you are and your own limitations. There are some people who are just myopic about a subject. You see this, particularly with male graphic designers. You see this tendency to be almost autistic in the expertise of one

skill. But there's value in that. There's value in the craft and the skill. But the joiner-uppers need to be there as well. And we need to learn to work in teams. But that's really hard in graphic design. If you look at D&AD, you've still got this hero designer mentality of 'who designed this website? Oh, it was Nat Hunter. All hail Nat, have a yellow pencil'. When, actually, it wasn't just Nat who designed that, it was Nat and some really great people in the team who all contributed. But how do you acknowledge that in our prize giving society? Especially if the programmer is also a graphic designer, or the graphic design is also a user interface designer. How do you label everyone, like the Oscars?

LF

I asked Tim Lindsay (D&AD) about that, with the pencils. I asked if there been an explosion of pencils, with all the new disciplines and blurring categories and he said no because that would de-value the pencil. So how do they keep the pencil categories relevant? I'm interested in how all the design awards categorize – surely it has to now focus more on studios and collectives rather than disciplines or individuals?

NH

Yes, exactly. So we went through a phase of saying our only credit is Airside. We are not going to credit a person; we are not going to credit anything. Because we work so collaboratively, and because we decided we are going to leave our egos at the door. The interns opinion is as valid as one of the founders because actually all ideas are good. You have to work together to realise them. So we went through a long period of only having Airside as a credit. I think we changed that slightly for some of the shop items, like if one person designed a t-shirt. But any project was credited as Airside. When we won D&AD awards the credit was Airside. As someone who's role on those projects was about getting the right client in, making sure the project happened, hiring the right people and maybe not pushing the pixels on the job, I thought do I deserve my place in that award? Because actually D&AD's heritage is about craft, so actually you tend to give awards to the people doing the craft. But, Johnny Ives gets the award for all the Apple stuff, but he's got a very key team.

LF

I suppose this new way of team working is a craft in itself.

NH

I was speaking to someone from the Apple design team recently, and he said we design by talking. We sit around the table and we design by talking about it. And that's a collaborative process, which is why Johnny Ives is a figurehead but everyone knows that it is the Apple Product Design team that designed it.

LF

The next question is looking at the implications for education, which you have started to talk about. So you have mentioned Kingston and I will look at that, as it is the only undergraduate course that is coming up in the research so far.

NH

Goldsmiths also run a design course, which is fantastic. It's called Design, but it's run by digital people and not called digital design. It's got really good sustainability thinking embedded in it as well. Another interesting course is Innovation Design Engineering at the RCA, because first of all it is a cross-college cross-disciplinary course with Imperial College and the RCA, bringing engineers and product designers together. Secondly, three years ago when Clare Brass started running the Sustain department at the RSA, she talked to Miles Pennington who runs the course and said how are we going to properly embed sustainability in the IDE course? They took the

radical step of making it a matriculation requirement, so you cannot graduate from IDE unless you can show how you have addressed the issues of sustainability. That could be all kinds of sustainability, but it's just a part of the course as opposed to being an add-on. That's really interesting because it shows how you can change the culture very simply and the people who come out of IDE are brilliant systems thinkers and partly because they have worked cross discipline and partly because they've had this extra broadening out of what they have to do as part of the course.

LF

Do you think that could be taken and applied to undergraduate?

NH

Yes, I don't see why not. I'm an external examiner on the Graphic Design and Illustration at Kingston. There is some real value there, because they produce some really good people. But, they come out with a mindset of 'I'm an animator and that's what I do'. In fact one of things I have done here is I've made a new student design award this year which is taking some of our RSA talks and giving students an audio file that they have to bring to life, because the RSA have this stream of work where we boil down talks and then animate them to make them much more understandable. So, I thought I want to make sure that all animation students have a chance to have a go at that, because I think using illustration and animation as a tool for explaining difficult problems is one of the best possible things you can apply it to. What pretty much every animation course in the country does is make little stories about a child kicking it's heels in the dentist's office and looking at a goldfish and then the mum takes him away, and it's a sweet little story. Or they are all sitting on benches in animations. They are always a little storytelling thing. It might be that that's what you want to do, you are an auteur and you are making little stories and that's great. But, if you don't MAKE students collaborate with other disciplines and apply themselves to problem solving then you don't give them the chance to know whether that is the direction they want to go in. You could say to Illustration/Animation they have to work with technology. They have to create an App, using illustration and animation. It could be as simple as finding a local golf course. They could use storytelling, animation and illustration to make it really funny; really abstract and they could be really playful with a very tight brief. Then they would understand some technology in the process of doing that. Because that's what we used to do. We would take very dry things like that and say OK, how do you bring real delight to people using something as dry as how to find your local golf course. So, I think you can embed it. The problems that everyone is facing is funding, the way institutions are structured, the way courses are separate from each other, courses compete for funding, compete for space 'I want that room', 'oh no it's been given to Fashion'. Those kinds of institutional bun fights. They are all fighting for the same resources, so there is no institutional incentive to collaborate. So, it has to really come from either an external thing like a student design competition or it has to come from an institution or an enlightened teacher, which is what's happening at Goldsmiths, Kingston and IDE.

It's interesting, this year at the student design awards ceremony, there were about three people from an art school in Dublin who won. We had never seen these people before. Dublin had never been visible in the student design awards before. It's the National Arts School Dublin. So we thought where have all these Irish people come from? Three of the tutors came over for the awards ceremony, so we could find out from the horses mouth. What had happened was it was a product design course and a new product design head, and the head had looked at the student design awards and thought, 'Ok, that will liven things up a bit'. So, he decided to run one of the briefs. He looked at the briefs and didn't know which one to run so he gave every single student in the third year the option of one of the nine briefs, and every student had to

do it. The way they described it was that it made their lives (the tutors) so much more interesting, more challenging, but also much more interesting for us. To say to the students you are not going to design a kettle or a lamp, but you are going to design a way to improve hygiene in developing countries or you are going to design a way for people to improve their mental everyday wellbeing. It challenged all of them, so it made the entire year much more satisfying for everybody. But this was a youngish, new head of course, only in his thirties, so he had that energy and vision to shake things up a bit and to see the value for the students. That they would have a more interesting portfolio and more likelihood of getting a job.

So, there is something about the institutions that limit us. My husband (who was part of Airside) has just recently got a new job, and he is now Professor of Interactive Digital Arts at UAL. But, he is not doing anything to do with digital arts really. What he is doing is running cross-disciplinary courses, which take students from MA and BA from different courses, Fashion, Product, Interaction, and put them all in one group for two weeks. What he's teaching them is what he thinks is missing from education - how to collaborate - because everyone is in the mind set of 'I am judged on my work as a graphic designer, I am not judged on my collaboration with that product designer because there is no mechanism for that. Therefore it is all about me'. But this is not the case when they go out in the world of work. You have to lose your ego, lose your sense of you and you have to contribute to a team. So, he is teaching people how to collaborate, how to lose their ego, how to take feedback. So, he ran a two week course with the Advertising agency Mother, just because they gave them free space and free food. Some Mother creatives came down at the end of every day and gave a little crit on the students projects. He came back one night and said it was a disaster because some of the creatives came down, the students presented their work, they started giving feedback, but the students did that awful thing of making excuses and not taking the feedback. So the next day he went in and spent the whole morning teaching the students how to listen, and how to take feedback. Not to say 'yes, but...', but say 'yes, and...'. He explained that they don't have to do what they say but it might change your thinking for the better. Just because you take someone's feedback doesn't make you wrong or not good. So, he did all these listening exercises and the students were transformed by it. He made a video, I'll send you it, and the students were saying 'I used to be a 'yes, but' person but now I am a 'yes, and' person'. It really fundamentally changed them. So they came out understanding how they could collaborate and, also, the theme through his two weeks was they had to devise a project, to look around the world and see what they were interested in and devise something. It had to be something that made the world a better place some how. It had to improve things for people. And of course people love doing that and it made them realise that what they had come up with were actually entrepreneurial ideas. In a world where you are not necessarily going to walk into a job straight after college, to feel like you could be someone who could initiate an idea and make a prototype mock up of it which looks pretty good that you could actually start fundraising for, is really interesting.

LF

So is Fred running this as a separate course or is he coming in and infiltrating other existing courses?

NH

Yes, he is infiltrating existing courses. It is an extra layer on top. Last year they appointed twelve new chairs who don't have a teaching responsibility and they just mesh in and out of things.

LF

It sounds like it has the potential to be a course in it's one right.

NH

Yes, I think that was his original idea. But he didn't know how to get funding for that and how to get it off the ground. So he is using the UAL as a testing ground.

LF

That's great, because then he will have proof. It's a great way, if you are trying something new, to get funding.

So, the last question is are there any studios you would recommend for the more in depth study? I am looking at studios from Heatherwick to Participle.

NH

I don't know about that. He is so in demand, Heatherwick Studio go and do talks, I've seen them talk twice, and they talk very much about it being a collaborative process and they don't mention Thomas in the whole talk. They talk about them as a studio and how they work. They are not very cross-disciplinary, but I would talk to them if you can.

I realise I am a bit out of touch with design studios. I think that GOV.UK are really interesting because they blur the boundaries between copywriting, design and programming. When I was still running Airside three years ago, designing a website, one of my designers, Guy Moorhouse, would design what the thing looked like and how it worked. I would write the copy and there was a kind of iterative process, but we would get on with it. Then, Guy went to work for GOV.UK, and he said what was really interesting is.... lets say you have a new page for housing benefit. So you would look at the existing page from the existing website you have to take and make work in the new GOV.UK very simple, very readable template. The designer/programmer and copywriter sit down together and they realise that copywriting, design and programming are all part of an inseparable landscape because they all need to work together beautifully on the page. The words are telling the story and the design is making it easy to read and the coding is making you able to read it on a phone or the other things you need it to do, to read it if you are blind etc. I think they have genuinely blurred boundaries and there is a guy there called Ben Terrett, an ex-student design award winner, and he came from digital advertising. So, GOV.UK were radical in many ways. First of all, Martha Lane Fox said she would come and lay down the agenda. The Government listened, and set up this unit that were allowed not to be in Whitehall. They were allowed to work on MacBook Airs in Clerkenwell. Because the minute you are in the Government IT system even you are restricted. The whole thing of how institutions hold you back. So they are allowed to be out on a limb. They have a very lean and agile process (that's something that should be in your landscape actually – Agility). So, they have stand up meetings so everyone says what they are working on that day. If you are late, then you are not part of the conversation. Very quick, very sharp. Programmers and designers all talking. The programmers call themselves designers. If you went to talk to Ben, he might describe it very differently, because this is second hand information, but I think they are doing amazing things with blurring those boundaries. Another thing that they did was completely change the Government's procurement rules, because to be a Government supplier you used to have to fill in two years worth of forms and they were ridiculous. I need a host now and I need to go with that company and they have to be able to fill in one side of A4 and they need to change it. So, it really broke down a lot of boundaries.

But just going back to agile and iterative for a moment. That is another radical shift that is a culture that has come from US start-up culture. There is a book called 'The Lean Start-up Handbook' and another book called 'The Business Canvas Model' and they are the bibles for anyone trying to set up a start-up, especially in the US. What you see now is that design culture has adopted that. I was helping a client recently find the right design agency to work with and I sat through seven different pitches of design studios pitching to us saying how great they were. Every single one said 'yes, we are going to work on this digital project for you, we are going to work out what the Minimum Viable Product (MVP) is, we are going to get it up there, test it on users, we are going to iterate, we are going to build in an iterative, agile manner'. And that is something of a radical shift. Because design used to be about designing a poster, sticking it on the wall and walking away. Now, design is design a website, oh it didn't work, what are we going to do now? Or design a website, oh my business has had to slightly change now, so the website needs to change. So, everything is moving, it's like you are constantly moving. If you are working on something digital, it's live and you have to have a completely different methodology to make it successful.

Who else could you talk to...I will have to think about it more.

Another thing that came up yesterday was I went to do a talk about what is the role of the designer in the 21<sup>st</sup> Century at LCC. Me, and Sam, a guy from Nobrow (a print publishing place), and a guy called Joel from a digital company called Hellicar and Lewis. Joel might be a good person to talk to, because he has done a lot of work with education. Everything he was saying in the Q&A I was thinking you have just taken the words right out of my mouth. Mostly we were talking to first and second year students and people said things like "did you always know what you wanted to do?" All those kinds of questions. And the thing that kept coming up (it's a bit like what Fred is teaching) - be a good person in the world, be honest. It was the bit that was missing from design education - be a good person and be honest and brave in the world. When you leave college, starting your own company is a creative act, being a creative person is a creative act - in terms of being a nice person, being honest kept coming up. So I thought how to be a designer in the 21<sup>st</sup> Century you have to be really agile and really iterative and you have to keep changing yourself but if you're honest and make good connections with people they connect you to somebody else.

LF

But I think that's a thread coming up when you start to look because that reflects the things that designers want to do. There's a compassion or an empathy that keeps coming up as a thread and that just wasn't valued, discussed, cared about 15 or 20 years ago in a lot of the design world.

NH

I totally agree. And I think that what you've just said about 20 years ago another mini-anecdote is that I met Dieter Rams because I was working on a project for a company called Vitsoe, and he's a very bitter old man, drunk and bitter, but the story he tells was that when he was head of Braun in the 60s they would make a coffee machine and make it perfect, and it would go out in the world and someone would say 'the handle broke' so they would say 'sorry, I'll perfect the radius of the handle, we'll make it as good as it possibly can be'. So their whole mission was to make these products that completely enhanced peoples lives. Then Braun got bought by Gillette - it must have been the 80s - and Gillette had a marketing dept. and Gillette said 'enough of this lifetime product nonsense, you ought to make people want the next coffee machine and that coffee machine has to be superseded by the coffee machine with the extra function or the pink coffee machine'. And that's why he's a bitter old man. He came from the golden era when design was something that was very noble

and it was about making the world a better place. All those old school designers all the royal designers here you know Kenneth Grange all that lot they were really trying, even Charles Eames – they were trying to make things, democratising good furniture for the masses, and then Marketing really spun design out into this other world of planned obsolescence and consumption and that was the way the world was heading and I think that the thread that's happening now with social design and social entrepreneurship is people reclaiming design and applying it to making the world better but in a slightly different context.

LF

I think Alice Rawsthorn touches on that in her new book.

NH

She's done a couple of talks and videos at the RSA.

If you go on to the RSA YouTube channel and look she's done at least 2 talks here.

LF

It's an uplifting thread to what's changing. Attitude is coming back.

NH

That's why I think all these students like Fixperts and the Student Design Awards. How about the Design Council, my brother works for the design council he's the chief design officer.

LF

He can't talk to me, as he's too busy. He's passed it onto all the other designers in there and says they're too busy. I was wondering about Ellie Runsie because she's Future Programmes perhaps that's a better tack to take.

NH

She's the sister of another one of my team.

LF

I asked Nick Couch who is representing designers and what's happening, who is the one voice? He doesn't feel that there is one.

NH

No, the Design Council is not that voice. But briefly where I think the design council are interesting is they run design challenges and I think design challenges are the most interesting part of the design council. On their website funnily enough it's not called that I found it a bit confusing but it is a project. So they've done things like, they've put...it's the grown up version of the student design awards...last year or the year before they said to designers 'right, let's design out violence in accident and emergency'. Now that's funded by the Department of Health because they have problems with violence in A&E. So they have done loads of projects that have been funded by some branch of the NHS, they've done designing out superbugs, crime in A&E, they've just done a big project funded by Guy's and St Thomas' Trust designing better lives for the under 5s in Lambeth and Southwark. Now the thing that was interesting about that one is that...so designing out violence in A&E was won by a product design company – well known – usually they're engaging with design companies so the landscape of people who enter the 'I've got an idea give my your development money'. It's usually design companies – but what happens with the knee-high project for the under 5s is that they- the people who in the initial rounds there were quite a lot of designers in there as well as parents and other practitioners

like theatre practitioners actually from the local community – and then what happened by the time they had got to the final round which was 4 projects going forward, there aren't any designers left in there so I'm thinking 'this is really interesting, the design council getting involved but you're not working with designers' and they're going 'no, but we're using design process, design thinking, we're applying the tools of design to a process which is solving the problem'. So it's really fascinating, it's a shame you can't speak to someone there.

The person who runs Design Challenges now is called Haidee Bell, as she is new.

LF

That starts to question the value of design education. If no one in your studio had a formal design education, and if all the people winning these design challenges have not had formal design education, you start to raise the question of whether you need formal design education and what its purpose is.

NH

I totally agree and was just talking about it in my previous meeting. You are starting to blur the edges. There is still the craft, but craft isn't as interesting. So, for instance, both the Apple design team backed up this point. When we get people in the student design awards who present their work, there's a round where you actually meet the person – a Dragon's Den scenario. Let's say someone has come up with a solution for something and they've made an absolutely beautiful 3D render of it and they've spent all their time making it look beautiful. But it doesn't work, they haven't done their research properly, if they haven't tried it out they were actually not that interested and in the Apple product design team the people who do all the kind of craft bit – making that radius that perfect bend – they're the next team down, they're the ones who execute the great ideas from the company top. So there is something about saying that craft is valuable but let's call it craft. We need people to do craft and it shouldn't be undervalued and the Apple product design team would be nowhere without the beautifully made, the beautiful craft of the object but also I think the whole design thinking side of things is starting to ...it's shown it's worth, but it has a problem with terminology because the word 'design' really can be replaced by a lot of things where actually it's just a creative approach. And design thinking and process doesn't work on its own without those good ideas. I was involved, I was a mentor in a Design Council and RCA service design kind of hackathon thing and they were bringing service design to the idea of redesigning the pencil but with the angle of sustainability and I went to this awful presentation where they said they had done all these amazing charts and service design and user profiles – all this methodology everywhere with a 6 person team – and they said 'yeah, we've redesigned the pencil'. And I said 'why do you redesign the pencil?' and they said 'because people lose them, and they get thrown away so it's a waste'. So they had covered the pencil in colour-changing ink so you knew how long you'd had it and then you'd go to a website and look at a chart so you could reference the colour of a pencil with how long you'd had it and then when you sharpened it there was a message in the sharpenings to encourage people to sharpen it. And there was a chip in the bottom of the pencil so you could track it wherever it was and there was a seed in the bottom of the pencil so whenever you'd sharpened it right down you could plant the seed in the ground and grow a new tree and that was all wonderful. And I just said 'I think if you did a life cycle analysis on your pencil with all its digital platforms and support and marketing and everything and £16 to buy the pencil you would find the humble pencil is a much better product.'



LF

Isn't the fundamental thing that they said at the beginning was the problem that people just lose them and who's going to go back to track a pencil?

NH

But if you've paid £16 then maybe you will. So design thinking and methodology doesn't work on its own. The email structure for Haidee is probably quite normal so just drop me a line if you have trouble. Be specific and say that you've spoken to me and say that I said the design challenges are really innovative.

END

**Interviewee:** Tim Lindsay (TL) – Chief Executive Officer at D&AD  
**Interviewer:** Lara Furniss (LF)  
**Date:** 29.10.14  
**Location:** D&AD offices, London

**Notes:**

LF

I've had 20 years experience as a design practitioner and this is my sixth year now in education. I'm interested in looking at what's been happening in design over the last ten years, because things appear to have dramatically changed. Design studios are working in a much more fluid way, not really seeing boundaries between disciplines. Yet education has become more specialised and compartmentalised. With the D&AD awards you've got your finger on the pulse in terms of what these studios are doing and just last week I saw the article in Design Week about GCSE Education that Paul Drake wrote, which is very relevant to what I'm trying to look at. He's saying that there's not enough focus on process. That's really what I want to get to the heart of, and the issue of linking education to the workplace and linking education to what's happening now. I think it also talked about the connection between design and everyday life and some studios have started to really explore how design as a process can go beyond design and start affecting much wider issues.

TL

Yes, the whole service design area and (the nudge) behavioural economics.....it's all part of that.

Ok, so where would you like to start? I've got views on some of that, but probably not on all the things you want to cover. So let's see how it goes.

LF

So there are three stages to my study, and I'm at the first stage now. I'm talking to about 12 people who are in key positions within the design sector, including Zeev Aram, Ron Arad, Lynda Relph-Knight.

TL

Lynda's always a great person to talk to.

LF

And then the second stage is going to be a study with a small group of studios, about six of them, over a series of visits to observe and interview a cross-section of the studio to really look at how they're working. I'm hoping Heatherwick Studio will be part of the study. Then I'll conclude it all by presenting findings at a symposium, inviting those who have been involved in the study, to get their feedback and to move things forward.

So, how did you come to D&AD, and the position you're in now?

TL

As you know D&AD is there to serve both the advertising and design communities and that's what gives it its unique flavour, and certain tensions as well, mainly positive ones. So I came to the end of my advertising career and lost interest in running agencies any longer and a good friend of mine was my predecessor and CEO. He got me on to the D&AD trustees board. Because there's the opportunity to deliver specific skills and capabilities, and he felt he needed a bit of what I do, whatever that is. So I came onto the Board and he then took a life decision to go back to Ireland,

because his wife's career was taking off, and I happened to be standing in the right spot at the right time when they were looking for a new CEO. That's how I came to D&AD. And to be serious about it, I absolutely love it. It's an opportunity to put something back into the industry that has been kind to me and which enjoyed immensely over 37 years. It's the best job in advertising and design as far as I'm concerned. Just not the best paid.

LF

From your experience in this role what would you say are the changes that you've seen taking place over the last ten years, perhaps in terms of the types of studios, the way that they're working, the way that they define themselves?

TL

Well I've never worked in a design studio, so that's a caveat here. But if you look at the way D&AD's entry categories have changed over the years there's been this coming together of people with different disciplines, working together in order to create outputs. It's actually not just true of design it's true of advertising as well. There used to be copywriters and art directors-and now there are UX (User Experience) people, technologists, people with many different disciplines who have to collaborate in order to produce what's required. Mark Bonner our new president, one of the founders of GBH – who you might want to contact if you haven't already – his theme for his presidential year is exactly what you're talking about here, the work that happens and the magic that happens when disciplines overlap and come together. To a certain extent it's nothing new, because creativity has always occurred when disciplines bump up against each other, even media and copywriting, quite disparate things. But now it's not accidental or random, it's a necessity and a requirement in order to get the work done. So we live in a much more collaborative age.

LF

My next question is why do you think these changes have occurred, so that's part of it. You feel it's more of a necessity?

TL

Yes, more happenstance. I think that is the change. I'm afraid I'm going to use an advertising example again. I was CEO of a big agency called Lowe Howard-Spink which did fantastic work. The creative department was through the media department and when they all came to work at 10.30am they used to talk about football and horse racing and stuff they were doing at the moment. And great media/creative ideas would come out of these random corridor conversations. So that's the happenstance bit of it, and I'm sure that applies in design studios as well now. Now if you're building an e-commerce website, it's not about happenstance, you need people with 20 different specialised disciplines in order to deliver that. Including the people who write the code, design it, and who understand about user experience and...It's become a much more complicated, demanding and in some ways satisfying creative process. Which is what you're interested in I think, isn't it?

LF

So what do you think have been the implications for this? Are their positive and negative implications?

TL

You've name checked Thomas Heatherwick, that studio turns it's hand to almost anything that comes under the broad design umbrella, from Olympic cauldrons to buildings to buses. I think that's fantastic. I think they are unusual if not unique.

But if designers are essentially problem-solvers, which I think is how they often describe themselves – then there are a lot of problems to be solved, aren't there? And if you've got a process, to come back to that important word, and a form of design is part of the solution, you can apply that process to almost anything. So it's not surprising that you get this variety of output from a bunch of people who are just looking to make people's lives better. Which again is how I think designers see themselves. Even if it's just an improvement on a piece of packaging.

LF

So that's a positive, can you see any negatives?

TL

Well there are probably negatives in terms of identifying, nurturing, inspiring and preparing the next generation of talent. Because it's quite difficult to replicate those conditions in academia. I'm really speculating now, I don't really know. You know a thousand times more about it. So one way of talking about that might be to say, there is a perennial complaint from industry that people who are coming out of arts universities are not well prepared for life in the professional industries. And I'm sure people have always said that but you do hear it with increasing frequency and volume. And I go and speak to schools and universities and if I'm honest they do seem to be slightly out of touch with what's actually going on. That's an impression rather than something that I could produce evidence for. So one of the things D&AD funds is the New Blood programme. We put course materials – briefs mainly - into arts universities, for tutors to use. The work that emerges goes into our *New Blood* student Awards. We had 3,500 entries last year from about 18 briefs. We award Student Pencils which are (slightly patronisingly) smaller than the professional ones, but still beautiful. And then – this is the point of this – we take the 50 or so Pencil winners and put them through a boot camp called New Blood Academy, which is designed to prepare them for life in the industry, to show them what's going to be expected of them. It really means that they hit the ground running rather than floundering about. But we can only do that for 50 people, we don't have the resources for more. And there are thousands and thousands of people coming out of the arts universities every year into the design industry.

LF

Do universities or the institutions that you go and talk to know what you do in the boot camp?

TL

Yes. I think our education network is 140 education establishments. About 100 of them here, and 40 spread internationally. And I think we're pretty good at communicating that. But we're doing it with limited resources. We're growing, and we're funnelling more money into the D&AD Foundation which is what funds the New Blood Programme and we're extending it internationally as well. We're trying to do more and we will as our commercial activities generate more surpluses. But unfortunately we can't help everyone.

LF

Is that something that I could access relatively easily online, so I could find out what sort of process the boot camp goes through?

TL

Yes. If you find the New Blood Programme on the website it will tell you what happens. And if there's not enough information I'll put you in touch with someone who can give you the full story.

LF

That's great. That could almost be a missing link – not that it's missing, obviously you say a lot of institutions are aware of it – but whether they then take that and apply that to their teaching.

TL

Yes, they could create it themselves if you see what I mean. They could create a similar thing themselves. We do it well because we've got great access to the industry. Generally if we ring people up and say can you do this they do, because people are generous in that way. So that's our advantage, we can access industry figures to run this thing.

LF

This is really very good. So the next question would be how this has impacted on D&AD in the last ten years? Obviously talking about new blood and this boot camp is pretty directly impacting on you, is there any other kind of impact?

TL

Yes. What we try and do with our categories and our juries is reflect the reality of the business. So every year we make changes to our categories, and so there are two things here which may or may not be interesting. The first thing is the D&AD White Pencil, and again you may have come across it. It was started to celebrate the 50<sup>th</sup> anniversary, three years ago, and it's now a design and advertising category, for work that has a purpose beyond profit. So the sweet spot here is for brands that are seeking to do well by doing good, that have sustainability and corporate social responsibility as a mainstream part of their marketing programme. And Unilever sponsor the White Pencil. Where it works best is where the commercial agenda and the sustainability agenda are the same thing, brands like Lifebuoy, Patagonia, and many, many others, who are genuinely trying to have a positive impact beyond making money for their shareholders. In fact they are making money for their shareholders, by having a positive impact. And that's a huge and rapidly growing part of the marketing communications environment. The design community has been thinking about this stuff for much longer than the advertising community. Designers are more thoughtful generally than advertising people. But advertising is having to get its head around this because it's become mainstream marketing. In fact Unilever's growth plan is called The Plan for Sustainable Living. So that's one really huge area and it requires new vocabulary, new skills, new capabilities, new processes – there's that word again – and we're again in our small way seeking to encourage that. So the White Pencil is not just an awards category, it's a programme and a coalition of the willing, as we seek to encourage particularly the advertising part of the community to get its act together and get going on this. I write a monthly column in the Guardian about this sort of stuff, which you can search. Basically it says the same thing in a different way every month!

The second part – viewed through D&AD's eyes – is just innovation. The most vibrant, fastest growing categories - whether advertising or design - are the innovation categories. Again, you can go online and look at those, and you'll see which new ones we've put in this year. It's just new stuff, whether in graphics, product, mobile technology etc. It's a slight cop out on our part because anything new can be categorised as innovation but that's where we're seeing a lot of action.

LF

Listening to you makes me realise you're almost having to follow...educational institutions seem to be trying to track changes, so you're getting more and more courses possibly and more specialised disciplines because they're trying to capture

everything that's going on. And you in another way are doing the same thing. So you're sort of ahead of the game. You're having to be faster because you're having to respond more accurately to what the designers are doing whereas perhaps the universities are slower, and they're going through the mud in terms of trying to catch up.

TL

As you say that it sounds like a very interesting observation. I'm sure that's right. I'm sure academic institutions are slightly slower to react because they're not so driven by the commercial imperative as design studios and so on. But it is fragmented isn't it. It really is. And I guess it's a problem and an opportunity as things unfold.

LF

So, do you go with more pencils or do you go with less pencils?

TL

We're very hard to win, and just getting in the annual is a huge achievement, but if we don't run a successful business then we can't do all the New Blood stuff. We're a charity; all our surpluses go back into the community. We have to judge it quite carefully. We want to be the highest standard and most prestigious, but we don't want to be impossible because people won't want to enter. And Cannes is our biggest competitor and they have design categories as well although it's primarily an advertising festival, and they give out far more Lions than we give out Pencils. As a matter of fact we've just taken the decision to award 'in book' and 'nominated' with new wooden and graphite Pencils. Both are considerable achievements in their own right and they deserve full recognition.

LF

I remember as a designer ten years ago when I wanted to move discipline, I would pick up a beautiful copy of the annual and I look at the winner and the runners-up to see who I might want to work for. Obviously they are important because they get that credibility and as a designer you're going to go and look at all of them.

TL

In the greater scheme of things perhaps awards are not that important – certainly not a matter of life and death. But the good stuff works better than the bad stuff – economically, culturally, socially, environmentally. So celebrating, enabling and inspiring excellence does have a point. And it certainly helps attract clients and staff to award winning companies. If something is worth doing at all then it's worth doing well.

LF

The next thing I'd like to ask which is something we've already touched on is design education, particularly undergraduate design education. My concern is at undergraduate level with the introduction of fees, and that fewer will do Masters because they've just racked up three years of undergraduate debt. Are we doing them a disservice if we put them down one narrow path for three years?

TL

Oh, this could be a long rant! No, I'm not going to rant. Where to start. Our last president but one was Neville Brody, who's a dean at one of the schools of the Royal College of Art. So we spend quite a lot of time down there, and also Christopher Frayling the ex-rector is a supporter of ours. I've been on a couple of panels with him. He got into trouble with Chinese students by saying that actually what we were

doing was training a generation of fantastic Chinese design gurus of the future, and that was potentially going to damage the British design industry and I am very far from being a supporter of UKIP, in fact I'm at the opposite end of the political spectrum, but about 30% of the students are Chinese at the moment. Because they are not deterred by the fees and they take this wonderful education back to China and start design studios and the Chinese government is building literally thousands of design schools across the country; because they see the need and the opportunity in that investment. So here are two thoughts on this. Advertising and design are not very diverse industries and they tend to be quite white and quite middle class and what Michael Gove did with his daft suggestions is make that situation worse because, again I'm going to use advertising as an example because I know about it, but it's true of design as well. If there was any diversity in advertising and design it was the actual creative practitioners themselves. Although they weren't ethnically diverse in general, they were demographically diverse. If you came from an underprivileged background and weren't conventionally academic but you could draw or paint or make pottery then it could lead to something interesting. But obviously the people from the most deprived background are the most deterred by fees, and therefore even that semblance of diversity is going to lessen. That's one problem. The second part is the ethnic diversity, it's incredibly white. Advertising and design, in the States this is true too by the way, and markets like Brazil and India where the middle class problem is even more pronounced, because poor people just can't afford education of any kind let alone (after it) at a tertiary level. Certain ethnic communities don't want their kids to go into what they don't see as a real job, and in other ethnic communities there are no role models. So the problem is perpetuated in both cases. But in order to address that issue, or to encourage more ethnic diversity, we need to intervene at 13 or 14 before people choose GCSEs and A levels. So another initiative we have - and again I keep saying in our small way; all we can do is set an example - we're partnering with Hackney Council to do a popup school in January to show kids in the borough what opportunities exist in creative industries and tell them that actually it's quite enjoyable, stimulating, you can make a decent and enjoyable living. And that's scalable, if that works. And Hackney are very supportive of that sort of thing. We can take that on the road, internationally as well. But you have to intervene there, and of course that's a huge task, there are millions of school children but we'll give that part of it a go. As you know the other effect of Michael Gove's proposal was this immediate deinvestment in teaching art subjects, and that's - I don't know if this is the right statistic - I'm told that resulted in a 17% decrease in application to arts universities. Is that correct?

LF

Yes, our numbers are down this year. Last year with the beginning of the fees it wasn't but I think it's slowly filtering down.

TL

And of course the institutions have to take more overseas students to make the budget. Excuse my French 'it's just fucking stupid' because the creative industries in this country are bigger than financial services. Design on its own is 3.5% of GDP. It's insane. We're really, really good at it. Not just advertising and design, but music, and film, game design, architecture, dance and television etc. It's an absolute travesty.

LF

Listening to a Start The Week with Christopher Frayling and Ron Arad in it I think that Frayling was saying that he talked to the Minister who had put the paper together of the five pillars missing out art and design, and had the conversation with

him 'Why didn't you include it?' and he said 'Oh, that would have been a good idea. I didn't even think about it.'

TL

I've heard Christopher say that. It's a cock-up.

And unless somebody's going to address it, and they will, by the way, I'm sure, the fees remains a huge obstacle.

LF

And I read the documentation of a meeting that happened last year about defining design, with a cross-government independent party - APDIG.

TL

It was a creative board that Vince Cable chaired.

LF

That was looking at the issue of defining what design is. Some of the people speaking there were saying that because design can't be defined – because designers are struggling to define it and it's obviously becoming more and more diverse with what they do – if you can't define it then the government can't quantify it, if they can't quantify it they don't value it, and if they don't value it they don't do anything about it.

TL

Exactly right. And here's another problem. You've identified the problem and an effect of that is that there are ten, 15, 20 different organisations that would like to speak for the design industry, but none of them are broadly representative, except the Design Council, which used to be government-funded but that funding has been withdrawn so it's having to turn itself into a business looking for alternative funding mechanisms. It's run by a friend called John Mathers. There's a series of meetings going on at the moment where we and the DBA and the Design Council, the V&A and the Design Museum and CSD come together, have a conversation for a couple of hours, drink a couple of glasses of wine and actually the Design Council is the only body that can credibly represent the design industry. On a panel at the Cheltenham Design Festival someone said 'Why does it need representation? That just makes it corporate.' But actually it does need a voice. It needs to punch its weight, not above, because a lot of the other bits of the creative industries are easier to define and therefore easier to represent. Advertising is very well represented as it happens by the IBA and the AA. Architecture's got RIBA, film and television have got BAFTA and design is kind of...whoah.

My daughter got a double first at Oxford in English, she comes from a middle class background with a reasonable amount of money available, she says she would have thought twice about going to university if the fees thing had been in place in full when she was there. She says it! What about the students from around here? It's horrendous.

LF

Do you think there are implications for this change in design for non-creative industries or policy makers? I've touched on it before but I suppose I'm interested in the wider implications of this. So say with the Heatherwick process, he says he does use one process and he can do anything with it.



TL

Does he say that? That's interesting.

I don't know enough about it. I think it's a very interesting proposition that people who are solution-neutral but have a process can deliver all kinds of different outputs. It's a great proposition. All processes are a version of discovery, development and delivery aren't they? That is the process that you go through. And you need to leave yourself sufficient time for each part of that. You can't hop to the last one, you have to go through sequentially. And I've used versions of that in every agency that I've ever run

LF

Do you know the design company Participle? Their process seems very interesting. They basically sit down and look at what they want to solve, and they've been looking at the ageing population issue, national health issues. They'll sit down creatively, come up with solutions, then think 'Right we've worked this out, who do we need to go and pitch this to?' They don't have a client or brief, they're coming up with the whole thing themselves, then they're going out and targeting.

TL

The great example that everybody uses is reducing violent incidents in emergency rooms in hospitals. It could be seen as a policing issue, but of course it's a design issue. I love that. Do you know a lady called Nat Hunter? Our Trustee board members serve for a period of three years so she's now off the board. She's really interesting. She's working at the RSA now and she used to have this very interesting design company called Airside with her partner, Fred Deakin, who is also a designer and used to be in a band called Lemon Jelly. She said something which has always stuck. When I first came to the D&AD she said the two most important things any designer should do, any designer of any discipline, is visit a landfill site and an abattoir. It's good isn't it? That's what made me think that designers were more thoughtful than advertising people.

LF

That's great, I'll keep trying. She was the one from the RSA that I thought would be the best person to contact. I was going to ask if there were any relevant people to contact but you've now already listed a couple, Mark Bonner at GBH and Nat Hunter.

TL

If you want an introduction I'm very happy to do that. Just say that we've met, and I spoke about her admiringly.

LF

So the last thing is what do you think the future holds for design? Where do you think it's going? Do you think it's going to carry on in this direction?

TL

It's sort of going in so many directions. I think despite the depredations of the Tory government and the ideological meddling of people like Gove I think it's quite prestigious to be a designer. I think there's a heightened awareness, we've become a more design conscious society. I think people are aware of the way in which design impacts them positively or not in their everyday lives. And there's more written about it. All of which is great. I see greater value being put on it as we move forwards, that's got to be a good thing, however you define it. And as we agree it's sort of resists definition, to its own detriment, and you've articulated that in a way

that I find very interesting. So I'm positive about it. And actually, not just in this country but internationally... The two bits of our community, advertising and design, the advertising bit of it is relatively easy for us to access because it's 25 big multinational companies and individual agencies in the big market. The design community is much, much harder to get a handle on because it's fragmented, it's composed of much smaller units in general, often one or two people, and it's not as brash, head above the parapet as the advertising part is. So when we go to China or India or South America you have to dig quite deep to get to understand the local design community, but when you do it's fantastically rewarding. We were in Mumbai earlier this year visiting these tiny little design studios, there might be ten people in a space this big, doing their stuff, fantastic. And the other reason they're harder to access is that Ad agencies enter global awards if they think they've got a chance of winning. Designers tend not to a) because, relatively speaking it's more expensive for them, because they have lower revenues, and b) they keep themselves to themselves in a way that the advertising part of the community doesn't. So a big part of our job is encouraging them to have the confidence to enter our show and strut their stuff and compete on a global stage. That's satisfying, and what you uncover or discover is these thriving design communities in slightly unexpected places. Shenzhen in China is a really thriving design community. It's partly government created...they decided they wanted it to be a centre for design. But if you go there it's brilliant, it's absolutely fantastic. There are some privileges to the job.

LF

It must be great, uplifting to see it thriving in other places.

TL

It will kind of find a way won't it? I think it will.

LF

I hope so. It has to. Thank you very much.

TL

I hope it helps, as I kept using advertising examples.

Design is invading advertising. And here's an interesting thing which is true by the way. So advertising is the only sort of creative industry where the creative people call themselves creatives. If you're a musician you're a musician. If you're a painter you're a painter. If you're a graphic designer you're a graphic designer. So advertising people are not at all averse to being called designers, but designers would never want to be described as advertising people. I think that's quite an interesting observation. Design is not exactly enveloping, but it's certainly encroaching into advertising. And there's a sort of blurring of the lines as there is between so many disciplines.

LF

Fabulous. Thank you.

END

**Interviewee:** Lynda Relph-Knight (LRK) – Independent design writer and consultant; Former Editor of Design Week for more than 20 years  
**Interviewer:** Lara Furniss (LF)  
**Date:** 19.11.14  
**Location:** Ruby Café, Hoxton, London

**Notes:** Ambient noise levels are very high, so the recording is difficult to follow. LRK starts by asking me my background.

LF

So I ended up in DEGW working on the Holocaust Exhibition, but I also did interior projects, like the Duke of Westminster's new head offices. I moved around. But at the time when I came back in 1998-99 I found other designers were quite narrow, saying 'I'm an office interior designer I wouldn't dream of doing retail interiors or residential interiors.'

LRK

You wouldn't like a day job would you?

LF

But as I carried on working I ended up at Imagination working on events and large scale branding. Then I went freelance.

LRK

Was that Imagination with the main team or with Virgile and Stone?

LF

With the main team, working on Ericsson and other brands. I met Nick Couch there.

LRK

I was with Carlos Virgile on the way to Rodney Fitch's funeral a few weeks ago. They were the thing, well they still are, but it's Carlos now, and they are still within Imagination.

LF

Right. So then I ended up going freelance again and going to America doing exhibition work and theatre, back and forth, and then in 2009 I decided I wanted to start teaching. So I looked for a course that was varied enough to match what I thought was happening in the industry. Because I had noticed it becoming more fluid compared to the resistance I'd got at the end of the 90s. So I started to look for courses that reflected that but I couldn't find any and every undergraduate degree show I visited appeared more specialised. I went back to my old course at Manchester which had been a very broad interior design course. So you got to do some film and some exhibition and architecture and you got hands on, it was brilliant.

LRK

Like a foundation course but grown up.

LF

Exactly. But everything's so much more narrow now.

LRK

I Know. I have validated courses this year and it's like 'So the job they get at the end of it is that?'

LF

So I found one course in Birmingham that was looking at things differently.

So that's my background and now I'm teaching on this course.

LRK

You're teaching at what level?

LF

Undergraduate mostly, with some postgraduate. I had the opportunity to do a PhD part-time at the same time and I thought what I really want to look at is how the design industry has changed so much. It's almost unrecognisable in the last ten years with a lot more studios crossing boundaries, and yet at the same time education has become more specific. I'm hoping to go into a few studios and observe and interview and record what they're doing and then see if there are any common threads between them and what the implications are for education. If there's no commonality between them I don't know what that means for education. And if there are some common threads what does it mean for education? And is uni-disciplinary education in the way it is now out dated.

LRK

'Do you need a university', is what I would say, and 'you don't' is what I would also say. Can you for me define 'design' because I cross a very broad spectrum. What areas are you looking at? Environmental? Communications? I cover a lot of things.

LF

Heatherwick Studios, he's 3D design. There's the studio Participle I think falls into service design.

LRK

So it will be communication, it will be the new word 'engagement'. I had a conversation with somebody who wants to work with them and we were talking about engagement 'Do you mean this?' 'Yeah.' So the new word is 'engagement' – with customers or with staff. I had better warn you, quite apart from the wine I may have had at lunch time, I can talk around a bit, but pin me down.

LF

I'm trying to get a variety of studios. I think there's possibly going to be more media connected companies.

LRK

And what do you mean by media?

LF

Something called Berg?

LRK

Oh I know Berg, well they don't exist any more. This year, I think they've closed. I knew the guys at Berg, they had the little printer and everything. I think they might be closed. If they're not closed they've changed. There's no news stories about them

but I thought they'd closed...Oh right, it says 'to close' in Dezeen, which I trust. That was in September.

LF

So the structure of what I'm doing is in three parts. This is the first part. I'm interviewing about 12 people who are in the design world but coming from a different perspective. Basically trying to work out what they all think has been going on over the last ten years and why they think it's been going on and what they see as the possible implications for education. Then I'm going to put an initial report together that might start to structure some key questions for when I go into the studios. I'm aiming to go into about five studios and Heatherwick's would hopefully be the largest. We studied together at Manchester in the same year, and he kindly gave me initial interview.

LRK

I know Tom since before he started out.

LF

Other companies may be Barber Osgerby, as I think they're very interesting.

LRK

If I can help you open any doors please let me know. That's one of my strengths.

LF

Maybe Jason Bruges.

LRK

Oh I know Jason, he's a friend.

LF

Well we worked together at Imagination.

LRK

His sister and I went on holiday together this year.

LF

But I like his angle, because he combines architecture, installation and technology.

LRK

He's quite an introvert as an interview person but he will have some views. Sorry I'm side-tracking you, what do you want me to tell you?

LF

So you are part of my round of 12 interviews, and so far all the other interviewees have said 'Well you know the expert on this is Lynda Relph-Knight'.

LRK

What, about what's happened in the last ten years?

LF

Yes. So my first question is what have you seen, what do you think the key things are that have happened in the design world over the last ten years?

L RK

That's a very big question. My background doesn't include architecture, and it doesn't include fashion. But it includes everything in between - commercial design. Ok, ten years.

Digital obviously is a very big move and you're looking at design practice. Even now as we speak not far from here there are a lot of branding groups who have learned the word 'branding' because they used to do 'identity' who are trying to embrace digital. It's still happening that digital as communication is what clients want. They don't want a brochure they don't need a brochure. It's too slow. They need an urgent manifestation. So digital is the biggest thing. In my world of design digital is part of it, it's also integrated into the branding and the graphics, into communication really. The biggest thing is digital because it's happening in all of our lives, let alone design. I buy online, I do things online, I'm sure you do too, I never thought I would, I didn't know I would. But I do. So customers want stuff online. So anything to do with communications design has had to embrace digital design. A lot of the digital agencies are allied to advertising, who shout at people rather than listen to people. Where as designers listen to people. Very black and white. But anybody who is trying to do a communications campaign for any client has to embrace digital. And therefore that involves collaboration in some instances or hiring people whose pay rate is way ahead of what they're used to. I don't know what your issues are but I know that not far away from here somebody I've been working with took on a digital department to achieve what they wanted and get the payback in fees from the clients. They had to invested an awful lot in salaries. It's kind of not worked out, and they have had to axe their digital side, because it's too expensive. Actually they will now die because in my view they weren't prepared to really invest to get the bigger picture. So digital is big. In communications design it is vital, and has been for some time. In areas like interiors, environments generally, and particularly retail it's absolutely essential because it's about experience. Sometimes experience is a nice carpet or a nice environment but sometimes it's more likely information-driven. Therefore the digital has to be present there. It could be whizz-bangs or special effects, which would be something where Jason Bruges comes in or UVA, or United Visual Artists. If you want to I can put you in touch with them if it's relevant.

L F

They had an installation at the Barbican not that long ago didn't they?

L RK

They're kind of seen as installation people of the moment still. Jason's one of them, they're sometimes seen as installation people, in retail in particular they're becoming more drawn in. Dionne Griffith of UVA is a friend of mine, as she is there new marketing director, so if you want her information just let me know. In areas like retail also exhibition, have you talked to Dinah Casson or Roger Mann at Casson Mann?

L F

I do know them and I've got a very good friend who works there. Gary Shelley.

L RK

Oh I know Gary! His partner works at M Worldwide, Helen.

L F

Yes, we worked together at Event Communications.

LRK

Oh, you were at Event! With Cel? With exhibition it was front of house a long time ago, with retail it's coming in, it will come in to other things like offices or whatever. So Digital, or Interaction, is the preferred word, is very important and it's not just web design, it's beyond that. It's responsive, like Jason Bruges's installation they respond to you, they respond to passing people or whatever. Digital's the big thing. Is that enough on that for now?

LF

Yes.

LRK

The second point would be the Far East, China. Overseas markets. China is the biggest of those. On the business side they are make or break for people, they define whether you are local or global. I don't know how it's affected the work. It's effected the practice in that people have had to... look at how you...I don't know how it's effected the work. I've done some work with UKTI (UK Trade and Investment) and people...but the work is still British work by and large. I don't think there's been a compromise on that, I think they're still buying British. You have to be serious about over seas if you want to be a contender rather than just a beautiful craft workshop round the corner that does graphics – a really beautiful piece of work, or perhaps a one off shot – you've got to be global. And you have had to be for some time. China has been make or break for most, certainly on the identity side, I don't know about the digital side, because there's still a big market here for digital. And they will rip you off if you're a product designer, you have got to be ahead of the game. You might talk to, on the product side, to Paul Priestman from Priestman Goode. Do you know Paul? And Michael Goode. Paul is a product designer and he is specialist in transport and they've done all of the China trains and they've got an office in China and if you want to pursue that overseas thing talk to Paul. But it's 3D design. Where as for branding people I would talk to John Haltom he is now with Prophet. He was Figtree (with Nick Couch). He went out to Hong Kong. I would talk to John. If you want any of these details I will send them. On the retail branding side the Eastern side, I would talk to Jonathan Cummings of StartJG. He's also in Hong Kong. He was here as marketing director at StartJG. They work for people like Adidas. They work for global clients, but he's out there. The thing is that with China there are two things. The one thing is you work for international brands which StartJG do and I would suggest that ...John Haltom does, and then there is the work for Chinese brands which I think Paul Priestman probably does. He's a bit of an anomaly, as it is more likely that you are working still for global brands. So, China's been a big deal in the last ten years.

LF

Great, because I can now go and look at these companies and see what they've been doing over the last ten years or so.

LRK

I can just give you pointers. The financial services thing has dropped a bit, I don't know how that's affected the sign...Financial services was one of the big drivers of design because ten or 12 years ago suddenly the financial services were...the banks were coming up with new offers...EGG and I can't remember the other names. But all sorts of new offers that the banks wanted us to be in trust with. And we all know what happened. So financial services have come into disrepute. People like Barclays are looking at the Bank of the Future – I know they are and I'm sure others are, I know Lloyds are shit. They're looking at two things, they're looking at the online experience because again it's digital or online. I don't know how much it's affecting design consultancy because they tend to keep those things in-house. But they are

also looking at the Bank of the Future physically – the store and the thing that you walk into. So it's Clive Grinyer. He's a product designer by background, he set up Tangerine and gave Jony Ive of Apple his first job. But he's at Barclays at the moment, I think he's looking at their online offer and how best to engage with people and what people really need. Meanwhile Lee was looking at the bank branch – he's a product designer also. 3d thinking – you've got 3d thinking. Go with it. Clive will have some views on the financial sector and most of them are actually bound by 'we can't tell' but Clive will. If you say you've spoken to me, he will tell if he can. So the financial sector. What else has come up. I'm making this up as I go along, you know this. There have been quite a lot of what I would call 'challenger' brands' which I would call independents that were set up. They're people who have set up, sometimes funded by people who have been in the City and got kicked out. It's entrepreneurial basically. And examples would include 'Look Mum, No Hands'. It's about a cycling brand, which is to do with 'Look mum, I can do this with no hands!' They've got a bike repair shop round the corner in Old Street which is also a coffee bar. It's actually a fusion but it's an entrepreneurial brand, they quite often do more than one thing. 'Rapha' are another cycling brand set up by a guy called Simon Mottram who's a brand strategy guy by background (was Interbrand). I used to know him in his previous life. And they do clothing for cyclists and it's become the kit of choice for a lot of people who don't even get on bikes – it's good clothing but it's also serious cycling clothing. And they've set up a brand, a shop in Soho now, a café in there. It's the entrepreneurial thing which is breaking the mould and they do a brand, they do a shop, put a café in there so it's actually a slightly more mixed thing. Again working near here, in Pitfield, there's a place called Pitfield London where the guy kind of flogs retro interior, mainly these lamps, these kind of things but it's also a café. So you go in there to buy your coffee. It's kind of home accessories but it's modern period stuff. There's an entrepreneurial streak but it also merges, this is on the client side, but it also merges with a fusion streak for bringing together a shop and café and whatever. And some of them start online, I think Rapha might have, but they need a physical manifestation but it won't just be a shop it will be something else where people can meet. Because they probably will buy online. That's the kind of retail thing. The fallout of the banking has led to entrepreneurs, they've got cash, they may not have ideas, they might have passions, you get chocolate shops. One of the things I've judged over the years...I'm also part of the Royal College and if you look at the projects every year, I've judged internal awards, and there's the sustainability thing – I'm sure you've had it from other people, sustainability is a reality in that loads of people...it's gone beyond a minority passion, it's actually integrated. It's also got some legal connotations which is how these things stick. Legal more so on the manufacturer rather than the consumer, therefore these things stick. Marks and Spencer are a good example of somebody who's taken that rather seriously. I used to go in M&S and I don't know when they last did it but you used to get the staircase with graphics down the wall 'We pledge this, we will reduce that' etc. But the sustainable thing has gone a bit more mainstream is what I'm saying. Again I'm talking retailers but retailers are the forefront, they're some of the greatest wasters therefore they have to be seen. Quite the counter-position, and to stop income going too quickly, is that luxury has grown. It can be sustainable but it doesn't claim to be. But luxury has become...I don't know if you're UK or global?

LF

Well I'm only focussing on the UK.

LRK

But one of the exports to the UK has been luxury to places like China. It all connects. Do you know Henrietta Thompson, she's a journalist, she's a friend, oh! She's not



Thompson, but she's Editor-at-large at Wallpaper, she's also a Telegraph correspondent or something, email if you want any of these.

She's great, a lovely person. So luxury is actually quite important. If you're talking UK, it's become something they can sell abroad. You could also talk to Georgia Fendley at Construct she focuses more on the fashion market but she was also Creative Director at Mulberry for a bit. I don't know how much she knows about the export stuff, but she knows about fashion market. So luxury is actually...certainly over the last ten years, one of the big thrusts as an export, because again China particularly the Far East, the focus has been east, we've still got markets in other countries. You might talk to Harry Pearce at Pentagram. He did branding and stuff for a luxury retail centre. He's a brilliant graphic designer, branding designer and he's worked on some luxury stuff in the Far East. He's done the branding for Landmark, I don't know these towns, I can't think if it's Hong Kong or Shanghai, but he's done a shopping mall and he's very thorough. He did a lot of research. So he can give you more.

The last ten years across design. Back locally, a return to hand making or hand craft and authenticity or whatever you call it. Complete rebellion against computer skills etc. There's been a lot of hand making. The London graphics scene, illustration scene, has been littered with it, it's very local. The person to talk to about this is Daniel Charny, he was a tutor at the Royal College, he's the curator of the Design Museum's new collection for the new venue. I helped the British Council sort out their policy for South Africa for this year, 20 years of Freedom, a couple of years ago, and I said 'Whatever you do it's got to involve Daniel because it's to do with making. The link between the UK and South Africa has to be making. They do making, we're getting back to it. It's about handcrafting, about making. So Daniel's someone to talk to. I would put him above Harry Pearce.

LF

It's such a brilliant mix of things.

L RK

Well it is, it's ten years.

LF

I know they all connect, but they're all very different.

L RK

If you're interested in the practice, design is devalued but it always has been in the eyes of clients. People are competing more. If you are looking at the practice you need to talk to the Design Business Association, and Deborah Dawton. But I would say that she's a designer, she was at college with Jony Ive. They've spent more time and money on pitches than they ever did. They're still trying to overcome an inherent lack of confidence in what they can do, compared with what advertising people can do. Advertising's on the wane. They're eroded by so many platforms, and we need a more human touch. And designers bring more human touch and authenticity, all these buzzwords. It would be interesting to see what Tim at D&AD said to you, because he is from Advertising.

LF

Well he was apologising a lot.

LRK

Good. I like to see the two working together (advertising and design). One shouts at you and the other tries to listen. Designers undervalue ourselves at a time when it's more needed than ever before.

LF

Why do you think that is? Is it all down to the Millennium Dome?

LRK

I think it was before that, they always have. They've always felt like poor relations because they didn't have the budget. They didn't have the ear of the chairman because of the budget. It's a horrible generalisation, but designers are more thoughtful people who care about people rather than their egos. There are egos, but they care about the experience of customers, I like to think. Whereas my experience of advertising people... But designers actually start by listening to people and building on that. Coming up rather than down. That's part of it. But they still think those are better in the communications end of life. And designers actually get so involved in caring, they're not worried about budgets. 'You've got a problem, let's sort that.' Advertising's about shouting, not my word I've borrowed it. Even though it's being eroded it still is. It might not shout in its message, but put your computer on and you can't get away from a banner ad. Positioning. Whereas the design side can pass you by.

What else,? Ten years.

LF

Do you think in these ten years have things been changing at a faster rate than the years before?

LRK

Yes, digital is key and it's speed, that's why I started with that. And it's not just digital in the design we do, it's also digital in the way we communicate. I don't buy newspapers as I'm a journalist, unless I want to do the crossword, and I'm on the Guardian the whole time and I get irritated when it doesn't update within 2 minutes. And that's me. And I possibly am a bit typical. We all want things faster. So designers have to think faster. Talking to top people at places like Fitch - the chairman's a friend, I've known him since he was a junior designer - you would say 'Look, OK, everybody says we're Fitch, we're global, we can do whatever'. But you can't, you're only as good as the last job plus a bit. You have to keep moving. Everybody has expectations. That maybe another heading for you. Customer Expectations. Thinking back on the environment side particularly, people expect so much, and expect to be excited every five minutes. Because they are through the movies, they are through online stuff. You must have found that in exhibition design. It's absolutely the forefront of the challenge.

LF

Yes, before I left they just wanted you to do more and more, they wanted to work it all out for them for free before they even considered putting a cost together.

LRK

That's the client expectation. But yes, client expectations are driven by customer expectations. But also the client pressures, which you'll get a little bit more from Deborah.

There are some positives here somewhere.

Technology obviously has changed. Materials have changed, it never stops. And technology and materials for example if you look at packaging, you can get stuff that says 'I'm on the shelf come and buy me'. It can tell your phone. So technology has changed, it isn't just digital.

LF

I'm pulling everything together really and well I think...because I'm aware of time and you need to go somewhere else...

LRK

But you can join me if you want?

LF

I'd love to but I need to get home to Shropshire.

LRK

Well I'm meeting Callum Lumsden who's an interior designer, retail designer, and Debbie Hale who's Marketing Director for Facebook who are just down the road. If you want to join us at 6.30pm you're welcome.

LF

I've got to go. But thank you, it would be great. I need to follow you for a week perhaps.

LRK

And then I'm going to Seymore Powell's birthday party, have you heard of them.

LF

Yes, they've been recommended as well.

LRK

Oh, industries that have changed. Or industries that have fuelled it. Aerospace. Thinking of Seymore Powell, they did that thing that crashed. They did the Branson thing. But at the other end of things, big areas of change have been airlines. Because of the globalisation of world trade, so the airlines have been more significant, so on every level from seat design by people like Factory or Seymour Powell or whoever, or Priestman Goode, into branding for airlines there's been proliferation in airlines. FMCG (Fast Moving Consumer Goods) – packaging, food stuff – will always be with us. Financial services has changed in that it has to build trust and it has seriously lost trust. That's the down side and the up side. I don't know what it's like in Birmingham, but the café society, and coffee is a big thing in London. I don't know about Birmingham?

LF

I think it probably is.

LRK

We are more continental in those sorts of things. Everybody seems to be carrying a cup. We possibly drink more alcohol. Say she, showing up after having been in Shoreditch House.

LF

Oh is that where you were? I was just in Shoreditch House. I just met Nick Couch because he's been working there.

LRK

Oh were you! I was on the top floor with the guys from SomeOne, a branding agency. Oh God, we could have...

LF

Well actually I did look for someone with a red beret when I went in.

So I don't lose you before you need to go...the last thing I would like to ask you about are the implications for education. I don't know what your thoughts are on education, but clearly you are more involved than I realised.

LRK

Well it wouldn't be a university degree, not in design. For me, I'm very lucky, I've got a degree in history which is an academic subject. It doesn't for me work for design at the moment. I'm interested in the part of the initiative to get free education, not necessarily apprenticeship – that's a big word – something that's closer to apprenticeship back into design and the creative industries generally. I don't know what others feel but I've always felt a little bit uncomfortable with it. I'm academic in my approach to life, I can do crosswords and whatever. The best creatives I know don't thrive on structure. Academic is structure, so to me – I'm not dissing it remotely, I'm admiring it. The art school model is a good one. Maybe the apprenticeship model is a good one. It depends how it's worked out. I certainly don't personally feel it's a university degree, unless you're going in a particular academic design-thinking way of looking at things. It might work for other subjects like acting or whatever, but I don't think university is the future for design. I think they're an adjunct. I also believe that, I'm quite involved in education because I was on the advisory board of the Sorrell Foundation. I think it's criminal that the government is cutting two things. One is not putting emphasis on design education or creative making, or whatever you call it, education in secondary schools and primary schools. I think they're still doing it in primary schools under sufferance. But also at the other end. Foundation courses, what's that about? Why are we cutting foundation courses?

LF

A lot of students who come to us simply don't want to do a Foundation. They see it as another cost.

LRK

It's not being handled very well. I was quite shocked. I was validating some courses at LCC earlier this year, and I thought 'well of course, they'll have done a foundation' and they're going 'No'. And I was like 'What?!' OK, I'm not a designer, I've not trained as a designer. That is what sets you apart from other people.

LF

And also, it's ridiculous to expect someone at 18 – who's had very little exposure to art and design really – to make a decision on what undergraduate education they're going to do without Foundation exposure.

LRK

They wouldn't know that photography existed, or fine art existed? Because they wouldn't from schools, well they certainly wouldn't now. Certainly on the vocational end, I don't think that university is remotely the answer. But, I am deeply concerned, I have no answers, about that lower end. Because how do you know what you want to be, to maybe be a designer, unless your mum and dad was one, how do you know? It's like maybe medicine, how do you know you want to be a medic? I didn't know

that existed, but I did know that my local doctor's sons became a doctor and a dentist so they knew about that. Now is that the right model where you only go into it because you're familiar? It's about familiarity. Most people didn't know that was an option or what subjects to take to get there and we've gone back to that and we shouldn't. No, I'm actually deeply concerned about the future not of education as much as the profession because the best people will surface, but if we're judging them on their qualifications a degree has no value if you have to pay for it. A degree isn't the way for some of those creative people. Yes, they can study, yes they can apply themselves, but they can't go through the rigours. They shouldn't have to go through the rigours of an academic course. For other subjects it works more. It doesn't for design, because it's just about ticking boxes. I don't know if that helps. You should talk to Neville Brody on that. A top graphic designer and he's also Dean of Visual Communication at the Royal College of Art and he's a pal. And also Lawrence Zeegen, he's the Dean of something at LCC, but he's the Graphics head, he's an illustrator and graphic designer. But he heads that school in the way that he heads it. It's different because the Royal College is postgraduate only, Lawrence is both, but they're all international students. They're all dealing with 80% - my figure not theirs - overseas students. We kind of like cultural diversity, but 80%? But they have different educational standards and they're brought in just for the money. My words, not theirs.

Now somebody was telling me yesterday that somewhere - it was the LCC but it wasn't Lawrence's course - last year they had no UK students so they negotiated a bursary for one UK student. Now we none of us are racist but they come in with different educational standards, some higher, but mostly lower. They are there because of the money and they want the results, because they've bought it...fair enough...it's a transaction. But it's changed. So move away from the university. But there are a lot of people, a handful of people, working on alternative models which isn't to do with university. Do you know any of them? Do you want to know any of them?

LF

Yes please.

LRK

There's a guy called Ian Livingstone who I don't know who's a government adviser on something and I haven't spoken to him about this but I gather he's trying to set up some kind of let's call it a free school, it might not be a free school.

LF

And he's working with the government on that?

LRK

He's an adviser to the government on something. Separately he is trying to do this. I doubt he's working with the government on it.

LF

Because they don't value design very much!?

LRK

There's another organisation, I can send you details...D&AD are looking at how they might address this.

LF

Yes, he said they might set up some sort of pop-up thing that might travel about...

L RK

Well you need to talk to Paul Drake who's their educational head.

L F

Yes, I've read articles by him.

L RK

Paul's good. But I don't know if he's got anywhere but he's looking at things. He will know all the other options. None of them are real or viable yet, because they're trying to sort out how they fund it. There's another one, EYA, they do summer school. It's not to do with design it's actually to do with Humanities, because if you look at the stem subjects – history, geography – they're all squeezed out too. And it's to do with humanities. But that could broaden out. They did a summer school pilot which went very well, and that's for 18-30 year olds who didn't do the formal stuff, and that's a free school. How they're funding it I do not know, that's their big challenge. They can get people, but how they fund it I don't know. But there are a lot of initiatives, and I can send you details of that if you want, a friend of mine was involved in that. There are these other things which seem to make more sense to me. It's not just the £9,000 – it's the quality of the teaching and the expectation of a job at the end. They're not training them for the right jobs. I've validated courses where I've looked at the title and gone 'Didn't we validate this yesterday? Was it called something else?' and they say 'Yes, we did.' It's not about education. And these are people who I sincerely believe want to educate people, but they're having to play games. Sorry, it's all very negative.

L F

There are positives.

L RK

So what's the objective of what you're doing?

L F

Everything that I look at points to what you're saying, that what we're doing in terms of what the courses are titled, how they're structured, how narrow they are, it's just not working in reflection to what's happening in the industry. And what I'm hoping is that I can get into some very creative companies and try to articulate what they're doing and how they're working and what they need from the next generation of designers to come in and work with them in the best way. I will then be able to say 'Look we're not providing that.' It's still so narrow.

L RK

It's become more so.

L F

It seems like the fees are going to make it worse, because everyone feels like they've got to market themselves.

L RK

They've got to guarantee a job.

L F

But they're becoming more and more specific. 'You come here and I'll try and give you that job.' But it doesn't work like that.

LRK

But you know the design business as I do, it's actually the right person in the right place. At the end of the day it doesn't matter what degree you've got or indeed if you've got one. You know the perfect individual with the right approach to work and the right quality of work, so long as you've got it it's neither here nor there. I know having been an editor and employing journalists I've tended to employ people who've got a postgraduate diploma. Not because I didn't think I'd have to start from scratch with them, which I had to. But because they had committed their own time and money, so they knew they wanted to do it, so it wasn't going to be three months down the line 'I don't want to do this'. They had already decided that. But they're going to be green, some of them have done economics, or science, or architecture, or whatever. But the only reason I took postgraduate people, and they'd only done a diploma, was because they'd shown a commitment, that's all. And not an aptitude. I judged whether they've got an aptitude or not. And I think about this...ok maybe somebody with an economics degree isn't necessarily a good designer. But Mark Porter who does the Guardian stuff and works next door has got a Classics degree? He's not a designer. But he's changed the world of the Guardian and Guardian Online. But his background isn't conventional, and they're trying to make students conventional. You cannot guarantee jobs. How did the digital thing happen? I know all of the digital pioneers' friends. I don't know a website designer round here but I do know the pioneers. They came through film school, they came through graphic design, they came from all sorts of things, they didn't come through digital, but they're still the pioneers of digital design. And that's where the new jobs came from, the new economy came from. The universities don't allow for cross-fertilisation as you mentioned in fashion and whatever. Some of the best designers in my small world are working with fashion designers now on digital to put things that speak to you in pop musicians' outfits. But it's a natural thing, coming together. 'Oh, you can do tailoring and I can do these things. Well that could be good.' 'And you know about movement of fabric on stage and I know about reaction of people'. It can work. But you have to allow those things to happen. Creatives will always find their own way, they'll always find their own collaborators, but it would be great if colleges fostered that. But they can't. I know from validating two identical courses and I said 'Hang on! Didn't we do this yesterday?', and they say 'Oh no it's different'. And 'you're calling this course Art Direction and Design? But, that's magazine design'. And they go 'No no no, it's not'. I say 'Yes, it is. Art Direction as a title is magazine design, or advertising. So I ask 'Where are their jobs going to be?' And they say 'Oh they'll work in design consultancies'. In this country those jobs don't exist, and that's where they want to work. And you suddenly think...it's just a marketing exercise. It's not right.

LF

That is exactly the issue, that's the problem with the marketing. Coming up with names that narrow and specify subjects as a way of selling them.

LRK

But also there's the promise of a job at the end. Education isn't about that. Apprenticeship is about that. Education is about broadening your outlook, broadening your possibilities, allowing you to be a great thinker, I thought. Allowing you to do all sorts of things. If I with my history degree had taken it literally I'd be a bloody history teacher now because what else do you do with it. It taught me how to research, it taught me how to use information to make arguments, it taught me other things. I don't give a monkeys about the Tudors and Stuarts or whatever it was that I learned about, it doesn't matter, it's not relevant. But the process I learned. I remember many years ago being called in to judge some degree show or make some speech on a degree show or BTEC course, if they still exist, out in Swindon and we

went to press that day, it was a busy day. I got the train to Swindon and turned up, looked at the work, and said 'Honestly', I paused, 'most of you won't probably end up as designers but you've got these amazing skills.' And I got thrown out by the Principal. And this is 15 years ago. I said 'and you've been promising them they'd be designers?'. Some of them might be brilliant and will become designers, but you can't promise all of them that' and it's like 'You dare to stand up in front of their parents and say that?' 'No,' I said, 'I was positive, saying you've got amazing backgrounds here, you can do all these amazing things.' But you can't promise them a job in design! I didn't. And I'm thrown out. I had to find my way home from Swindon.

LF

Thank you, that's fantastic.

END



**Interviewee:** Gareth Williams (GW) – Design Curator, Lecturer and Author of *'21 Twenty One – 21 Designers for Twenty-first century Britain'*  
**Interviewer:** Lara Furniss (LF)  
**Date:** 05.09.14  
**Location:** British Library, London

**Notes:** Interview questions were sent out prior to interview

LF

I am interested in hearing about your design background briefly, particularly with reference to your book *21 Designers for Twenty First Century Britain*. How did you get to the point of producing that book?

GW

It's interesting to me that you ask about my design background, because that immediately throws up that I'm not a designer. Virtually all the people you will look at later on are designers, although I think that most in this early round are not?

LF

Yes, some of the interviewees for this initial round are not designers.

GW

So, you know that I was a curator, at the V&A, and I think that the contemporary in the broadest sense was always my interest. As a student I was always interested in 20<sup>th</sup> century reading. I did English and Drama. I didn't want to go back in time particularly. I wasn't interested in Chaucer. So my interests were always in the modern world. And now of course I am much more Catholic in my tastes and I will go back as far as the 18<sup>th</sup> Century sometimes. But, I was very interested in how the world we inhabit had come about and been shaped, whether politically, socially, and obviously design is a part of that. So, I came to design very late with this exploration of the arts, and I came to it because I distrusted art somehow. Art seemed to be living in the past, especially modern art, by which I mean post-impressionists, the whole landscape of 20<sup>th</sup> Century art was so much about itself. It didn't seem to be so much about describing and shaping the world, in the broader sense. And design is exactly that. Design is the shaping of the world we inhabit, not a reflection of it. So, suddenly I had this moment when I realised that design was the subject which I was looking for. I didn't know it until it kind of hit me because I had never studied it, never been exposed to it. It wasn't on my radar because it wasn't taught in schools. You did technical drawing but as a subject you didn't learn about the consumption of goods, you didn't learn about trade. It just didn't come up. It was at the point when I was doing my MA when I finally realised there was this area, subject matter called design. I was looking at Russian revolutionary stuff and I got very taken with the idea of artists becoming the producers of usable goods, designing propaganda for the revolution, outfits for workers, stage plays and all the stuff of the world. This was extremely avant garde, artists engaging in productivism? and suddenly it was "oh god, that's it, that's what's interesting. This has a vitality that a lot of naval gazing art doesn't seem to have.

So that's where I began. And then increasingly with my museum career I became more interested in the world of today, trying to represent current production in a museum setting. Museums are about the past. That's a generalisation but collections are from the past. So I was bucking against that, asking "where are the critical tools we need to use to say what's good about design today?". And I was doing that in the 1990's when design was having one of its periodic boom times, and for various

reasons was getting very popular. So, there is my thesis – design is the thing that shapes the world in a very profound way, and that designers are doing this job for us. And it was there happening right in front of us in a big way for lots of different reasons. Whether it was designers and design, contemporary design, new design or new design ideas. So, that was probably quite a naïve reading of what contemporary design was. Since then I have refined it.

So, I come as a kind of curious lay person to this point.

LF

So, what made you leap to 21:21? What made you curious about what was happening over the last ten years?

GW

Well, it wasn't so much a leap. I have written about furniture design since 1990. It was just another way of looking at the contemporary design world. In the 'Furniture Machine' I tried to write about machinations of the design industry, with a particular furniture focus, a discipline focus I suppose. In 'Telling Tales' I wrote about the symbolic value of some designs, and theorised about it. With '21:21' I wanted to look at the people who were doing it. So, it's similar kind of ground and some people are in all three, but I was trying to look at it slightly differently. In the first book it was all about the furniture, and the people were somehow carrying those ideas into the book, and with 21:21 it was the people, and the furniture and the other works were there to demonstrate the people.

Also, the major thing that had happened to me personally was that I stopped working for a furniture collection at the V&A, and started working in a much broader context in the department of design at the RCA. So, since your research is based very much on this transdisciplinary studio, my own career shows that same transition. I was working as an expert in furniture but all the people I was looking at were designing all sorts of other things. I wasn't supposed to know, I was not allowed to talk about these things. The 'Furniture Machine' had to be about furniture, because I was a curator of furniture, and I had access to furniture, and I could buy furniture for the museum. It would have been much more difficult for me to collect, say, Ed and Jay's torch for the Olympics (Barber/Osgerby), because it was a metal work thing. It wasn't my job to do that. I could write about it, probably, but I couldn't curate it. So I was coming from a very tight disciplinary focus, which clearly was creaking really hard. So I was pushing those edges. There is a product design collection within the V&A, nominally. Clearly it was very close to my interest, because the furniture designers I was collecting were by and large industrial designers, designing all sorts of other things too.

LF

So, that starts to lead in to the next question, which is what kinds of change have you seen taking place since 2000. Do you think these industrial 'transdisciplinary' designers you are talking about were doing these things before 2000, or has it just recently started to happen?

GW

No, I think they were doing it before. I think industrial designers and furniture designers have been interdisciplinary for a long time. Look at the output of the Eames, classically. An awful lot of furniture but also films, exhibitions. Very similar territory to people now. And someone like Kenneth Grange who has worked in all sorts of areas that have the connection of being industrially made products. So, I think that ability to move between disciplines is not specifically new to designers.

One thing that has changed perhaps in the last few years is the scale of the design studio itself. I think I said this is 21:21, and I got it out of a Design Council report (Design Industry Insights – Comments and conversations on the business of design in the UK 2010), which was .... if you think about the 80's and 90's and studios like Pentagram and IDEO, and they feel very corporate. And they are. They are international and they have these offices and they are servicing industry as designers. And Richard Seymore (Seymore Powell). They have a certain generational way of presenting themselves. Which was very corporate. And yet the young Turks, who are the next generation, feel smaller, younger, leaner. Definitely smaller. Have a look at the report. It might give you some useful numbers anyway. I found out that the average age of a designer in Britain is 38 and he is male, white and probably lives in London. How much credibility you give to the report is subjective. It's not produced objectively. It's produced by the Design Council for it's own agenda. It's not pure research in that way.

So, there are some changes. Obviously, this move from corporate to anti-corporate, I am sure, is just a way of presenting the business as a way of getting business. It's just a fashion change. The size and youth, well every designers young at some stage. But it would be interesting to know if there were small successful businesses in the past. And now we have younger practices like Heatherwick, which is actually over 20 years old. So, it's not young any more, and it's enormous. Is he the new Pentagram?

Obviously, technology has just blown things apart and that's why studios are like call centres rather than workshops. It would be fascinating to see what IDEO looked like in 1990. I don't know, maybe I'm making some generalisations and assumptions about changing design practice. I know some designers still draw and some of them don't. They now have tools that simply were not available. In some disciplines you can't survive as a studio unless you have massive CAD capacity. Because you can't talk to anyone or show your ideas to anybody. So, studios have had to embrace all that, and no doubt willingly.

And for structure I don't know. You will found out more in the studios than from me.

As for commissions, I have this suspicion that there is a certain amount of design that is designed as public relations. Whether that's mediagenic work that is designed by individuals to promote themselves and because they photograph really well and get picked up in blogs and magazines. And also those kind of trophy designs that are sometimes literally trophies, or design that is serving the purposes of a major sponsor or manufacturer. And I've written about that in the 'Furniture Machine' and possibly '21:21'. But, is that a new thing? Designers have always had to service clients for money and if the money is looking for beautiful images then designers are there to do it. But, I think there has been a change where designers are cultural ambassadors and diplomats. And Thomas is the prime example (Heatherwick Studio).

LF

And there are others, including Barber/Osgerby?

GW

Yes, a close second, and you know I have written a lot about that. There is a new book coming out called 'The Museum and it's Objects' ('Design Objects and the Museum' – release date October 2015). It's Bloomsbury and coming out in the Autumn and I've written chapter for that. It's edited by Liz Farrelly. It's a write-up of papers delivered at a conference on this thing, and I've tried to expand on this subject of designers as cultural diplomats.

LF

It seems like one name appears and then they are just everywhere. Like Barber/Osgerby and the BMW installation. Suddenly one studio is approached to design everything.

GW

Yes, but hard earned. They become the flavour of the month. And ever has it been thus. Pick a random issue of Blueprint from the mid-90's and you will find it filled with names. When do we now ever hear of Marc Newson who was the uber-designer 15 years ago. He did interiors, shops, restaurants, concept cars. All those kinds of trophy things. Not really for consumption but very mediagenic.

LF

How does a studio cope with that? Even if they have been building up and have a lot of experience, if they suddenly reach this point and they have to go in all different directions, saying yes to everything, do they have to make a changes?

GW

Well I suppose they would have to make sure they have the skill set within the studio.

I was writing for my last book...

LF

When is it going to come out?

GW

March. It's called 'The World of Design'. I was writing about the Barber/Osgerby process for designing the torch. It's the introductory chapter to what is the design process. What I hadn't known before was how those kinds of commissions come about. Because of the high profile of it, it got advertised in the European journals. B/O said "we don't go for competitions because they are so time consuming and chances are you might not get it. But we really wanted to do something for the Olympics". All the big design jobs for the Olympics were advertised as competitions except for one. I'm sure you know which on that is (the Cauldron). The largest part of the application for the competition was not "what is your idea for the torch", it was establishing their credentials as a studio capable of delivering the project on time and budget. You may have had a brilliant original idea for the torch that would have blown their ideas out of the water but the chance of you winning the competition would have been nil because you hadn't got that structure to show you can actually deliver it.

LF

So, having never designed a torch before, they would have had to have shown they were able to deliver in other design disciplines, proving they could come up with good ideas and deliver them on time.

GW

I think that is exactly what they had to do. A vast amount of the application was about establishing themselves as a consultancy, proving they could be entrusted with the project. Which was fascinating, and actually the design part of the torch was really short, at 10 days, to design and present it. But they said that was fine, as a deadline focuses the mind.

LF

So, what are the implications, positive and negative, for the changes you have identified – the shrinking scale of the studios, the commissioning process, etc?

GW

I am also interested in the cultural role for design, and the conventional definition for industrial designers is that they are serving industry, giving shape to engineering and they are styling the fruits of technology to create desirable products that are manufactured to sell. It's quite a confined, constrained definition for industrial designers. Some of which are furniture designers, some of which design lots of things. But now, more and more, there are designers who are acting independently, autonomously, inspired or lead by Ron (Arad), as it were, and that move towards "well actually I'm not just a server of industry, industry is my servant". It's more about ideas that may be about manufacturing, or materials or technologies, but which aren't about maximising the profit line for a third party. They don't want to be jobbing stylists for industry. Which is pushing a point a bit, but that came about in the 1980's maybe, and now most of the younger designers don't see themselves as servers of industry in the slightest.

LF

So you think this change started much earlier, but that it has blossomed over the last ten years or so?

GW

Well yes I think so, with the autonomous designer idea. In this country there are several who act like that. I suppose you have a generation of Conran and Kenneth Grange, but they worked for consultancies. Kenneth founded Pentagram and then went and got clients in industry. So he's more like my older model. I'm not aware of him doing many designs just because he's had a great idea. He did great designs because Kodak, Gillette or who ever came up and said we need this. So, it was a reactive process. And then slightly later Ron Arad, Tom Dixon and that generation are designing something powerful because it is self-motivated, and then it finds roots beyond them and in industry. So it's a more proactive way of being a designer and experimental just because you are your own master a lot of the time. And as an erstwhile design educator, that's what I think design education is about. It's trying to enable a nascent student designer to be self-motivated, self-critical and judgemental so they know when they have a good idea because they may not have an industrial parameter or brief as such to deliver. It's about expression and expressing themselves to some degree. And some of them go so far as to almost be like artists producing works that are so self-generated that are really only about exploring their own ideas because they are interested in it.

LF

That's what interested me about Participle, on my list of studios. They look at social issues, things they want to address, then work out ideas and take them to the relevant body and say "we've looked at the Healthcare system and we think we have come up with a better solution".

GW

Yes, so that's about expertise. That's a very good new model for design studios. Did I talk to you about Berg?

LF

Yes

GW

They have a very similar kind of approach. It's partly commercial projects because that's what pays the bills, and it's partly self-generated /motivated experiments. Which, not coincidentally, also gives them great promotional material to attract those commercial projects. So there is an inter-relationship. And it also gives them an expression. Because designers are creative and it is very difficult to be creative if you are only able to respond to a brief from industry.

So, those are positive implications. And I think the rise of the credit given to designers as, for example, cultural diplomats, I think is a positive because it shows that designers count and that design matters. And the rise and awareness in the general public's mind of designers and design as an issue and subject is good.

Negatives? Well, I went to a very interesting thing last summer, at the Houses of Parliament. It was a kind of consultation because the government doesn't know what design is and because design doesn't know what design is. And it comes back to your earlier point about who is representing design. So there was the DBA and D&AD, lots of people were there. Lots of design people and all sorts of stuff. It was fascinating. It was one session, one afternoon.

We could not agree on a definition of design. We say design is good at problem solving but it is absolutely hopeless at the problem of defining what it is. It fails. So there is still a lack of identity, collective identity. Possibly because there are so many different disciplines that are there, that have such different contexts. You talk to people in Fashion, and they do not feel like designers from other areas, because they don't tend to cross fertilise into other areas.

LF

Yes, in the University, Fashion and Architecture seem to be the most closed off from the rest of the School.

GW

Yes, it's because they have very, very big discipline specific industries. The areas of design that I've work in, product, furniture and critical design, is a lot more fluid and can express itself as a film or as a chair or a toaster or a car or what ever. Or indeed a building or a dress – but they are not allowed to do those things because that is dealt with by the architects and the fashion designers!!!!

LF

So, has this impacted on you?

GW

Well, it has impacted on me because it took me away from only being allowed to be a specialist in furniture, to actually writing about broader, broader and broader aspects of design. The new book I have written is very Catholic about what's in it. It's an introduction to a very general audience. It's written for the Design Museum, so it draws a lot on stuff they've put in their Designer of the Year competition. It's really pushing the idea that design is a problem solving exercise - "Dear Reader, we are all designers". It's a way of trying to introduce the subject to a very general audience. Specifically to a young student audience. I've been working with Helen Charman at the Design Museum. She shaped the structure of the book, together with a publisher, before they brought me in. She really wants it to talk to nascent designers to fire them up to go and do it themselves. So, it's very much about 'you could do this'. But not in a 'how to be a designer' way, but more in a 'design is everywhere, and everything and everyone and we are all part of this great big thing'.

So, that is quite a long way from where I started as design as an elite activity that produces specific conservatorial objects, to now with a very much broader approach. So that's my trajectory, it's gone sort of down and out.

LF

So, you are following the pattern of these studios I am looking at.

GW

That's good. A polymath.

LF

So, what do you think is hindering the change?

GW

I think hindering the change is possibly how design is taught at University level. You have to pitch for a discipline, although there are plenty of courses that are not discipline specific, like 3DD, or have some kind of thematic approach.

So, I think Universities are trying to follow the student's interest, although there are lots of students saying "no, I don't want to know about one thing". I mean at the RCA, the first question we would always have was "can I use the ceramics kilns", "is there much collaboration", and "can I do all the MAs?".

LF

At my School, at undergraduate level, collaboration and cross-over is still very difficult because the courses are so tightly structured.

GW

I've always been quite conflicted about this actually, looking at your next question there, and the implications for undergraduate design pedagogy. Because I think I believe that you need to be a design expert and have deep knowledge of a discipline to know how to subvert it. This jack-of-all-trades, master-of-none approach, which this interdisciplinary studio sort of suggests is the way forward, actually just means that no-one really has any depth of knowledge or skill in anything. That's the risk. It will be interesting further into your research when you look at the actual structure of these studios. You may well discover that they have an architect, engineer and a ceramics person. People who are discipline specific first, who have then expanded out. So, the place to get that discipline specificity is surely at undergraduate level. In that I think I am affected by Richard Sennett and that whole idea of skill and craftsmanship and ability and talent.

LF

I did read *The Craftsman*, as you recommended it earlier. And it really got me thinking about the 10,000 hour rule to master your specific skill/craft. I thought well what does he mean by a skill? Is it actually knowing the skill of a specific discipline, like architecture or is it actually just the creative thinking skills of design? If you do 10,000 hours of design thinking working across multiple disciplines, do you learn as much as when you spend 10,000 hours in one discipline? When you read comments from designers who have been very multi-disciplinary, they say they have learnt more from moving from one discipline to another. Perhaps the skill is simply a process, like Heatherwick says he has a process, and it doesn't matter what discipline or variety of disciplines you apply it to?

GW

Well, I don't know the answer, you're going to find that out!

I think that within education, if a student is going to have exposure to different disciplines and different ways of working, then, rather than modules that are all equal and sit along side each other in a flat level status, that could be shuffled in different ways. I think it's got to be a lot more sophisticated than that. It's got to be an incremental upward curve. This first module would have to be quite basic, then you learn a little bit more. And what those different disciplines are should be very carefully managed by the teachers not by the students. To manage their expectations. They may just want to do Leather – “just get me to the Leather module”. You would have to say “you will get to Leather when you have gone through the other things” because there is a pedagogic reason for why they are doing this. The point I am really trying to make is that they need to be on a curve going up rather than on a line flat.

Have you read Richard Sennett's *Together*? The sequel? Because that is about collaboration. I think it might have implications for your consideration of interdisciplinary, because interdisciplinary has to be collaborative by its nature. Studios that are interdisciplinary have to know how to collaborate within themselves.

LF

So, moving on to implications outside of the creative industry?

GW

Well, I am sorry to return to a theme, but there is this implication for cultural policy and diplomacy where designers are adopted to represent national identity. It will be fascinating to see what happens with Scotland for example, should they vote to leave. How the new Scottish identity is represented will be given to designers largely. Designers will give shape to what ever comes out.

LF

Like the Olympic Games and the Commonwealth Games?

GW

Exactly. So that's Government policy in general. So, this meeting where people didn't know, the Government doesn't know what design is. That's a worry.

LF

Do you think the meeting has been documented anywhere? Was it the Design Council who organised that?

GW

No. I will see if I can find out. I think it was called AGIP. Some kind of horrible acronym for a group that is about creative policies.

LF

It sounds like it could be a great contribution to the research.

GW

Of course when you look at their website, you will see they are a pressure group within Westminster, so you will have to question what their agenda is.

LF

So, finally what do you think the future is for design, where is design heading?

GW

Design or designers? Depending on which hat I have on, with this new book, I would like to think that design is this inherently positive, outward looking, progressive,



optimistic way of thinking. To problem solve and to improve the world. Designers seek, and have done always, to look at the world and think “how can I make that better?” It’s inherently positive. Art isn’t, frankly, and other creative industries aren’t, but design is. It’s about making improvement. Otherwise, why do it? No designer sets out to make something that wasn’t better than the thing that already exists. They are setting out to make an improvement. Either to the object itself, or to our experience of the world. To improve the world. So I think design should be doing that.

Designers on the other hand, in the much closer study we are engaged in here, are on that design superstar thing, which we are told is dead and gone, but it isn’t dead and gone. They are in the honours lists and they are feted. So, I think there still is that incredible potential for success, commercial, social success, for a very small number of designers. And so it should be. Only the very top of any profession should get that kind of credit. But there are some very successful designers out there. And that’s great. That’s good for them. And it gives incentive for everybody else out there. But whether everyone else is producing worthy design, I don’t know. Do their designs contribute to this improvement of the world I have been describing? Well there is always going to be a mismatch in these kinds of things. So, design as a kind of elite exercise is thriving and design as a kind of social non-elite activity and way of thinking is thriving.

LF

That’s great. That’s very positive.

GW

It is positive. I am positive, and believe in design as a kind of activity and way of thinking about the world. I am not a designer yet, but I can look at my glasses and think how can I make that better? That’s basically what a designer is doing. All be it with an awful lot more skills because they have been trained and have experience about how to make them better. I don’t know how to literally make my glasses better, because I don’t know about materials or technologies or techniques to make them in the first place. But if I did I would be able to do it. I can critique things. That’s the part of being a designer, the ability to critique things and understand what is good or bad, rather than just “that looks nice”. To really understand why it looks nice.

So, for the final question (suggestions and recommendations of people/texts to look at) I think I have probably given you far too much already!

LF

Yes, that’s great!

END

## Appendix 16: Practitioner interview transcripts

### 16.1 Ron Arad Associates

**Interviewee:** Ron Arad (RA)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 27.11.15  
**Location:** Ron Arad Associates, London

#### Notes:

RA

So who did you talk to other than me? What other practitioners?

LF

I'll show you. I met you a year ago and you talked to me then, and this is the outcome of that, which has just been published recently (LF shows Beyond Discipline report).

This was a preliminary process really getting people's opinions of what's been going on over the last ten years or so and how things are changing. You are mentioned in here a lot. So a lot of the other people I talked to, they felt that you had either inspired them or ...

RA

Upset them?

LF

No, taught them. I sent you a copy of this book, I don't know if you ever got to see it but this was Gareth William's book (LF shows RA '21 Designers for twenty-first Century Britain').

RA

Any good?

LF

When I saw this book two years ago I didn't know about most of these people and finding out about them was so inspiring. It's helped build the research I'm doing now really.

RA

They're all students of mine.

LF

I know.

RA

All of them.

LF

I realised that. And at the beginning Gareth states that the reason the design world here is the way it is now is partly down to designers either being inspired by you or taught by you. So, when we talked last year, you were wondering whether there was a legacy for the Design Products course, and I think this book already proves the legacy of the course.

So I'm now in the next phase, which is doing an in-depth study of five studios. I've been into Heatherwick's six times and interviewed a cross-section of the studio there, and now I've been here I think this is my sixth visit, gathering information and then I'm going on to three other studios. The idea is to then try and work out the key ways that you work.

RA

And your final aim is your thesis?

LF

Yes, the thesis.

RA

And then a book?

LF

I started thinking about a book, yes.

This was for you, just to say thank you (LF gives RA a copy of the Beyond Discipline report). I met Daniel Charny as well and he gave me a copy of the Design Products diagram to use on the cover.

RA

OK, thank you.

LF

So, that's where I'm at now. I've been coming into the different studios and asking similar kinds of questions to try and get a better handle on your process.

RA

OK. Let's start.

LF

The first question is how do you describe yourself if someone asks you what you do? If somebody met you, say my son met you who is ten (and might not know who you are), how would you describe what you do to him?

RA

He's ten. I would say I'm continuing doing what I did when I was your age and luckily that's how I make my living. That includes making things, drawing, designing, playing ping-pong, having people around me, talking to people, doing things, showing off, things like that.

LF

How would you say the studio has evolved over the years?

RA

The main change if you want to look at one change is we used to make things here. I used to come home from the studio with black hands and black fingernails and sometimes cuts and things and I had to move from drawing and drafting to bashing metal. And all the people working with me then were I would say art school refugees. It's very difficult to graduate from an art school. So we had a very good...I used to call it a progressive kindergarten. Where all the architects sit now used to be the place where we welded and cut steel. When we were in Covent Garden it's the first time I used computers for when I designed the Tel Aviv Opera House public spaces, and I

thought that the digital revolution was going to pass by me because I didn't see myself holding a mouse and clicking. No way, it doesn't suit me to click. But then I was saved by the Wacom tablet and I could go on doing what I'm doing best, drawing, with a light pen on the screen. At one point.....I never ever wanted to become a craftsman. If you're a potter you spend all your life around the potter's wheel and if you're a glassblower you blow glass, and if you're a carpenter you do dovetails. I never wanted to be a craftsman and I was in danger of becoming a craftsman because the charm of the early work that we did was the fact that we were primitive. I translated sketches to sketchy metalwork and if you look at the first Big Easy, the charm of it was how primitive they were. Also not knowing how to do things, I didn't know what they were going to become. Today in auction houses those pieces are more sought after than the jewellery-like versions of them that we ended up doing when we became very good at our craft. So, it's very good to get better at fabricating of steel and making. Same with Big Easy, the main thing about it was how crude it is, was how fantastically refined it is. Just good at the time but I definitely did not want to become a craftsman. So I moved all that to Italy and slowly, slowly the screens, they are flat now, but early days they were really thick. So the studio evolved like the world did. It had a pre-digital period and a post-digital period. I think everyone here in the studio but me is a digital native, and I'm not. We keep that like that and I enjoy both but I'm not... the more sophisticated the machine becomes the less machinelike the product is. And I really dislike architecture and design that you can see the programme that was used before you can see who did it. In the old days there was a period in Italy that you look at the product and you can see who made it, who was the prototype maker before you could see the designer. There was this guy, Saki, he was in a way maybe more important than the people that he worked for, but anyway that's another story. So if you want the exhibition that I did at the Holon Design Museum in reverse which was I refused to do yet another retrospective like I did at the Barbican, MOMA and the Pompidou Centre, but the exhibition was about physical to digital. I love both and one floor was about physically flattening cars and the whole downstairs was about digitally doing it. I don't know how familiar you are with the show?

LF

I have seen pictures of it but not good ones.

RA

That's the book (RA shows LF the book). That's a digital crushing. That was modelled in Fiat.

LF

And was it on a timer, it just went really, really, really slowly and crushed it over a long period of time?

RA

They're called pressed flowers. So we have lots of pressed flowers in the books. So that is physical. Crushing was an old favourite of mine. This is the latest crushing, this thing here for Renault. So this is one side of the show and the other side of the show was this that we did, super realistic real size crushing of the car that comes back to life. And other stuff.

LF

I'll find a copy of the book. And how has your role changed do you think? Has it changed?

RA

I never thought of it as a role. How has it changed? I'm still surrounded by people that are far more responsible than me, and more... Well Architecture is a different culture and that's another subject. My role hasn't changed except I find myself dealing with things that I'd rather avoid, like arguing with planning officers, with all the unnecessary and I understand inevitable bureaucratic and administrative side of what I do. I am very spoilt; I haven't written a cheque in my life and hardly opened an envelope. I'm still doing what I did when I was your son's age.

LF

Great. How would you describe your process?

RA

Process is... Considering curiosity, considering an idea... (RA goes to get his iPad to show a presentation). This is a talk I prepared called 'What's and If's?' - What if we do this? What if we do that? What if? So let's take say, this - walking in a street, seeing this (an old mattress) and saying "What if we make this out of it" and then doing more drawings. Again this is done on a computer but this is me drawing .... dah-dah-dah. And what if people sit on it and then I come in here and say Marcus let's do that, let's take that and then the digital side of it comes. Considering what is the skeleton inside, and then this idea is in your head, then you walk in later and you see a place where a homeless person lives and "Oooh, I'll have to try sitting on it". A homeless person that has an ironing board, how about that? And then again in the old days say going to Moroso I used to work with the uncle of the Patrizia Moroso. I use to go and work, come with my sketches and do this stuff. He retired but then when he heard that I have a new project for Moroso he came and that's not how I wanted to do it. I wanted to bend the end but he just... anyway, it was a big thing. At the end this is the final product (RA shows picture).

LF

Gosh!

RA

This is a very sort of direct story of how things happen.

LF

It's brilliant.

RA

That's another thing, just when I thought that I lost interest in doing furniture, I'm not really interested in filling people's homes, I'm not interested in interior design, that world. Just when I thought "Maybe I'm through with this" I had two big... glass Milan fair did two new pieces, which is the glider, which is again looking at a way of doing... a different way of doing a sofa by taking this and pushing something in and then the idea is that it has... I'll skip because I... you can see this online. Moroso glider Ron Arad. But here that is the thing that this piece is about this, it's a big lump.

Again, it's another "What if?" This is what happens inside, you'll see it becomes transparent. And then this is Patrizia Morose. We're looking at it. So this idea of having... that idea of... That is the piece and...

(The audio on the video clip has RA talking to Patrizia Moroso saying "the most amazing thing about this is the speed from having the idea to being able to sit on it and the movement...").

So that's that. The whole thing was about the idea of something solid and big and then surprisingly you sit on it and it moves. So I took it a step further. I'll show you something that just... the same idea. I'll show it to you here.

This is just a quick sketch. This is me sitting on the foam one, planted the idea. And again it's taking the idea of the foam. You'll notice that the thing that's curved off it is the chair you're sitting on. A version of it. And then there'll be this lump and it will float and you won't know how. That is something... OK?

LF

Yes. So was the 'What's and If's' presentation made to talk about your process somewhere?

RA

Yes.

LF

Do you think that is available anywhere online?

RA

I did it in Port Elliot last... but you can choose and I can talk about whatever you want here (RA shows LF the presentation in full).

LF

They're all so beautiful, the drawings.

RA

This is a five minute sketch that I did to prepare the lecture.

LF

How about that one (LF chooses the Holon Design Museum)?

RA

How about this one? OK.

This is from before there was... the day we started working in the museum.

And then normally... this was one of the first presentations... normally there's no relation between the first presentation and what you end up with because it's a whole journey of compromises. I love this. For this we had to do the underbelly in one go, for cracks and things, we built the scaffold under it.

That's about a month before the opening. It all started downstairs here by cutting paper.

Anyway, EasyJet, to celebrate the 15<sup>th</sup> anniversary, they have icons for every place they fly to. Paris is the Eiffel, London is the dah-dah-dah. This is not even Tel Aviv and they have this (using the Holon Museum image). When The Rolling Stones came to play in Tel Aviv they used this on the poster but this is not even Tel Aviv. Anyway. That was your choice, but you can choose anything else.

LF

I'm going to go with that one, then.

RA

That's Eye Wear, you don't want that.

LF

Are you still developing them then?

RA

Yes, we're still. I'll show you what we're doing with the Royal Academy this summer. Every summer show that's Damien Hirst, that's Anish Kapoor, Jeff Koons, dah-dah-dah-dah. Next year you'll see this.

LF

Oh, that's what was here!

RA

Yes (RA goes to get the model of the sculpture).

LF

That's amazing. Will that be moving all the time?

RA

It will be... have you been to the Royal Academy?

LF

Yes.

RA

Now, when there's the Ai Weiwei thing?

LF

No, I haven't seen that.

RA

This is what you'll see. So there'll be a screen here that shows...

LF

Wow, that's going to be incredible seeing the two together.

RA

Yes. So that's that. OK. Back to your questions.

LF

OK. What core skills do you think someone needs to work here?

RA

Basically, sadly, not sadly, but fact of life, they need to be skilled modellers on the computer. They have to have some cultural affinity with what attracts them to work here, because we don't make any more. Although recently we started... I do make the jewellery here. You know Louisa Guinness, I make jewellery for her.

LF

Do you?

RA

Yes. We play with it. I did some this morning and I'm going to do some more later. The skills, to know how to model, to build, and to think, there's no.....

LF

There's no formula.

RA

I thought you were going to ask me not about working, what skills do people need to practice? It depends on what they want to do. I don't have an answer for that.

LF

OK. Is there anything you think undergraduate education could learn from how this studio works?

RA

You learn from anything. You can go here and see, look at an architectural office and go to some of the people that studied architecture with me and have 1,000 people working for them and have a look there. You can even go to... you've been to Thomas' place and you can see different things. The ping pong table is a big part of our studio and it is... I don't want this place to look like Bloomberg's, which is what most architectural offices look like and feel like. It's not about comparing this place to any other place. It doesn't enjoy comparing.

LF

OK. Based on how you do work here do you think undergraduate education now, which is still specific in its disciplines, is still relevant? Or do you think it's perhaps outdated?

RA

Look. I accepted running the course at the Royal College because it's a postgraduate course, so I don't have the responsibility of giving people tools, because I don't know what tools we want to give people. Yes, I believe that an undergraduate course should be the place where people can acquire tools for whatever they want to become. And people could shop around and find a place that is strong in that area that they want to become. If you look there was a short period here in London where the fine art course run by Michael Craig-Martin produced the YBAs, the Young British Artist, and it wasn't about giving them tools, it wasn't about putting them in front of easels or a model, teaching them how to draw, which is... I mean I love drawing and I think that people should be able to get that as well, but it wasn't about that. It was about different things. And it changes. It did change to lots of other things. I know that there's a research in how effective psycho-therapy is. They tested results and they went to many disciplines, like Jungian, Freudian etc and the correlation had nothing to do with what disciplines people follow, but the intelligence of the therapist. Whether he's one or the other. And I think that you could be an inspirational tutor and it doesn't follow any decision of what should be taught. That's what I think.

LF

Caroline just mentioned that you were at the Vienna Hochschule. I didn't realise that.

RA

Yes, I nearly forgot.



LF

Was that before going to the RCA?

RA

Yes. The funny thing is that was an undergraduate course, and people straight after high school. And somehow I had a fantastic group there, I don't know why. Some of them are here. Like Martino Gamper, who was my longest serving student. There I can say I did my rehearsal in completely not taking any notice of what the school expected the course to do. I used to go there every two weeks for a few days and we did things and then I left and there was some nice tutors that followed and it was I think, if you read the rule book of the school, is that teaching should be done in the mother tongue, in German. I didn't speak a word of German, and it was like "Yes, that's a good start".

LF

What type of course was it?

RA

It was a design course.

LF

Not a specific discipline?

RA

No. They had two design courses there, I don't know why. Two in parallel. I had one of them.

LF

I will have to try and find some information on that.

RA

You should talk to Martino, he'll tell you about the course.

LF

Yes. That would be great.

RA

Martino was actually more of a guest on my course because he was on the other course. There's a very strong group of not-so-young designers from the Hochschule and they believe they are making a mark.

LF

Was that in the early to mid-nineties?

RA

Probably.

LF

Great, that would be interesting to see.

RA

There's a practice called Walking Chair (Walking Chair Design Studio in Vienna) or something like that, ask Martino, he is the best person to tell you about the legacy of the course. Do you know Fiona (Raby)?

LF

Yes. Is that where she now teaches?

RA

Yes.

LF

Great, because I'm about to send her one of these. I was about to get in touch with her.

RA

Then there was another person from the Royal College, Clark? She taught theory there, and I went to teach there with Deyan (Sudjek). He did History of Design and I did design.

LF

Brilliant. That will be a great direction for me to go and have a bit of a look at now, I think.

RA

Have you read my catalogue for the MOMA and the Pompidou Centre?

LF

I don't think I've read it, no.

RA

It is a catalogue for No Discipline. For some reason Paola Antonelli decided to write about me as an educator.

LF

I tried to find that. I found that she had written about that and I tried to find it but I haven't been able to online.

RA

I'm not a big fan of her.

LF

OK.

RA

That's another four hours.

LF

Do you think what she wrote is worth trying to find? Do you think it's relevant? Or do you disagree with what she wrote about you?

RA

I don't disagree with what she wrote but it was a cut and paste job. But have a look. You can get it, you don't read French?

LF

No. So get the MOMA one. There's a MOMA. Same text, everything, but the MOMA one will say Paola Antonelli for the Pompidou Centre.

LF

Oh, I see. OK, yes.

RA

I think you can find it on Ebay. I don't know if you have one.

LF

Don't worry. I'll find it. Brilliant. I'll do that, thank you.

RA

Anything else?

LF

No, I think that's great, the Vienna connection is a great thing to start investigating. I'm really glad that links up with Fiona Raby as well.

RA

A good story about the college is of course the story about Roland Lamb, do you know him?

LF

Yes, because you told me about him last year.

RA

Go and talk to him as well. It will be very enlightening to see what he did after graduating the college. The story that he was in the reject file and dah-dah-dah-dah. And there you go. I think he's the most successful of all the graduates in recent years, depending how you judge success.

LF

OK, I'll go and look and find him as well.

RA

Yes, you can give him a call and talk to him. You won't regret it because he's very eloquent.

LF

Brilliant. I'll do that. Lovely, thank you. And thank you so much for letting me come in and talk to everybody.

END

**Interviewee:** Asa Bruno (AB)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 04.11.15  
**Location:** Ron Arad Associates, London

**Notes:**

LF

If someone asks you what you do how do you define yourself?

AB

I'm an architect and have been working here for 15 years and have grown with the practice from being a very junior, relatively inexperienced architect to leading the architectural department in the practice.

LF

Great. Could you tell me a little bit about your background in terms of your education and what brought you here in the first place?

AB

At high school level I decided to leave a normal neighbourhood high school and go to an art school and that helped focus my wish to do something that involved creativity but also maths and sciences to some degree. Having grown up in Israel, I had to do my mandatory military service and when I finished with that I left Israel, came to London to study, because I wanted to study at the AA, and did the full five years of the AA. I then went to work for a small practice here in London. I then went back to university this time to UCL to complete my qualifications as an architect and since then have been working here.

LF

So right after completing your studies you came here?

AB

Yes, so one practice for three years before here then since 2000 I've been working here.

LF

Brilliant. What's your role within the studio now?

AB

I'm the director of Ron Arad Architects and since 2008 we've decided, within the larger studio, to create a dedicated department that caters to the architectural side of the business. That's in recognition of the slightly different needs and different pace that projects take to mature and complete. We started as a very small team of about 3 or 4 and we've grown to a team of around 10 architects. Probably I'll speak about this further down the line, but generally the intention was never and still isn't to grow exponentially, so it's not built around... neither the greater studio nor the architectural department within it are built around the notion of growth in the traditional sense. And that's governed to some degree, a large degree, by Ron's wish to be very involved in everything that's being done in the studio. There's an implied cap on the size of the practice and the size of the architectural team within it.

LF

Great. I know you showed me some amazing process drawings but how would you describe the process that you go through?

AB

So here in keeping with the idea that this is more of an atelier rather than an office in the more traditional sense of the word, and the leading artist within the practice being Ron, every creative process starts with Ron really. So depending on the complexity of the projects and architecture, where most of the projects would be fairly complex in terms of the number of factors affecting them – how big is the building, where is it situated, how many different facilities are accommodated within it, what kind of technical requirements are there – there's a lot to consider before you even start putting pen to paper. Often, even though the creative process would start with Ron, whoever is leading this project might start beforehand putting together ideas, strategic ideas about how to even think about it, because of these factors. And that would help guide Ron into the project. Ron's time is quite limited and it's more efficient and beneficial to the project and to the team to be able to pull him at the right moment into the right place in the project to get the most out of his input. That process usually starts with a conversation, a series of conversations, these lead to a series of sketches, and these are not necessarily pure aesthetic sketches. Certainly the purpose of these sketches isn't to produce something pretty or artistic it's rather to kind of explore different ideas through drawing. And then once a good idea comes out of this conversation and everybody agrees that it's a good idea to explore, then that person leading that project would take that idea, run with it a little bit, show it to Ron again, Ron would make some comments and then that would begin this iterative process that kicks off the project.

LF

Great. How does that compare to your experience in the other studio you worked in?

AB

I think if I had to identify one or two factors that I would say are drastically different, and it's also drastically different between this practice and probably most other practices, or the majority of practices, is the emphasis and the time allowed for design within the process. That's not because we're special, it's because it's a luxury we demand from our clients and it translates eventually into how much money they are willing to spend on our time and other factors. But I would say that there's a substantially longer period of time spent on the design process here than in other practices. Ron will probably say it took him 30 or 40 years to get to the point where he can demand that kind of luxury. So if the length of a project from beginning to end were 100% most practices would probably admit hand on heart that they spend 12%, 15%, maybe 20% of their time on design, and 80% on all of the other many, many things that have to be looked after on a project. And we would probably say that it's closer to 30% to 35% of our time. Obviously we always aspire to spend more and more time but that's very difficult.

LF

How does the studio affect the process? Does it play a part in the process?

AB

Yes, there are a number of elements to the dynamics of the studio that's going to really affect this process and I would say on the one hand you have a very apparent pyramid structure let's say, that's topped by Ron and how ideas are disseminated and delegated down the pyramid for development and execution, depending on the project and the roles within it. But at the same time, this is in retrospect looking at

the last 15 years of my experience here, I would say that it's very apparent what individuals bring to the process. And because it's a small practice you really notice the difference between individuals. Ron is a person's person, and he relates to different people in different ways, and that helps him extract different things from different people and produce things differently with different team members. There are days where he would prefer to work with one person and there are days where he would really prefer to work with another and that would really affect the outcome of a particular project. To a degree it's random and to a degree it adds an unknown quantity to the process, but I think it also enriches it. Because had the office been bigger Ron would have no choice but to delegate a lot more and be less connected to the process, less connected to a certain number of people who are involved in the process of design development. And that would mean that you have people who are purely in charge of taking instructions and making things happen rather than applying their own thoughts and ideas and suggestions to them. There's also the... there are many design led practices in this town and around the world where the principal or the head designer would have a very strong stylistic signature and when the practice is very big that usually implies that there's a large number of people that have to try and imitate or second guess what the principal would come up with. That creates these kind of styles that you would recognise from afar. Even though Ron, some would argue has a recognisable language, I think he comes to every project as if it's a completely new project from fresh without any of the residue of previous projects. And he encourages people to think the same and not to bring baggage and details and gestures that they maybe worked on previously.

LF

So that's obviously a skill that you've all developed here to be able to do that.

AB

Yes. Occasionally there are moments where, especially because of the nature of this profession, and I refer to architecture in particular, where many of the projects we work on don't end up materialising, I would say slightly more than half. Then you invest a lot of time and energy, and Ron invests a lot of time and energy, in coming up with great ideas and great thoughts about how to resolve things physically, and if that project doesn't come to fruition you'd wish that there was a way to make some of these ideas portable and apply them again. But more often than not I think Ron prefers to come to a project and start again as if there was no history.

LF

What about the design of the studio? What part does that play?

AB

To this day everybody who walks in for the first time is quite held aback by the... especially the kind of contrast between what you see when you come in and what you expect to see walking through the alleyway of the building from Chalk Farm Road. When you work here for many, many years you become slightly more immune to that effect and you start noticing the odd crack and hole and leaks and things like that which are part of the character of the place. But I would say it's very enjoyable to come and work in a place that is so full of texture and colour and how light behaves here at different times of the day and the year. It's not an office, you don't feel like you're at an office, you don't feel like you're at a desk behind some glass looking at some city street. At times it's inspiring, at times it's maybe you have to shield yourself from it because it's quite intense, but overall I think it's a very inspiring environment to be working in.

LF

Last time I was here a delivery man came in dropping off some food. He walked in and had no idea where he was going, he said he thought he was going to die coming up the stairs. But to see somebody who perhaps wasn't even interested in design or perhaps had never thought about design...

AB

He thought "What is this place?"

LF

...he was completely overwhelmed. And he looked at the two chairs, the Rover chair and the new shiny version, and he had never seen anything like it. He said "Wow! Do you make stuff?" It was amazing, it must be quite special I think to get that kind of reaction to a space.

AB

It is. And also because it's ever-changing, it might be a subtle change. But it's an ever-changing environment because of the objects that come and go and things like bits of cardboard experiments and ironware and champagne bottles and chair prototypes and things like that, there's always something to look at and touch and experience, which is very nice.

LF

What do you think the core skills are for somebody to come and work in the studio? What core skills do you need?

AB

Historically, there are two or three avenues in which, from my experience, this would be addressed. One is if there's a need to hire a person, I'll refer to architecture in particular, but if there's a need to hire a person or a number of people to build a team towards a project that's coming that requires certain skills, that's more straightforward to define. You know we need X number of people, they need to be younger and less experienced or older and more experienced in a particular way. That's a more traditional way of defining the skill set. And that would be based on the education they have had perhaps, a combination of what kind of software they might use, whether they've got a good hand, and that will be a more traditional approach to how you're defining the people you're looking for. But I would say that again in looking back over the years, I think I mentioned this to you last time, one of the most interesting aspects of the way people have been attracted to this place or stayed in this place, is the fact that they don't follow normal prescriptive routes. We have people from different nationalities who have studied in different schools, some of these schools are very well known, celebrated higher education institutions; some of them aren't. Some people have a battery of higher education degrees, some people have left school at 16, didn't have a professional qualification, but did have an amazing talent and a great personality and managed to click with Ron and other team members and become instrumental to the practice. So we've had both ends of the spectrum over the years. I think it's very important for a practice to be able to attract that range and allow people with different skills to arrive. One more specific example would be that one of the senior architects downstairs at the moment was hired around the time when we had a very particular need for a very particular project which involved excellent 3d modelling skills on the computer. And she happened to not have any 3d modelling skills but she had the most incredible gift for hand drawing, she was very intellectually and mentally capable and very hard working, and applied herself very hard and promised to apply herself very hard, and we recognised the potential there and said "You've got the job". And within two weeks she learned

the skill that was actually required. That was eight years ago and she's still here and very happy and we couldn't imagine that project or subsequent projects without her. So I think you have to be very open to personalities over degrees. You have to dilute it down to that sentence. And as someone who occasionally, periodically hires people, I have to look at many hundreds of CVs and you think you develop a kind of filter through which you can look at these CVs, where hand on heart I would say that I rarely look at where they studied or where they're from in terms of nationality. I first look at the work, I look at how it's presented, and I look at what interests them and it's not so much about what they have designed or modelled perhaps, but it's more about how they lay it on the page and what kind of sensibility to colour and texture they might have, or if there's a sensitivity there or is it all white and brutal and abrupt. And you can tell a lot from just looking at different things and then work backwards and see how old are they, and that would add another layer which would suggest that they seem to be very mature compared to their age, or they seem to very immature compared to their age. They seem to have a lot of life experience relative to their years, and that would add another layer. Eventually you build a kind of mental image of who you think this person is, and that helps you decide whether to invite them for interview or not. It's a bit of spy work but it's in your own head.

LF

It's interesting because it's so hard to convince students of that. They're convinced that the only thing anyone is going to care about is the classification they get and that it's going to be all about. Like you say, it's the work itself and the layout and how you approach that and present yourself that's the most important thing.

AB

Exactly. And also confidence is a big factor as well. You want confident, mature people but you don't want them over-confident or under-confident. This translates into whether, when you get an application or a CV, what kind of cover letter comes with it. Is that a personal one or is that something that's been copied and pasted? Are they confident enough to have a short, concise selection of their work? Or have they been so dumbfounded by trying to edit down their work for a CV that they basically put everything they've ever been interested in or done on paper, and then that becomes too big, too exhaustive and ultimately quite exhausting. I would say if I get a very well written, simple, cleanly laid out, three or four page CV with a selection of two or three pieces that that person thinks are the most representative of what they think is the best thing they've ever done, that would be by far a superior starting point than trying to put everything about you on ten sheets with bits of clever writing everywhere, and it just becomes this exhausting thing that doesn't actually highlight any particular aspect.

LF

Great. Looking at undergraduate education, is there anything you think that education could learn from this studio and how it works?

AB

From what I know, because I've talked a little bit after graduating and I've stayed in touch with my university and met up and stayed in touch with how things are done there let's say, I think there's an increasing emphasis over the last 20 plus years since I was a student, on bringing the real world of professional practice earlier and earlier into education, and it has its benefits, absolutely, but I think it is also tricky. I would say from my experience, and certainly the experience of friends of mine who studied with me, we spoke about this a lot, the benefit of being insulated from the real world when you're a student is not to be underestimated. And I think when you're taught fundamentally to translate free, abstract creative thoughts or wishes or ideas into



something pragmatic and physical, to be laboured by building regulations and safety regulations and construction history and conservation law and engineering parameters etc., it could be quite restrictive if it's done too early. And you've got the rest of your career for that, and I'm sure if Ron were here he would say largely the same thing. One of the things that he enjoyed most, studying at the AA, and certainly what I enjoyed most studying at the AA, was that absolutely unfettered freedom to come up with amazing ideas and you weren't judged, not once, about whether they were feasible or not, or realistic or not, you were purely judged about whether they were carefully thought out ideas or not. And whether you had questioned certain things, certain aspects of these ideas, thoroughly or not. And I think one of the most important things to learn during undergraduate studies is the ability to receive critique and ask yourself questions and be very brave about how you answer them and what you do with those answers. I think that's more important than the practicalities of professional life that come later etc. Because if you're not able, by the time you hit graduate school and beyond, if you're not able to be critical of yourself and to receive criticism, you're missing something very fundamental. I would advocate for at least the first three years of education to be absolutely free of the life of the office and all of the real world constraints.

LF

So in our architecture translating that with design those first three years are like an undergraduate, it's like a BA isn't it?

AB

Yes, it's like a BA. In England architecture is referred to as part 1 of the RIBA exam and there's the part 1 exam which happens after the third year. Where really it is about evaluating the bigger picture of "Have you been able to formulate an idea that is appropriate, of the right kind of scope, asks the right questions, tackles certain wider reaching agendas other than just the aesthetic, have you managed to draw from the wealth of information out there and apply it. It's the first stage of that process and after that you go into so-called diploma school which is an additional two year process after that. That is where, it's still in undergraduate but it's still where a lot of the real world parameters are now coming into the study forces. From my experience from what I've seen a lot of the projects that come out at the end of this process tend to be curbed or curtailed slightly by that rather than left completely free. Because once you finish those five years you still have to work in a practice for two or three years before taking your qualification exams as such. You still have two or three years in which to absorb the 'real world' and make those two worlds work together and then you're released to the world as an architect. So I would say that in that core undergraduate first formative three years of studies you should be free of that.

LF

Why do you think that shift has happened? Do you think it's to do with the introduction of fees?

AB

I think it started even before that. I think it was something that was... there are probably several contributing reasons to it. One of them is that in professional practice the definition of the word 'architect' for example, is something that cannot be applied loosely or freely. So you could call yourself a landscape architect, you could call yourself the architect of a particular public policy, but you can't call yourself an architect practicing architecture unless you're a qualified architect with the whole seven- or eight-year process behind you and all the qualifications. Historically what would happen is a lot of people would abuse that and call themselves architects and that forced the accreditation bodies like the ARB, the

Architects' Registration Board, and the RIBA, to tighten the definition of when and how you could rise through the educational process to gain that qualification and when you can use different terms. Up until that point you can only call yourself an architectural assistant, and beyond that point you can call yourself an architect. But by tightening those definitions that implied tightening the demands on the schools in order to give those schools accreditation. I remember even through the 90s when I was studying a lot of schools lost their accreditation because they weren't able to meet the demands of the RIBA and the ARB and that caused quite an upheaval within architectural education in the 90s. I think since then with RIBA and the ARB they separately and together led the momentum of tightening that process and some schools want to be seen as being more technical or more industry-ready when they release young practitioners into the world, so they tend to want to bring more and more real world parameters into their curriculum. The more technical requirements, if you have an idea you must develop some of it at least in a very scientific or quasi-scientific way to prove it structurally and mechanically and environmentally performs in a particular way. It's not a bad thing - it's just about balance. If that becomes the most important thing then your idea is going to suffer, if you're a young creative. And if you don't have any of it then you might not be a very good practitioner when you come out into the world. So it has to be about balance. Historically, I might add, one of the difficulties for young recently graduated architectural assistants, before they become qualified as architects, is that in order to become qualified as architects they must gain certain kind of fairly prescriptive experience. Yet the kind of experience they are required to obtain for qualification means that the practice will have to hire them and bestow upon them that kind of trust and responsibility for them to actually attain that experience. And often practices just simply won't take someone on who is unqualified and inexperienced to carry out these kinds of roles. So that tends to lead to people having to spend longer periods of time working as assistants before they can qualify, often a lot longer, so even though the dry letter of the law says you must have two years of practical experience before you can take the qualification exam many graduates end up having to work four, five, six or seven years before they feel ready and are confident that they can do this and actually have the right experience to take the exam. So it also applies financial pressure on them because they can't be paid what they would be paid had they been qualified earlier. It's quite tough.

LF

Great. So, finally, I'm trying to gauge whether undergraduate design education, with it's uni-disciplinary structure, is still relevant, and whether what Ron did at the Royal College of Art with Design Products at Masters level could be appropriate at undergraduate level. What are your thoughts on that?

AB

It's interesting because a lot of what's been happening generally to the world in the last two or three decades in terms of density of population in cities and the affordability of life in general in terms of the need for design to be cleverer and more affordable on one hand, and competing with a lot of competition and the fact that with internet and information where it is, ideas travel very fast now, also are adopted extremely fast. So when you are a designer or architect a creative person creating a kind of output regardless of the scale you are swimming in very different waters than you were 30 years ago. And I think schools are certainly catching up with this and changing the emphases. So for example, 20-odd years ago when I was a student our discipline of architecture was split into, as you suggest in design, into very old-fashioned categories that were very clear cut, history and theory, town planning, landscape architecture, architecture, interior design etc. And these days you will find many, many, many colleges and universities offering courses that are offering

overlapping things that really are about training people to think independently in an aesthetic realm. And certainly working here this is the blueprint for how it works. When a product comes in we don't treat it differently if it involves designing an interior for a hotel say, or whether it's designing a brand new 30-storey building. Traditionally you would say yes, one is a big commercial architectural development and one is an interior design job. But it's the same people within the practice that would be working on both or either, applying the same sensibilities and sensitivities, asking the same questions, and producing similarly detailed data. And there is in my experience an increasing number of educational institutions which would recognise that this is the way forward and when we get applications by graduates of more traditional universities that say "We are interior designers. We know you don't do interior design but we're interested in working for you. Would you consider us?" If they are suitable in terms of their qualifications and talents and personalities, we would not hesitate in offering them a place. If they're able to think beyond that limitation of interior design stops here, architecture begins there. This is not to say that there aren't skills that are particular to different disciplines that they still must follow, possess, strive to excel in, because there are technical aspects of being an architect, you can't just pick up if you're an interior designer, there are subtleties of materiality and scale that an experienced interior designer would have that an architect might not have. You should enjoy the spectrum. But in terms of education, rather than prepare people to be one or the other, I think it's much more important to prepare people for the questioning but also for the undeniable shared definition that I think belongs to designers and architects. Certainly everyone who works in this kind of practice. And that is the fact that you're not working in isolation and you're not a one-man artist band, you are very much creating something by a shared effort of many people and that's something that is equally important to teach at undergraduate level as the questioning side of things. If after three or four years you're able to come up with an idea, question it, revisit it, defend it, come out of that process confident that you have devised an appropriate product to put out there and you understand how to communicate that to various people with various other skills and specialisations, if you can execute that then you're in a very good place.

LF

That's fascinating to hear how architectural education has changed and moulded itself into this different way of thinking. It seems as though design has been left behind somehow. It seems like because the design community hasn't had the regulatory changes from something like RIBA etc, design education has got left behind.

AB

I think it's also because there's a lot less architectural output out there than there is design output. And it takes substantially longer to create architectural output. There's a lot more chance a) for things to go wrong, b) for things not to actually make it to the real world, and c) there's a lot of need to question and revisit and hone things, from education to practice. And I think in the course of three or four years of undergraduate education I think, again one of the things that could really help with that, is to open up students' horizons to external disciplines to their own, or to the one that they're studying. I remember as a student being encouraged to read books about medicine, and sociology, and economics, and psychology as well as architectural theory and urban design etc. But it's actually those external fields and disciplines that are injected into your work that help you open up and think beyond a kind of "I am studying to design medical instruments" or "I'm studying to design attractive vases" or "I'm studying in order to design an iPhone".

LF

Yes. It's key isn't it, whatever you're doing. Otherwise you're just existing in some sort of box with no connections to anything else.

AB

Absolutely. And the learning never ends as well, which is one of the joys of these professions, you have to just... If you become a specialist in your field and you become recognised for a particular skill that accompanies your specialism, and you have to be very strong to dare to take a different step because people will tend at the very least to question, if not worse, how you dare step out of that and do something else. If you're a truly creative and questioning person or individual you really want to constantly learn more and expand and develop and evolve and that's a never-ending process.

LF

Brilliant. Thank you. That's fantastic. Really helpful, thank you so much.

END

**Interviewee:** Michael Castellana (MC)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 04.11.15  
**Location:** Ron Arad Associates, London

**Notes:**

LF

How do you describe yourself if someone asks you what you do?

MC

I normally say I work as a designer in a product design consultancy. My title would be a designer. It's funny because when you arrive into the country, because I'm not originally from the EU you've got to fill out a form and you have to write what you do. And for years I always used to vary it a lot, sometimes designer, or product designer, sometimes artist, but then if you write artist you get a lot more questions from the immigration officer. So then you fine tune what you write to get less questions. Designer usually works pretty well.

LF

Yes, I had that problem a lot in America too, they were very suspicious of artists.

MC

They always ask, "Why are you here?" "What are you designing?" They always ask that.

LF

But you just say design, and that's it?

MC

I've found that just putting designer means they say "What do you design?" and you can say furniture, or jewellery or sunglasses or something and that's enough. Then they let you in.

LF

That's great. Where are you from?

MC

Near Washington, D.C. Virginia.

LF

Of course, you've got exactly the same coming this way. That's interesting that they're as suspicious here as they are there.

MC

It's harder for you going there. My wife is English and so we have seen both sides of it quite a few times. They seem more suspicious in America.

LF

Could you tell me a bit about your design background, and what brought you here to the studio?

MC

Design background....how far do you want to go back?

LF

Just a brief summary.

MC

I did an industrial design degree at university at Carnegie Mellon University. And I did a photography degree at the same time. A double degree. I went immediately on to do a Masters degree in car design at the Royal College of Art. Funnily I didn't meet Ron then. I had a sponsorship from Volkswagen while I was at the Royal College of Art and then I went there briefly after I graduated and it was actually some period after that I met Ron. I was back in London and I met him at the bar at the college. At the time he said he was looking for people and I had a friend who was looking for a job. He was going for an interview, but Ron said that anybody who wants to come can come along. So I came together with my friend and also another friend, three of us came in total, and I didn't really have any intention of really pitching for myself for a job then, but I had something with me or something on a USB key and I showed him something and then they called the day after and offered me a job. So I changed my direction and came here and started. But that's eight years ago. So in a way you can consider this as my first job. My first long job.

LF

How would you describe your role within the studio?

MC

Different people here have different backgrounds. When you talk with Marcus you will see that his background is also quite different from mine. So certain projects lend themselves to different people in the studio. One thing from the beginning I got involved with and have taken care of in a way is project management of exhibitions, gallery shows, museum shows. We did a show in the Pompidou in 2008, just after I started, and I worked on managing that. Then we did the MOMA show in 2009 and the Barbican show in 2010, obviously mixed in with lots of smaller gallery shows with galleries in London, New York, Paris, and elsewhere. So that's one part of it, and it's not something I ever thought of really getting into, but doing that kind of scenography design and organisation I found I could really get into it, so I did a lot of that. In addition, with all the furniture work, and studio work that goes on here, Ron feels some projects work better for certain people so they take those on. So certainly doing work on furniture, chairs, ping pong tables, lots of shelving. We did an America bookshelf, do you know this one? Then there's an additional piece, the China bookshelf that we did that came after that. And lots of other projects like this that come and go. A lot of furniture items and then some industrial projects. Eyewear is a big, big one because I've been working on it for nearly four years. That's a client that came and convinced Ron and Caroline to take on this project which was quite a big, because it's ongoing. Different from chairs or furniture. With a chair you work on it for a while and you get everything absolutely perfect and it goes into a production and that's in some ways the last you see of it. With the glasses it's a recurring thing because it borders on fashion so there's a constant need for refreshing, new ideas and also continued evolutions of old ideas that have already been launched, so that we know the upkeep of collections and families. It's a project that always keeps going on and on and on, which is nice in a way, there's something consistent because generally the work in the studio is really varied. The number of projects and things and sculptures, it's very different to say exactly what your part is. This is another point of sale material for this champagne company, this is one of the projects I worked on recently. There are lots of little projects that you forget about, because in the course of a month lots and lots of things happen and some things work out some things don't. You might have worked on something for a couple of days and it dies and then you forget about it. And sometimes you end up becoming, like with

the glasses, you end up becoming an expert in something you never imagined you'd work on. But glasses are, at least all of the ophthalmic products, it's a medical device in a way and there's a lot of things that you have to be very sensitive to, otherwise you give people migraines or you can destroy their vision or all sorts of things that you have to really respect. There are a lot of rules in that world, and there are the gatekeepers, the opticians and optometrists, who you also need to understand exactly how they perceive products as well as the end user. So you can be with these different projects that we take on, you can find that you have this need to become an expert in something that you never knew you would need to be an expert in. So glasses is a good case, because there are a lot of rules that need to be respected there. Even though we want to work in a very free and creative way there are certain things that are essential. There is a basic function that it needs to perform.

LF

Is that part of the appeal of working in a studio like this that you get to become an expert in so many different things that you never would imagine?

MC

I think so. I never would have been able to tell you that I would work anywhere for eight years and in this day and age I think that's less and less common. In a way the job seems to reinvent itself every, I'm not going to give a period of time, but in a very frequent manner it changes all the time and you end up working on... like what I was doing a year ago and you end up looking back at your emails of what you were doing, twelve months before... yes, that's a big appeal. Because it's very difficult to get work. I don't know if that answers the question.

LF

That's great, yes it did answer the question.

MC

My wife tells me I ramble a lot. So cut me off.

LF

No, it's perfect. How would you describe the creative process in the studio?

MC

The ideas generally start with Ron, that's one of the fundamentals of the place. I think it's different from other studios which are driven by one singular mind in that Ron is very open to criticism, very open to maybe tangential ideas that come from other places in the studio and he's also very open to finding things that might be popping up around him. I don't know if that makes any sense but it's not a singular direction it's... and there's less of a feeling of hierarchy which I think is very important. At the early stages of the project everything is valuable, everything is taken as a contender. And then you have the practical part of the process which is... you can see on the screens here, the software that we work in, the software that Ron works in, he does do a lot of work in 2d sketching. Because a lot of the time the end result is some three dimensional object we do a lot of work in three dimensional software. Figuring out ways to go back and forth between those two is part of the process.

LF

I've seen quite a few of the architectural drawing developments, starting with Ron's drawing as initial expression and then how the three dimensional software builds and constructs around it in a back and forth way. Is it a similar process with the design side?

MC

It is similar. With the architecture because it's a more complex task, the three dimensional modelling, there's more sketching in that process from Ron. Whereas here depending on what the object is there's a lot of time that Ron will spend sitting together with anybody here. He's not a modeller himself, he's very well versed in looking at and understanding and seeing what's going on in any of those software packages. So I think a lot of the time the initial idea will happen there but then the further development and evolution will pretty much always happen here. Which in a way is more direct but also it's because usually the task is a little bit simpler, or the model is simpler, I don't know. I don't know if simple is the right word.

LF

Is it more immediate?

MC

It is more immediate. The feedback is much quicker there, but also there's... I think it's also because we normally have to approach the modelling process in a slightly different way. We work with different software packages that give us different power or flexibility.

LF

So the next question is how does the process and the way you work here compare to anywhere else that you have worked, but as you say this has been your main employment.

MC

This is really my main place of employment so there aren't many references for comparison. And also most of the people that I know work for car companies, people that I graduated with for example or people from the class above or below me. And there's a huge difference so there's very little in ways of points of comparison. Because they're enormous companies. One of the real benefits here is the size and the simplicity of the structure.

LF

Does the physical design of the studio support the process in any way?

MC

Yes, it's great. The studio is really fabulous. It's a really nice place to be and to spend time. It's very quirky. I find that it's really charming, I really like it. I know a lot of studios would have even perfect lighting that you can say "We can easily see" and there are practical things a space should do. This place isn't really about that, so much. But the feeling of the place is really great. There's something about this space that doesn't make it feel like what you imagine a workplace to be. It's not everything white and clean and all of these things that you imagine from what you hear, or TV, or movies. I think that's part of the office. It doesn't have that feeling. And it's like a labyrinth, little nooks and crannies everywhere and there are things everywhere. It is a place which is quite saturated with stuff and I think that's part of its charm. It comes a little bit from... there's an element in the work in that you're constantly running and you have all these projects and something that you're focussing on and some stuff falls off the edges, and you hear that in quotes from Ron. And the studio sort of embodies that somehow. You look around and you see there are some things that obviously fell off one side or the other along the path. That sounds a little bit nostalgic, not nostalgic, but glorifying. It looks like a place where something is going on and I think that's a nice feeling. It's not so well thermally sealed. I'm from Pittsburgh originally so it never gets cold here, so it's not a problem with the winters



really, and the summers never get that hot, lately, luckily, because I don't really like summers much. I much prefer winter weather. So I'm in the right place.

LF

What about the making space? I was talking to you about that on my first visit, about having the workshop there as a space within the studio.

MC

It's important. It's not used that frequently. It really depends on the project. We also have a making space in Italy, which is very important. I think it's a balance when you work as a designer to not become a craftsman. I think that's important. When I was in university I worked in a furniture shop making hardwood furniture with a lot of people that were extremely good at working with hardwood. I think working there made me realise that it wasn't what I wanted to do. Even though I completely respect it and really appreciate it, it's not... it makes you feel really good to make something really nice with your own hands, I don't argue at all with that. But it's not necessarily the thing I wanted to do. It's important to have it there but I think we all know the moment we go down there, no final product is going to come out of the space we have downstairs. And normally it's because we have an idea and we're not quite sure if it works and we realise there's some way that we can quickly determine if it is. It's more like a laboratory than a workshop. We don't go down there to make and build something. We go down there to try some idea and make something that we'll probably end up breaking, that's it. We did a project with Fiat last year where we were spinning this car, to launch this new Fiat 500, and we were going to spin the full size one but we didn't know how fast we would need to spin it so we just got a scale model of a car and put it on the end of a drill to spin it, to see how fast you need to spin it before you couldn't recognise what it looked like. It was in no way a professional model making project but it did the job and that was the main thing. Just to understand if we needed 200rpm, 400rpm or 50rpm, we had no idea. But what we do need is we need to set it there and sit at the right distance that the audience will be during the show and understand how fast, and for that it's perfect, we have everything we need. You always say "It would be nice if we had one of those or one of those or some other tool or something else like that". But in the end, I don't know. When you need it, you decide that you should get it. But it generally works for most everything we need.

LF

Great. The next thing is about disciplines. What role do disciplines play in the studio?

MC

Disciplines, what does that mean?

LF

You as a group have come from different disciplines initially, maybe the projects you're working on could be labelled as different disciplines, and you've obviously got architecture as well. It's just trying to see if in any way if disciplines control anything in terms of how things are working. Do disciplines separate anything within the studio or is it still free flowing no matter what is going on?

MC

There is a separation between architecture and design in this office. It's because the requirements for the jobs are quite different. Though that said there are times when there is potential collaboration. There are projects which are somewhere in between architecture and product design or industrial design where we have done things

where it's partly worked. We have one on going project right now which is partly done downstairs, partly upstairs. So maybe that's one thing. We do have people who come from different backgrounds obviously, and we have had people in the past who have come from more technical engineering backgrounds. I think you could say that people have also developed certain skill sets and have certain tendencies with projects. Some of the stuff that you talked with Marcus about, these large scale mechanical kinetic sculptural works that we're working on for next year. Those are things that he also has a lot of knowledge and a lot of contacts that work very well for those type of projects. I guess that's a discipline.

LF

That's great, just not in the traditional old fashioned way of labelling things, it's more about skills that you're developing.

MC

I think it's skill sets. There are certain things that came about with some of the glasses for example that we're working and sculpting things that I would feel right at home with. Just because of the background I had doing surface modelling. I was trained to do surface modelling for car interiors mostly but a lot of those skill sets were portable and can easily be applicable there. I don't know if there is necessarily the fact that there was collaborative works where you have one part engineering, one part marketing, one part design or something like that. Because it's such a small studio. But then we also do have people outside of the studio that we would consult with for specific needs that are beyond what we are able to do ourselves. So there are definitely limits to our discipline that at some point we have to accept there are things we can't do and we have to go to those people that we know and trust that can do them.

LF

Great. Following on from that what do you think the core skills are to work in this studio?

MC

Even that varies a bit from person to person, so it's difficult to say. If we were talking about a project like the glasses then there is a certain aesthetic or formal skill set that would be necessary, there's a lot to be said for that traditional aesthetic training that would be necessary. Just to understand balance and shape and volume. That's quite essential. That's practical. There's a social element that's extremely important. To be able to discuss and negotiate through those projects together with Ron and together with the team, that's very important. Obviously in a studio with this format that's mandatory, to be able to get along well with and communicate clearly back and forth with Ron on those projects, that's essential. It's important to have a certain curiosity and tenacity about things, because quite often you are thrown into things that you might not know much about. You have to find that gene for educating yourself into becoming more of an expert on a topic and doing it and having the initiative, that's important. I think that's very important actually. The formal thing that I started with, that's something that you train often. There are arguments about genetic... but it's important to have that eagerness. The other stuff you can learn and the software you can learn. People that have the right amount of eagerness, I've seen them learn software. To properly learn a software package is like learning a language, you can cover 50% to 60% of it in a short period of time. To become proficient very quickly, it's not really a big issue... as much of a big issue. Does that answer that question?

LF

Yes! So my last question now. Based on those skills, and the needs of this studio, do you think undergraduate education, with its uni-disciplinary structure, is still relevant? Also reflecting on the education system that you've been through yourself in the States and the UK.

MC

There was a big contrast between my university study and my studies in London. I don't know if you know much about the department at CMU. The design department. I don't know why, I must have got it from some design theory course, I always think of this triangle with design where you have this engineering element, this artistic element, and a social sciences element. Most of the courses that I can think of in America that I know well or maybe some in Europe that I know well, fall somewhere between those three points. The programme at Carnegie Mellon was quite unusual. It was very user-centric so it was more in the social science direction. And you had access to people with technical backgrounds. We did a lot of those cross-discipline collaborative projects there. But the thinking generally was really much more abstract and their idea was that the future of design was not so much about giving form to objects that have to do functions, it was more about designing these systems or services and that would be more about what these future leaders in design would be doing. Which is interesting. This is one idea. And then when I applied to two places to continue studies after I graduated there, and one of them was in Pasadena, it's the Art Center College of Design. I went there and I had an interview and I then went to the Royal College of Art, I went there and I had an interview. At the Art Center... have you ever been there?

LF

No.

MC

Umberto went there he did a summer course there, he did his university in Mexico City, but he did a summer course there. And there it's a completely different place. It's almost, when I went there and now it's a while ago so probably it's different but probably not so different, it's almost like a modern day sculpture course. Something like that. And the work that they're doing is so good and it's so beautiful. But really if you look at the graduating class, maybe 20 people every year or every trimester – they run trimesters there, so there are 20 graduates every four months – there's like 80% sports cars, 20% saloons and MPVs or something like that. But it is this cliché of boys that want to design cars when they grow up, and they're always drawing sports cars and they go to this amazing place where they learn these incredible skills. And they learn, at the time at least, you do a lot of traditional rendering with pastels and markers and chalk and everything and they're gorgeous, and they get these beautiful reflections. But it was really interesting, very contrasting, completely contrasting to my undergraduate studies. The Royal College of Art is more of a balance, but a lot of the people that were going there have already done a Bachelors degree and some of them in an automotive BA course. There was a little bit more balance but still for me it was quite a big departure and I was one of the weakest in terms of visual skill sets going into that course. There were 16 or 17 and most of the people there had beautiful portfolios with gorgeous work, page after page after page. I can't really answer your question but there is something in the people that run the course have some idea about what they think these people will look like. They have a lot of power actually. And those places that I've been to have quite a variety of views on it. I have good people from CMU that have got great jobs working at great companies. You've got people from the Royal College of Art that all went on to work mostly for car companies, bar a few. And I have a few friends that went to Art Center

and they all went to... I guess all of those people went into the industry and found a place, but there was a huge variety in the outlook of the course. So I don't know. And I don't know exactly what it means in terms of disciplines.

LF

I think what I'm most interested in is that designers are still, for the most part in this country, coming out of an undergraduate degree saying "I'm a this or a that" because that's how it's all structured from the start. Are we doing them justice when so many design studios now are more non-specific in terms of what they do?

MC

I understand what you're saying. It's not a problem with semantics, it's a problem with the fact that people are groomed in a way to believe that what they want... you could say if somebody really wants to be a set designer that's fine, but you don't actually know if they want to be a set designer or not. And the skill set that comes with being a set designer is of course adaptable in lots of other places. And they might be equally happy doing those things. I understand perfectly the concern that you have. I have no idea really. The terms that I know are graphic design or industrial design, though generally I don't know how it is at a lot of universities. I know a little bit about how it is at universities here, there's a lot of shared courses throughout generally. It's not that there... there's interaction design, graphic design. Interaction design and graphic design share a lot of skill sets. Thinking about the BA and MA students at CMU. This is the question you're answering with your thesis?

LF

Yes.

MC

There's another thing which is very interesting, which is the amount of structure. And in some ways the American system is far more structured as far as I've seen. I didn't do a BA here so I don't really know. I only know from people I speak with and talk with. One person I knew that transferred from the US to here for there last year. I don't know why but there's also a slightly different perception about the job to be done for design in America compared with Europe. It's a bit more practical, it's more functional in some ways, and that's generalising but I think there's a lot of that. For that reason in some ways in the American system it makes sense. I think there's some way that the system's justified these different clear directions, it's a very clear line that you make from academia into your commercial life. And really, actually the fact that I have the automotive background means that I'm not a good person in a way for this because all of those people that I know that trained to be car... If you train to be a car designer the skills are applicable in other places but you spend years learning how to design one thing because you thought that's what you wanted to do. It's like a self-fulfilling prophecy in a way. And it's very specific. Cars are quite specific. They are skills that you can take to other places, but you spend all that time thinking about cars. Most everyone ends up designing cars because they put all that energy into becoming really, really good at it. So in a way that's not a good one to look at. It's too specific.

LF

But then in a way actually you're proof of the other side of the argument, although it sounds like you did have quite a cross-disciplinary experience even though you were focussing on car design, it was quite an unusual course.

MC

No, that was the BA.

LF

Oh, that's your BA?

MC

Yes. My BA was industrial design, the automotive focus only came in the MA at the RCA.

LF

So you had a more fluid experience at undergraduate and then you had the more specific experience at Masters level?

MC

That's right, yes.

LF

So your more lateral way of looking at design was formed in your undergraduate and then you've branched off and focussed on an area of interest which now you've been able to go back to a lateral way with this other core skill that you've developed?

MC

To look at it in a primitive way I think you could state that there was a lot of enlightenment at that stage in my education but at the same time I was partly in denial. Because I didn't really want to get into this very abstract existence of being a designer and working for some large multi-national corporation being their head of something that you can't really put your finger on. And there's maybe a lot that I was envious of at the time in that ability and those skills that car designers have. It's funny, I feel like I'm talking like a psychologist.

LF

It's really helpful because I've just realised yours is the reverse of the basic model here. So the basic model in this country is that you do the narrow focussed skill first and then at Masters level you are more fluid, you go and explore and experiment and that's when you're allowed to branch out. That's the attitude in the education system here. And to me that's always seemed a bit peculiar because how do you know, like you've just said before, at 18 that you want to be just doing cars. Some do, but a lot I think don't, and I think that's quite interesting just to see that you've actually gone the other way about it.

MC

Is there not a facility for this though in the way that most courses don't start out with a specific direction? So when I started my BA the first year doesn't have any specificity for which part of design you're going to go into. So I would be sitting side by side with architects and all the rest of everyone who wants to do something creative. And then at the end of the first or second year you have to decide "OK, I'm going into design or then maybe later I'll go into interaction design".

LF

No.

MC

At least at CMU there's that, and then there's sort of these different steps where you become more specific as you go along.

LF

That's great. Here you finish at 18 with your mainstream schooling and then, traditionally, art and design students would do a Foundation year which is a one year course independent of any university. During that Foundation you would explore everything, the whole range of art and design. That's where you start to get a sense of where you want to go.

MC

So at that stage you decide?

LF

Yes. And then you choose. But what's happening at the moment is with the introduction of fees at university making students want to complete their studies as quickly as possible, and cuts to Foundation courses by Government, fewer students are doing Foundations.

MC

Right, I see. So people jump straight into a direction.

LF

Yes, most of the students who come now don't have that year.

MC

That seems odd to me. I wouldn't have had the opportunity to do my BA in three years, it's just not allowed, it's not offered in that way. You have to do all four years. That's it. And when you start it's with the understanding and the expectation that you're going to do and pay for all four years. And that includes the initial year which is more or less like a foundation year, by that terminology. But you cannot edit it out. There's nobody who started with us in the second year who just skipped in, that can't be done.

LF

Brilliant, that's really helpful. Thank you. That's given me a lot to think about.

MC

I wasn't sure that it would.

LF

No, that's brilliant. Thank you. I hope I haven't kept you too long.

END

**Interviewee:** Marcus Hirst (MH)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 04.11.15  
**Location:** Ron Arad Associates, London

**Notes:**

LF

I've got the same set of questions for everybody basically, I'm just trying to gauge what everyone's different perspective is.

MH

To see if there's any parity?

LF

Yes. It's great because there's such diversity in a studio like this. It's great to hear the different opinions and how everything works together.

MH

Yes, it's quite nice having people from an architectural approach here and from a design approach.

LF

The first question is how do you define yourself if someone asks you what you do?

MH

In terms of here, how I define myself here?

LF

Yes.

MH

I guess I'm a person that takes concepts and makes them work, brings them to fruition physically, from a nebulous sketch or suggestion verbally to take that into something that's concrete. That's formed and thought through. That's pretty much what I do here. I apply a bit of real world rigour to things. And form as well. I suppose it's giving form to an idea. I don't mean that in the sense of a shape, to make an idea into an object.

LF

So how would you describe the studio, if you had to say where you worked without talking about the name?

MH

People do ask and I do come into contact with people who don't know this world, and I suppose it's easy to throw out that word design but I don't know if we specifically do design in a way that people think about it. You have to try and be sympathetic to people's established pigeon-holing of any sort of creative endeavours and where they fit, just so that there's some common ground for understanding. So someone at my level, the workers, have to be sympathetic to that and sway to it even though I don't necessarily agree with all the pigeon-holing. If I were asked by someone who didn't know I would explain here as a design studio, an artists studio, that kind of thing. But I suppose the reality is it's much more complicated than that. Often behind a one word title description there's a whole world that needs explaining isn't there? I don't

think it's sufficient now to call somewhere a design studio or an artist studio. I guess here isn't any of those really and I'm not sure it would conform to that description of an artist's studio or a design studio.

LF

The first time I met you, I remember you said "I design stuff".

MH

Yes. That's how I see it. Whether it's a bag, a dress, a chair, a 30m sculpture, a step, a ring, all of this is just stuff. By saying that it's not really about belittling all that, it's just I think if you're that way inclined in terms of making stuff then you can apply those skills and knowledge to anything. That's my idea of what we do. Whether people want to call that design...

LF

I think what was nice as well the second time I was here with the guy bringing in the lunch, he was bringing in a takeaway do you remember?

MH

Yes.

LF

And he had clearly never been in anything like this world.

MH

He didn't expect it, did he? He just walked in and went "This is surprising."

LF

He said "What do you do? Do you make stuff?" He didn't necessarily seem to have the words to think what it was. He thought it was so cool and I think you said "We draw stuff". I thought that was really nice.

MH

Well we do. We don't necessarily make it. I think there's an over simplification of the way that people look at design. They need a figurehead. Actually the reality of making stuff involves a lot of people and a lot of experts who generally go un-noticed or there's never really a discussion about those other people that are involved in bringing something to life. You know the process I mentioned about helping an unformed idea to become something physically that we can touch and experience, there's a lot goes between that idea or that sketch or discussion to get to the finished object that you can enjoy. There's a long road.

LF

Yes, I think that probably adds to the negative view of design, this lack of understanding in terms of what it actually takes to get to the end.

MH

And that's where the real work is. We can sit here and have 50 ideas between us about any particular object or any object typology or whatever, the real work starts in how you form that idea and how you resolve the problems. The planning. I don't know that there's an outlet for that, to discuss that. Even in the journals that you see, they never look at the reality of it. Even those well-respected ones. I don't know how people become educated on that, or if they want to be. Maybe people don't want to be?



LF

I don't know. Maybe they don't. One thing I've found was about trying to define design and it was a government cross-party political organisation. And they organised this debate and they brought all sorts of designers and design thinkers and writers together to try and discuss and define what design is. The argument on the government side was, "If you can define it then government will fit into the system more, and will be able to value it more, because if you can define it we'll understand it more, value it more, and potentially support it more". That was the pressure put on the group to try and define it, but apparently it didn't work.

MH

Yes, I can imagine actually because it is such a broad subject. What one person says might be completely correct for them and for their experience of what design means to them. But then for somebody else it completely goes against everything. I suppose that's why I've tried to step... I'm in a luxurious position here of being able to step back from that and see what it is that I enjoy, and it's making stuff. And part of making stuff is thinking about how to make stuff and it's that isn't it, there are certain stages that you go through to get... the reason these objects sit on the table, people don't necessarily think about it. They like to hang their hat on a name or whatever but there's a whole lot of enjoyment from start to finish. And for me that's where the enjoyment is. If the process is enjoyable the outcome is able to be enjoyed as well I think. It's funny, I was talking to the guys from Sheffield the other day, and I used the bike project as an example of that. It's not always like that but the bike project, it happened so very quickly, from almost throwaway comments that Ron and the guy who was helping the charity get their bike parts and was co-ordinating the project, we just sat together. And just from that conversation about what we could do, and it was all centred around the wheels and stuff like that, and the whole process worked without any major hitch and the outcome was this really fun thing. The idea wasn't about solving any practical issues, it was "What if? What if the wheels were like this?" We could have sketched it and drawn it but we ended up making it. And then that triggered another discussion of "Can you really ride that?" And it existed just because of that conversation and that opportunity by that charity being willing to sponsor something that they could sell, and it was an interesting object and I think it worked really well. Because the whole process was swift and happy and good, the outcome was really positive. That's what I mean by if the process is good, objects find a natural way of resolving themselves and you've just got to guide it. So that was quite a nice example of a design process that didn't really start from a rational point. It was just an idea that I suppose in another environment it might have been thrown away as a bit silly. It is a bit silly, but it isn't as well because it proves certain points about making an idea real.

LF

Do quite a few of the projects up here start that way?

MH

Yes, they can start in a very casual way like that, definitely, yes. There's less formality. I suppose people come through the door and invite Ron to design for them because they know that they'll get something that might not come from another studio that has that freedom and signature to its own output. So I suppose some sort of design consultants provide a service don't they, and they're very mindful of giving the client something that they think that they want, rather than an expression of their own creativity. That's a more commercial approach, I suppose. And they're doing that because they have to please the client, which I suppose is right for that particular client at that time.

LF

Yes, that's a very different attitude from the start really.

MH

I suppose that's what Ron's worked hard to do, to not allow that part of the world to compromise too much on what he thinks it should be.

LF

How would you describe the creative process in the studio? You're sort of touching on this already. Sometimes they're self-generating. Sometimes there are clients coming in.

MH

It's funny, this idea of creativity and what that is. Is it "We could do this?" I think the creative opportunities at every stage of a project's development, and if there weren't I wouldn't be very interested in the subject as a whole. For me anyway every aspect of an object requires some kind of attention and it's that attention to detail, there's creativity in that in resolving all the aspects and trying to think about every single aspect of an object and how it works, how it's formed, and all those things. So it's on going isn't it. It doesn't just end with the initial discussion or the initial sketching session, it continues throughout the whole planning process. That often extends into the making as well, the fabrication of something, because there's always – what people call compromises – but it's where ideas meet the reality of somebody's capabilities or budget or whatever and there are things to consider when it meets those difficulties. An idea needs those difficulties in making. There's another phase of creativity there. It's sometimes very difficult on more complex things to go straight to the drawing board and resolve everything there. The capabilities that we have with 3d software allows us to do a lot of things. If it's a project centred on form like these chairs, you can pretty much resolve most of that digitally. But when things get more complex there's another phase of the project that needs some kind of physical involvement and testing, that next phase of the development. You know as soon as you move something it changes what you can and can't do. That too is very interesting and working with people that work physically and trying to put forward your ideas about how it should be done, even though you're not an expert – it's very nice to think that we're experts with lots of things as designers, but we're not, there are people out there who do one particular thing very well, and sometimes that knowledge is helpful, sometimes it can get in the way because they have a very set way of doing things. But through the right dialogue with them you can maybe take them into uncomfortable territory if you like. With blind confidence you can get them to make something that they wouldn't have done without that kind of encouragement. But there are people out there that are like that. They have that mindset of being comfortable, being uncomfortable if you like, and that's something that I've thought about quite a lot. When I was studying for example, it's very easy to read the format of a project brief and how that might be broken down and you're given a mark on a result. But to actually not know where you're going with an idea is actually really creative. But the nature of having to jump through hoops makes that quite a worrying thing to do. You put at risk the outcome when doing that. And that's what I try to do. It's quite a worrying thing to do because you think "This time we've invested in doing this, to get this bit of paper, it really should be a time to do that without fear of failure because you need to fail, to let some ideas fail. And does that mean that you yourself have failed? It's kind of that play that I'm interested in, and how does education support that and how does the professional world support that. If we want to experiment with material, and there are people out there that take that approach, I suppose it's more research-sponsored. So there has to be some kind of structure to a professional practice doesn't there in design.

LF

We'll get back to that when we get to education at the end. I completely forgot to ask you about your background and how you came here. I know because you told me before but could you just do it again just so that it's down on tape?

MH

I went to study a Masters degree at the Royal College of Art and Ron was a professor there. That's how Ron became aware of me as one of his students, and towards the end of the course he invited me to come to the studio. It was as straight forward as that really. I was lucky at the time that there was an opportunity at the studio that he was looking to fill, so timing was on my side on that one. I suppose if you look at the way that course was structured, they wanted practicing professionals as tutors there so I think that was part of the requirement to be a tutor there. I think that's a good thing isn't it in some respects, you do need permanent staff. But if you've got people that are actually working and practicing as a creative person making a living from that, it's quite interesting to see. Especially that course because there was a lot of diversity in the students but also in the staff as well. I can see a lot of the members of staff weren't particularly aligned with Ron's approach to design, or some of the others, but there was a diversity there that he allowed. So you were able to come into contact with people who would be classed as fine artists and industrial or product designers, all mixing together and discussing. I think that was quite a valuable thing. You weren't instantly aware of that, it was once you got into discussion with people and thought "That's an interesting point of view", or you were expecting a design critique and you wouldn't always get that. You'd get a different conversation which was completely outside of how you were approaching the project and even if you didn't agree with it, the fact that you had an alternative opinion or criticism or discussion about what you were doing it made you re-evaluate the object in front of you and what it was.

LF

That's great. Which course did you do at Sheffield?

MH

I did the Industrial Design Products course. I think they wanted to differentiate between Industrial Design Product and Industrial Design Innovation. I think their hope there was to do a more technical based course alongside a creative course so that they could encourage people with a more technical outlook or more formal engineering type of approach. Then people that were more artistic of course and put them in rooms side by side and for the first year doing pretty much the same course and then by the second and third year they would have broken away slightly. I know some of the requirements of the other course was that they had to provide lots of written documentation and that was slightly more what I would call right now 'formal approach' and there was lots of written work. That's not necessarily how the people that I studied alongside on the other course, how their minds worked. It was nice that you could see that they were trying to value both approaches.

LF

It's an interesting structure I've not come across.

MH

That's like I was saying downstairs, that's changed again now, and I don't know whether that's a structure that's been imposed on them by requirements of the university. But that setup seemed to work in the type of people that were being attracted to it. You can approach a project in a very practical way or a more poetic way, and it was that second approach that appealed to me.

LF

And it sounds like that way of working then actually became quite similar to the mix that you were in at the Royal College of Art. You had the same different perspectives that you're talking about. You've got them both at the same time.

MH

There's definitely a common feature between the two and it wasn't until getting mixed up with people that had slightly different educations up to that point, to see where they were coming from. As well at the Royal College of Art they had a similar thing, they had Industrial Design Engineering, so they're doing what you imagine industrial design projects to be. There's lots of research, lots of backing up the very rigorous approach to proving and justifying why a certain feature is like it is. It's a fair enough approach, it might be seen as less creative but it's not. It's just having a different way of informing how you evolve an object. Are you using intuition or are you using seriously in-depth research about very tangible things. They're all valid in their own way, aren't they? It's easy at the time to criticise one approach over the other.

LF

The next question is does the design of the studio affect the process at all here?

MH

I'm not sure. I think your environment affects your outlook. And the sense of who you are and what you're doing. Every author or designer has a particular look to their studio. I've been in quite a few designers studios and for me they are all a collage of objects, it's consciously constructed. It's like the clothes that you choose to wear or choose not to wear. Each environment is carefully constructed whether it's Ross Lovegrove with his white interior and polished floor, or here that looks like this, bohemian. It's not an accident that it looks like this. It's not an environment I've created or helped put together and if I walk away from my desk nothing changes. If you look at our desks they're not expressions of us as people. But of course being in the actual environment sets the tone for a particular place. A lot of people, like the guy that walked in, it's very different to a normal suspended ceiling with fluorescent lights. You look at environments for office space or studios or whatever they are. If you really consider my environment is a virtual space on a computer. I spend most of my time in a pretend 3d environment, which is a little bit sad, isn't it?

LF

That's a great way of looking at it.

MH

But it is. Beyond the bezel of the screen when I'm actually doing the work, I could be anywhere. I did work from home for some time... Think about how many years I've existed in that virtual space, and it's a bit weird, isn't it? So an environment like this serves the purpose of making a declaration for people that walk in, the kind of impression that that would make, and declares where you are, that you're not at somewhere that's a little bit more clinical, another design consultancy that you might walk into. Which is right for them. Every designer that sits at the helm of their studio, it's not by accident that their studio looks how it does. So it's important to engage with that idea. It's not a casual assembling of things, it's carefully constructed. Almost an unofficial declaration of who that individual is that you're going to ask ideas from. There are certain clients that wouldn't feel comfortable walking into this environment, and there are certain clients that would be comfortable or find this interesting and exciting that would be less interested and excited about going into a more conventional space or office environment.

LF

Do you think part of the thought behind this approach is to help draw in the clients that you want, and potentially push away the clients that you don't want?

MH

No, I don't know if it works in that way. People wouldn't just cold call and knock on the door and walk into Ron's world. I think it just reaffirms things.

LF

It supports them that they're making the right decision?

MH

Yes. If you're working for very corporate clients they want to know that you understand the language of corporate identity and that you'll respect all those rules that are in place. And creativity in its purest sense would play with that, and they don't want that. So it offers people some form of reassurance, doesn't it. Do you want a guy in a white shirt to design your aftershave bottle or do you want some kind of bohemian type doing it? They're all doing the same thing. It's probably an important part of what design is now. And that affects the type of people, not just the clients, but those who are prepared to work in any particular environment as well. It's probably a lot deeper than you first think, the environment. It's not just how it is, there's a lot behind the look of a place. It's hugely important.

LF

Great. What core skills do you think someone needs to work in this studio?

MH

Primarily the technical skills of computer modelling. It's quite an interesting question in a way because you could have those technical skills and not quite be right. It's like anywhere, you have to be liked, you can have the best skills in the world but if they don't like you, they don't like you. Whether you're a banker or an accountant or a carpenter or whatever, decisions get made... In intimate environments like this it's about getting on with people. You can't really engineer that unless you pretend to be somebody else. There are the everyday things like that which are important. But in terms of design or creative skills I think you need to have an understanding of stuff and what our role is here. It's not creativity in the sense that I think most people would say. I've even been asked by design students "Ron's a designer, what do you do?" It's a fair enough question. I think he was being a bit churlish. It's a point, what do we do? It's that complexity of the process actually needs help in helping along and that's what we do. So it's having the skills that help support that process that are very important. The more I think about that it's that openness to... there's not just one way to do something and often when a project does meet difficulties in design development, being open to other possibilities of how to resolve it. Even if someone suggests something that isn't quite the most obvious approach to resolving something, it can throw light on another direction. So that openness to developing ideas, resolving problems, or what are called problems. But it's actually normal. It's funny how we call them problems, every project has something that needs to be addressed and often it's called a problem, isn't it. "Good problem solving skills". That's a complete nonsense really when you look at it, because they're things to be responded to, things that need addressing. 'Problem' is a big negative. Every project will have what we call a problem, or something that needs attention, and that's where we come in, and we try to get around that to make it.

LF

Yes, it is a bit of a negative term in itself. I think the good thing is it's moved away from 'solutions', but the terminology has gone to 'problems' instead. It seems like the solutions were more discipline based but then it's turned to problems, but it's negative, it's not really.

MH

Yes, and it doesn't have to be. I don't think you can make something without encountering some kind of resistance from the object, the material, the original idea doesn't quite fit so you have to change it to make it work. And that's the process of bringing out an object into the world. It's going to have these obstacles because if it didn't we wouldn't be necessary. We could just say "Oh, I need an idea for a spoon". "Oh, you just need to do it like that" and then it's just part of the process. I suppose that's what we do, we negotiate these obstacles. I was always interested in this idea of the practical function of an object. I don't know if function can be just limited to that. Objects exist and we pick a certain object in our environment for a reason, I find why we do that quite fascinating. Function is beyond the practical usefulness of an object.

LF

Great. Is there anything you think undergraduate education could learn from the studio and how it works?

MH

The most practical thing is about what's actually needed from a designer, that's quite a valuable thing to understand from an education point of view. What are the fundamental skills that the designer needs. I didn't really approach design from a... even though I work on a computer every day now, it's not how I got into design. That's just a tool. I think design exists outside of the tools that we choose to use to communicate it in. People designed and made stuff before computers. Things are still made without them although it's become more and more integrated, the way that we can communicate to industry is really valuable. There's no interpretation between what I do here and what's made, if it's an industrially made product. So I think understanding that, the reality of the way that we work, not this imagined way of working. It goes back to what we were talking about with the structure of people in education. If they've got some contact, maybe not directly themselves, but if they're aware that having contact with the industry that they're educating people to go into, that's valuable, and understanding what might be needed. There is something to learn from here in that respect. "What do we need from the start to the finish"? Is it sitting down with a blank sheet with Ron and talking about ideas, and what gets edited out at that stage? What skills do you need to make that assessment? Some of it is experience that you acquire over the years which comes with time. Out of the box skills that you can get is just knowing the subject, knowing materials, how you can use them. I'm thinking of very practical skills rather than less tangible ones, which come through ideas and approaches. They're the things that I'm being asked to think about now. It's like an evolved approach to thinking about and making things. I don't know whether that's something that the studio could teach education, that's more of my own personal education in doing this work. But that's come through working in a place like this. I'm sure everybody has got their own take on it. They're the obvious things that are most easily communicated through education, the skills that you can teach, computing, drawing. But it's that bit that's easy to overlook, the phase that I was talking about where you're sat down and you're evolving ideas. Often that's the scary bit "What am I going to do?" if you've got a blank canvas. There's a bit of fear there of a blank canvas. That's where we should enjoy it. It goes back to the bike project that I was talking about. It seemed like a completely nutty idea but we made it work.

LF

Yes, being able to find a way to enjoy that.

MH

And enjoy that uncertainty on a project and learn how to evolve ideas that you can justify in some way. And that justification doesn't necessarily have to be for any particular commercial reason, as long as you declare that. It just so happens that work for that project, because it wasn't done commercially it was a charity project, but it still taught us something, taught me something. And Ron really enjoyed the outcome of that and still does, it was quite a few years ago that we worked on that, it still brings a smile to his face and he shows it at talks and people enjoy it. It should be enjoyable shouldn't it? Maybe that aspect of the process can help. I don't know if you impose structure on the process in the course that you teach. I know that they try to, not as a way of setting rules but as a way of helping the students, how do you organise your time, but without trying to interfere with... It's right to a certain degree, if we're asking you for money there has to be a bit of that. We can't just be a few people in a white room throwing paint around. We've got to provide something. We push you down to this world where people have to make money out of these objects. It forms part of a bigger picture for a business.

LF

It's a balance.

MH

Yes, it is, isn't it.

LF

Lastly, your views on undergraduate education structure now. It's interesting to hear what's happening in Sheffield. I still think the majority of courses are still very much one discipline.

MH

Yes. It probably is true and it's funny how that has happened. Quite a few of the people that I've known who have been involved in education don't necessarily agree with that approach. I had a chance meeting with one of the old tutors in fact, I was leaving the train station and a guy called Michael Marriott, I don't know if you've heard of him, but he was one of the really good tutors there. He wasn't my particular tutor on the platform I did but I was aware of him and his work and approach. It was a really interesting conversation. He didn't have that opinion of just one thing, and that you produce these people at the end of the course. That's why it's interesting. This world, not just design as design is not that important in some respects. There are characters out there and everybody has got a take on life or design. Respecting the fact that creativity or design has lots of approaches and directions it can take, if there's a course that can be sympathetic to that and understand it properly. Like the people you were telling me about from the government that we're trying to understand what design is, the reality is that... they probably had the information there that design is very diverse, it's in front of them. The fact that there wasn't a single outcome tells them that it is diverse. There is a massive understanding at that level of what design is or what artistic endeavours are. If there's a way of constructing a course that does do that or acknowledges it, that would be interesting. And it would attract people into design that ordinarily wouldn't entertain it. There's a particular idea of design, it's funny isn't it. People have an idea of design and what it is and where have they got that from? Where do they get that image from? If they're young and they've not known anybody. I didn't know any designers, I didn't know anybody that did design or could tell me what design was, it's funny. And here

I am, I could be called a designer, but I don't know if I would call myself a designer. It's funny isn't it. There must be a miss-conception of what design is before people even start. "Oh, I'm going to go and do industrial design". Do they actually know what it is?

LF

And with all the creative cuts in secondary education it's going to be even worse.

MH

I was talking to some of the people on the course when I went up to do the judging, they were saying they're getting less and less funding to teach DT. So how are they going to provide that education to people thinking about a university degree? It's very limited in how design is communicated, what design is. It's a very unformed... You can go to a lot of high schools and ask the teachers "What is design?" would they be able to give some kind of answer to what it is? And whether that's not just a fault of education but in the UK generally do we understand design? You do hear politicians saying how we're the home of creativity but not with the support of the government at all. And who are the people that they're championing as being creative? What part of society are they coming from? Like we talked about before are they all men? Are they all white? It's interesting. You could take that right back to education and the type of people who you're inspiring to become an architect or a designer. Are they all from one particular type of background and why? Trying to understand that. An influx of lots of different people from different backgrounds would release the full potential of what design could be.

LF

Yes, unfortunately it's going in the opposite direction, well in mainstream anyway.

MH

Yes. A lot of the commercial stuff, making plastic boxes for electronics, maybe people see that as design. And it is one aspect of design. But now it's quite interesting having some brief contact with education and the way that... how do you get a young person interested in user interface design, or that kind of design which is more relevant now. Ordinarily, start-ups they're the first people who want the programmers, the interface designers. The plastic box comes after those types of designs, they're always last to be employed. In those type of electronic products which we don't do here. But we can apply the same process of understanding it and how we might approach the user interface design. So there are some skills that are transferrable, I think. It's that whole "How does education respond to those needs?" I'm not sure that many design courses are entertaining that. They just say "we do these boxes here". If you can nicely style that and support it with some internet research then that's it, and I don't think that's really preparing people is it? Or not offering them the opportunity to see the potential in the subject.

LF

I think what you said before is really interesting because at the moment I've been quite blinkered thinking we've got to do something to continue the amount of designers coming through, so it doesn't completely disappear and design education disappears all together. But actually what you're saying is there's a potential, if you take another approach, that you could open design up to a whole wider group of people who had never even thought of something like that in the first place. It's a completely different shift of potential and a way of looking.



MH

Yes, it's the idea of how it's been sold as a subject. What is design? And it's probably not actually what they think it is. Is it a branch of what was called CDT? Boys making stuff. It's not at all. But a lot of very good celebrated people that are called designers didn't really have a design education. And I'm always interested in people who have done that. To kind of plug into a studio like this, you need that education, you need your bits of paper. If you've got the opportunity to do it without that, it would be quite an interesting road to take. And how you evolve those skills without that design education might be interesting. Maybe some people have a natural aptitude for it. I often think "How did I get into this?" and it was just through looking at stuff. Whether that is a user interface, an object, something that moves, something that's moulded, something that's made, or however. And that's at the root of understanding something and teaching yourself something. Which is what people have done since Neolithic times haven't they. We're not doing anything that different to that, are we? We've built a tidier way of realising things.

LF

Brilliant. That's lovely. It is like that in the end, that's exactly what it is. It's a better way of describing it I think.

MH

It's really interesting. Look at Neolithic hand tools and stuff. They're all considered and thought through. We're doing the same kind of thing aren't we? Whether it's to do something to survive or to entertain us and make us feel fulfilled and expressing our cultural values or whatever as artists. There's something there.

LF

Thank you. That's fantastic.

MH

That made me think a bit. I often don't think about what I do. I just come in and do it, but it is interesting for me to put into words what I do. I try to talk to my kids about it and they don't... it's quite difficult so I often show them. "That's making something". Making something, that's all I do. That's not that bad a job. But it isn't in that conventional sense of what a job is. It's funny.

END

**Interviewee:** Lucy Pengilley Gibb (LP)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 21.10.15  
**Location:** Ron Arad Associates, London

**Notes:**

LF

How do you define yourself if someone outside asks you what you do?

LP

I'm a qualified architect and I work within the architecture department of Ron Arad Architects, which is Ron Arad Studio, which has its two disciplines. I've been here for seven years and I work as part of the team. It's mostly working on concepts for projects, but I think that's the nature of what we do sometimes, and also working through tender sets and documentation to get projects built. I've been working on the Watergate Hotel for quite a while, individual projects in Tokyo. But I work as part of the team. It's architecture, it's interiors, it's object-based architecture quite a lot of it. It's about these pieces and how they fit into buildings and things like that.

LF

Lovely. Could you tell me about your design background and what brought you here?

LP

I started my studies in 2001 and I went to the Bartlett School of Architecture at UCL and that's where I did my undergraduate. I suppose I went there because I was more... I've always had... I come from an artistic family. My father's an architect, my mother was an interior designer. I loved drawing and I loved problem solving through drawing, and I love graphics and I love things like that, but I very much wanted another level to it, which was architecture as a profession. It's the technical nature of it, it's bringing projects through, but it's also hopefully... everyone always aspires you're always going to be drawing and doing concepts the whole time, but there's a whole other side to architecture because it's a profession. But that's why I picked the Bartlett because it is off the main stream in a way but is very much a mainstream part of education, because it's one of the main schools. So I went there and from there I went to the Royal College of Art to do my Masters. Again because I wanted to go on more of the conceptual side in a way, that's probably the best way of putting it. And being a Masters as well allowed me to do that. And also being in a school where you're exposed to many other different disciplines. So that's why I ended up there. From there, Ron being head of product design at the Royal College of Art at the time, was sniffing around my department looking for someone, and my tutor Gerrard O'Carroll at the time, pushed me forward and I came quickly. Something like two weeks after I finished my Masters at the summer show, I came in for a chat and I've been here ever since. Fresh-faced, but also here is the perfect place for me for combining those two worlds. As always when you go through the challenges to then get to your Part 3 and qualify, with "How many UK buildings have you built?"

LF

Is that part of the requirement?

LP

Yes. It becomes really difficult. I did my part 3 at the AA because you could have a hypothetical case study, you didn't have to have a case study. Many of my friends and

peers, we all qualified within the same three years, but it took us all a bit of time because it's a huge undertaking as well to study amongst your work. I went there, and as many of us did, four of us did who joined the practice at the same time, we all went to the AA. Because a lot of it's about everything from building regulation to the contractual side, to running a contract on site as a contract administrator, isn't something that we do here. Often the contracts are over with a local architect, like an executive architect, that would work to oversee that we were in line with the local regulations and contractual nature and all those things. We would work alongside them. We'd be the primary design architect but we would work alongside someone who is a bit... that's the same for the Towers to many different skills of projects to the house in Morocco that I first worked on when I came here. We had the local Moroccan team and we were working with them. Even likewise with Washington, because we are interior designers or architects doing the interiors is a better way of putting it, we work alongside the executive architect there. So, because we don't do that, which is neither a good nor bad thing, you can see the pros and cons of both sides of it, I shadowed a friend's project that he was running in Blackheath. He was doing a £300,000 renovation of a 1980s house. He was doing a really nice quite exquisite job of it, but it's more what people perceive architects do - 'do you do house extensions?' - it's a different world. And it was really interesting and I went along to do site visits and shadowed it and spoke to him about how he was administering the contract. But that doesn't apply here. I worked to plug my knowledge and I know similar colleagues have done the same thing and they're fully supportive of us doing it in order to get the professional qualifications. I wouldn't say I've now taken that contact and I now administer UK projects. I don't. I work on what I've been working on before.

LF

Do you have to take time out to do that or were you able to do the part 3 whilst you were doing the job?

LP

The office gives two weeks where you can do the lecture series at the AA and then Asa gave me time to shadow that, so we worked something out for that.

LF

So it's not impacting too much on what you're doing here and your ability to continue working?

LP

No, it was good. I think everyone in this office who's been through doing the part 3 professional exam, knows it's a really hard thing to do, so there's an acceptance. "OK, this bulk of time, you go and do it, right. When you've done it, good". Because even though maybe it's not... we have a lot of knowledge in this office, maybe the greatest skill is being able to sit with Ron and get those ideas and put them on paper, not the main but one of the skills you can mature as you're working here. For slightly different things, like how do you get that concept and get it down simply and well and let it evolve in the right way so that you keep all the ideas. How do you work with those specific materials that not many other practices work with? How do you use complex modelling software to get those ideas and put them down? So working with Maya at the beginning. Some very different skills that the people who've been here for a while have developed, which substitute or... I have friends who have skills, telling me the building regulations of residential in the UK which I have knowledge of, but they're more in practice doing that, and I'm more in practice of doing this. It's all really valuable, it's just different I suppose, that's why I like it. Maybe your confidence as well. You go "Well I don't know that. How do I get to know that?"

Likewise I have friends who say “Well, I don’t know that and I don’t know how to do that”. It’s such a broad subject, and my dad always used to say if you’re an architect you’re a jack of all trades, master of none. You do everything from extreme business, very hard contract negotiation, difficult... I mean it’s very litigious as a profession, especially in this day and age. You go all the way from that to wanting to do a little drawing just to show a texture or an idea. And everything else in between, from managing a meeting. So it’s very vast that’s why it’s a profession. You’ve got to touch your way in between all of them. That’s how I ended up here though.

LF

And it is probably a greater challenge here than in many other practices?

LP

I think also the practice is small and so you have the opportunity to be part of quite a small team working on quite a large project. Also, you can hear everything that’s going on. If you work in a large practice, a more commercial practice, you can be in a team and you can have quite a diverse range of projects perhaps, but maybe you would be put in a competition team or end up doing schedules for a certain amount of time. Not saying that you don’t have to work hard on one part of the project for a long time here. That’s why lots of people who leave university, want to get the experience of working in a large practice, but the small practices are seen as the gems because you also have more of a likelihood to be given a project to manage and do, rather than a large practice that’s doing airports and everything else and you’re a cog in a large machine, which also has its value. But small practices really help. And the nature that we are here, it’s open, it’s trusting. You have that mentoring amongst it, mostly by listening, and you have to be pro-active in listening and doing and getting involved. You’ve got to go and have a look and see which is good.

LF

It sounds a nice environment to be in! The next question is looking at roles. It sounds like you don’t have a specific role necessarily within the studio because of the nature of it, the scale of it, the types of work?

LP

I suppose there is a hierarchy in the office because you’ve got the Directors, the Associates. It’s not as rigid as some, but you have the Project Architects and then you have those who assist on parts of that project, or can be given a part of the project in order to run, to be the Project Architect for that segment. Also because I’ve just been on maternity as well, I’m back now and I’m working between lots of different projects. It’s part of the thing with small practices, especially if you’re all at the same level, everyone wants to manage, to be the Project Architect. But that can’t always happen because there aren’t enough projects. But it seems to work quite well. We’ve all worked with each other for a long time and it seems you work with each other and it’s not too hierarchical. It’s not too defined.

LF

It sounds very fluid and dependent on what’s happening.

LP

Yes. You’ve got me reflecting on what I do!

LF

Yes, it’s difficult. But that’s what’s really exciting. It’s not that everyone is very specific in that you’re all doing this, or that. There appears to be something much

more organic in the way that it works depending on what's happening and who is here.

LP

It also depends on the length of the project. I've been working on the Watergate for the past two or three years with Julian and when we took the project on Julian said "I'm going to work with Ron to look at the reception" because it was quite large and quite complex because it's an existing building and it's interior design. It's quite a high level of sensitivity also in relaying ideas to the client because interiors touch on things that people perhaps are more familiar with and they say "I don't like that fabric". If you talk about buildings and architecture it's a little bit more detached. If you talk about a chair and someone says "Well, I know about chairs". You have to learn the world of... especially the American system with interior designers working under architects. It's like a whole other world. But we divided the spaces and I worked with Ron on the restaurant and bar areas, and Julian took on the receptions, but you always need your peers to talk through things. The amount of times I sat... I had to move over to the end of the desk just so that I wasn't shouting over someone the whole time. I was saying "Julian, there's this wall and we've got this cladding..." and that's been a really good relationship. Reading through each other's emails and making sure it can work together. You can take a smaller or a larger project and divide it into parts and have some empowerment in a way, to know that you're managing that. But you have the support around you because... I would say you can't really count the amount of restaurants you've done for a bespoke high-end Washington hotel. The brief is always different. Everything is always, always different. You've got this model of doing a certain typology of building and restaurant, and you say "OK, I'll get that and I'll put that in there". And then you go "OK, it's new again" and you start again. What was the question again?

LF

It's about your role within the studio, and if there are ones that you can clearly define or not.

LP

It's very good when you can work through a project, because part of the craving which is part of that part 3 thing is wanting to see a project through. Because of the nature of things in the past few years with projects, building a building, getting it to site is actually the hardest thing, and then you've got to build it. Digging the hole for the first bit, the amount of work beforehand... there are so many people involved, there's everything from the funding to the stakeholders, so you have that, the client side and them trying to get what they want from you. And there's that good old triangle of time, quality, cost. Everyone wants it quickly, they want it for cheap, but they want good quality. But the first two want to drive it, or they don't. Fortunately here, because you have Ron Arad who works between the art, architecture, sculptural kind of world, the quality is what we want and need. We need those objects and we fight tooth and nail to make sure that the quality is often the winner and that comes with a cost, or a team that wants to say "We want to make this happen, and we will find a way to make it happen". But if you're being... it's the same old triangle you're taught about in part 3, and everything you know about but it always comes back to that, and getting it to site. Because many other projects which I've worked on in the past 7 years we'll work up to tender documentation. We do all the drawings, either it will be priced or the client's changed their plans, because the economic climate has changed, they find out they can do something else with their plot, many different things. Their wife has babies, or they have children and their situation changes, everything, or economic meltdowns. So you don't always get to realise it on site and so one of the good things its to be involved in a project that you can see all the way

through. When I went on my maternity leave everything was just starting to go out to the fabricators for Washington and so I was like “Noooo!” All these years of working and then... it was meant to happen earlier and it was a year before it went out. I was watching as the whisky bar and everything went to Italy. It was just within my grasp to watch how the shop drawings and working with a fabricator... you could say actually the most stressful time because you then have to nurse that intent into the fabrication and everything else. I was like “Noooo!” But thankfully within this year it’s all come back again. And you’re still seeing the end of it, and we’ve just seen some photographs of the bar constructed in the warehouse in Italy. Thankfully due to the long timescales of architecture, because it’s been 4 years. You’ve got to stick with it.

LF

That’s a long time.

LP

It’s a tough one. You can have an idea but you’ve got to wait 3 years before you see it because it’s so complicated. And you’re relying on the fabricator who has a vested interest in good quality and the client who had the foresight and inclination to make it. That’s something you want and that’s a role that’s really good to have in the office that you can now see projects through and one day you’ll be able to go there and you’ll be able to say “Yes, I remember when that was just a first sketch”.

LF

Is this need for an even greater level of quality due to Ron and who he is or is it something to do with architecture that’s design driven? It’s just something that’s coming up with the studios that I’m meeting. There seems to be a different way of approaching it somehow.

LP

If you look at Ron’s studio pieces and product pieces, they’re all about the craft of making and they’re about how those pieces are made. When the long-lasting nature of architecture as well is that you want that piece to go through time well, whether that be weather well or be durable enough, or to conceptually stand up to the test of time. I don’t know. There’s a value to craftsmanship and it’s about that artesian way of making something, especially with Washington and the sculptural object pieces that we’ve put in there. And because it can bridge the boundaries between art and architecture and interiors, but more products than architecture. We have these standalone pieces. It’s like commissioning a piece of sculpture that happens to be functional as a whisky bar. It is blurring the boundaries because in many ways even though it’s very site specific, you can’t always just go and sell it somewhere else. Some pieces do bridge that as well. And it’s also integrity. Also appreciation of materials. We work a lot with polished stainless steel metalwork and they’re beautiful materials to sculpt and use, I’m specifically thinking about Washington again, or you can use mild steel like the Tokyo house - very, very simply because of the budget constraints, in it’s rawest state and try and work the best finish. Let it be what it is and let it weather and be finished so that it has its... it’s durable and it does the job it needs to do. It doesn’t have to be this pristine slick thing, it’s about allowing the materials to do what they want to do. It’s also your reputation, it’s your brand, it’s who you are. You want to fight to make sure you protect it. With chairs you can keep them in galleries and your own private houses, but with buildings it’s accessible to all so you want them to be of a higher quality. And maybe it’s the nature of the people that work here, we all have a particular eye for things and want them in an honest good way and we’d rather not cover something in a veneer when it’s not meant to be like that. I think it’s something all architects aspire to. When you look at Peter Zumthor who is given massive budgets and allowed huge amounts of

time to develop the Vals, a well known thermal baths project, and it's about that materiality and quality of it rather than... I think any architect would rather have it as a really good quality rather than do it really quickly and really cheaply. We're just fortunate. Or we stand our ground and we fight hard for it, I'd say. You've got to stand firm and know how to balance it I suppose. That's just what I've seen on the projects that I've worked on, you pick your battles and you hold firm. And also what Ron wants, 'I want it like this'. Try not to compromise I suppose. We have to because you've got to make a lot of people happy and you've got to make sure it comes in at a certain price, because it's the only way you'll be able to realise it. I talk to my husband who is an architect and he has to work in tight... as does everyone, and sometimes he would love to have... it's different levels of project though, it's working with different clients, different expectations. You can work in conservation and have appreciation for the quality of materials, because you know that they need to be complementary and durable to the task. That triangle, the constant battle in every direction, you've just got to make sure that you're in the middle.

LF

How would you describe the creative process of the studio?

LP

How it works for me, the earlier you can sit with Ron the more fruitful. On a practical level you're briefed on the project by Asa or the project architect... the team or you're all shown the project together. You're given an understanding of which bit you need to look at or maybe it's the building as a whole. Often we get a bearing of where there's a boundary or where the limits are. You have to get your bearings at first to understand the limits of where you are so that you've got a knowledge when you sit with Ron and he says "Can we come in this way" or "Could you do that?", "Could we go down here?" And you say "No, actually there's a railway line here and here's the thing and here's the orientation of the site and the client doesn't own that patch of land" or in a hotel bedroom "we need to make sure we have two armchairs", "here are the parameters". We often work with something as simple as a 2d plan or even you can quickly mock something up in 3d and then sit with Ron. I think it's best to be open about it. One of my favourite things is sitting drawing into a piece of paper and just trying to figure it out in my head and I could do 12 different bits of paper all laid on top of each other just to figure it out. That's how Ron does it. He'll do it on the Wacom and he'll have all the different layers and he'll talk through it and you'll sit next to him and just watch it. And he'll say "Mmm, maybe we could do it that way" and put layer upon layer, working into a drawing or into an idea. Maybe that's one day and you'll go off and try and model it and test it a little bit more on the practical levels, or work into it a bit more yourself and then come back and it might be a completely different idea the next day. Like how you would draw into things. I'd say that's how Ron does it, he works into it and sometimes the first thing drawn might be the best one. It's also about the time limits on the project as well, how much time you have to have a look at it. But if you have a week it's amazing how many sketches you can go through. If you put them all next to each other often there's one repeating element and you know that's the thing in Ron's head, "We'll do that". So you pick that out. We often take the sketch... I'll have the sketch up on the screen and try to interpret it. The closer you go back and forth to get it, the more successful obviously that will be in Ron's mind's eye of what he wants. Some projects there are grander gestures that are needed, and the finer details needed, it depends on the scale of the project. Or some projects are small enough so Ron can really get in there and I think he very much enjoys "How do we pull this out?" or "How do we do that?" and you can see it all when you go zooming in. But some of them need that lighter gesture because that's what a project needs and what our part in the project is and how we have to do it. How far you can go. So it's a process of to and fro and guiding. And

then you can take it to 3d, and get lost in the world of zooming in. I find it's better if you zoom out and maybe look at the materials with which you need to work, so flip from here to there. It's different with every project, sometimes it doesn't quite work that way or you try and do it a different way. I'm a hand drawer so I like to draw by hand. I have a wad of paper. But other people will quickly mock it up in 3d and do a quick render. That can say an awful lot. And then you can flip and change and just get it another way. Everyone's got different skills in a way. A few of us are a bit more hand drawers, other people are much more comfortable doing it or find it more fruitful to do it in 3d, some people like to work it out in 2d. The combination of all will bring it forwards. Model making and things. I'd like to say mocking up maquettes and all those things, but we tend to work more in 3d. It's more accessible. You can take that screenshot and draw over it. It seems to work here more like that.

LF

Do you think with Ron's role, because he likes to draw electronically, it's a quicker more immediate way for him to have it there and then to translate it back?

LP

Yes, and Ron likes that pen to Wacom, pen to paper in a way. Maybe it's reflective of how he works on the products as well. That's very much about complex modelling. There's a language learned... he works with that, and that's transferrable to us in architecture. So that's the medium we tend to work in.

LF

It was interesting to hear the designers who were here in the workshop when I was here last, they were just informally chatting about it, in terms of how much they use the making space now and how much they don't really tend to need to any more, unless there's something that they really need to work out and solve. But it's still much more about drawing rather than making here.

LP

At university we used to maquette, quick models and paper models, grey card models, scalpels. I used to make an awful lot of them and I thought "Making and Ron Arad, maybe that's what they do". When I first came here I did a plaster cast of the villa in Marrakech's roof so we made this jig and hung this fabric and filled it with plaster and everything and it all was very mucky. But it made this beautiful roof conceptual idea that we took close-up photographs with that you couldn't really relay in the concept if you were doing it in a 3d model, because it was about that texture. Then we did these CNC cut boards for these tile patterns to show the people in Morocco how we thought it would fit together. Or we did a rapid prototype model that we posted to them for a one-to-one prototype of these two beams, because they couldn't relate to the 3d language, and the 2d information wasn't getting the information across and because this was out in the foot of the Atlas mountains outside of Marrakech, and they needed something more accessible, which was a 3d model. I think it's sitting on a shelf here. It's like a little maquette, because they built it in 2d and they built one inside the other, because they didn't get it. So it's not accessible to all. Sometimes it really does have... models to clients become very useful as a process of making and the conceptual approach to it. I don't know. There are other tools that we tend to use more. Yes, you do it a lot at university but you don't... there's a lot of things you do at university that you don't tend to do in practice, as with every profession or discipline or job, everything. So that's how it works.

LF

Great.



LP

And there are other tools like using Revit, new things like that, that are enabling us to work on larger projects because of the efficiency built into them. Very particular buildings with that. But we still have to take... we still do the sketches, we still play with it in Rhino, they're more the tools that allow us to work with better curvatures and things like that. Because we use all sorts of different programmes and methods, it allows us to plug that one into that. But not use Revit as a design tool, it's more "This is the production tool" and "This is the co-ordination tool". Updating 50 floor plans because you've moved a door is not something that you hoped you'd always be doing. But it allows you to do it so it's a great tool for doing that. Likewise, if you use parametric modelling, it's actually what we would use in grasshopper as a plug-in into Rhino. Not using parametric modelling as a tool for design, but using something to help a design... to extrapolate a design. Because you can do code and make a shape, and do the form. It's what happens before or what you then use that for. It's part of a process. Grasshopper is not... my mind maybe doesn't work in that way. I'll get there eventually I think, but there are other people in the office who work with it very well. We've got some people in the office who work with it very well, so we've got someone there who can do it. If you can't do it you can talk to that person and see how you can get it done. It's all complex modelling and things like that. Maya's an interesting one for that because it's using the animation world, and it's used upstairs as well. I remember doing a library... it was shelving for this house in Morocco. Ron wanted to change its scale and form and I spent ages trying to... it's essentially making a dynamic model that you can manipulate in 3d, which is a very quick way to see how it would change. You just want to see it before your very eyes, which I suppose is traditionally what you do with model making, you just carve it out and do it. But we've had the other tools... maybe because of the crossover between the products and here that we do it that way, maybe that's a consequence. To help you get the right geometry.

LF

I've even see the work of an amazing Dutch fashion/architecture/engineering designer, who uses Maya. So she's designing really complex body/ electronic pieces, then photographs it, puts it straight into Maya's system and it's animating, it's moving, creating really incredible mechanical work.

LP

You can do skin and bone. I can remember setting up this interlocking roof system. We wanted to be able to do an undulating, pre-fabricated system, and it's essentially... the terminology is here are the bones, here is the skeleton, here's the skin, because it's for animation. You've got to think of it as the fluidity of your arm and you've got to work out the mechanical process to link it all together, like how you do coding for instance. But it's fascinating. My brother worked in illustration and he said "you are using what programme in your office?" and I said "Don't worry, it's fine". That was the first manual I was handed when I first worked here. That was one extreme to another, pencil drawings to 3d design. It's fine. It's interesting.

LF

So it's finding the technologies to allow the studio to do what it needs to do.

LP

And Revit is a really good example of that... it's what the industry is using at the moment. We needed something to do ours and we did the research, found the right thing, and now it allows us to have the capacity to do this project. And you could say, free up more time in order to work out the details and the design or the problems or

have the foresight to see the problems early on. Because it's more manageable, I think that's the thing.

LF

The next question is about the physical design of the studio.

LP

What the building?

LF

Yes. It's a space that's really interesting. Looking at these two different spaces and how they work. What role do you think the physical building plays in the studio?

LP

It's got its eccentricities. It was built in 1983, I might be wrong, so it's a good 30 or so years old. And it's evolved. This used to be the metal workshop so it has its history. People know that it's Ron's studio, it has its characters, it has its history and it kind of embodies what we do. But it's not built for purpose to have a... when it rains...

LF

I saw the leak!

LP

When it rains and you're on a conference call it's interesting! I've been here for a long time so I'm used to all sorts of things. It has its eccentricities. We're always talking about how nice it would be to have everyone on one level. If you're going to redesign a space you would have products, architecture, everyone all together because that allows listening to one another. Like Marcus, head of design products, came and sat down here for the past few weeks, and I was talking to him about finishing the façade in Tokyo, and how he's done a similar thing. There's knowledge in lots of different pockets and it's amazing how a difference a split in level can make. It happens in all sorts of studios, like it would be if you had a different space. We've been talking about it for a while but, interaction between the two. But it doesn't mean you can't just wander upstairs and do things up there. I don't know. I remember first coming here and thinking "OK, I get it". It's where Ron's always been. You want to make sure you're near a radiator maybe. Have a heater under my desk. I get cold so maybe that's my thing.

LF

It seems very relaxed as well. You get hit with the wow, inevitably, when you come in if there's something in the gallery or with all the furniture. But at the same time as the wow, it looks and feels very relaxed.

LP

It is very relaxed. It's not "Here's the meeting room and you've got to book a slot". It's not "Here's our slick library and here's the man who manages the library". There are things here and there's a lot of old gems of little bits everywhere but I think that more, not necessarily corporate, but that side of it is not of interest to Ron necessarily. He likes the informal nature of it, it's more comfortable. That's not to say that we don't have the right systems or the right computers and the rest of it. We have all the things but we just... I think putting us in a new build, purpose build, here's your meeting room. I don't know, it may not suit the temperament to what we do, but maybe some of it in the right way – one level or different workshops and different things – it doesn't mean that maybe other things might be better. It's great when people come to look around and you've got the studio spaces either side and

they're on either side so people come on a journey through. The amount of days when Ron comes through showing the building and you'll show a project at your computer, say The Onion House or Julian will show Washington or the Towers or anyone sitting here, and you don't know who they are and you have to look afterwards. We get quite a few people coming on the journey through the building and they see things, so it's got its story to come through it. It is its own little showpiece of what we do, as with anywhere really.

LF

That says a lot (LF points to the courtyard and the ping-pong table).

LP

It's where we have our lunch, really.

LF

Is it?

LP

Yes. It was sunny yesterday, and it's also a very good lunch table. And when we have our barbecues and things... yes, we all have our lunch out there or in here. Because the sun comes in and you can sit here (at the big table). But it's good to have some outdoor space.

LF

And it makes quite a statement, with the idea of play, I think

LP

Yes, and we do play ping pong on it! I'm not very good at it so I can't talk about the ping pong. I retired after my first six months. But we used to have ping pong tournaments and all sorts of things. Obviously the summer helps. Someone came in yesterday and said "Ash, that's the icon, your famous piece, the ping pong table!"

LF

I think it's fantastic that there's something that's validating play and social interaction within a workspace. It seems quite unusual.

LP

In the past few years around London there's been that ping pong play thing. This has been here for years, we put it in the Barbican exhibition when we had our retrospective there, and now ping pong tables are in parks and you can hire bats from local kiosks. It's nice. To unwind. Ron will say "Asa! Come out here!" and have a game of ping pong or something and play. I like to watch.

LF

And all the cars as well.

LP

They've got their own history as well, the Fiat 500. It's morphed into the wall I've noted lately. We've obviously painted the brickwork, that was done in the past year. The amount of photographers that come in and that's the backdrop.

LF

It says a lot. I can see why you wouldn't want to move.

LP

It's like the home. There are little things that say 'One off' scratched into the window. Or there's all sorts of little things everywhere. I don't know how you would pack it all up to move it anywhere else to be honest.

LF

Great. So what roles do disciplines play in the studio, if at all? Clearly you've got the architecture side and you've got the 'stuff' (as Marcus describes it).

LP

Pieces, of various scales. Yes, we do stuff too.

LF

Even though there are the two, it seems like there's a crossover between them.

LP

Yes, there is. Maybe Watergate is a good example because we actually do the formal dining, and casual dining, and bar areas. So finding suitable chairs and pieces that would suit the space and the client and everything else and how that evolved, we have a certain amount of production pieces that Ron does. For example, an upholstered dining chair wasn't one of them. So they asked for a bespoke piece and so we tackled it and in the end it became a language between Marcus taking the idea that Ron worked with, but they've got the expertise more so for them to take that and work with Moroso to bring it forward. That's a nice relationship that's come through picking those pieces because you always want to expand your catalogue of pieces you have. You realise that there's something that you need, so you design it. And it's the scale of the project, how much you are involved. We don't always do interiors, we actually try not to always do interiors. So when you have the Tel Aviv Towers it's not necessarily relevant. It's different scales, it's different materials. You talk about the build-up of a wall, architecture can be quite a different animal. And also the path it goes in, it's a four year process rather than a one month sometimes or something like that. So they have different time frames and things. Very much depends on the scale and the nature of the project.

LF

I suppose that goes back to the uniqueness of a studio like this in that when there is the opportunity to come together, so if you are working on an interior project or if there's some sort of detail that you can come together on, you're doing it within the studio itself and within the way of working and understanding and approach.

LP

We're very fortunate that we can walk upstairs to the wonderful minds of products and industrial designers. From the exhibitions we've done more architectural sculptural sorts of pieces that have gone upstairs. So there's sculptural public art or exhibition pieces that bridge that gap a lot more. They're a bit in between, because they're in public spaces. They have their requirements as well that are outside the limits of production pieces. There's a knowledge likewise that can come from that.

LF

I imagine for a traditional architecture studio, when you have to bring in someone from the outside, even if you've had a working relationship with them for a while it's still somebody from the outside and it's not as easy a fit necessarily as when it's all in-house.

LP

It's very rare that an architecture practice has a catalogue of furniture that they've designed. Many of them do now. I can see that many practices are doing their own ranges. I see it in the hospitality world. It's very fortunate but also... what chair do we pick? We pick one of ours! We have to work in our own world because of who Ron is and we obviously would like the V&A or certain chairs or certain pieces or certain things to be in our spaces. Not to say "We must have our products" but also they're suitable to the designs that we have. It's like putting an Ercol something next to our... it wouldn't look right. You could look at some beautiful Saarinen chairs and things, beautiful mid Century pieces, but they don't sit quite right, it's not quite right.

LF

You end up with something much more holistic because of the fact that it's all come through one studio.

LP

You end up with a door handle to using polished stainless steel or patterning brass on the kick plates. It's everything. So it's very, very immersive when you manage to do the whole thing. With buildings and shell and core I suppose you're a bit more away from that, that's with interiors. I suppose I'm thinking about that a bit more because I've been working with Washington. But with the Towers for example, how does the landscape work? I was working with a landscape designer, because that's obviously something we don't have in-house. How does that language work with Ron's idea of how it works? As a team do we work together with all the planning and glazing systems and things. It's more detached, the bigger the scale...

LF

The more separate you tend to become?

LP

Yes, but, detached in a way that... I don't know, you talk about padding panels versus a chair, the difference. They're different things, but they still have the same tactile textures, there are still certain colours that we are attracted to. When Ron says "Oh, that one".

LF

Great. What core skills do you think you need to work in this studio?

LP

Core skills. I said I was a drawing girl, and I think when we all join the office, there's an appreciation that you can't always have every skill. People are more fine-tuned to certain skills. It's about making sure that as a whole the office has a good range of skills. People can do things in different ways. It happens with every office, some are working on the business, some are working on the concepts. But even so I've gone and learned all the 3d programmes and still have them in a different way. I would say there's an overall core skill that you need in the architecture department because it's interchangeable with what other people have. Someone who is very good with coding should sit next to someone who would rather draw it by hand, because it can transfer across. I think it's a feeling of having an eye for something, for scale, proportion, and to be open and to accept the fluid nature of it, in a way. It helps if you get on with people, which it's fortunate that everyone does. Maybe slightly playful, that helps, you've got to be willing to get excited by it and want to do it, challenge it and do it. And with any architecture practice, you've got to have the stamina. And that's not representative of here, architecture I think half of it is stamina because there are some hard points when every office has to get a building

built. It's four years of trying to concentrate on one bit, one thing, it's stamina. And negotiating. There's a lot, through every practice again, sitting in meetings and being able to navigate. Maybe our projects, because they're a little bit more of a wild card sometimes, how to get the idea across and find a way in which everyone can be on board and get it done. A lot of that is finding a client who really, really wants it. I wouldn't say that's a core skill, that's just something you learn and can watch and see. Communicating an idea and the best thing is when you have the full support of everyone who just wants it, and that makes that stamina much easier to uphold. Architecture is very thankless at times, because you can do an awful lot but only when at the very end the client can maybe see... I'm seeing this through the eyes of my friends who are in practice as well, you can see the building at the end and you go "OK, yes, we get it". Because the accessibility of even a set of technical drawings isn't really going to say it to someone else. It can be quite thankless, but thankfully it will get made in the end.

LF

Great. With those core skills, and the needs of this studio, do you feel that interdisciplinary undergraduate education is still relevant?

LP

Like I was talking about the need for the part 3 and the need to get qualified and to plug in your knowledge, there's maybe a slight insecurity of knowing that you don't have all of... you aren't exposed to all those other things. But it also matters to you personally where your interests lie. I've been very fortunate. I would say maybe this office more so than many others, it's more relevant to how education is, because you're fortunate enough to work within the wild and wonderful sometimes. I have done visiting crits at Cardiff and sometimes you get people who say "I've done this, and here's my grid system, and I've got this and I think the price would be..." and I think it's all very nice but have some fun when you're doing your studies. Maybe you've seen that it's good, but there are two sides to it. Half the time you want your education to be where you can breathe a bit and really figure out how to cultivate that interest and way in which you approach things and sensitivity. But also you want to be unhindered because at some point you're going to have a client sitting in front of you saying "No, I can't afford that" or "I can't do that". There's something about the freedom of it but also when you go into practice you need to be very aware of the restrictions. So there is a big hole. Many of my friends and I have reached our thirties because we'd gone "Architectural education, go, go, go! Undergraduate. A diploma. Masters. Work in practice, find a practice that we like. Now get enough experience. We'll do the part 3". And every one did their part 3 at the age of 30, and then everyone just went "Phew", stopped for a second, had a look back, because you're all on the train, and you go, go, go. We're all people who enter into architecture and if you stick with an undergraduate most times you're going to stick with it and see it through, most times. But it can also teach you other things, to set up internet companies, or website companies. I have friends who went off after undergraduate and did something completely different. But you do it, you're an architect, you're in the profession, and then you say "Right, so that thing that I loved about drawing and doing that little lovely detail", I don't do any of that any more. I spend my whole day writing emails. I don't do what I started out doing, and there's a misconception of what architecture is in practice, and maybe that is set up by how it's taught. But I went to schools that went around... it was my choice to go through the education that I did. You could be more specific but it's what you're interested in.

LF

The schools that you chose enabled you to be very creative and free?

LP

Yes, you still had to tick all the boxes as well. But there are other ones that maybe focus... Bath for example, or Cardiff, they have the real project that comes in there. The modules are split into tectonic versus light studies, very much more specific. Mine was a bit more free. Part of me wishes maybe I had been... but actually I quite enjoy the open nature of it as well. There are always two sides. I'm not sure if you really, really hammered in from undergraduate level the whole complexity of the real world of architecture I'm not sure you'd end up with too many people from the beginning to the end. They might drop out but you would end up more prepared, I don't know. It would be a shame to lose the people who will go through and end up... In this practice we have people who will do the coding or the drawing or the 3d modelling. Architecture as a discipline has to have all of those things as well, so the nature of schools to do it. By the time you do part 3 and then they throw all the contractual things at you, I think part 3 should be knitted in. Part 3 should be part of part 1 and part 2, there should be part 1.5 and part 2.5 because that should be a heavy strand through all of it. (Part 3 practice is very much part of all Undergraduate and RIBA courses, and forms a key module and lecture series within education, thus it is knitted in. But its complexity and depth is much more prevalent within the Part 3 course, which is post Undergraduate & Diploma/MA). Because it's such an important part of it, why is it on the end necessarily, or maybe more of part 2, I don't know. Even business practice management and all the rest of it. It can be both.

LF

So possibly more of the two threads running together through the whole experience?

LP

Which the schools do and you do have to do that. It does exist, the courses are RIBA certified and you do have those course modules and they are there, but how you perceive your course and what you see is important is assumed, maybe it isn't weighed as much that way, how you see it, that's what I remember. But maybe it's also my interest. Some people really enjoy the project management over the design. It's great in this profession that you can diversify and go into those finer points, but if you're a sole practitioner in the end you want all of them. I've said to the students "Be free and do whatever" but actually I should be going "Yes, this is the real world, this is what you have".

LF

It's trying to find that balance isn't it? When I was here last time you said you felt that architecture education was 80% systems and 20% creativity. I think that's what you were saying when you were going through your architecture training. Is that right? Or have I got that wrong?

LP

No, it's the other way. It's the other way around. I can't remember what the percentage was at the Bartlett.

LF

So that's not the problem with this student in Cardiff, it's not that they're not given all of that conceptual and creative opportunity?

LP

They have all the different modules and they all seem to be given very good weight. But you can see the conflict in their eyes when they're thinking "How far... do I take this on board now or how far am I creative". And perhaps that's a balance you've always got to get with architecture because you need to know how far to go with one

or the other. For example, detailing. Robust details, weatherproofing details. Someone on the outside of architecture would anticipate that every architecture student has a firm catalogue of knowledge of many different general types of detail and is invested in them in every way. In my education, no. Not at all. We had a case study project where we had to explore a particular detail of it, and understand and pick sound or light or something and explore that further. And then how a mechanism works with something, and we zoomed in on one fragment. But as far as a pattern book and how that's put together... but you say a lot of it is how you do it in professional practice. Learning what you do is actually the best way to learn it. It's practical current knowledge, so maybe it's more about the emphasis on learning. You've always got to appreciate you have to learn on the job as well. Or it is about learning on the job, it's not even as well. You're constantly having to look and look at the literature and look at old projects and understand that. Probably by the time you've got that catalogue you're about 60 and then you might think of retiring, but maybe you can't because it doesn't pay that well, so you've got to carry on working anyway. I definitely can see the conflict with education.

LF

I think that's great, really interesting, something that I can pursue.

LP

It's a conflict within the profession as well. Are you creative or are you there to give your contractor the price of building that he wants? No, because you're there to stand up for the quality and integrity of the design. So you're selling that to someone else, but you've also got to meet the needs of someone else, and another, it's that triangle again. It's conflicted as a profession maybe. And it's so broad. And the industry drives it as well, and politics, and everything else.

LF

Last question. What do you think undergraduate education could learn from this studio?

LP

The process of design. I suppose that comes into the interchanging of mediums and things which you work with. And the reality maybe of realising a project that is ambitious and where you need the quality, so the time and the effort and the stamina and everything else it takes to do that. Exposing a 3<sup>rd</sup> year student, if you really took them through what it means to get to something. Likewise if you did that in any office it would actually really show everything. A lot of people maybe have the preconception that we all are merged in together and products sit next to each other, and it's all multi-disciplinary but in the real world, because of the scale and the differences, it is... It could be more intertwined. Architecture you have to have clients, Ron always says that. The thing about architecture is you need clients, you need patrons for your things, we have to satisfy those needs. Whereas products sometimes you can go off and design something and then you pitch it. It's the other way round. Here we've got a lot of processes to go through before we can actually get it. So it isn't quite the same, unless you are your own developer and builder, which is the ideal world. The process and the medium... that sort of thing, and things that technology can do for you. From parametric modelling to Revit.

LF

Rather than following what a discipline says is the technology that you need, looking at it from a different point of view in terms of what technology can give you in terms of what you want. Not that you have to do this because that's what this one discipline requires.



LP

Yes. That's exactly right. It's a tool but it's not the product.

LF

I think that's quite a key thing and I'm not sure how supported that is in design education. Thank you. That's absolutely brilliant.

END

**Interviewee:** Caroline Thorman (CT)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 04.11.15  
**Location:** Ron Arad Associates, London

**Notes:**

LF

I've read a lot about how the studio's evolved physically over the decade, but I am curious to hear how it's evolved philosophically, if it's changed in terms of what your aims were at the beginning or if they've stayed the same.

CT

I would say almost everything has changed except the core philosophy of not compromising, more than anything else. To do things that are looking at things in a new way, to break convention, to do something new and innovative and there's no point in doing it otherwise. And to always do it without compromise. It really has been the key. It was the key in the very beginning when we first started working together when I came into something that Ron had already started and already had the little foetus of really. And it's still that strong.

LF

And how has your role evolved throughout the years?

CT

I feel more like a lawyer now than I've ever felt in my whole life, in the sort of 30-something years of us working together. I seem to spend the majority of my time with my head in contracts.

LF

Is that because things become more complicated, with the process, to require that?

CT

I think it's a combination of things. I think it's partly the way the work has changed over the years. In the very beginning we had a little workshop at the back of the studio and we had a few pieces on display in the studio come shop. People would come in and they would order something and they would leave. We would go around the back and make it, and sell that to them, and that would finance us being able to make two more pieces. It was very, very simple. You make a piece, you sell it, and you make two pieces, when you sell those two pieces you can make four etc. When we started to design for other companies, and that's probably the first time we came across having to deal with any sort of contract, so that was around 1986-87, and at that time companies that would ask us, or ask Ron to design for them, would already have their own contract and we weren't wise to the contract world at all. We would go along with whatever was put in front of us. And over the years one learns how to change and tone a contract to one that suits oneself, you go through various iterations etc. We do more and more and more design projects for other companies over the years, so the quantity has built up, the frequency of them has built up, and my expertise of dealing with them has built up just from doing so many. And as that expertise builds up I then find myself doing more and more of them. Rather than handing them over to our lawyer to deal with, mostly I'll deal with them myself. Asa finds the same thing in the architectural studio, and he's dealing with architectural contracts and the more conversant he gets with them the more he's dealing with them. So our increased knowledge is in a way to our detriment. So that's the most

significant change in my role over the many, many years, I think. Not that I don't enjoy that. I do enjoy that, absolutely.

How else has my role changed? I think until probably 10 years ago every decision that we took here would be taken by Ron and me together and as the amount of projects have grown and the diversity of the projects, because we're doing a lot more different things than we used to be doing many, many years ago, that we have a lot of other filters for decision-making to go through here. Although things are still generally done by consensus and that's always been one of the great pleasures with the way we have it set up here. How much everybody is involved and everybody has a voice.

LF

Has the creative process evolved, in physical or practical ways, from the workshop and making happening downstairs?

CT

Long ago we thought the best thing, because before we moved to these premises we had both variants in Covent Garden. We'd had spaces there where we'd had a shop come studio with the workshop elsewhere, and places there where we had the two together. So we'd had both before. When we moved here we thought it would be perfect to have the studio up here and the workshop downstairs, and it was great for two or three years. But, with the nature of changing projects, more and more computers coming into the office, a lot more work being done on computers, the dirt and the mess and the noise made it crazy, made it impossible and Ron would be going downstairs to work in the workshop covered in mud and we'd be up here and there was too much of a dichotomy between the cleanliness one needed up here and the mess down there. Then we moved our workshop out to Italy. I think it's one of the best things we ever did in fact, because it allowed us the space to have the architectural office and design studio and have a cleaner environment and be able to concentrate without having to ping pong from one thing to the other all the time. I think that helped us expand the range of projects that we do too. That's not the question you asked me, is it?

LF

Well, it's part of the developing process.

CT

The biggest change has come from computers and the software and the internet and email. As with any business will probably tell you, if we go back to 1989-90 when we were designing the foyers for the Tel Aviv Opera House there were thousands and thousands of drawings literally for that, and each one was done by hand. And I recall two or three years of people working here until midnight every night just to get that drawing package out. And people would be sitting at the drawing boards with their Rapidographs, and the young generation today probably don't know what a Rapidograph is, and there were no computers. Everything, every line was drawn by hand. If you made a mistake then you had to scrape it off and start again. It was painstaking, and that was an architect's life, and to a lesser degree a designer's life. Again everything done was drawn. There was no way of visualising anything on the architecture side. On the design side our way of visualising a piece was to go and make the piece. And that's a dramatic change today in that if Ron has an idea today, rather than going downstairs and making the physical chair or prototype of a chair, he can go and sit at the computer with one of the designers, and he can see his sketch or his vision very quickly. A quick preview normally within an hour.

LF

That's amazing.

CT

And by the end of the day he can have a photo-realistic image of that creative idea on the screen that nobody other than an expert could tell that it's not the real thing. It's an incredible tool. And it's filled a gap which was lacking I think, at the point where we moved the fabrication out to Italy, at that time, although we were using computers, they weren't capable of doing anything much. They really weren't. And for some years we didn't have that spontaneity and that was very frustrating to lose that spontaneity of having an idea and going and being able to make it and realise it right away. And we've got that back now and I think this spontaneity and immediacy is better than the hard slog of the way it was 30 years ago. And there's been a lot of other changes and evolving over the years, many many, but this has for sure been the most impactful. This influences the speed at which we do things and the products and work that we produce. We do things that we couldn't possibly have done when Ron had to draw on paper. It just seems that the technology, with things like this for example, that couldn't be made by any other method. They couldn't be made by casting, or by carving, or by extruding or any of the normal processes. But it's made by 3d printing. And it's designed, this piece and the initial range of pieces that Ron did for 3d printing back in 2000, were all pieces that could not have been made by any other method. So that's one visible analogy for you. But there are hundreds and hundreds of things that we do. For example, it's very simple, it's a model of the piece that couldn't have been done other than on computer, it wouldn't have been possible to get the accuracy, the curvature. With a piece like this the geometry is incredibly complex. No one would have taken on board an attempt to do that on paper. The world of possibilities is so much more on our doorstep, on a day to day basis, than it was all those years ago.

LF

It's great that you're still able to work in that way and actually even in a better way, a more spontaneous way, without technology limiting or holding you back in any way.

CT

I don't think that technology does limit us or hold us back in any way at all. It does nothing but add, add and add to the possibilities.

LF

The next question is about the physical space, the role that the studio itself has played over the years and how important it is to you.

CT

It's important for us to feel at home. Every place that we've had we've made into a home, which feels right, that it reflects what we do and the way we work, not only in the good ways but also in the bad ways. And you can learn a great deal from looking around you here at what matters to us and what doesn't matter to us quite so much. And we don't need perfect white walls and clinical preciseness. We want the things that inspire us and remind us and influence us around us.

LF

I've never been in a workspace like it. It doesn't feel like a workspace, it doesn't feel like a work environment in that sense.

CT

It was never designed to be a work environment, it was designed to be a playground. There's not a difference. I'd like to think there's not a difference. We often have many days these days when it feels anything but play, what with the frustrations of trying to make things happen in a world that everybody wants more for less. But that's life, you deal with those things. But yes, it still has the sense of a playground all these years later, I don't think we'll ever lose that.

LF

And there's a lovely feeling of layers of history, and I suppose it's because you've been here so many years.

CT

We've been here since '89. I don't know if anybody told you what it was before we moved here. Ron and I came with the agent to look at the space. In fact, not with the agent because the person that was here before us, had a piano workshop here, and he was downstairs. This space was nothing, it was just neglected. And he let us into this space through the front door, and when we walked in there was a portakabin loo on the left, cobwebs everywhere, dark and damp, none of this existed. I mean the ceiling that we have at the front there was like that, and this was a corrugated iron flat roof here, but not this height. And hanging everywhere were paper patterns for clothes and old sewing machines and stools. It looked Dickensian. It was incredible, like something from the 18<sup>th</sup> century India. It was unbelievable. And when Ron took down one of these paper patterns and looked at the name on it, it was Jeff Banks. It was amazing! And Ron called him and said "You know what, guess where I am?" And he was amazed and he came up to have a look, it was 30 years previously, so it had just been left like that for 30 years, it was amazing. We couldn't live with it like that of course so we got rid of this roof here, we got rid of the wall that was here as well, you'll notice that this isn't a brick wall it's a steel wall, so we rebuilt it from floor level up here, put in the big columns, the PVC roof to get a huge amount of light in so that we had a real good light in here for architecture and design work, bearing in mind that everything was done by hand and the more natural light the better back then. It doesn't matter quite so much now. And the place worked for us, we were so excited. It was the first time that we'd had a premises where we had the amount of flexibility to do what we wanted here, and a great landlord who respected the fact that the place was a complete dump and needed renovating and was happy to go along with whatever we wanted to do. So it's a long term home, we're happy here, we don't want to leave. We would like to redevelop here. We've wanted to rebuild here, but unfortunately we can't at the moment. It doesn't belong to us which is a shame, and if it did then we would. So we're patching up. You can see how patched up it is. And particularly here. The building that shares this party wall on the other side used to belong to Select Models and all the models used to stand at the windows smoking and dropping their cigarette butts on to our roof here, so that's what all the holes are from.

LF

Oh dear!

So, what do you think the core skills are for someone to come and work within the studio?

CT

Certainly on a personal level an affinity with working with Ron. There needs to be a compatibility because there's a very strong relationship and bond between Ron and the person that's interpreting and working with him. So in every case here we have

people that Ron can go and sit and work with and there's an immediate affinity and sense of a team and collaborative work. Everybody understands very well his mind, and he understands very well them. So that's vital. Beyond that they have to be amazing, everybody here is amazing. They have come from all over the world, we're so incredibly lucky that for a very long time we've had a large amount of people coming out of study that have us at the top of the list of where they want to work. We have hundreds of applications every quarter, we sometimes have as much as 1,500 a year I would say. There's a very, very low turnover of staff here. Most of the staff we have here are either new employees, because we've taken on extra people, or they're people that have been with us for many, many years. There's a handful of people that have left over the years, and with only one exception they've all gone on to start their own businesses. It's a friendly place that somehow inspires a lot of loyalty and care. It's a very good crowd.

LF

You feel it as soon as you walk through the door. I've not felt anything like it in a design studio.

CT

Really? I think there are other places that have this sort of feel, occasionally you read about places that do. It's unique, because Ron's unique.

LF

The last thing I'm trying to start figuring out is relating what you do and how you work back to undergraduate design education. This has been partly inspired by Ron and what he did with the Design Products course, taking the more pluralist approach that he talks about.

CT

I really don't know, I think it's very much down to the subject matter. If your subject matter is human immunology then I think there is a box and you have to study and work within the parameters of that. So we can only discuss it in terms of design courses and I think it should be a great deal broader. Absolutely should be broader. There shouldn't be a division between fine art, design, sculpture, photography. We have people here from various disciplines. Michael is a vehicle designer, Marcus is a design engineer. So, we have people from different disciplines and we never ever employed an interior designer, we have I think Olga who is a product designer, but she doesn't gain anything by having come from a product design course rather than a design engineering or a vehicle design course. I absolutely think that roll it all into one. Which is exactly Ron's approach in the postgraduate course based at the Royal College and previously when he was at the Hochschule in Vienna. And I think if you're looking at European design schools, some at least, they allow that, and in this country I think it is becoming more conformist, more boxed, more segregated than it used to be. There's the drive towards so much more conservatism on courses. I think it's sad, and we lose out.

LF

It's interesting isn't it that Europe hasn't gone that way. There are so many schools in Europe that are much more creative in the way they're approaching teaching.

CT

And the work of the students reflects it. If we look at design schools in the Netherlands, in Germany, and Israel, you've got a lot of very interesting work coming out. They've been provided with a freedom of technology, and a diversity that we're treading on in this country. In the Royal College, and I know you're talking about

undergraduate and that's postgraduate, but at the Royal College you see the difference there today from when Ron was there.

LF

I've been reading a lot about it and the frustrations of the students that are there.

CT

The students are very frustrated. It's nobody's first choice that's in the know, and it used to be the number one place. It's full of students but they're selling the course on a very old reputation which is frankly not relevant any more. It's a shame. It's a shame. I so wanted that what Ron did there, which was great and the students loved him and some of the work coming out of there was some of the best work that students in this country have produced in our profession, was continued. And I can't explain to you why.

LF

No. I think like you're saying some of the conservatism and pressures of making the institutions conform, financial pressures, bureaucracy...

CT

I think it's that. It's corporate. It's not dissimilar to what's been happening in our schools in the last 20 years or so. For example, my son went to Emmanuel School in London. He had a perfectly reasonable education there, it wasn't outstanding in any way but it was ok or good. And my daughter, quite a few years younger, when we were looking at secondary schools for her, Emmanuel was one of the ones we went to look at because at that time they'd started taking girls from 11 years old, and we sat for an hour and listened to the headmaster preaching about corporate identity, and we ended up walking out before the end of it. Where does it come from? You're right, it's government pressure, government pressure to conform, it's a shame. It's a real stump on creativity. But on the other hand it makes determined people fight harder, so when you do get somebody really good they're not going to be held up by anything. And they're going to thrive in spite of that. So I think we'll see some very strong young designers come up in this country in spite of everything that's been done to thwart them. When things become more conservative people get more rebellious. And rebellion feeds creativity. We'll see.

LF

Great, that's lovely. Thank you very much.

END

## 16.2 Heatherwick Studio

**Interviewee:** Mark Burrows (MB)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 23.09.15  
**Location:** Heatherwick Studio, London

### Notes:

(The recorder is switched on mid-conversation)

LF

Great. So I'll just give you a bit more of an idea of what I'm doing. I am going into 5 studios looking at process and how they work. The purpose is to take that information back to undergraduate education, because at the moment there appears to be a disconnection between what's happening in industry and undergraduate education. So that's what I'm trying to look at.

MB

Yeah, I suppose it's linked to ambition isn't it. In some way. Education is a funny thing isn't it. I don't know and I've never worked in education but there must be all sorts of kinds of not necessarily converging forces pushing forwards to try and get funding and just tick some boxes.

LF

And now it's £9000 per year it's just a business.

MB

Yeah, God that's crazy isn't it.

LF

They are now financial institutions, with grey carpets, white walls and you're not allowed to get them dirty.

MB

When I studied my sculpture degree we were put in a disused church, which was basically sold. We had a finite number of years there, tragic, you can do anything you want to. We did, and ripped out loads of stuff, drilled holes in the walls, took windows out, that freedom. If you haven't got that freedom how can you possibly make the leap? So having enough confidence, belief that you can do some pretty ambitious things. It's awful. I keep thinking wrongly that things are getting better, because when I was at college they were stripping out all the machinery. They didn't want to make anymore, they were more cerebral than that.

LF

No it hasn't come back in. Even Central Saint Martin's, I don't know if you've looked around there, but that's not an ideal environment to make in. It's designed as a shopping centre.

MB

Was that the original aim?

LF

I believe so. Students can't even spray anything within the building, there's not one spray booth and they get fined if they spray outside the building.



MB

There's no spray booth. Is that because of environmental excuses?

LF

I don't know.

MB

That's surprising. Because we had a tour around the Bartlett as well, and we went there to see and to get some ideas about outfitting our workshop, to be a little more professional. The spray booth was round the back, round the corner out the way, and there was paint up the walls and it's kind of, yeah. Quite telling. So with all of those things it comes down to whether somebody cares deeply enough to do something about it and has power and a budget to do it.

LF

Yes, the budget must be a big issue.

MB

So are you trying to... open people's eyes and try and make a difference in that capacity?

LF

My aim was to come into creative studios and see how they're working because I felt that there was a bit of a disconnection between practice and undergraduate education. But as I've gone on I've realised the issue of disconnection is more pressing than I thought. I'm looking at the situation from inside the university as a lecturer and from the outside as a researcher.

MB

You've got a unique position there.

LF

Yes. So, the first question is how do you define yourself if someone asks you what you do?

MB

I define what I do as the making domain really, the workshop, and I think it's the same since I joined here 7 years ago which is to... I support ideas through various bits of knowledge that I have and understanding of processes, materials, engineering. I'm by no means an expert in all of those things but over time I have accrued a bit of knowledge and I would hope a good level of judgement on what those things are. And I think, although it's not just me there is a crew of us and we have an affinity with our hands and also with thinking in three dimensions and problem solving. So it is a good ground to interrogate things. It's a good medium to interrogate stuff. Obviously when I first came in I was hands-on on the shop floor doing things and there was three of us then, now there's about 10 to 12 and it's moved more into kind of managing systems. Which is a different thing and it's one where I'm trying to kind of orchestrate it so I can get back into more of where I think my value is and kind of assisting the progression of ideas into kind of realities of the built environment. And I think it's quite... what I do notice is, which links to probably some of your work and especially in architecture and I know everyone is going to say this but there seems to be a huge disconnect between people learning how to build things and never touching a brick or understanding what cement is made of and the variables that can go into the creation of cement. And the fundamental physics and engineering that goes into

architecture seems not to be particularly prevalent in some of the people we have coming through, which is odd. They're all incredibly proficient at 3d modelling software, image creation, but when it comes to the nitty gritty, I'm generalising here, but there's a large percentage of people who seem to be completely ignorant of stuff that I would imagine they should understand or have a grassroots knowledge of some fundamental things. But yeah I think... what do I do here? What I try to do is to give some rigour, because it's easy to say I'll look at glass as a medium because 'Yeah, we can probably build a bridge out of glass' but then without spending enormous amounts of effort to look at the fundamental engineering and production issues and the cleaning, really interrogating what the realities of doing something ambitious would be. I think that's what we are quite good at. Those sorts of thoughts come from everywhere but it's having... again coming back to having an understanding of three dimensions you start to question realities of creating something both in its production and its kind of lifetime, maintenance, if it breaks. I think we hold an important part of the studio's process.

LF

Great. So could you go through your design background and what brought you here.

MB

I went through school and I wasn't very interested in academics and leant more towards the art and design side of things. Then went along to try and do A levels but again it was too academic, there was not enough fun time. So I stopped that and went to do Foundation in art and design and then went on to do an HND in Sculpture then I did a BA in Sculpture. I then worked for nothing for artists in various parts of the country and then ended up getting frustrated with not having any money and then moved to London even though I said I never would and worked for a company in Shoreditch building public art. So it was lots of big metallic fabricated sculptures. And then during that time I kept abreast of what was going on in the art world, not particularly architecture, and 'B for the Bang' popped up and for me that was an incredibly brave, ambitious project and I was fascinated by it. So I tried to find out who was behind that and knocked on the door and handed out CVs for a number of years. I think I was on top of the pile of people and Stuart Wood picked me up and asked me to come in for an interview and that was in 2007 I think. That's how I started here. So my background was fruitlessly pursuing being a sculpture, and I think realising that I didn't have much to say and I was better at facilitating other people's ideas. My family is a long line of engineers so it seemed inevitable. No matter how much I fight against it I'm actually pretty straight. I haven't got much...yeh.

LF

It's that solving side of things, isn't it? The whole solving a creative challenge side to what you do, whereas I think perhaps the sculptor on his own, as an artist on their own, it's more personal?

MB

You do see with a lot of male sculptors, there's always an element of science, it kind of links back to physics and tangible mechanics, I don't know. I'm maybe generalising again but I was definitely in that camp rather than having something truly insightful to look into. It was more about the object and the form.

LF

Was it possibly collaboration as well? Artists do work with others, but it's not perhaps as collaborative.

MB

I like to work alone but it's just the content that wasn't particularly ground breaking. But it was technically very good. But I think it's just you know... I think I found over time I'm ok with that. It may come later in my life, but for now that's how I've arrived where I am. The shoe fits at the moment.

LF

So, you're responsible for the workshop, but what is your role?

MB

So my actual role is managing the workflow through that domain I suppose. It's very different from being creative. So at the moment I manage the resourcing of that area to the many projects we have on the go, so there's a lot of shuffling and working out priorities and fire fighting and predicting and trying to stay connected and solving problems when they arise. There's also the kind of managing the maintenance of that workshop and trying to get things improved, get systems in place that expansion kind of forces. It's very much in flux, so I suppose honestly I am trying to do lots of things probably quite badly, but having a go. So at the same time because of my history of making stuff this forces me to look after some of the production issues we have on our additions like spun furniture, extrusions, and some other mechanical furniture and there are the specialisms which take up my Fridays.

LF

So that's you in the design review meetings?

MB

Yeah, at the moment, because it seems I'm the most appropriate person at this time. So there are lots of things going on and I'm more interested in certain aspects of it, but yes it's fallen into an area of managing, making sure that things keep moving. And then trying to hold onto that thread of why we're doing it – 'What's this doing? What are we trying to achieve? Why are we making that?' - constant questioning. And I suppose part of that is trying to imbue the new staff that we have in the workshop, to try and get those values understood and promote it I suppose. Be rigorous, question everything, just because somebody tells you they need something to show somebody, they might not have thought it through. And that's what's nice about it. You can actually question people whatever level you think they might be at, you can dig away at them. Let's actually question everything before we commit.

LF

Yes, I thought it was great to hear (in just the two design reviews that I sat in on) all the questions that were being asked.

I'm sure so many designers in design studios just get given something and have to work so quickly that they don't have time to question anything. Or they do but they don't make the time because they feel they have just got to get on with it. It's great to see the designers in the design reviews feeling comfortable to be able to ask those questions.

MB

You just need a bit of support as well. You may well be having doubts, that kind of 'Oh, I'm not too sure about this' and then feeling 'Oh, I've been asked to do it, I've got to do it'. But to have someone else validate your concerns, it's good for the studio.

LF

How would you describe the processes of the studio?

MB

In terms of the service it provides?

LF

More I think in terms of the inner working processes. What are the key elements? You were talking about rigour and the questioning, that's obviously a massive part of it.

MB

I think that is the absolute heart of it really. Because when you think about the workflow the reason we do work is because people come to us with a brief. And sometimes that brief is really interesting and sometimes it's really dull. But it has potential. And I think one of Thomas' massive talents is looking at what someone thinks they want and then seeing potential for something far greater than the problem that is apparent. What's outside of that, where does that stop? How far could we go? There's something beautiful about that really. I suppose it's without risk as well because somebody's come to you with an idea and you're free to just abuse it, pick it to pieces, point out if it's rubbish, point out if it's great but the great bit is not the bit you thought about. I think that's linked to the people who get to kind of see those things, wrestle with some of those problems, and then curate which one you take. They get a choice.

But the process always starts and refers back to and orbits around that initial brief, the idea. And then everything that comes from that is all about making sure that that... have we got the best solution? Have we thought hard enough? Have we seen every opportunity? And that only comes from enormous amounts of hard work, and being rigorous and carrying out forensics and thinking about every variable. It's exhausting, but it's necessary. I think that's the thing when you think about teaching that seems to not be coming through. Or maybe it's just from experience, maybe you have to work for a while valuing those things to get a sort of feel for it. I don't know.

LF

I think the problem goes all the way back to the beginning, to age three. The education process they go through now is all box ticking.

MB

So there's nothing subjective ..?

LF

No. And when they arrive with us they want us to be able to tell them how to get that A\*, which we can't.

MB

Do something amazing!

LF

Yes. That is a real problem. And many of them are not now doing a Foundation yet the Foundation is a great moment to get them starting to thinking for themselves more.

MB

They're just trying to follow the linear path, get a grade, finish? That's why I think sometimes that education is happening at the wrong time of people's lives.

LF

Obviously you're going to have the cream of the crop here, with designers who have been to the best schools and think in more creative and fluid ways, but the majority of courses are not that way. And it's a battle to try and get students to be critical of themselves. And to see that mistakes are great because you learn from them. And when you say to them 'It would be better to do a project and fail it and have really learned something than to just plod along' they don't believe you. When they're paying £9000 they say 'I'm not going to fail a module, I'm not going to take a risk'. So...

MB

There's just no freedom any more. It's completely changed their mind-set.

LF

It is a mental shift, I think.

MB

It's really tough. That's why Thomas again is a master. There is no kind of emotional attachment to critique, it's right or wrong. If you're upset at whether it's right or wrong, it's irrelevant. And he's fine with it. But it's difficult to kind of unprogramme yourself to maybe cause offense. But it is necessary. And again I think one of my favourite stories... have you met Thomas' dad?

LF

I haven't, not yet.

MB

He's fascinating.

LF

I've heard a lot about him.

I think this is clearly the fundamental thing with your process (LF shows MB a diagram of process drawn during previous interview conversations).

MB

(Looking at the diagram) It's a bit more erratic than that.

LF

That's Fred's drawing, I love that.

MB

And, usually it goes 'Eeeoowm' [descending noise, as MB points out that the diagram flow then goes back to the beginning again].

LF

Oh, no!

MB

Often the early concept is really strong, but it's like 'We need to make sure it's really strong' and then 'Yeah, that was a good idea'.

LF

At university the whole iterative idea is a challenge. We can get them doing it a little bit, but what would be brilliant is if at the end of one module if they said 'Actually I

want to spend another six weeks, I don't want to do the next module I want to go back and do this again'.

MB

It's like 'I had the brief, I had an idea, and I did it.' 'So why did you do that idea? How did you prove that was the right one?' Nothing, zero.

LF

No, they can't.

MB

They just wanted to do that, and they can't even talk about how they arrived at that as a solution. 'Well it's a solution, a solution.'

LF

Yes, and that's why they come out so well in the end.

What role does the workshop play in the whole process? It seems integral to it?

MB

It can be. Sometimes it's not necessary but I think it's as and when... A lot of the time we talk about 'What is the best route to find out the question you want to know'? Because sometimes it may be a sketch, sometimes it may be going to Google, it may be finding an expert, sometimes if it's understanding what... I'm using examples that we haven't done, but Thomas has done, when you drop molten pewter into water you're not really going to know what the possibilities are unless you actually get molten metal and water and pour it in. So I suppose it's submissive to whatever ideas come its way really, and it has to be appropriate and if it's not appropriate we shouldn't be doing it. I suppose the process is that in various strands of that convoluted route you'll have a bit where we need to speak to so-and-so to find out something, we need to engage the workshop to do a test for us just so we can understand if something will work. So there's exploratory tests we have to do. But at the other end there's communication tools as well. We build a lot of models as you can see and they're not to really... it proves that something is possibly beautiful and the proportions are right but it communicates an idea very clearly to the client or a stranger. So there's a few different strands of what the workshop does. There are proving exercises, material studies, experiments, discoveries, and there's communication. There's also promotion as well. We had a programme of exhibition material that we felt was necessary to produce a range of things to really hammer home some of these ideas, so the public could understand why. But it is generally submissive. It generally needs the energy of a project to drive its output. We do bits and bobs of speculative work but without the energy of a project and the energy of a client it doesn't have the same drive. I suppose it's because it's linked to the individual. I think that's the function. It's a submissive support role in the same way that the support team attend meetings, and I think that's how it should be. The workshop's not even a making domain, it's the idea that you can make something and we are striving to build things, all of our ideas are three dimensional built things but the workshop is just a tool to teach you what you need to know to make good decisions.

LF

Do you feel it's essential to have it in the heart of the studio, because at the moment it's right in the heart of everything?

MB

Yes, you need access. That's why we have an open door policy, so everyone in theory can come in. After an induction you're allowed into that room to engage with whatever you want as long as it's appropriate and you're not just fiddling around. Because that's the risk. Sometimes it's like 'Uh I'll just go in there and do something that somebody else could tell you is pointless'. But it is necessary. You've got to have access to that facility otherwise you're just assuming things, that's very dangerous. And like I said earlier you have to have... I believe it's impossible to think about having a career designing things that exist without having an understanding of how they go together, what they feel like, what the elements are that combine to make products. Otherwise you don't understand it.

LF

And I suppose having it visible, having at the heart of everything, even if somebody is not using it, they are seeing others using it and that's already affecting and permeating everybody else any way.

MB

Yes. Well we always say that it sends a clear message of intent to clients who come in and it's right there, it's big, it's noisy, something's going on in there, there's an energy about being busy, interrogating or producing or striving to communicate the best thing that you possibly can to win the hearts and minds of people. Often you have to make to convince them. Like often we have that 'Oh, it'll never work' so it's like 'it will, and here you go, we've proven as much as we can that this idea does work' so the naysayers kind of fall out. You can't argue with an idea that's been proven. I think that's really important, otherwise you're just saying words. 'Yeah, prove it.' And then with designs the only way to prove it is by making it. Who else is going to endorse it.

LF

And if you're pushing the boundaries of design, I imagine people are always going to be on the edge and be a bit nervous. They're going to want more reassurance perhaps than other design studios where it's more straightforward. When you're really pushing the boundaries there's always going to be that extra layer of nerves.

MB

It is, yeah, it's comforting to know. The people who come to the studio need to be assured that we know what we're doing I suppose. And the quick route to that is proving that their fears are unfounded I suppose. So it's tricky, yeah.

LF

In terms of design disciplines, do you see them playing any role in the studio or not?

MB

Can you define disciplines?

LF

So, those who are architects, designers, makers?

MB

I don't personally see any boundaries. You either think in a certain way or you don't. What's a definition of discipline? Is it someone who's studied something?

LF

Yes, a single specialism.

MB

I don't know. Personally I don't know how I could exist with a single specialism. Because it sounds untenable, you can't have a single discipline, especially when you're building something, it links to every part of the process, material science, engineering, manufacture, products we have to stick in those buildings. It's just endless. It is our world. You have to engage with all of those and have some knowledge of them otherwise you're forever just taking someone's word for it. You can study... you can focus on certain things to learn more about them, but I don't think you can ever be a complete expert. Or you could, but I don't know. For me there isn't any joy in knowing one thing very well. I'd rather know a lot about lots of things. I think you have to be well-rounded otherwise how can you engage in a conversation which is very broad.

LF

Perhaps some people can't. Perhaps they can only talk about one thing.

MB

Yes, I suppose you can be very specified but it's about being open-minded to... Yeah, that's the big thing with discipline. What works here is being truly open-minded, what we could be rather than what we're going to do. It's kind of an attitude, and I suppose you can have different kinds of attitudes in a discipline, but from my point of view being open to the possibilities is kind of being open to all of those disciplines and putting your foot in every single door and trying to understand as much as you can about what they offer.

LF

On the back of that, for the most part in this country undergraduate education is about one discipline. There are courses in Europe that are not, but in this country the majority of courses are about one specialism. So, in relation to what happens here and how this studio functions do you think that's still relevant?

MB

No. No. When you say undergraduate can you explain, where does that fit?

LF

So that's BA level. There are some great MA courses that are very fluid and allow you to find your way, to really specialise or to be really fluid, but not at BA level.

MB

Yeah, it sounds wrong to me.

LF

But many argue that BA is where you need to specialise, and focus on one thing first.

MB

Yeah, the BA should be the vehicle... and I didn't do this, but in retrospect the BA should be when you know you've got... when there's an idea that you have and you want to kind of interrogate it or there's something you think you've arrived at an understanding of what you want to do then you're going to go and do a BA. But for me the Foundation was an eye-opener. I did the HND as well and that was really eye-opening and it was as far removed from conceptual art as anything, it was a traditional skills based thing. I did bronze casting, life size modelling, anything. Technically it was a fantastic course. But I did my BA basically because I wanted to go and have a really good time in a cool city.



LF

Where did you do it?

MB

In Brighton. So I don't think that was my best kind of career or... it was interesting but again it's down to the people. The course was as unstructured as possible. I think I probably had six crits in three years.

LF

Oh!

MB

Yeah.

LF

Perhaps did you manage that because you'd had such a great technical exposure before hand?

MB

I didn't have the hunger to do that because I felt I had a good grounding, a good knowledge of all those techniques. So for those three years I was basically having a good time and seeing if I had any cerebral weight to push. If I had any deeper thoughts. It was a funny time. It wasn't the best time. For me personally I don't think I had the focus at certain ages to really make a good decision about what the path was to take. I found Foundation was fantastic, really kind of just a bit of art history, teaching me how to use the arts, it was great, and being able to pick any of those disciplines in Foundation was just as it should be. So you can see where your passions lie. But to not have that it seems perverse to go into a BA, to bypass the Foundation stage.

LF

Well, it's really difficult if nothing else to know what to pick. If you haven't had that opportunity to explore those areas.

MB

In the BA you're still doing things because your mates are doing them.

LF

Or because it's close to home, as a lot of them now are close to home now.

MB

I suppose it's difficult for me to comment because the money thing must be huge. You have to pay for everything these days.

LF

You don't have to pay for Foundation if you go straight out of school.

MB

So you finish GCSEs and go straight into Foundation.

LF

Yes. So you can do that but I think if you take a break then you'd have to pay. So you don't have to pay for Foundation but I think they're not doing it because they see it as another year where their family is supporting them.

MB

Who, the parents?

LF

I think the students themselves and maybe the parents too.

MB

What, they're just desperate to become independent.

LF

I think so... and perhaps it is hard on the parents.

MB

Yeah, it's difficult. Having been in that group I can sit back now and think a lot of my time was wasted, I think. But was it, I don't know?

LF

What the Foundation time, or the degree?

MB

No I don't think the Foundation time was, because that's part of, for me, that was a period where I really believed that whatever I did was important. It was exciting, it really was. Because you're still very open to being taught something and absorbing what people tell you. And I think my Foundation was very good, it was very open, it had enough structure with the history of art and design, the story of art and Gombrich (The Story of Art) and all that. Do you still use that?

LF

Yes.

MB

It's still a staple. But it was great. More than anything it's teaching you to be open-minded.

LF

And it's all the Bauhaus model isn't it. The Foundation is from the Bauhaus, their whole degree would have been the Foundation.

MB

Yes, I suppose it's an apprenticeship to using your sensory inputs.

LF

It wasn't about coming out of the course with the one specialism either it was about everything.

MB

I've never looked at the Bauhaus. Well they did exceptional things.

LF

Yes, and they didn't have a uni-disciplinary education system.

MB

With the luxury of hindsight you can see that the Bauhaus worked. I don't know enough about it to say it but it produced some amazing legacy bits of design, bits of art, bits of architecture. It would be difficult to pin down what the legacy of this

studio would be, because it doesn't fit... I don't know... what would you fit certain buildings to, where there is no style? How would you attach them to a movement?

LF

Perhaps it's a movement in a way of thinking. I think it's a movement in process, not in outcome.

MB

Yes, it's emergent.

LF

Which is what the Bauhaus was. It was all about process but then I suppose they developed the modernist style. But for some, like Laszlo Moholy-Nagy, it wasn't so much about style. I think I counted nearly 30 disciplines that he crossed, and he wasn't 'dabbling'. He pioneered processes in photography, in exhibition design. He pioneered so many things actually.

MB

What's his name?

LF

Moholy-Nagy.

MB

I've heard that name probably from Gombrich.

LF

He was in Germany, but then in the 1930s he went to Chicago and set up the New Bauhaus in Chicago. It's the Illinois Institute of Technology now and that ended up inspiring MIT. He did pioneering work in photography and film, graphics, exhibition, performance. He made an incredible machine – the Light Space Modulator - a mechanical projection machine.

MB

True, proper renaissance.

LF

Yes. So the teaching at the New Bauhaus in Chicago was really interesting and it was in a Mies van der Rohe building. This will be a driving influence in a new way of thinking and process.

MB

Yes, the final outcome is always unknown. It is process-based, that's what's so exciting about work here. You don't know what... With certain projects you know when something's really successful you just get a biological excitement about it. You know there's a process that's come on there (pointing to a model in the studio), it's been incredibly convoluted but when you look at it as a whole it has a definite stop to it. You can put a full stop on the end and that's pretty damn complete. I don't think there's much else that we can... there aren't any more roads that are explorable. I kind of use that as my temperature gauge on projects within the studio. With some of them you just get a gut feeling that something's not gone full distance. But it is quite interesting. Despite all the kind of trying to analyse how the process works, you've got a feeling about something, whether something feels good. Did you see the Boat project?

LF

Yes, I've seen images of it.

MB

So when I first saw that – I grew up on the Isle of Wight so I sort of grew up around boats – it made me feel really uncomfortable. I was looking at it thinking 'Aaaargggghhh.' I said 'That's really unsettling'.

LF

Do you think it's just wrong?

MB

Because for me a boat is beautiful lines, female. But he deformed it. But I get the logic of it, it's quite interesting. From the reactions you get obviously there's love, which is kind of what we do with our models to elicit a response, but it can work the other way. And I think it's lovely... especially art does this a lot... when you jar somebody's perceptions and it's just... it's quite mischievous really. I think that's really interesting where you're not... it isn't just brilliant or bad. There's kind of another ground which is something in between. The gift of weirdness.

LF

Brilliant. So, would you be able to give me a little tour around?

MB

Yeah.

LF

So, just one last question then. Is there anything else that you think undergraduate education could learn from this studio?

MB

Again I would take it back to the brief. The brief is to see everything. Even for life I suppose if you haven't set yourself a brief for existing then you're missing something. So I think for me more time should be spent... because from what I remember and what I hear.. you get your modules and you get your brief, here's a really boring design problem, go and see what you can do with it. It's just handed over. There's no kind of like 'Here's a brief, let's see what we can do with this brief.' Maybe I'm missing something, maybe that is where you interrogate a brief, pick it apart.

If it's just following somebody else's plan then how do you put you into it. So you have to take that thing and just really pull it apart, wrap it up, see where the holes are, think bigger, think smaller, but just kind of challenging the norms and the way you would think about the brief. And from working here I think that's what's made me think and not believe everything you hear. Even when someone tells you it's the truth.

LF

Great.

MB

Yeah, I'll think about it. I'm just trying to think about it now.

LF

Well I think that's brilliant. I think that could make a fundamental difference, if all the briefs were approached in a different way.

MB

I do. Yeah. Sometimes I analyse what we do here quite a bit, but for me it always comes back to the excitement thing and you get that immediately when somebody talks about an idea that's come in on a project. One enquiry came in about doing a concrete processing centre and it's like 'Aarrgghh, it's so dull, let's do that, let's do that, it's ripe.' A power station, that was a good one. Yeah, there's some challenge in that. But to design another chair, there are thousands of chairs, it's quite a boring brief. And yet we produced something that I think will stand the test of time as being a unique and playful and fun and semi-useful object. So yeah, I think it's in the brief for me.

LF

Thank you.

MB

No problem. Do you want a look around?

LF

Yes, please.

END

**Interviewee:** Mat Cash (MC)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 13.10.15  
**Location:** Heatherwick Studio, London

**Notes:**

LF

How would you define yourself if you're asked what you do in terms of your role here?

MC

I'm a group leader in the studio which basically means I run a cluster of the studio projects. I have 10 projects in all. Within each of those projects are project leaders who deal with the day-to-day operation of those projects and my responsibility is the management of them and the overall projects, the clients, to drive the design direction but also I sit on the projects board which is a forum for strategic decision making globally within the projects in the studio. So there are three group leaders, we attend project board meetings where we look at cross studio challenges within projects that need some ideas and solutions to do it. It might be to do with systems or process or HR or visioning or direction, those kind of things. So I guess my role is split between shepherding the projects in my control and also looking at wider strategic studio project-driven issues and how we can improve how we do things.

LF

And what's your design background?

MC

I am a qualified architect so I trained in Liverpool for my degree and then I worked in London for a couple of years, did some travelling, worked for a couple of different practices and then I did my part 2 at Westminster and I worked a day a week during my part 2 at a different practice and then I basically concluded that, worked at that same studio for a couple of years, and then I did my part 3 at Westminster as well. I qualified ten years ago or something.

LF

And what brought you here to Heatherwick Studio?

MC

I guess about nine years ago I was looking to move... I used to work for a company called BCA London in Covent Garden who were kind of multi-disciplinary. They did the Vodafone HQ in Lisbon, they did private houses in Athens and Mexico, they worked for retail, private members' clubs, all sorts of different things. And I'd been there through my part 2 and then I went there full time and I had been there I guess five or six years with about 20 other people. It had been what I had known for quite a long time and I was keen to kind of work somewhere different, try something different, and I applied to a few different practices and the studio was one of the people that I applied to, because I had seen the Rolling Bridge and a couple of other projects, and I think what Thomas had spoken about was that he had listened to a lot of architectural... I wouldn't use the word rhetoric it's probably not the right term... a lot of architectural prophesising and thinking and then seeing the finished buildings and couldn't make connections between the academic rigour of that and the actual physical experience of the space. I read some interviews and things about it and he

was only interested in producing extraordinary projects which are experienced as extraordinary rather than on paper are extraordinary and I thought that was quite interesting and something that... I couldn't wait to get into practice rather than theory at university. I really was looking forward to building things and doing things for real and I did notice during architectural education there was almost an 'Emperor's New Clothes' about some of the academic work and I was quite excited to get involved in this studio which really didn't put its flag to the mast, didn't say 'That's what we're about'. We're actually about hopefully the projects being amazing, and simple to communicate, consumable by the general public not just to architects or the design industry in general and that's not afraid of beauty as a component that would make a successful project. So that's why I interviewed here and they offered me a job so I came.

LF

How would you describe the creative process of the studio?

MC

The structure that I spoke about in terms of group leaders and project leaders is a relatively new change, the last six months or so, but I don't think the design process has particularly changed because of it and that was important not to change it. Each project has a project leader and a team, and it's their job to in a way interrogate the brief, develop up ideas and proposals, and to work with the group leader initially but also with Thomas as to the strategic direction of the design of that project. That's done through crits which are pin ups on the wall which are then reviewed by Thomas, the team including project leader and group leader and sometimes guests that get invited to review it. Generally, it can be every couple of weeks it can be every couple of months depending on the stage of the project, but Thomas is involved in all of the projects. In terms of... we have a quite defined process of analysis of the brief so if you're doing a gallery, what are the best galleries in the world, where are they, why are they great, what if we do the opposite of that, how do we avoid cliché, is the brief actually true, do we believe it, is it actually what they're asking us. So a lot of interrogation of the brief as to whether it is actually... The word I often use when I talk about it is distillation. A lot of architectural projects are very complicated. You might be doing a museum for example. There's huge stakeholder groups, there are complex functions that go on inside it, there are restrictions from planning and all sorts of things, it's a huge complicated project and building. And sometimes you can get lost in the complexity and detail of that. What the studio tries to do is a more reductive approach to that brief, and say 'We know that's important, that's ok, but what if you were to absolutely distil it to the essence of it, what is that?' So we spend a lot of time putting projects, or the brief, in a mangle and squeezing it until something drops out and that something that drops out is the anchor that grounds the whole project. So in the months and years to come when briefs change and actually you can do this because you thought you couldn't but it was all right and car parking goes up by 50% and all of that stuff that happens, you still have the essence of the brief to hang on to and your design approach bounces off that essence. That is the thing that it's only serving and therefore it has an integrity and a solidity to itself. So that's about the brief. The next part of the process is related to the simple expression of the idea. So the studio has a reductive approach to the brief, it also has a reductive approach to how it talks about its projects. Because most people that understand or are engaged with architecture are members of the public and we only principally work on public buildings, and that's deliberate. It's about how the public engage with it and that's why we're interested in infrastructure and things like that because masses and masses of people engage with it. But what do we actually want a member of the public to feel, to experience? And that feeling and experience should be easy to diagram, draw and communicate. It shouldn't be a 20 page document that

you have to read and then say 'Did you feel like that?' and people don't feel like that. People just feel like they're in an uplifting and exciting space, they're in a closed and intimate space. They're in a legible and negotiable space. So people only have a certain level of understanding about the spaces and the building don't have it and what we try and do is focus in on what we're trying to convey in very simplistic terms. I guess in terms of the design process which is unless you can do a diagram, a simple one, that describes the essence of the project, there's a bit of a self-critique which we do of ourselves to say 'Actually, is it... because there are so many overlapping considerations, if you can't reduce it to that simple diagram you don't have that anchor that grounds the project.' It's not to say that, if you look at the Garden Bridge or something, the diagram is two pillars growing out of the Thames and connecting the sides. That's it. It's got material, the trees tell a story, there are details, there's landings, all sorts of other sophistication within that, but the simple diagram is that. and that's what you want people to look at and go 'It's these things growing out of the water and connecting and almost touching hands'. That's it, and that's all you need to do. Obviously there's more sophistication to it, but you should be able to do that with every studio project.

In terms of the practicality of that, as I say, there are pin ups where the team use as much as possible a reductive diagram style because it's about visual material, so not many words, and if there are words they're big words like big bits of the brief 'It needs to do this, don't forget!' and 'It needs to do that'. And that kind of reminds us whenever we're discussing what it is, that's there. If you have a bit of text that you have to go like that and read, it's not a good pin up, you need to be able to sit six feet away and look at the wall. That's in response to how Thomas best engages with things, but also how we as a studio best engage with it. And everyone stands up, no one's sitting down, there's stuff, and everyone's equal. If people get seats they're important, people standing up... It should be as much as possible un-hierarchical, so everyone feels like they can contribute and it doesn't feel like... And when you get criticised it's not you being criticised it's the work on the wall, it's the design. People should as much as possible we do try to create an atmosphere of that. To feel that the thing you're all discussing passionately and debating is the design on the wall not 'Oh, I did that drawing and people are saying it doesn't work very well'. It's trying to take the ego out of it is really important. I think culturally everything starts with Thomas and part of the job of the group leaders is to make sure that culture pervades as we get bigger and doesn't get diluted by various external factors. So with pin ups... usually a good pin up has a left or right decision to make. And it's the job and the skill of a project team to compose the questions in the right way and only probe the questions where they need direction. It's the project and the group leaders job to focus that debate. And that happens both through concept, detail design, construction documents, it happens all the way through the process. What we've put in place recently because of the scale is the design panel review, which I think you've been to, which is a mechanism where... because Thomas is obviously a design director but there are 30 live projects whirring away, and it's just about capacity and time, and we're now 175 people so taking advantage of the skill and experience and knowledge and design ability that we have in the studio means that producing... rather than just having a couple of people invited to it, we actually have a forum where a collection of people are brought together to impact the design for the better, and Thomas isn't involved in that. And that's proving to be quite a successful process that we've put in place to improve the quality of what we do. So it think that's an approximate outline of how we work.



LF

In terms of the physical layout of the studio supporting the process, are there key things with the studio that you think are essential for you to do all of these things you're trying to do?

MC

As we get bigger the culture becomes extremely important, so how people treat each other and the fact that as you get bigger hierarchy becomes manifested because you have to organise. But there are ways in which you can have responsibility without... it's a management style thing. Both the culture and the environment are really important to maintain and I think the layout of the studio here is quite deliberate. We used to be in a building nearby.

LF

No, I haven't been there. Only one other and here.

MC

OK. This other building nearby, was quite a higgledy-piggledy layout, it was on two floors, with a big central atrium. There we had a few things like the shared kitchen, most people share kitchens it's not really revolutionary, we used to eat together at lunches and things. Because of the series of rooms, we used to put the desks around the edges of the rooms because that was the most efficient way of using the space and then have layout tables in the middle, and that actually fostered a couple of things. A lot of architectural studios have linear desks because teams shrink and expand and it's really easy to move people up and down that line. Then the partners sit with the natural light from the window and then the part 1s are inside near the core. I won't name any names but that's sometimes the way. But it does mean that you only ever speak to the person to your left or your right, and that tends to be your line manager and then either your team member or someone you are line managing. So it's very top down hierarchical thing. The way that we do the base structure, there is in principle a circle, there is no predominant seat that is the most responsible person there. So it's quite non-hierarchical in terms of where people sit. But also not only do you speak to the person to your left and right, but also because you've got these corners you'll speak across the corners, but you've got the main layout table in the middle so you'll turn around and use that and so you're forced to speak to everybody in that bay. You get a bay structure and a bay vibe. You have a collection of eight people or six people or ten people who might be working on one project together, or there might be three projects in a bay and that just fosters communication and things like that. We're also quite conscious about the fact that you have a central area here which is quite open, so the meeting rooms are very open so you can stop, say hello to somebody in a meeting, sit down, it's not in a room or at the side of the building with the doors shut, and sometimes it's a bit noisy but it's good enough for the meetings to take place and you can close it if it needs to be private. But as much as possible the full meeting space is very open to the studio which is quite deliberate as well. As is the kitchen. With the environment, the objects are really important. It's just to keep reminding people that there is interest and innovation and excitement of form, material and colour and all those things, in every thing you can imagine. And it's not just about looking at other buildings, it's about looking at other disciplines, other materials, things you wouldn't even consider. Innovation of craft in all sorts of different disciplines, that you can borrow, learn from, take and apply it to what... it would be called externally architecture, within the studio. That's quite important as well, to give that. It's just about caring for the space you know, the coffee, the snacks, all of that stuff is about caring for your clients and team, also for each other, and again it's trying to remove barriers as much as possible, which is really hard to do as you get bigger. But that's the aspiration.

LF

What about the making and having the making space. I know it's always been a central part but is it still...?

MC

I think when I first joined ten years ago we used to make our own projects, so we had Heatherwick Studio Construction and we built a lot of our projects. Although it's an interesting, exciting, a learning experience, as we have got bigger and worked on bigger buildings ... you can't build the Garden Bridge. And we started to work with other makers with different expertise. We worked with an expert in welding from Lithuania or somewhere. We're beginning to widen our pool of professionals with experience and increase the scale of projects we do. We still do quite a lot of prototyping and mock-ups and things like that which is still really important and we still drive that through quite hard in the studio to make sure people don't get obsessed about the computer and just to free your hands, free your eye. So we do encourage that. But I think in terms of the physical production of our projects and our buildings we don't really do that any more because the smaller scale projects that we do are done by specialists who are better than us and then the larger stuff that's more to do with mock-ups and prototyping and material exploration, not necessarily the actual physical thing. But it's still very much a used resource, and we're always thinking about how we can use it, how it still remains relevant as you get bigger.

LF

Do you think you'll go back to doing smaller projects at some point?

MC

In a way we still do. We're doing some furniture pieces and other art pieces, so that's still happening and will continue to happen. I think the key thing for us is each project tries to inform the others and we're always learning about different disciplines and material exploration we might be doing on a chair might be then used in a large scale retail development or something because we've learned something that's interesting. I think we still see a lot of value in that cross-disciplinary work. As we've got bigger and bigger projects we've never just taken that bigger stuff and lost the smaller stuff because we've gone bigger and bigger and bigger. We still do as I say furniture and art pieces but also smaller buildings, bridges, smaller things than our big developers. It's like 'is the project amazing and could it potentially be an amazing thing to work on?' rather than is it under 1 million square feet and therefore we're not going to do it. It's about judging each project on its own merit. So some large projects we won't do, because they're not interesting. And some small projects we won't do because they're not interesting. But we don't use that as a filter.

LF

You've talked about the other studios that you worked in, like the one in Covent Garden. Did you have to go through quite a shift to come here, with this way of working?

MC

Yes. Absolutely. One of the key things is redefining what you believe good enough is. I remember working on one of the first projects here, and we'd gone through the concept period and it was feeling good and developing well and we had a wobble on it and said 'Is this actually great? From a qualitative perspective is it the best thing we can do with it?' The conclusion was we thought it could probably be better. You're not sure how much better it could be because we always think it's pretty good, but we think there's a niggle that it can be better. It's like that pyramid thing where getting here is easy, that's OK to do, that's getting really tricky, and just going that inch

higher, that little bit higher in terms of design quality is really, really hard. The amount of effort and resource and intellectual energy and all that stuff you have to give to it ramps up. And redefining that in your mind when you join the studio is important, to say 'Actually this is a different level of quality we're trying to achieve here.' And you've got to be conscious of that and make sure you have it on your barometer. Once you've been here a while, when you leave it's then kind of like 'Why didn't you...?' It becomes a different thing. I'm not saying we're the only people in the world to do it, I know there are other amazing practices that do amazing stuff, but only speaking about my experience here it's quite interesting when you speak to other designers in other studios, they don't do the same thing. There's lots of good financial reasons for that.

LF

What roles would you say disciplines play within the studio if any?

MC

As the studio has evolved... If you were to go through the education of the designers here the vast majority are architecturally trained, the vast majority. But my experience of architecture is such a broad church that you get lots of very different people with very different interests and skills from cinematography to industrial design or whatever, lighting, and so we in a way, although a lot of the people that we interview do have architectural training it's by no means their only proficiency and that it just happens to be more prevalent with people. We still interview and we still look at other disciplines and how they then fit into what we do. And the people that we often employ might have an engineering degree that then did architecture later or used to study theatre design and then did a degree in this, or did a degree in architecture and then did something else, so there's often a bit more of a broad educational route that people are taking and in a way it really comes down to the individual – the quality of their portfolio, how well they speak, their qualities as designers – and the qualifications become a little less important. Having said that, for one reason or another, most people in the studio have an architectural training behind them. It's much less... When we were 16 people, because we were doing smaller projects, you naturally had a broader array of people and as we're doing now very serious architectural projects you need certain skills to do that which are not necessarily endemic in a designer, that's not to say that they couldn't do it, but it's not second nature to someone that perhaps did industrial design to look at a 300m long façade, for example.

LF

So removing disciplines from this, what do you think generally are the core skills that somebody needs to work in the studio?

MC

As a designer? When you say core skills ....we have just had this conversation internally. You've got attributes and you've got skills. Are you talking about skills?

LF

Well, actually, probably it sounds like both are very important here, it's not just the practical skills at all is it, it's a lot about the type of people.

MC

If I start with attributes I think curiosity is a big one. Determination. It sounds like a dating ad, but a sense of humour. We work on very big, high profile, high pressure projects but you need mechanisms to relax the team, enjoy working together, not get yourself drowning in stress. So I think sense of humour is really important, and

being able to work as part of a team. I think those are some of the key attributes. In terms of skills we do value 3d modelling skills very highly because of the... you can see on the screen over there, the complexities of construction now are such that... and the way procurement works means that you need to have very good 3d modelling skills in order to really engage in the process correctly. We now even after you... going back to when I first started in the studio, we used to use simple Rhino renders, then it went to Maxwell. Now it's Twinmotion and Unreal Engine, and it's gaming software and things like that, which as a tool both to design internally and to communicate to clients, has become really important. So that skill is a core one. That leads into complex geometry. The ability to CNC fabricate, the ability to bend, twist, weld complex shapes now means that it's part of the potential armoury that we might use. The studio tends to look at interesting material or form moves within its projects and when you're thinking about interesting form moves that tends to be complex geometry and being able to comprehend that, visualise it, script it. Sketching is very important, it's a lost art.

LF

Do you still do a lot of hand sketching?

MC

A lot. You can see on that over there there'll be lines all over it. And that is critical. And the ability to communicate something simply and in a distilled, clear way is really important.

LF

So it's back to your diagrams?

MC

Yes. Both from a diagram perspective but also just to communicate spatial directions is really important. I think model making is quite an important skill because it demonstrates an understanding of materials and making, even though it might be at a very small scale. In a way for me it doesn't matter, it means you have an interest in the physical production of stuff. The fact that it might be a small clay model this big, but if it's beautifully made, cared for, lovingly put together, those skills tend to reflect well when you're starting to deal with contractors and the actual making of real things because you understand that talking about something is one thing but actually physically making it with your hands becomes something else. I think that's also a key skill. I would say broadly speaking knowledge of boring things like procurement, how buildings go together, and how you communicate information to a contractor. Depending on what sort of level you're coming in at, as Thomas says many times 'The studio exists to make extraordinary projects happen' so it's not interested in paper architecture, it doesn't do paper architecture, it's not interested in that. Everything that we design, we want to build it, and we have the intention of building it. And in order to do that you need to be very practically focussed with a good understanding of how you might go about doing that. Not just relying on a structural engineer or a contractor to figure it out for you, you've got to figure it out.

LF

You've come through an architectural education process, but from your experience here, if you were recruiting a designer now, do you think there would be a benefit for that designer to come from a degree that wasn't one discipline, but a more of a cross-disciplinary basis?

MC

I would say yes. The reason why I say that is because the way in which the studio certainly approaches its projects they're all very different, different scales, there's transport, boats, buses, furniture, power stations, retail shopping. They are things that you could call architectural or you could call them something else, and even within our architectural projects there are a great many facets to that which might be related to lighting design, it might be related to product design, it might be related to industrial design, it might be related to fabrics and textiles. Those boundaries aren't clearly defined because architects tend to get involved in a bit of everything. But having that already inbred in a designer, their flexibility, and the way in which hopefully their knowledge in the other disciplines informs the quality of the discipline they're engaging in. So I guess what I mean by that is if they're coming here to do a very traditional 'architectural part 2 role', if they had under their degree and undergraduate whatever it might be, had electives in lighting design, or industrial design, or even landscaping or interior design, then you're in a way .... because I see architecture as a subset of design really... all of those things would be useful to the studio. I think that because the studio easily moves out of one discipline into another in what it does and often does that, we want our people to be able to do that. So if that's in their heart it'll make them better architects but also more ready to assist the studio when it starts to move away from traditional architectural work.

LF

Are there any courses that you know of that you think are doing things well in the UK?

MC

I've got to say I think that I used to do quite a lot of the recruitment, but as we've got larger I'm less involved in that. Some of our guys teach at some of the various units but it doesn't engage in it massively. I couldn't recommend anything, not that there isn't, there might well be, but nothing that I have been seeing from CVs or suddenly an influx from Oxford Brookes guys that are now doing X and Y or whatever. Not that I could recommend.

LF

And designers coming in, do you know how many are UK designers versus international?

MC

Maybe it's probably one for Lisa really or Pauline, but I would suspect the majority are international and in a way... I don't think that reflects necessarily badly on the UK educational system. I think it's more about the globalisation of design and if we're going to be working in Hong Kong and South Africa and Los Angeles then we can expect to have people from those countries interested in working in the studio. And if we're also trying to get the best designers, the fact that they're from Singapore or from Basingstoke is kind of in a way immaterial. So yeah, my person view is I don't know whether it is an indictment of the current system in the UK if you see what I mean. I think it's more to do with the external factors, and the work that we do.

LF

So just one last thing really. Are there any key things you think undergraduate education could learn from this studio?

MC

The strange thing about... OK, I have to go back to my undergraduate experience which was a long time ago, and I think this is also still prevalent actually as I see

people coming in with part 1s and part 2s, is that there seems to be... I actually think that maybe all people in practice say this, but the technical competence is generally really low and I don't think it needs to be. There are some schools that say 'Well, it's all about the art of it, and about expression, and all of that kind of stuff, we haven't got time to teach them about structure and servicing and that. But I actually think that's not true. I think that you can do very simple straightforward kinds of architectural basics like structure and services and lighting, procurement, and all of that at part 1 alongside the more artistic side of it. And I don't think one needs to necessarily... I think what tends to happen is schools seem to fall one way or the other, the other going 'Oh, we're all about your brick and drainage details' or 'we're all about the abstract, complex Rhino modelling'. And there isn't that kind of... people seem to think that it can't be done to be able to do both, and at the end of the day the studio only does its work because it does both. It's impossible to do anything without both. And so either you're going to get lots of mediocre architecture that's really well detailed, or you can lots of weird stuff that never makes it past the drawing board. And no one I think it seems to me from what comes through has got that balance necessarily right yet. And I think that there is a richness that you can give, certainly for the creative side with cross-disciplinary work, and I think that understanding what the structural engineer might be doing ... I'm not talking about being able to get out a structural table calculation and say 'Well, I reckon that I beam's going to be 500mm deep'. It's not that, it's just the very basics of how you actually get something done, and I think that could be hugely strengthened which would mean that when they came into this environment they already have a really good grounding into how it's possible to build things. And you take away some of that naivety and you know they become better designers quicker.

LF

Great, that's brilliant. Thank you very much.

MC

No worries, I hope that was remotely helpful.

LF

It was. Thank you.

END

**Interviewee:** Amanda Goldsmith (AG)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 23.09.15  
**Location:** Heatherwick Studio, London

**Notes:**

At the end of the interview, after the recorder is switched off, AG tells me she is leaving Heatherwick Studio, and gives me a personal email address. Make sure to send transcript to this address.

LF

I've got some basic questions that I ask everybody but obviously depending on people's roles it's a little bit different. I'm looking at process within a small group of studios who don't work in a traditional disciplinary-driven way and I'm looking at how they do what they do. The main aim is to then take back this information to undergraduate education. So it's trying to find how we can help undergraduate education to enable young designers to work in the way that creative studios are working now.

AG  
OK.

LF

So the first question is how do you define yourself and what you do in relation to the studio if people ask you what you do?

AG

That's an interesting question because my title says what I do, but I don't think that's a popular opinion. I'm Studio Systems Co-ordinator. So it means I look after all our non-digital systems, so processes and procedures, making sure they align and the way I do that is generally through documentation. And just interrogation and being a support to people. A domain leader decides what their own process needs to be to do what they need to do. I'm there to support that conversation if they need to figure it out or just to write it down mostly and then communicate it. That way, they're in line. So that's what I say. That isn't what I say, what do I say? I just say the first part of what I said. I look after non-digital systems, documenting our processes and procedures.

LF

Is it continually changing then?

AG  
My job?

LF

Yes, your job, because of the nature of the systems or the processes?

AG

Yes. They are. Especially because we're growing so quickly. Some things that might have worked for us a year ago don't necessarily work for us any more. A really tangible example is filing procedures, really dry as well. When you're working with 30 people you don't necessarily have to have such strict convention because you can just lean over to somebody and say 'Hey, what is this file?' But when you're 180 you can't do that any more. So that's a really tangible example of where we've had to push

the conventions harder and harder and say 'You must file in this way.' I'm documenting it, I'm pushing it, I'm communicating it, I'm auditing it. Not the most exciting example, but...

LF

It's an easy one to understand, I can picture that straight away as to how that could become a real challenge.

AG

So things are always changing.

LF

What's your background, before coming here? Could you tell me a bit about that and what brought you here in the first place.

AG

Yes, this is a fun one to answer. I'm from California, I studied landscape architecture at UC Berkeley. After that I did a bit of IT work in mapping, that's kind of a skill you develop through landscape architecture, you do mapping systems and stuff like that. That was short lived. Then I decided I wanted to get more practical experience so I worked in a garden, which was in the state of California. It was really lovely, a great place to work, outside. Really hard work but I think it taught me a lot about processes, because that's what gardening is. Finding routines and processes and understanding what works and what doesn't. I didn't know it at the time, I wasn't like 'Oh, I want to be a systems co-ordinator' but it was actually really transferrable. Then I met my husband who is British, came over here, didn't have a job for a year because I didn't have a visa. I knew that I wanted... I didn't want to be a gardener for a career because it's really hard on your body and it's something that you can do in your life always, hopefully, not in London actually. I knew I wanted to work in a creative firm, in this kind of environment, and this role came up and I just thought actually my skills are really transferrable, I understand the design process, and I understand what it needs to make order out of chaos. In a way that's kind of what landscape architecture is. It was a really junior role at the time and now I think it's grown up as I've developed as well. Which is great about my role because I can make it what I want it to be which is really great. Especially my team, we're all kind of... I like to say my line manager is really good at hiring, if I do say so myself. I think she's really good at identifying people who have interesting backgrounds who can use those backgrounds and be more creative in a more lateral way. So a lot of us have interesting backgrounds like that.

LF

So how many of you are in the team?

AG

The systems team is just me and we have one other who's just joined in the last few months, he's looking after our knowledge systems. So all of our knowledge resources. The most tangible example of that is he's developing our intranet. As a team I'm authoring and editing a lot of the content that people need to know to do their jobs here. He's working out the logistics of making it more accessible. And then we have the head of systems who is my boss. So that team is quite small but we're a sub-team of the operations domain. Which I think we're looking at restructuring so it's hard to say at the moment what it is. I don't know the status of it right now. But in a way we don't need to, to get your work done.



LF

Is that because of the nature of the speed at which projects are coming in? And the speed at which the studio is growing at the same time?

AG

Yes. I think the growth is more directly impactful on the operations side of things and facilities. The number of projects we have doesn't... the speed at which they're coming in is obviously related to growth but it's a less direct impact because it doesn't really matter if we have 20 projects or 1 project, the people is what makes the work for us. Actually that's not true, because sometimes different projects have different processes.

That doesn't necessarily have anything to do with the way we structure the operations teams but it does make a difference to what I need to do as far as communication. Can we be flexible to that? Or do we have things where we can't? We're still feeling that out because we don't know because we've never been in that boat before.

LF

So, it's the first time you've had this kind of situation?

AG

Yes.

We have studio standards but then obviously I want them to be as flexible as possible for us to do whatever project comes our way. But then you also want those people, if people are moving through projects a lot, you want somebody in one team, if they move to a new team, not to have to reinvent the wheel and not have to relearn a whole new thing.

LF

Yes, to make it flexible so if there's a designer in one project who you particularly want to move over for a certain amount of time, you want ideally for it to be the same system for them so they're not needing to worry about the system and they can just get on with doing what they need to do.

AG

Exactly.

LF

So that's a key to flexibility really. Perhaps if you're a studio that had teams that just stay as one team and stay working their way, perhaps you wouldn't have that challenge so much so is it driven by the quantity of people and the fact that they need to be flexible and you need to be able to allow them to move as and when you need them to move?

AG

Yes. Because we would generally... obviously you're going to keep who you have if you can. If a project is put on hold those people need to go to other projects. So sometimes it's like either they're pushed out because there's no work in that project, or they're pulled in because 'ahh, we have a huge deadline, we need way more people'.

LF

That's interesting. I think perhaps as an outsider you would think if something's very flexible and fluid possibly the whole system has to be flexible and fluid but actually that's not necessarily the case.

AG

Not always. It's two sides of a coin. To be able to work with different clients you need that system to be flexible. The actual system itself. To enable greater flexibility internally you need that system to be pretty rigid. So it's a balance.

LF

That's fantastic. So how long have you been here?

AG

Two years.

LF

So the studio's grown considerably in that time so it's obviously been quite a dramatic change.

AG

Yes, when I started we had 80 people, now we have 180, so yes. Just the time, the increase in time that it takes to get what I need to do, done, has ramped up quite a lot. Especially with recruitment, because part of my job is to introduce new starters to how the systems work. So that every new starter gets an hour, generally it's one-on-one, unless if they're both designers I might do it at the same time. But if one is a designer and one is on the finance team I can't do their induction at the same time because the systems that they're working with are different. So an hour per person.

LF

Could that be a whole day a week possibly if you've got six coming in starting?

AG

Yes, it could be. I generally will try my hardest to combine what I can. Because there are systems that are studio wide, there's no difference. Usually it ends up being one or two at a time. But it's really important so obviously I'm committed to doing it because I can't do my job if people don't know what they're working with.

LF

So it's key to get it right at the beginning and then that's going to save you later if they're doing it the right way.

AG

Yes.

LF

In terms of disciplines, because this is part of what I'm looking at in each studio, the role of disciplines, what do you see as the key disciplines within the studio?

AG

Do you mean as in...?

LF

So perhaps in some studios they will be split into two. The architects are going to be in one area, and the designers and all the other stuff possibly in another. Or they may be very segregated in terms of the roles that they have.

AG

We don't segregate them at all. For instance Thomas isn't an architect so that's where the first hint is that we're probably not going to separate by disciplines. So we'll have a landscape architect on the team but they don't necessarily, we only have one. So I'm interested in seeing how that working relationship is. Generally if you're a product designer or you're an interior designer, you're working within the team. You might take certain packages on, definitely more than others, and there are certain skills you probably have that others don't and vice versa, but they're integrated totally. There's no working group with product designers or interior designers. What we do have, which I don't know if this is what you're referring to, is we're starting out a system of having specialisms in the studio and that's basically. I think there's a general consensus amongst all the design teams, their greatest resource is each other. And their own knowledge amongst the teams so we're trying to set up these working groups. Or there are just areas of knowledge, however that's deployed. But that's up to this head specialist. So if I said one day 'I'm really interested in graphic design' – that is actually a specialism that somebody has – and I said 'I'm really interested in that, I want to spearhead this work', I could say that if we didn't have it yet, say tomorrow 'I'm really interested in it, I think we're lacking as a studio in that, we don't have an in-house graphic designer, perhaps I could spearhead some work which would either audit what we're doing so maybe we could get a graphic designer in-house, or then we decide that actually we don't need one, or maybe we have a working group, and every team has a graphic design specialist, because they're interested in it. That's a way of treating disciplines and it can be anything. It can be plants. So actually that would be relevant to me. I might say 'I really like specifying plants, and maybe it's something we could do early on in our design so that we don't waste time later on down the line when our planting specification isn't right for the environment' or something like that. That's interesting stuff going on but it's not really fully formed yet.

LF

It's almost not so much discipline-driven it's more interest-driven. Like you say with the people within the studio it's just a particular interest. So if that interest pops up and they think there's a need or a gap or something or an opportunity then it gives them the chance to develop that along with whatever else they're doing.

AG

Yes. You need initiative to want to do it, an initiative-driven kind of thing. Because it's going to be on top of your work generally. It's like doing a start-up company, basically. It's going to be on top of whatever you have going on and really hard work at first, but hopefully you will gain traction and then it gets a bit easier. And maybe you work out yes that is a need, we need it in the studio, half your time will be towards this specialism, half your time will be on your project. So it's not just interest, it is skill, management, it's identifying a need and convincing everyone that there is a need. That's how I think we're treating disciplines now and the way it works.

LF

I think that's fantastic, very exciting. So, how would you describe the creative process in the studio?

AG

One point in that values induction is that we act like a team of detectives basically distilling the brief down to a single problem. What are we trying to solve. Then thinking of possible solutions for that thing and trying to pick the best one that's a no-brainer.

LF

You sense it, even on a secondary level when you walk in, there is something in every single thing you look at has a certain way about it. In the way that everything is laid out.

AG

A good example is even those emergency lights, on the top there, they're white little things on the metal, the smallest little things.

LF

Almost invisible.

LF

I suppose that does become challenging as you get bigger?

AG

Yes it really does.

LF

To try and keep hold of that special quality of everything.

AG

Especially because the bigger we get the more corporate we have to be in certain ways. We don't have room for, we can't afford the room that we used to give for things like not having certain paperwork in place, or forms, things like this, we just need to have these things now. It's a really difficult balance because from the design point of view a lot of the designers are here because they really enjoy our projects, they're really exciting things to be working on. No matter what the business side of things is they always have that to hold on to. Our projects are amazing, they're really special. From the support side of things it's nice to observe that, but I don't really get to interact with it. So most of us are here because of that culture, of feeling really at home in a way, friendly, warm, inviting, all of these things. We're all taken care of as well, we set our own culture.

LF

The two don't sit well together.

AG

They can I guess but it's a challenge that most other businesses just don't really have to face.

LF

Or they don't prioritise it so as they grow they just head off on the route. It's like universities. The bigger they get, they lose the value and the care and what's actually at the heart of what they're trying to do.

AG

Yes, so it's a challenge. But I think most people are really aware of it which is good and I think it's a conscious effort to try to strike that balance, but it's hard, definitely a challenge.

LF

So with the process, I talked to Fred Manson, he did the same diagram with this lovely clean line. Are there other things that you have to communicate to new designers coming in terms of actual design process and how the design process is here?

AG

I think one point which relates to specialisms, it kind of relates to everything, there's a few points on there. One is that we're not architects, we're not designers, we're not product designers, we're not landscape designers, we're something else. As a group we're something else and a part of that is 1) understanding our own limitations and bringing in consultants and trusting them and that's how we choose our projects too. He was asked on a radio show one time what his ideal project would be and he said a power stations, because everyone's already tried the world's best opera house but no one's tried the world's best power station or the world's best prison. We're excited by new typologies. We can't just be one discipline. The other one that we always have to tell people, which is slightly controversial, there's a point on there that says 'Do you worry? Worry is a part of the creative process' and I think what Thomas means by that is that we are the guardians of an idea, that is generally our role in every design project that we go into, we're the idea people. We come up with an idea and we're working with all of these people to figure out if it will work and checking against constraints, and then checking back to see if the idea is still there then you have to always have to be on your toes and be worried about it and always make sure. And that goes to Thomas as well because he's not engaged in the same way that project teams are engaged with everyone we're working with. Your consultant might have said that but you need to make sure you understand why they've said that because Thomas is going to ask you why. Because that's our job. So that's another point that we have to communicate about the process. Those are the two really key things.

LF

Obviously you very carefully select... I've heard about the process of how you recruit new designers. Obviously it sounds like it's a very, very in depth process. But how do new designers react? Obviously they're aware of the studio otherwise they wouldn't be coming and they probably have quite a good idea, but I imagine still for young designers perhaps it's still quite surprising for them? Do they tend to fit in quite easily?

AG

It's hard for me to say from a design point of view because I'm mostly interacting with them on "This is what you need to know." When I have these values sessions often, because I only do it once a month or every six weeks or so, some people who are in this induction have been there for five weeks, which is the ideal situation actually. Because it's good to get that perspective. Then they're a little less shy as well. They come to this, we tell them all of these things they need to know about how to work here, as far as philosophy goes, and it's good to get their reaction. It doesn't sound like people are generally shocked by how we work. I know I necessarily wouldn't be coming from university just because university is really hard. It's really hard work. I don't think people are generally shocked. I'm not that familiar with the recruitment process, I know that they come in for two interviews, but I don't necessarily know what we're asking them, key things we're looking for, but I imagine

that it's working OK if people are coming in, and most people do seem to be assimilating quite well and getting on with it and understanding it. I always find that people, most of the designers I meet, they're really quietly confident and that's 1) I find in real life out there that's really hard to find but in here everyone seems to have this nice demeanour and quiet confidence and they're really easy to get on with as well. So I don't know if that has something to do with it or not. But I think you do need to be confident with the way we do things here.

LF

That's great.

AG

Yes, that is great. But I think if you come from somewhere... University prepares you well for that actually, at least mine did, because you're representing your own ideas 100%. But I think somebody coming from somewhere like Fosters might have a different experience where in design reviews they're just sitting there being quiet, as it's not there place to say "That was my idea and I think we should do this." But here it's totally encouraged. It's really good. I think they get on well, mostly.

LF

It seems carefully managed all the way through, so it's not a surprise. The next question is how does the process here compared to any other studios that you're aware of, you're already saying with Fosters in terms of how different that is.

AG

Sorry I have a dry throat.

LF

Have I made you speak too much?

AG

No, I like talking. It's my throat that's the limiting factor. I'm not that familiar with other studios processes. Not that I'm setting these things up but I do help and it helps me explain them to new people quite easily. I don't have any... "This is the way it's done".

LF

It seems like that's an advantage creatively in all sorts of ways. If you're very focused on one discipline quite narrowly, and you're told this is how things are all the way through, you start to become indoctrinated into that way of thinking. Because you're from the outside you have a better perspective because you're looking at it from the outside in. So you perhaps ask the right questions whereas perhaps somebody from within is so used to this they perhaps miss some of the things. Perhaps that's part of the secret of a studio, that everything is new. Like the bus, you're asking questions that someone who has designed buses all their lives perhaps wouldn't even ask because they wouldn't even think that was something to question.

AG

Exactly. I think that's something that we always encourage which is why... I think it's really good that we have as a studio we are beginning to prioritise things like studio talks and getting people in to talk about their processes or just what they do. It doesn't have to be so formal and structured. We had a paint detective in a couple of months ago and he was brilliant, he was so good.

LF

Wow! What does a paint detective do?

AG

He goes to these old houses and he takes samples of the paint all around the room, and there are these dots all around the room, and then he studies the cross-section. He can identify what era that paint was from. For instance there was this door which wasn't necessarily from the house and no one knew where it came from, but he was able to pinpoint the exact house and the exact room that the door had come from a hundred years earlier. It's so cool.

LF

From all the chemical make-up of the paint?

AG

Yes, or even just the colours that were used.

LF

The colour matching.

AG

He was really good. It's things like that which are really refreshing, it just tells you a bit about how other people might approach things.

LF

It makes it feel like a really creative environment, you're all still learning. It's almost like you're all still interested in wanting to know all sorts of different exciting things that are going on. I suppose there must be a danger with being so busy with so much work you just have to focus on that and you haven't got the time to look out at other things.

AG

And it's over lunch. It's really good. So there's that and choosing projects where we don't know anything. It's best if we don't know anything. That's good.

LF

Another question is about the physical layout of the studio. I was here two and a half years ago and things were quite different then. There wasn't a wall there and I think Mark was welding behind the computer screens. I know it's obviously very flexible on wheels. I'm just curious to what role the studio itself plays in the process and how important that is.

AG

I think a no brainer is that we work in project bays, so that's a team, they're actually one massive team. That layout is pretty important, having the desks in a certain organisation and then have a layout table in the middle.

LF

So there will always be a space in the middle where everyone can come together?

AG

Yes. All the walls are magnetic so we can pin up and take down without poking holes. Having a space that's really.... we have a luxury of space in this area, and part of that is 1) we can put interesting objects in it, which are inspiring and that whole thing about learning about other things and you come to something and think what is that?

And then ask Alice, she knows a lot about the objects in the space, because a lot of them are lent from David Osborne who is an object collector. Alice, you're going to speak to her next, she'll tell you more about those. I think having it open like this is really good, it's a statement about transparency and the transparent meeting rooms. This is just a guess but I think it's a statement and I like the statement that we're trying to be transparent and learn from each other and not only just cross pollinate projects. I can walk up there and just look if I want, and just observe and I might get asked questions for my point of view.

LF

I think that's great. You can get as involved as you want to.

AG

And the thing about the meeting room is if the door's closed you obviously won't go in, but it's not that the studio has anything to hide and I like that. And I hope it stays that way because I think the bigger we get the harder that is.

LF

You just need to be able to spread, to be able to keep this as the heart of it.

AG

Yes, and now we have the two other buildings and they're set up quite differently so actually we don't have the project bays in the other building.

LF

No. I spent the afternoon over at Field Street for the design reviews.

AG

366. Was it in the top room?

LF

I haven't been into 366 yet.

AG

Oh, they have design reviews in Field Street?

LF

They did just that day. I think they were supposed to do it in 366 but for some reason they did it in the other one in the end. But it seemed very cramped, everyone had to be squashed in, you didn't get that sense of a layout.

AG

So that's sort of like a baby version of what we have here in a way. But it's a real challenge as well with our health and safety obligations with layout of space and how we do things, whether we do things or not.

LF

Unless it was beautifully hand painted maybe?

AG

Yes. We played with the idea of doing a really great frame and really ornate and beautiful and then having the health and safety law but we opted for the version where you just send the leaflet out by email once a year to tell everybody. It's like things like that, making sure that those interventions still don't mess up the creative



setup of the spaces and that's really hard in the workshop and I'm sure Mark will talk more about that.

LF

Yes. That was what was interesting. It was open and he was welding and there were computers very close by and actually Thomas was talking to me explaining about being in Gothenburg in a big shipyard hanger and there were welders next to drawing tables. And he was telling me, with Mark welding one side and computers on the other, and I was thinking you can't have welding next to computers!"

AG

No we can't do that.

LF

When I briefly talked to him Mark said "Yes, somebody said soon after that we weren't allowed to do that". But that's such a beautiful image and as somebody coming in for the first time and sitting down at the table here and seeing that it said so much. It was actually almost impossible to concentrate on anything else.

AG

It's a real challenge. It's supposed to be an open environment, it's such a big part of what we do and how we do it. And that's another thing that we try to tell designers in their induction process, that workshop is for you, it's for everyone, and your ideas are strongest when they go from the screen to an object and then back to the screen and then back to an object. That interaction is why Thomas started the studio so he could make things. But the bigger we get, and the space stayed the same size and we can't have everyone in there at once and we have to make sure they're trained properly. It is theoretically a very open space but logistically there are things we have to restrict which is a real challenge. So it's about how do we design an induction process that will let us use this space exactly as we are. It's really hard but we thought about putting a lock on the door and we said "Absolutely not, we're not going to do that". Because that space needs to be open. There's a school of thought that says we should have a separate workshop but I don't think that's ever going to happen, I don't think it ever should happen, because making is a big part of our process. That's a statement as well, having it in the same building, it's a huge statement of intent.

LF

What would you think the core skills are for someone to work in this studio, the core skills that you need? Not necessarily just design related.

AG

I really do think you need to be creative and have some ounce of creativity within you because obviously that's the "Duh" for a designer. It's not necessarily a "Duh" for us but like I was saying about we're never going to get just a load of other companies do and how they generally work, I think it's never going to happen. We need to be creative with everything we do. Getting a health and safety person is incredibly hard to come into the studio because we need somebody who is really interested in health and safety but who is basically a creative. That is "Duh", you can't, oh my gosh I don't know how we're going to get it. We need this person, but generally those two don't go together. So I think that's number one. And then, it's not necessarily a skill but you've got to be a little bit weird, just slightly quirky, I think it's part of the charm. It's not a skill, and it's not even a core thing, it's just desirable. I think creativity and flexibility and confidence. It's not skill either, something you can develop.

LF

The last couple of questions are relating to undergraduate education. In this country undergraduate education is still very uni-disciplinary. Do you think that is still appropriate for designers coming through or do you think that's possibly an out-dated way of teaching, going on the needs of the studio and the designers coming here.

AG

That's a really hard question for me because I haven't experienced undergraduate education here. I have always thought that on the one hand from who I have met and been to university, which is almost everyone in my generation these days, the people who have been to university here are a bit less loosey-goosey about "I don't know what I want to do". They're 1 in 5 in California. Everyone is like "Oh, I might be interested in that, or I might be interested in that, I'll just try it". Which I think is really great. But here I think people are a bit more decided. In a way that's nice but that's just speaking generally. For the studio I don't really know. Most of the people here on the creative support side are here because they're interested in the design field or they might have a degree in the design field but they didn't necessarily want to be a designer, that's me. I didn't feel like I came out as a landscape architect though. I felt like I had studied it, and then had a wide range of what I could possibly do, and then I've just been trying them. I think that's an advantage for me. But I don't know from the design side if people's education limits them as far as puts them in a pigeon hole in a way. I think with architecture there's definitely a risk of that because you study for eight years and that's such an investment. I think it seems like the ones who do the best in the studio are the ones who have a wider range.

(Thomas comes over to say hello. The audio level is poor, but the general discussion goes: he asks how things are going, discusses the Bridge project, the growth of the studio since I was last there, the importance of the studio and it's design, and Amanda's contribution to helping the growth/management of the studio)

TH

I would like to sit and hear what she says, actually!

(Thomas then leaves for a client meeting)

LF

So the last question now. What do you think are the key things that undergraduate education could learn from the studio?

AG

I think that attitude about being more than just one thing is really important and it's when we all learn the most. It's a shame that people say you learn more on the job than you ever could in university, ever. It's true because you're exposed to so many different things and no one's controlling what you're doing generally, there's no curriculum or anything. So I think that's really important and the idea that it's ok to approach something...well, university does that where you approach something where you don't know anything, that's kind of the whole point.

LF

Yes, although it does become quite safe though because if they don't break out of their discipline it can become quite familiar.

AG

I almost feel like maybe mine went the other way a bit too much really. I loved it, and I think it has prepared me really well for what I'm doing now, but it didn't necessarily make me feel prepared to be a landscape architect. A big part of one of my studios was basically cartooning, which was amazing. The idea was you have to learn how to set a scene and animate a space and really understand what it's like to be in a space, and you do that through storyboarding and that was incredibly valuable. But really theoretical stuff. And I was saying "I don't know how to grade a parking lot still". I don't know.

LF

That's the challenge, and it's really interesting. I've done a previous round of interviews, which is when I met Thomas last time, and some of the people who know him very, very well, I interviewed one Daniel Charny who is a leading educator who is celebrated as a creative-alternative educator. He's done a lot of other things as well, and he's teaching at Kingston, and Kingston has been cited as one of the most innovative undergraduate courses. He says that students go in thinking one thing, they come out completely different, and even if it says graphic design or illustration they don't come out thinking they're a graphic designer or an illustrator. But apparently, and one of the things they're doing, is a lot of exactly what you're saying there. Getting them to do storyboarding and cartooning because they're trying to bring a few more creative ways of looking at who they are as designers and what they're doing. Using techniques that perhaps a traditional graphic designer wouldn't imagine they would be asked to do.

AG

My degree is unspeakably valuable to me because of the skills it's given me, but also I came out of it a bit jaded. The fun stuff was doing the storyboarding and the cartooning and theorising about space and landscape and the really boring stuff was the AutoCAD. The one class I got in AutoCAD which was only because I crashed a graduate course ... there was nothing. The real skills that you actually need to logistically perform the job weren't really taught very well but it meant that I'm super-capable to pick a lot of the things up that I wouldn't have been able to pick up otherwise. But I just didn't feel like I knew what I was doing as a landscape architect. So I think a balance would be good. But like I said I don't know what undergraduate education is like here. All I know is the people who have done it here, and on a personal level my husband is an accountant, so that's not relevant. Of course you have to learn really specific stuff. It's a really good question. I think it's a really interesting idea. I certainly benefitted from that, doing what I do now.

LF

It's allowed you to be very lateral in the way that you're able to move and think. But still using the way of thinking that you developed and applying it to different things.

AG

Yes. I always used to say "Landscape architecture doesn't really apply to what I'm doing". I did a three hour systems induction with him because somebody was busy so I just hung out with him all morning. We really got to talking about this stuff and I said "It doesn't really apply to what I'm doing". And he said "What are you talking about?" And I said it earlier "Landscape architecture is making order out of chaos and that's what you're doing in your job". Otherwise you'd just be throwing paper around. You need systems. It's interesting. We're getting more hierarchical as we get bigger, but generally it's quite flat. So we each have our own piece of the pie with all of the layers in it. And we need to be able to travel up and down those layers and do this with our arms and reach out to everyone and I think having a creative

background and going to a creative university is really important to be able to do that, and take ownership of all of those processes. I think that's prepared me really well for this studio specifically.

LF

Fantastic. If nothing else, it would be great if narrow undergraduate disciplinary courses could help define what students are getting from the course beyond the disciplinary words. I've never heard anyone describe landscape architecture as that. It's like an overview and an outside perspective looking in. Asking what is it fundamentally about? Perhaps it's an issue of language, and defining what these courses and these disciplines are and you can see a greater definition or clarification or a way of verbalising what it is. To give students a much better perspective of what they have learned. It's not just how to make model box, or how to draw a technical drawing, or how to measure a space. It's actually something much bigger than that. It could even just be about language and definition.

AG

From my perspective that's what I do here. It's about being really clear about what things are to give people clarity about what they're here to do. It's like that old adage that once you know the rules you know what rules you can break. And that's about being creative and you can't do that successfully unless you have a framework. And language is a great way to do that. To say "This is what we're trying to do. This is what we want people to go away with". Which is a great challenge for the studio as well because we're so loosey-goosey sometimes that...

LF

It takes a lot to articulate, and keep track of it.

Brilliant, thank you so much, that's fantastic. I really appreciate all your time.

AG

No worries. I love talking. I hope it was helpful.

END

**Interviewee:** Hugh Heatherwick (HH)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 06.11.15  
**Location:** Heatherwick Studio, London

**Notes:**

HH

How long have you been working on this research?

LF

Quite a long time! I am a full time lecturer and a part-time PhD researcher, which means I am given one day a week for research. When I first came to meet Thomas two and a half years ago I was just at the beginning. But then I had to go through the official registration process, which took a year.

HH

I am familiar with that.

Anyway, fire away.

LF

I did an initial set of twelve interviews, and Thomas was the first, and a report came out of that. Those interviewees were not all designers, but they were all in the design industry. At the end I was asking all of them about design education and design practice and whether they felt education was supporting practice. They were all damning about education in a way I didn't quite expect. It became a bigger issue than I had thought.

So this next phase of research and these questions are following on from that. I am visiting five studios, interviewing a cross section of each studio, trying to get an understanding of practice, what the process is, how the studio works, how the studio uses space. Then I hope to take that back to education in some way.

So the first question is, if someone asks you what you do how do you define yourself?

HH

In relation to the studio? I am an associate with a responsibility for the studio as an organisation and professional development. I span those two subjects, and practically of course they are one.

LF

I gather you have been here from the beginning?

HH

Well, obviously I have been involved with Thomas as he has progressed through design education and setting up the studio.

LF

So in terms of the evolution of the studio, how have you seen it evolve over the last twenty years?

HH

In the way that one could say with most businesses, they start off as a sole trader, and that sole trader does everything. But in their mind there is the reason for setting up and being in business. So it might be making and selling spoons, and all I think about is making and selling spoons. But then, especially if I am a student, I want to do that well and I don't necessarily have lots of money. Therefore I say 'hello can you help me because I have to make these spoons, and I might try and persuade you to help me'. So with most things it's like the first job is 'oh wow' and then you try to realise it. But the focus is always on the actually concrete end product. Then as a studio grows, so the infrastructure grows with it. But, usually the development of the infrastructure, especially once you reach the scale of the studio as it is at the moment, there is less knowledge by the founder or creator, because the founder or creator just wants to get on making spoons or more spoons. The notion of employing people, once you move from a friend helping you to paying them something, and starting to think about how much money have I got. So of all the infrastructural factors tend to be thought about second. So most of the challenges, if you like, that I see in the development of the studio.... The design challenge is obvious, and the response to that is more or less successful from a traditional creative design perspective. But, the other side of the infrastructure challenge is that it's possible not to be aware of it being a challenge because so often one has taken it for granted, until it bumps into your face and someone says 'I don't want to work for you any more'. Or, 'I'm fed up with that bit of technology breaking down and we need something different'. So, development of a studio depends on the development of the founder as well, in infrastructural terms. So gradually acquiring more and more ability to understand an organisation and business.

LF

It seems like this studio is a great example of this challenge because of the scale, size and breadth. It's been really interesting talking to some of the other members, like Amanda, in terms of systems and how to start managing and creating systems, and having to think about them in a completely unique way because the studio works in a unique way.

HH

I think there is also this reality of once you are a studio and a business you are obviously concerned about staying in business. And if you are a creative person you are also interested in the opportunities that allow the maximum creative response. So, once you are locked into that process you are thinking about delivering projects and most of your time is delivering projects, and whether you actually create time to step outside your own bubble and really look at how other people or other bubbles are operating, is a question. So, you may get hearsay in the pub from someone else. But whether you actually say 'I'm really going to try and understand how that organisation works', because that would require allocating a number of days to do that. Quite apart from the politics of doing that. So, that is something that lots of businesses don't do and I have a question of design businesses as to whether they are truly innovative from an infrastructural perspective, and whether they need to be. Whether they get used to responding to the area of the market they are functioning in. I suppose what I am speaking about is fundamental changes that have taken place in the twenty odd years that the studio has been in business. Once you look at that and you say what's happened? In the material sciences a whole lot of new materials have come into existence and been discovered. A whole lot of new technologies have been developed. It's massive from an informational perspective, what has happened. Now, where is the studio with those developments and how appropriate are any of them to aiding the studio's development?

Also, one could substitute the word studio for education system. One knows that the education system has to have policies and strategies, and there have to be leaders and thinkers. They are all human. How much time do they have when planning education to be aware of what's happening in the outer world and therefore structure their world of students to correspond? I think there is a real gap between the understanding of industry and the understanding of the education training.

LF

That's what I found in my initial report. The conclusions were, as you are saying, that things have moved so fast and are moving so fast because of technology etc., it seems like practices are continually evolving. So from year to year it will be different. Education by its nature is very slow moving.

HH

My question was whether even the studio can, you see? I'm using that as a reference. I just have a new phone. Now how much time am I prepared to spend learning how to use it? If I'm working say for you and there is a deadline for a new teapot, then I will make the short cuts. Unless I'm really pushed, do I use its full facilities? No, I don't. It's almost being dragged along by events rather than being in front of them. I think that applies to the studio as well.

LF

I'm going into the different studios to try and understand this, over a few visits. I'm trying to scratch the surface of how the different studios work. But I don't know what benefit that will be to this studio. There will obviously be some cross over and similarities but also differences. The goals are different. You are obviously designing your system to meet your needs.

HH

I'm quite interested in that now more than ever before we live in this 'designed' world. Where ever we look there is hardly anywhere on this planet that isn't the result of human thought and intervention. I know on one level people say well that's always been that way. But now it's massive, and therefore design in that comprehensive sense becomes a crucially important subject for absolutely everybody. Absolutely everybody. Whether one lives alone or in a small community, to have some sense of order and what sort of things we need aesthetically in our daily life. Not necessarily from a television screen but just from the way a road has been set or the way a hedge has been cut. In relation to design education here the sort of thing that enables me to get a handle on what I do – I'm not trained in design – is there seems to be an utter simplicity which is function and form. So the weakness seems to me to be to do with function. It's a question I have in relation to any type of design. First of all if we think of scale. We now live in a Nano world, with there are people designing Nano projects. We can't see them! We have to have technology to even be able to touch them in any way at all. Through to designing whole new cities in China or complex vehicles or new environments for new planets. So, function seems to me to be asking who has the capacity to really understand what is needed. The difference between someone being really interested in their subject and how something is needed, and if we are talking about an intelligent, aware person who has really got a sense of 'I want this to be better and I have a sense of making something that will help me make it better'. That and a professional designer asking 'what's the problem?' and coming at it from the outside with only a certain amount of time because the contract says at the beginning there is only this amount of time for the early concept and we will only allocate this amount of time to it. Whether they have the capacity to truly understand the function is a question that I have. Because, it seems that is quite a special intelligence.

The question of form is much more concrete. For example, if we look at the developments of artificial intelligence and all sorts of extraordinary computing devices, especially the early stages of that, the people that designed them were actually neurologists, amateur engineers. And the significance is that they have been thinking for years, and trained for years, thinking perhaps I can build a machine or design a machine that can reflect the system as I understand it. But fundamentally they were not educated as designers. That leads me to challenge the notion of any comprehensive design education. My feeling, in the way and the speed of everything that is happening, is that there should be an initial period – a year or longer – where the person is immersed in the complexity of this subject. Where do they feel that they really fit in? It maybe in the world of 3D objects of a concrete visible scale, so it maybe sculpture, architecture, and understanding function in relation to that. But there are so many other fields where I feel the best work comes from a person who is passionate about that function and therefore wants to increase it and enable it to grow through their design capacity. So I've got a question about whether there are - I know the studio's reputation and other studios reputations for being able to enter into everything – but I think it's interesting to look deeper and say 'what are all of these things? Are they in fact just a certain type of design?' They are innovative and meeting a very real need, but they don't in any way represent the whole world of design.

Having just spent quite a lot of time in hospitals and seeing how hospitals function, one thing is understanding function and creating spaces in order that health can be enabled. But the extraordinary growth in methods and systems and types of equipment that requires a completely different type of design thinking and you can't just do that (HH clicks his fingers). So, I'm interested in how, and it's not possible to just say 'by next year I will then specialise in ... that' because I think to understand certain types of equipment one needs to have been working with it's strengths and it's weaknesses for an extensive period of time. Perhaps there is a whole area, just as there is for everything, book illustration etc. You name it. So, what can be comprehensive is a question I have.

LF

So, perhaps I should move on to my next questions as it is all linking in.

When I last talked to Thomas one of the three key things he said was that in creating a new design education system he would suggest imagining no design education system existed, and start from the problems, issues and things that are around us, and work out what you need to encourage and enable people to deal with and resolve those problems. I think this could be the ultimately way to start. Design would be naturally imbedded into the education systems from the being, woven into all education from nursery onwards. But at the moment, as all creativity is being removed from nursery, secondary etc., the concern is that students won't even know what design is.

HH

I know. At the time of the V&A exhibition, I ran a small project here in the studio with students from Hereford, and they worked with designer here and staff at the V&A. During the time I spent at the school in Hereford I managed to work with lovely teachers, and we gained confidence in each other, but I saw the challenges they face. One morning I went in to work with the students and there had been a change and I hadn't been informed. So I was in an empty room and I was looking at artwork on the wall – really looking at it – and a lot of it didn't look finished. A teacher came in and I said 'oh, I see some interesting ideas here. It's being exhibited, up on the wall. What is it for?'. They said 'that's year so and so and that's their work'. And I said 'but what



for?’ And they said ‘well, then we evaluate it’. I said ‘but look, there’s that and that, how do you develop that?’ He looked at me and said ‘we’ve got no time to develop it’. I said, ‘what, so you don’t discuss it, the students just put it there?’. He said ‘I would really love to work with them, but that’s not part of our structure, we don’t do that’. So there’s no real interaction and it was just box ticking. So this is a fundamentally serious issue.

LF

Knowing that this is happening at this level, and with the issues for Foundation Courses, I am focusing to undergraduate courses. If by some miracle students get to undergraduate level, we have just three years to try and educate them in design, and their knowledge may be very limited. So my key question is ‘what should that be?’ My starting point has been looking at whether a uni-disciplinary structure, which is what we have now, is still relevant. The nature of a disciplinary division, say doing Graphic Design, students then expect to be doing Graphic Design, leave the course saying ‘I’m am a Graphic Designer’ and they perhaps don’t think outside of that. If you have disciplinary divisions, is that appropriate for today?

HH

Is there anything similar? If we look at classical music education. If you take an orchestra, you have specific sections, wind, strings etc. Now, if you are going to study music performance at any of the colleges, your level has to be really quite high. You have people who start the flute and carry on playing the flute, and you have flute exams right the way through to getting a diploma and getting performances and perhaps ending up as the principle flautist. The same applies to the other instruments. OK, there are people who double, theatre players playing multiple instruments, especially in America, and can give a pretty presentable performance on many instruments. But they are specific instruments and they have had to study them. Therefore, your reference to Graphic Design... from a music point of view it’s like ‘look, are you serious about being a flute performer because if you are you know the situation is in the industry, and the chance of you working...’. And you have to be at that level. So, there’s a notion of elite performance and all the steps to it. Which didn’t exist in the same way, even twenty years ago. I just wonder in design, even if the word design is appropriate. But there seems to be a gateway and that needs to be much, much, much, more thorough. I may be wrong. But it is at that point where lovely people are really, really challenged as to ‘look if you are going to do this as a profession, this is the world now’. And I think here is the real problem also, because the schools...it’s pure chance whether there is somebody who really has any grasp of the industry around the school, with really in depth knowledge of their needs. Pure, pure chance. Having been very involved in that I saw that it’s very much a central point. Over here is the business that needs good people, but only a few are equipped and efficient with their infrastructure to take on an apprentice seriously, to not just use them as fodder, but really, really teach them. And to have even thought about their own systems enough to even be able to explain what, why or whatever. So, whether they have a true educational training structure is a question. A lot of small businesses don’t. And yet the best big businesses do. So it’s they not understanding the needs of the student but then the flip side also (schools not understanding industry needs). Nobody really having the power to be in the middle and make this happen.

LF

My feeling is that, as with the musician focusing on one skill that they develop, what we could focus on in education is a process as opposed to a discipline. Negative comments I have read around this are ‘oh its just Jack of all trades, master of none’

and 'what you have to do is 10,000 hours in one specialism'. But could that one specialism or 'skill' be a thinking process?

HH

Yes, that's quite right.

LF

As a designer, when I moved across disciplines I found that strengthened me more as a designer than staying in one discipline.

HH

You are right because also, using the music analogy again, an important point in the development of anyone who aspires to be a serious performer is knowing how to practice. That separates, because one thing is to be able to give a good performance once, but another to be 96% of your best every week. Quite often the best performers who stay the course have a capacity to analyse which is quite exceptional and it comes back to what you are saying. It's a sense of process, understanding what relates to what, and having the capacity to then ...there was a very important project at the RSA, way back, that I was a part of and it was called Education for Capability. The Education for Capability movement had some older people behind it. There was even a statement which was published in all the major papers, stating 'We the undersigned...' You had heads of all the big industries, and their point was that the education system was not producing students that were capable. The difference between the capacity and capability is a very important thing. So even if you get to the point where you can say 'now I understand something of that person's capacity', that's pretty significant. What industry was needing was capability and that depended on all sorts of systems and methods that the education system was not necessarily promoting at the time.

LF

Can you remember when this was?

HH

Between 1980 and 1990. Have a look at that window.

For me there is a question. When you say design education I think there needs to be this real clarity. Education for what? Design education for what? My particular angle is that there are certain things to do with process which are useful, generally, once a person grasps that. But coming back to these two other elements of function and form, even the steps in the process you are referring to become very much influenced by the particular function. So, design education for what? Providing the answer to the what is very important to the quality and this is where I think a lot of things fall over.

So, in relation to design education for what? Thomas's world has been clearly influenced by form and by certain engineering, mechanical, concrete visible types of function. So there's a whole engineer, and people associate him with certain things. And real feeling of breaking new ground in linking function and form. But actually it's quite a small area of design. If you take into account what we've been discussing. So, for what? It maybe buildings, or another folding bridge, but all of these things are very concrete and of a particular nature. So I think it's a question, when looking at the .... I don't know how many practices you are looking at?

LF

Five.

HH

So in a way it's having a very specific sense of how many different things have they designed. I suppose it's a menu. What's their menu? And if you did that, what then? All sorts of questions then flow about that. So, to sustain that they would have certain needs for certain types of worker and all of that. But, in my view, outwardly there may be 3D objects of different scales and colours and materials, but in fact these are all points in common. Someone like Paul Smith, you see that name and I remember when I began to see it, will be linked to bike and then a pair of shoes. And I thought 'who is this Paul?'. But the notion of the difference between the world of branding and actual objects....Anyway...

LF

That's great. The menu is a lovely way of looking at it. Getting to the core of each studio and what they actually do. And the 'what?' is the big question, also in terms of trying to re-design design education.

HH

Think photography. Now everybody has one of those (HH holds up his iPhone), so everybody can take photographs. So, in some ways they want to have a career in that there needs to be this big, big gate. I know my daughter is now making her way quite successfully, but she does have a particular aptitude that she hadn't really realised. But, it's pretty clear that other people are realising it. But, she's bumped into those walls which are thoroughly real, like 'technically what do I do?', and having and wanting to learn all sorts of technical skills to support this creativity. But she has experienced that gateway, of asking 'who am I? What do I want to be? Am I going to be able to do this?' That's key.

LF

It is all too easy to get into undergraduate education. There's no real gateway. And the question 'do they really understand what it is they are going into?' is unlikely.

HH

That's why I used the classical music analogy because now, if you speak to anyone, many people play instruments but to get into the colleges you have to be really good.

LF

Plus, they will have been doing it from a very early age.

HH

The parents beating it into them! (laughs)

LF

Yes, unfortunately, design students are coming into our world with either very limited or no design knowledge. At 18 they are only just starting to build their knowledge, whereas a six year old might start to play the piano then.

HH

Again, I am working on something to do with the funeral. I left home just after my 15<sup>th</sup> birthday. The very next month. And that was really, really early. My mother went into the wide world at fourteen. And the young designer I was just working with - we were looking at some old photographs and things - and I said look that's mum at school and this is her going out into the wide world in big houses and things. And she said 'she looks very young'. And I said 'yes, fourteen'. And she said 'wow'. And if you think of education now, and college... The person I was working with was probably 26. It is interesting now, isn't it?

LF

Yes, young people are in a very different place now.

HH

So I'm thinking in the world of music, equally in other worlds... ballet for example. You try and get a career in that. Again there are very clear levels, quite apart from physically in development one conforms. So, you can't mess around. In a way that can be very hurtful, but it's very useful. It's the same way with sport. We can all be enthusiastic, but once you get serious there are levels and if you don't get past them you don't move up. It's not a matter of just saying 'I'm really creative and I really want to succeed'. It's 'yes, we recognise you've got abilities and talents, but that's as far as it seems we see you going. Now, that's honest. And then there are of course the exceptions.

LF

That's given me two images. The first is that the ideal would be to embed design, creative thinking, or what ever it is called, all the way through education.

HH

Yes, absolutely.

LF

But then, the other image is that at undergraduate level you have to really narrow it down and filter out at the gateway and only take on the ones who really want to do it, really understand it and have the real skills. So, give it to everybody, to really benefit from creative processes and thinking, but then at undergraduate level you have to really cut it down.

HH

And get rid of the other side of it, the universities bums on seats is another issue.

LF

Yes. As Zeev Aram told me, 'we should perhaps close twenty design colleges and build one hospital'. He felt too many students were going through design education.

That's brilliant. Thank you so much. You've given me a lot to think about and process.

HH

But I think it is difficult, isn't it? With a PhD, it's so important to have, like anything, a hook that really doesn't move, and you think 'no, no, no I can keep coming back to it, even if I have twelve hours or a whole year'. And you feel more certain about that. Or it's two hooks. But then you can start to put material in relation to it and constantly reflect and not be deflated questioning where you are going.

LF

It's been interesting. Because I have a day of research doing something like today, and then the next day I am back in the university, in the system. The conversations I have in the research day reinforce my concerns that the system is not working and the next day I'm back in it. That has been the biggest challenge for me mentally. But, I still have to be positive and do the best I can. But actually although it's difficult, I'm realising that it is probably actually the best situation, because I'm not removed from the education system, I'm embedded in it. It's constantly reminding me that it's not working, but why is it not working? It's not because of the abilities of the people within it. It's because of the infrastructure forced on it, and the focus on money.

HH

I am exactly the same. My following through of hospital things that I feel could be better, really isn't from the fact that I want to complain in a way that is necessary to complain. I know some people do. But, from my perspective I'm seeing an organisation and I'm seeing systems and methods and thinking 'wow, this is fascinating' and I want to follow it through from that perspective. Because it's so clear that some things break down and it is to do with the system itself and whether there is anyone managing or not.

LF

Thank you.

HH

Not at all. I'd love to know how you are getting on. If you are Ludlow based, let's share a coffee or something. I'd be very interested. Because the subject interests me no end. Having worked in education myself and then more recently I've just stopped being a Governor in a school. And I'm thinking the challenge of how one not only produces a piece of work but then gets it implemented that is what interests me as well. So the political with a capital P and the small p. That is really interesting as well. So that it doesn't just go on a shelf and you get your PhD. Of course that's useful, I'm not knocking that.

LF

I will keep you updated. At some point when I have something more developed I will get back in touch. Maybe around Easter time when I have finished all the studio visits.

END

**Interviewee:** Thomas Heatherwick (TH)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 06.11.15  
**Location:** Heatherwick Studio, London

**Notes:**

This was my last visit to the studio, and my last interview. We were given twenty minutes to conduct the interview, before Thomas had to leave the studio. So the aim was to ask one key question.

LF

During my visits to the studio, I have been talking to everyone about process and practice here, looking at how the studio works. I was also able to sit in on a design panel review meeting, which has been fantastic. So from this point of view I feel like I am starting to build a clear picture of process. You have also been asked so much in the press about your process over the last few years, it's all starting to come together.

So, the key question I would like to ask is what you think about undergraduate education now, with it's uni-disciplinary structure. Based on the needs of the studio, do you think it is still relevant or now out-dated?

TH

I feel quite disconnected from the education courses really, so my picture is still from twenty-five years ago. I'm aware that that could be out of date. I have a sense with architectural education that it's moved more towards understanding a bit better that it is physicality and not just a theory and conceptual dimension, and a practicality. I feel that from the people who are coming in. The talk is of making more than there was talk of making in that realm twenty-five years ago when things were starting for me. But I don't have a deeper, more ingrained sense of the other courses. Also, I think it's very hard, the idea of a single perfect education. It is a lot down to you. The same education and one person can feed off it and really thrive and the other person can be frustrated and feel hampered and held back. In one type of environment someone might need real coaching and in another might not need coaching at all. They might just need to be led, and allowed to follow their line of interest. So that all comes back to the individuals who are teaching you. My course in Manchester, I had some tutors who responded to me quite well, and gave me space and resources and encouragement at the right moments, and didn't way in to get validation themselves at their own guru-like status. They saw themselves as the facilitators for me. So my best teaching experiences were people who facilitated me rather than trying to be my aspiring life guru.

But then you speak to people who had a single powerful educational figure, who taught them everything they know and was someone they looked up to. I never had that in my education – a towering genius. Their genius was to empower me and facilitate me. The ones who were good did.

But when I went to the Royal College of Art I experienced the challenge of tutors who were too wrapped up in their own work and therefore they were there to be brilliant. I had one well-known design come in and sit next to me. I was trying to talk to them about what I was doing and then they started sketching and being brilliant, because what I was doing triggered some thoughts that they had. And so you ended up admiring them, saying well done you are amazing. And they would go off and actually, weirdly, it's dented your confidence, by them flexing their brilliance next to you. So I am very interested in when is the right role for the guru type person and

when do you need good facilitators and managers. I think the RCA had amazing people who had come in to give talks and maybe that role is good. So you have the incredible characters that you are exposed to, who aren't compromised by having to pretend they are a good tutor. They just come in and you can sit for two hours and look into the whites of their eyes as they explain their passion and show what ever is exciting for them. But, then, the good people who I encountered on the course were there not because they loved teaching, they were there because it supplemented their income to do their own work. That confusion.

So I've not taught much at all. I've been a visiting lecturer at various points, I've been an external examiner at the RCA, but I knew I'm too wrapped up in my own studio's things. When I was sat with a student I kept feeling guilty because what they said would always trigger lots of things, remind me of the call I hadn't made or the person I hadn't seen or the project I needed to do something on. And I knew I shouldn't be there, thinking of myself. I needed to be selfless, so I would suppress all of those things. But I think having tutors who can be more selfless and just guide and help is best.

Maybe it's because I had some directions, in my case that was more appropriate for me. Where as for somebody else, maybe they actually needed more help. Because I've been exposed growing up to all sorts of influences. Where as some people you are on a course with, you are aware they have not been.

So I'm sorry I don't have any answers.

LF

No, that's a big answer already.

I read a lovely description you gave of your process, that it's the 'discipline of ideas'. Ideas are at the heart of what you are doing, and the process you have developed is about developing those ideas. My wonder is, rather than a course that is Graphic Design or Interior Design, is it a course that is the design of ideas. And when everyone says you need 10,000 hours of a specific discipline skill to be good at what you do, can't that 10,000 be process? Surely it doesn't have to be all making one thing, or one discipline. Couldn't it be ten different challenges, but you are using the same process, same skills. So the discipline is the discipline of ideas. I know that would be a weird label for a course, and it might be hard to sell! But it's about coming to learning as a way of thinking, rather than as a discipline.

TH

I feel we don't do 2D design. We do 3D design. So in a way, the course we did at Manchester was a very good description – 3D Design. You could call it 3D Ideas, but I'm just trying to think about how you would give it some limits. For some people their thing is more 2D. It's whether you need to say ideas to be explicit, or which is a more useful word – design, ideas, inventions.

Whether there could be 2D design, 3D design, 4D design which is performance, film television? Whether there are the dimensions and you choose which one?

LF

Yes, something as simple as that.

TH

2D, 3D, 4D. And maybe there's 5D, 7D, with smell?

In a way I feel incredibly lucky with the continuity of my course (at Manchester), with Glass, Wood, Metal, Ceramics and Plastics.

(The Manchester Polytechnic degree classification was 3D Design, specialising in Interior Design, Industrial Design or Wood Metal Ceramics. I did Interior, Thomas did Wood Metal Ceramics).

The only things missing there were Stone and Concrete. You covered everything.

LF

I don't think that exists in the same way any more. Manchester is much more specific now, certainly Interiors.

We rotated didn't we – moving across Interior, Industrial and WMC – spending a few weeks in the other areas. Did you go into Interior? Do you remember that?

TH

I did I think about six weeks on an embroidery course actually.

LF

Did you? I didn't realise you could even do that!

TH

You had to go on to something.

LF

So you went out of 3D Design and into Textiles?

TH

Yes, but I was doing 3D with Textiles. That ended up in experiments with sewing machines, irons and starch and calico, led to paper folding, because I was folding fabrics and fixing them three dimensionally. Then that led to replicating that in paper, which led to the cooling towers for St Paul's Cathedral that we did. But that came out of that embroidery experimentation phase.

But, no, I never spent time in the Interiors or Industrial courses. We altogether did something connected at the very beginning of the course. We did a Quad Stereo. We were all brought together from all the courses, Interior, Industrial and WMC. I don't think Architecture, because that was a separate thing! We had this thing when they did psychometric testing on all of us. I think it was two weeks, and they got us all to fill in a form. I think the logic was about working in teams. You had to fill in the answers and every answer seemed obvious. Then there was a way you calculated that and it told you what type of seven types you were. The ideal team had one of each of those types. And mine exactly described me. They put us together and it was spooky. We all performed exactly like our type. But we then worked on this project – Quad Stereo speakers. And we were mixed up. There were people from Industrial and Interior.

So that was a planned group project, and then we retreated back into our courses. Then there were bits in the second year. I got permission to go to Plymouth to an architectural metalwork course there and spent a very intensive two or three weeks doing architectural iron work.



LF

So that was the course's flexibility supporting you wherever you wanted to go. That's brilliant. Seeing what your needs were and letting you do what was necessary.

TH

Yes. They were a young bunch and they handled me like they were my equals. So, they challenged me in the way an equal would – asking me at one point 'are you sure about that'? I remember I did quite a dodgy project with ceramics, which I was very...(makes actions and sounds like he was really driven/focused)... and they were absolutely right. It was over designed, really over designed and I had just got carried away. The ceramics person just gently showed me that. Then I got back on track. Actually, I had the experience of doing one thing and being taken aside by one of the tutors and them saying 'will you make me one of those, I want to buy one'? To have your tutor purchase a piece from you was amazingly encouraging. And another tutor went 'well I want one too'. So I remember making a piece for both of them. So at the end of the course I felt very much equal with them. They really felt you were their contemporary and that was a special dynamic at that time. I think some of those tutors are still there.

LF

That would be interesting to find out. I went to see the Interior degree show a few years ago and Howard was still there, just. He was bemoaning that the Interiors side had become so narrow.

TH

Luckily the Young Engineer of Britain, Aran Chadwick, had come to tutor in the Architecture department. He is now a partner at Atelier One, structural engineers, and he was fantastic. But I would go to his home. What an amazing thing for a tutor to say, 'come to my house'. Again he was treating me as an equal. He wasn't treating me like someone to lecture at. So that mix was special for me at that time. I didn't have that at the RCA. I picked the course called Furniture (at the RCA) because I believed it would be between the smallest scale of products and the largest scale of buildings. And yet they just thought they were making stacking chairs. That is what they thought the job was. Then the Architecture course was drawing classical details for the first three months, and felt stuck in that mode. The only real challenge with all of this is sometimes being 'despite' things tests you. At the RCA it wasted my time. I wasted a lot of my time with people who were not wanting the best for me. Actually they didn't care, literally didn't care. They said 'No', not through a belief they would teach me a lesson. They literally didn't care. My professor didn't care at all. People would say 'oh he's good inn the pub'. People thought he was great in the pub. Well, I didn't care what he was like in the pub, because I'm here, not in the pub.

Personally, I think a broader definition is interesting. It's hard to keep things simple enough though. I know some courses end up with incredibly complex names and titles. I've always liked the simplicity of 3D Design. I don't know whether it's 2D Design, 3D Design and 4D Design. And maybe you can swap and move between them. I think within 3D Design there are lots of common things that aren't currently allowed to be common. So the idea of 3D Design including automotive products, furniture, building design, infrastructure design, engineering, and construction - training people to build things - that could be a really rich thing. For that perspective, with 2D Design, you could have photography, graphics, painting. And the ability to go 'that's fine, pop across to 3D and pop back to 2D'.

LF

Yes, you would need those tunnels to allow that to happen.

TH

Is 4D time, have I got that right?

LF

Yes, it's time based.

TH

So adding that time, that then allows performance, whether that's film, TV, theatre, those immersive things.

LF

I think that (pointing at an image of the Olympic Cauldron) was 4D.

TH

Right, yes. There was a moment with us realising this is designing a moment. But it might be that there are streams – a 2D stream, a 3D stream, a 4D stream, and you can absolutely pop between them and connect them, but they don't feel persecution if you don't. Rather than a trend of our time, it's quite absolute if something is 3D or 2D.

LF

Thank you. You have given me loads of brilliant information again. Last time you gave me three things in the twenty-minute interview that have supported the last few years of the PhD.

I want to give you this report as well. When I last interviewed you I then went on to interview eleven other figures in the design industry, and this report was the outcome. It's a work in progress really, as it is just the start of the findings, but I wanted you to have a copy. Several key things you said are in there.

TH

Thank you. If you ever want help setting up the new institution that has 2D, 3D, 5D, 6D and 7D streams, that could be quite an exciting thing to try and set up.

LF

I would love to set up an independent 'something'. I would like to involve your Dad as well!

TH

Yes, you spoke to him. I am very lucky to have someone like him provoking me over the years. And yes education is his thing through and through and through. He is a good person to bounce ideas off.

LF

And he lives twenty minutes away from me, because I live in Ludlow.

TH

Really?

LF

Yes, hopefully we will meet for coffee at some point.

TH

He is really brilliant. I was brought up with logical influences for what I do and who I am now. His Mum was a maid at Windsor Castle. He won Young Musician of the Year when he was 14. Then he was Boxing Champion in the Royal Marines. He's quite a character. He's very original in his thoughts. In a way he needs people to help him connect them to the world. You might be an interesting way to help connect some of his ideas. Education and child development is what he studied.

Anyway I have to go.

LF

Thank you so much.

TH

I'm keen to be provoked back about what you are talking about, if we can help set up an Extraordinary Institution, let me know.

LF

I've got that on tape now! Thank you.

END

**Interviewee:** Neil Hubbard (NH)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 14.10.15  
**Location:** Heatherwick Studio, London

**Notes:**

Neil mentions having done a presentation at UCL on how to get a job and offers to send a copy of the presentation. If I can't find it on line I will email

LF

How do you define yourself if someone else asks you what you do?

NH

I normally say I'm a designer and then they say "What?" and I say "It's quite vague". And I say it's quite vague because my job is quite vague and my education was quite vague, which led me to this vague job. I studied at Goldsmith's College in South London on a course that was called BA Design. That vagary led me here. So I say "I'm a designer" and they say "What?" and I say "I'm a building or a bus or a bridge or a handbag designer". And they say "Oh, an architect" and I say "No, I'm not an architect". So I'm a 3d designer, I guess.

LF

So was your BA in 3D design or just called 'design'?

NH

It was 'design'. It's quite a unique course I think, you could be a graphic designer or an architectural designer. It's kind of what you're interested in and they were more interested in the theory and the thinking behind design. How the creation of ideas and the development of ideas, and the development of critical thinking as opposed to "This is how you design a toaster". And if you were particularly interested in a route it wasn't just all about being multi-disciplinary but if you were interested in a route they would find you the right people and the resource to push you on that route. So there was a lot of semiotics and psychology, it was quite an interesting course. I chose it because it was a four year degree at the time, which had a year in industry, and I found my internship here. Since I graduated, or rather the course I was on, my year was the last year for it to be a four year degree and they had to standardise it for the rest of the country and make it a three year degree, so it actually lost the thing that made it unique which was that connection to industry. But I think they also found that the approach of the course was very much about developing yourself as an individual designer, and your own design thinking, and I think they were finding it ever-increasingly difficult to then match people with industry. Which was a bit of a failure on their part I think. A lot of people were doing what was called opting-in, so staying in for that third year and do smaller placements and develop their portfolio and do other projects and do live projects and things. But I did it because I've always wanted to be working. I've used education as a way to get me working, because I wanted to do real things. So that was why I chose it. To get the opportunity to get into the working world and in fact I deferred going back to university for a year or so, I stayed. At the time the studio was a very different place, it was about ten years ago so it was about 15 of us here and Thomas wanted somebody to stay on who'd been on this key project in Hong Kong and I said "OK" with the proviso that he fired me at the end of that year, because I would never go back. Not that I didn't enjoy university I just enjoyed working too much. So we did that and then I graduated 2008 I think, so I've been here for ten years.

LF

And then came back here after that?

NH

Yes, I told myself I wouldn't.

LF

And is your course still the same, apart from the three year.

NH

It's still called BA Design, it's still very unique.

LF

Do you ever get involved with it at all?

NH

I did their welcome lecture a couple of years ago. I still go the degree shows every year, I'm very good friends with a number of my old past mentors, one of whom runs the Institute of Making at UCL, Martin (Conreen). It's still feels like something that I can feel a part of, and I think I'm on their website or something with a little bit about what I do now.

LF

The Institute of Making's got a great reputation for doing really interesting things.

NH

Yes, they're great. Martin is wonderful. They were really inspiring when it came to manufacturing and production.

LF

You've answered my second question already. So that's brilliant. What is your role within the studio then?

NH

It developed a lot. So I went effectively from being an intern and designer on projects and looking at specific things and in the process becoming quite skilled in 3d modelling and visualisation. I think I got a name for myself of getting stuff done, getting stuff visualised and getting ideas across. I was involved with a lot of competition work and concept work. Then that developed to become more of a full time designer on specific projects. I worked with my colleague Stuart, we worked together on the new bus for London, it was the two of us mainly getting that done. And then I started to link into actually running and managing projects, so rather than me actually doing physical work myself, I'm hopefully trying to inspire others around me and co-ordinate teams to do it. So I worked in one team on Maggie's Centre, through to overseeing about four projects now I think, which is kind of interesting. It's very weird for somebody who is used to being a doer to then try and use that knowledge and the skills required to help others do and see what ideas they'll create as a result. Which is really fascinating, it's really exciting. I found it very difficult at first and actually I find it very rewarding now. To sit with somebody and then you'll see what they've produced as a result, it's quite something.

LF

How would you describe the creative process within the studio?

NH

It's very akin to a process in university in a way. We might be slightly unique in that, I don't know. I think a lot of people come in with a preconception that Thomas has a whimsical idea and people then have to draw it and make it happen, and the only reason we've got bigger is because the projects have got bigger and we need to have more hands to make that real. But that's not the case at all in my experience. I don't ever feel that anyone can attribute an idea to themselves or to Thomas, it actually comes through discussion and discussion is a really critical part of it. Whether that's a discussion that's enabled by diagrams on the wall – we were just having a big review session on a project just then – and that process is very important. The ability to articulate design thinking. Not just through words but actually through drawings so everyone can understand it. And that's how things happen really. It's this constant process of exploration and distillation. So we cast our net wide and we try a few avenues and a few things that are interesting to us based on research or the past work that we've done. We then review that work either as a team or with Thomas or individually, to then see which things we think are not working, which things we think are not going too well, and what we need to then narrow in on. Then that gets cast wide, and the wideness you go gets less and less as you start to get towards a final outcome.

LF

(I point to diagrams I have been drawing from previous interviews). I like that shape. I've done so many shapes while talking to the others.

NH

I think that's how it works or we hope it works. Obviously there are hundreds of dead ends and things along the way that you go to but the role of each one of those reviews, the ability to stand back and really assess and I try to encourage the team, that's not a formal thing that you do for Thomas' pleasure. But actually you do it individually, every time you finish something you print it and you put it on the wall and you look at it and you stand back and go "Is that really, is that the best, is that what we're trying to get out of this?" It's a really important process, that self-inflection. Because it's a very interesting role to be in the studio where you have to be very passionate about something and put a lot of energy into something but then also be able to stand back and objectively go "Actually what I've done is rubbish!" or "It's not quite right at all" and separate the energy that you've put into something to really assess it and go "No, we haven't got it yet".

LF

And you think the act of pinning it up and almost being able to have that distance, is the easiest way to do that?

NH

Yes, it's a very obvious physical manifestation of separating yourself from the work. It's the best way that I found to be able to do it. Some people don't do that. The thing about university I found very frustrating... the reason I enjoyed the year working here so much was when I went back I had the most confidence in the world for my final year. I didn't do this thing that students tend to do where they look at the floor and they feel like I'm having my crit with my tutor and my mentor group, there are six of us and someone would be like "Well, I've worked on this for two weeks and it's a bit shit but you said I had to bring stuff so I've brought some stuff but I'm not happy and it's really got me bogged down". The last year was all about one project, your project, that you created and how can you get bogged down. Obviously things can get on top of you but I went in with a completely different attitude of "Look, this is where I am, this is not resolved yet, I haven't found the right thing here, but I think this is

interesting, this is interesting, and this is interesting. What do you guys think about that?”. It’s really important to have that positive attitude otherwise it’s “Oh well you asked me to do something and well, I did what you asked, but I don’t know what I feel about it”. It’s really weird and I think working changes that view. Because no way would you stand here in front of Thomas and say “I know you’ve been paying me for the last two weeks but I’ve been wasting my time to be honest with you and I don’t really enjoy it, but you asked me to do three sketches so do you want to pick one”. You’d get fired! You’d get fired on the spot! It’s quite funny.

LF

That is funny.

NH

Exactly. Why the hell are you doing that? Go and be a doctor or something, I don’t know. Tend gardens if you’re not enjoying this. You’ve paid so much money to be involved in this, why are you not trying to get what you can out of it? I’m a horrendously positive attitude person so I struggle to understand that. But then I also understand that sometimes... I had a tutor who said “Some people said college doesn’t work because it’s not real and it’s only when they get to the working world and they realise the benefit of what they’re doing has and it changes them”. I kind of get that.

LF

Yes, it’s understandable to an extent.

NH

I don’t even know if I’m answering your questions?

LF

Yes, you are. Is there anything about the physical design of the studio that impacts on process? I’m really interested in the physical space, not just the structure of the teams but the physical layout of the spaces as well and how much that plays a part in how you all work.

NH

Yes, it’s very considered. I think it works two fold. One is to create an interesting space that inspires people like yourself or people who otherwise haven’t been here. It gives them an option to feel like they’re entering something, and that’s very carefully considered. It’s also there to produce an interesting environment that helps comfort you. It feels like you’re not in a sterile thing and the pressures of work here can get high sometimes, and you might be here some long hours, and to feel surrounded by an environment that is comfortable is important. And also then it’s there to help inspire you and surround ourselves with models or objects that get some unconscious links to things. But everything almost is designed in a way to facilitate this notion of studio, that it’s not an office, it’s not a practice, it’s a place of doing. It’s a place of production in a way, the old kind of renaissance name of a studio or whatever where it’s actually an artist’s lair where they’re producing things and so that workshop is not just a symbolic thing, it’s not a physical thing, it’s a very symbolic thing of a beating heart of the studio. And another thing that I’m very involved with other than my day to day running of jobs is how we keep that idea of a studio alive and we have a number of processes and things that we do to help keep that identity going. How do you keep that presence alive? How do you keep what he upholds and what he represents going through out the studio? Is it either in the physical fabric or in the other things that you do to encourage that?

LF

Is it very difficult with the extension of spaces and multiple spaces?

NH

A little bit but also it's a fun challenge I think. It's interesting for us to see how we find our way through that and keep links across projects even though you're across different buildings and to find opportunities to bump into each other because probably it's the right thing to do. It's definitely more of a challenge than when we were 20 people.

LF

I remember when I first came two and a half years ago I was sat on that table there...

NH

There probably would have been about 75 people then?

LF

Yes, I think it was around that at the time, obviously it's jumped now. But when I was sitting there then I was facing that way and I could see all this welding. Apparently it was Mark, he thinks it was him, he was welding something and was right next to the computers. I think it was all open there, and there was welding next to computers and I thought it was this incredible... something you wouldn't see anywhere else, a merge of processes and thoughts, but all on top of each other. It was really quite a striking... you got a sense of the whole process in a way right from that view.

NH

Yes. We've kind of got evidence of stuff that's been happening in here and it's a very non-active bay actually (at the moment), where we sometimes put test rigs up and test mechanisms or mark out spaces and get a feel of things. It's a very active space. It's not an exhibition hall, it's here for us to use.

LF

What role do you feel disciplines play within the studio, if any?

NH

It's interesting to see how it's changed. When I first joined it was a lot more of that diverse mix that we talk about because there were only 15 of us. There were two architects, somebody with a welding background and somebody was a theatre designer, and it was more evident. Now as our projects get bigger, the number of people who have to be architecturally trained has obviously increased as a result. And I'm involved in the interviewing process and the selection of that and even though say there are 100 people who are architecturally trained, actually they come from very different backgrounds and we always choose people who have still that fundamental interest in making and production. Or they might be ceramicists or something else in their past life and still to keep that dynamic and that vibrancy is very important to keep alive. Thomas represents that as well. As the head he's a designer, he's working on vast master plans and other developments and it's important that we keep that mix. But it also needs to be relevant, it's not for the sake of it. It's not having a jewellery designer because "Oh, it's nice to have a different type of designer". It's because they bring something to the team that someone else might otherwise look at in a different way. And I think there was a fear a couple of years ago that the studio was turning into something that was very much an architectural machine and on a personal level I was worried that my role was getting outdated or superseded and no way would I find a job here today because they're only looking for architects. But I think now it's come around a little bit more, and we can



understand how somebody else might approach something and the positives that can bring, then who you might need to support you. So I'm a designer, but I'm supported by a number of architects who help me deliver those projects for the studio. I think it's about identifying the right people who can help us deliver these special things.

LF

That then leads on to core skills. What would you say the core skills are here?

NH

We've been talking about that a little bit. Obviously I'm just focussing on the design side and the organisation is much bigger than that. There are people supporting us in HR and finance and all those other aspects. I think always to a certain degree this ability to have critical thought and distil that thought into something of simple communication. It sounds like a very long winded way of saying it. But anybody should be able to try and solve a problem through drawing or by being able to articulate that in a way that other people can understand. Because you can be the best designer in the world and sketch away and come up with amazing ideas. But if in that review no one else is buying into it then there's a problem there. So not only should you be physically talented in making things or in producing design ideas but it shouldn't just be that you can only understand them, and yes you need to find a common language, and often that's drawing that other people can go "Yes, I buy into that, I understand that". So everyone needs to be able to, not sell their work to a certain extent, but present and be able to articulate and explain it. For me that's one of the core skills here, to be able to get across design thinking in a very clear and straight forward manner. And that normally translates into our drawings and our diagrams which are normally very clear and straight forward. I don't know if you've seen them. This kind of hand sketch approach, and it's normally a very straight forward way of trying to get something across which might be complicated. Because otherwise you'll just sink or never get anywhere because you'd never be able to get your ideas through.

LF

Would you say that's one of the key things you're looking at as part of the interview process?

NH

Yes. And you can normally detect it from the CV alone. I did this talk at 100% Design a few weeks ago and it was on how to get a job.

LF

Would they have recorded that?

NH

They might have. I can show you the presentation. It was quite funny, I was trying to buck a lot of the trends about what a CV does. Because we got told in our university that you should design a really interestingly designed CV like on a post-it note or a pencil. And I showed them the example of a chocolate bar and then I showed five examples of CVs on chocolate bars and told them "These are not as creative as you think they are" and actually a well designed CV actually communicates you in a very clear way, which means it's actually graphic design that is the most important thing. And it's a way of getting across your skills, your character in a non-overloaded clear and beautiful way. So whenever I get a CV I don't look at the letter or the CV alone, I go straight to the portfolio, and if they can excite me, if I see something that excites me and I have about 30 seconds to go through it, if I understand it in a really clear

way and it presents it in a beautiful straight forward manner. I find the American schools do it better.

LF

Really?

NH

Yes. The graphic design way that they present their work with is far superior. So I don't know whether they're being taught something about the way in which they present their work, but it normally gives you an insight into how they will present their work when they get here. They'll overload things with text and drawings and diagrams or they present a simple thing with a little tagline going "This is what I did here, this is what I did here". And normally you can tell if that CV was very clear then, when you get to the interview it's even clearer. So that's normally what I'm looking for. That graphic communication is normally a direct translation of how their brain operates, I find. And I'm not being too bigheaded about it, I'm pretty spot on when it comes to understanding, at least when it gets to the interview. And it's a real shame when that CV was so nice first of all and it doesn't turn into a good interview. It's a real kick in the teeth. So that's one of the things I'm always looking out for, that ability to explain what you do, how you do it, why you did it. In a straightforward way. And then I look at their skills and then I look at the rest, if they're good.

LF

That's brilliant. That would be great to see. I'll try and find it on line.

NH

If they've not I can certainly send you the PowerPoint of it.

LF

Could you give me your email?

NH

Yes, it's pretty simple really. It was a fun talk actually. I've done a lot of talks on behalf of the studio about our projects but very rarely about actually then what we look for, trying to give people advice. Somebody said "Oh, somebody told me we had to fit a CV onto three sides of A4" and I said "Whoah!" Unless you're presenting your ideas and showing me a wealth of material, if it's on three sides of blank A4 with just black text on it, I'm going to throw it away. You're here for a design job.

LF

Great. That's brilliant. I've been doing this research because it seems to me that undergraduate education for the most part has become so much more specialised. When I was studying 20 years ago it was quite open because I did the same three-dimensional design course as Thomas, he was in wood, metal and ceramics and I was in interiors, but even with that you moved around. We looked at everything.

NH

Yes, the courses are much more removed now.

LF

And it's so much more specific now.

NH

We weren't even allowed in the print studio in Goldsmiths.

LF

Were you not?

NH

No. We weren't allowed to do screen printing.

LF

Even on a course that was set up...

NH

That was Fine Art. And you'd think a college with such a strong fine art background like Goldsmiths would want to help channel that through the drama department, or the writing department.

LF

So in terms of who you're looking at now, do you think that still focussing on one discipline is more relevant?

NH

It comes down to the role quite a lot. More often than not everyone here is project focussed. So we're after the individual more often than not at the end of the day and what they might bring to the team, and how they might compliment the wider team. Whether they're an all round designer who has varied interests or whether they're the technical guy who is a glass specialist. They might be an interesting thing for a particular project. But obviously you want to see how they're going to grow into the studio as a result. It's not just that you are going to go to them because they know glass. Because what we want to do here is we don't want to have a Building Team and a Landscape Team. Everything is project-related, so you have one person on that project who is doing landscape, one person who is doing the structure, and a lot of the projects have the same kind of set up. So everyone feels ownership for a project rather than feeling like "Oh, you're just coming to me because you want me to draw a stairwell again because I'm the stairwell guy". We don't want that at all. But again it comes down to our needs and our requirements at any one point in time. So I think we're always after... when we interview... but even with the people we find who are specialists they've done some exciting stuff across disciplines, and I think interdisciplinary thinking is always relevant. And also we want to bring in people who know about fashion, or have an interest in theatre, something that is wider than just the building world. Because often what we're doing is wider than that, or we're trying to bring influences from all those things. So that's often quite crucial. But I don't think that we really want to get people who are too independently specialist focussed. I've interviewed designers before and I've said "How do you feel about working on a building project?" and they say "No, I only want to do product design stuff". So I think "Well, you're not going to work out here". Because there's almost a hunger to want to do those things that I think is very important. In the same way that Thomas does. And for us, on my course again it was a very multi-disciplinary course, you could speak to whoever... I guess we were lucky because the course itself was so wide you almost had that variety embedded as opposed to needing to go to other departments. But it did always feel a shame that you couldn't go and do printing or bronze casting or whatever, a bit bizarre. I did a Foundation course in art and design and I still credit that with probably being the best year of my education. And I know a lot of people who have said that as well. I was actively discouraged from doing it by my school because they said "No, you've got grades why are you doing this?" And I thought "Well, no, because I need to do this". Because our education at A level is

horrendous and that Foundation was the first exposure to bronze casting, metalwork, all these exciting kind of things, speaking to somebody who is fascinated by ceramics and throwing a pot for two weeks if you want to. Breaking you down. Before that I thought I wanted to be a graphic designer because my brother was, I thought I'll do what he does. And I did that and realised "Actually I'm so obsessed with three dimensional design" and that completely sold me from then on. And I think university then unfortunately has to get bound back into standardising with the rest of the country and all of this kind of stuff and they lose their individual identity again. However, I do think the course I went on was fantastic, but I still think there are shortfalls with it. But for me that Foundation was that first real exposure to that multi-disciplinary world of things influencing each other. It was really exciting.

LF

The problem at the moment is the funding is getting cut heavily on Foundations and there's a lot of the students coming to university and they're reluctant to do a Foundation.

NH

And also a lot more colleges used to be dependent on portfolio, I mean portfolio was never really good enough until you did that. Whereas now a lot more colleges, because they're standardised, they say "How many points do you need to get on to this design course". It's not relevant, it doesn't even matter. It doesn't matter if you can paint like Cezanne, what ideas are you going to bring to the table? Anyway, that was what I had to do on my A level, paint like Cezanne, great. "You get ten points. Wonderful. Thanks". Useless. I digress. A multi-faceted approach is really important for me. So even if some people are coming from the driest... well we try not to pick people who come from the driest backgrounds... but everyone who has come here has either built their own house or has done something that is fascinating and you look across the board and you've got people who are obsessed with ceramics, and there are about 50 or 60 people here who are practising artists in their own right at the weekends, and I think that's fascinating. It's really nice. We try and encourage it as much as possible, so long as it doesn't conflict with their work.

LF

Gosh, I can't imagine how they manage it, but obviously they do.

NH

I get home and want to do nothing, I don't want to think about anything creative any more.

LF

So one last thing then. Is there anything that you think, undergraduate education could learn from this studio?

NH

I don't know what it is about... I think there's this interesting balance when you're on the course to do with finding your voice and finding who you are as a designer, but that not being so far removed from a reality of being a designer. It felt like my course was simply trying to train a bunch of artists and they go off and be the most amazing artists in the world. But actually most of those will fall into a small or a big practice or whatever and I never really felt that the briefs were geared towards that. I go to other colleges and I see St Martin's which is much more about "This product looks like it has been designed for Braun or someone", it's very much from an actual driven directive. For me what I want to see is people thinking. This is part of my talk, I say "You don't need to come to that interview to sell me your idea about the ant farm that

you've designed which will produce coffee in Guatemala or whatever weird brief you've decided to design for yourself. With all intents and purposes, I don't care. It's exciting and wow! that's an interesting result. But I want to see how you got there". Because here is not about people then going "Ah, but my idea means we're going to do this", then you sulk because no one takes your idea on it. It's working with the team and how you develop thinking and develop ideas into real things. So everyone I interview I want to understand the process they went through to get from that initial sketch to that exciting thing and that's what I care about and how they explain it. So I think that should be a focus, to let people develop thinking but also how do they present that, getting people to present in absence of themselves, just with boards. So how to communicate your idea through boards, through drawings, through sketches, how to communicate when you're presenting it and giving them training in that, in a way. Doing Pecha Kucha style, 20 slides, 20 seconds per slide or whatever it is. That kind of approach can really help people because when you come you're trying to sell yourself not your work. "I'm not buying that building you've designed, don't try to win me over with projects that you've worked on, you need to show how you've contributed to be part of that team and what do you think you can get out of being here". And that's what's often missing. Some people come with scripts of trying to sell their project. Like they're trying to reproduce their viva again and their presentation. "What did you think about it?" "Oh, my tutor thought I got a design medal for it". "I don't care, what did YOU think about that?" Sorry I probably sound like I'm being quite harsh.

LF

No, not at all.

NH

That's what I kind of miss. People get so focussed into that, especially that often in many courses that final year is often you're left to your own devices, you're developing your brief, your project and you get obsessed with it, you tell people in the pub. I was waxing lyrical about gravity for a year because that was my project and I would bore people about it, but you get so into it. And then you realise as soon as you leave it that the experience you got is actually the important thing that you get out of it, not that I wanted my project to carry on.

LF

Brilliant. That's great, really helpful.

NH

I hope so, I think I was just waffling.

LF

No, it's been absolutely fabulous. So I'm going to search your presentation and if I can't find it I'll email you.

NH

Yes, of course. I've got it saved.

LF

That would be really interesting to see.

NH

It might not be very self-explanatory. A colleague in our communications department said "That's great, those things you found about the chocolate bars, they were brilliant". I said "No, no! I was saying DON'T do that". And I said "Look at

things like the Acme paper, which is beautiful piece of graphic design, how they convey things. Look at the world around you, how you communicate, don't try and...

LF

Lovely, thank you so much, I really appreciate your time. At some point I will get the transcript back to you. Thank you.

END

**Interviewee:** Fred Manson (FM),  
**Interviewer:** Lara Furniss (LF)  
**Date:** 11.09.15  
**Location:** Heatherwick Studio, London

**Notes:**

If I wish to quote FM directly at any time, I will contact FM first to ensure accuracy and appropriate context.

FM and LF started a conversation before the recorder was switched on.

LF

It's interesting what you're saying and I think that's also partly what has started to drive me to do this... to look at the undergraduate education and the specialisms and the way that they are still structured, and this attitude within the universities. I know Thomas and the way the studio works is unique... but it is inspiring other studios and other studios are working in other new and innovative ways that are not defined by a solution. And so are we doing the right thing in bringing students in? If undergraduate is their one moment where they're going to get this education, and many of them are not doing Foundations now for fear of the extra year, what is that three years about and are we doing them a disservice if they come in and they just think when they leave they are a graphic designer or they are an architect.

FM

I think that's a disservice, that's the misunderstanding of education.

LF

So that's what started me on this route. Is it all right if I go through my semi-structured questions that I'm going to be asking everybody? I'm going to interview a few members of the studio and get their perspective and different points of view.

FM

Great.

LF

So, how would you define yourself when you're asked what you do?

FM

I was trained as an architect and I worked in architecture for quite a long time, about 18 years in the public sector as an architect. Then I was appointed to a job which was a straight bureaucratic job in local government and I then for the next 15-16 years was a bureaucrat. And the interesting thing was that I intellectually had decided that I would stop being an architect and be a manager. But of course I am an architect, I have a point of view about things of architecture. When I ran the architectural practice I never drew anything but I asked questions, so I made the transition into doing it and I found being involved in local government incredibly interesting. I had a lot of power which I liked, and I could make a lot of decisions and during my time lots of things happened. We persuaded the Tate to come to Southwark which was nice, we decided and we finally got it done to build a bridge across the Thames, which was a major hassle. And I ran public services like refuse collection and street cleansing, all the regulatory functions, which enriched my view of what architects should do and what buildings are. It was really good preparation. When I retired a couple of years later I started working with Thomas and I've been in the studio since

2004 in a sort of advisory role and I'm asked to comment on things as they come up and get involved and I will be doing that after this (interview).

LF

Fantastic. So if someone asked you would you still say an architect, if you had to label, or do you try not to?

FM

When I come through customs I say I'm a retired local government officer and I don't say any more, or I say an architect, yes.

LF

Great. So how would you define what this studio does now?

FM

The studio's objective is to do exceptional projects and that was really good at the time. And it is to extend Thomas's interpretation of exceptional. It is centred on Thomas and Thomas is the person who tells people what to do.

LF

Great.

FM

The thing which I think is interesting is it becomes increasingly difficult to do exceptional things that have never been done before, and it becomes increasingly impossible when you're doing things like bridges which are just sort of static. And what we need to do is to move from doing the exceptional thing - which we always actually did - to doing the most appropriate thing. And I push Thomas a bit on this saying 'That's the right thing to do here' and even if it isn't innovative it's appropriate and I think that's a much more comfortable thing than constantly trying to be original, trying to be surprising people each year with what you're doing.

LF

So if you've been here since 2004 you've obviously seen a lot of evolution. Are there key things whether philosophically or structurally that you think are of interest in the way that the studio has evolved?

FM

Well when I came there were 12 people. And there's now 190, 180. So that just changes everything. But during that time Thomas has moved from being a sort of bubbly little thing to being a real brand. When we were in Hong Kong last week Thomas was swarmed by people, 700 people turned up for a talk on a hot afternoon, sat in the heat with a huge fan blowing, whistling across them, while listening to everything that Thomas said. And it's surprising how little it affects him but it does affect him. It's more difficult for him than for us. Because if he says 'I do this' he's got a lot of proof that people have accepted what he's done, and we sometimes say 'no that's not right'. So it's the dynamic of a person who is establishing themselves, being experimental, spending three full days working with us on a presentation, to a person who has a world recognition, famous within the small world of design, and only the shortest period of time to do it. It is extraordinary how Thomas has coped with that. He's clearly decided he's going to be calm, positive and cheerful every time he does a review. And he virtually sticks to that.



LF

Yes, I can see a huge mental shift over the last 10 years from where you were to where you are now. And what about structural evolutions within the studio?

FM

Well Thomas doesn't want to have those impinge and to an extent he wants to be free to do what he wants to do and hopes that it will sort itself out. You probably know that someone starting on Monday and it will be very interesting, the whole dynamic of that. I have told Thomas more than once that most practices like this collapse at some stage and they are reconstituted and my personal view is keeping something alive beyond it's useful life is of no benefit to anybody. And if it fails, I hope it fails for a good reason. Thomas will always find something to do. That has to be tempered of course. What has changed in the structure is that there are structures issues that have come up but now something that I do and many others do as well, is prepare individuals for doing presentations with Thomas. If you have four hours you can talk about it and things emerge and so on. If you have 20 minutes you better get the exact instructions. So the headlines of what it is you're looking at, similar things across like that, showing what the differences are, be ready with explaining what things are with backup information if you need it. So we did a review this morning and it was bumped from Friday at 6, no Monday at 6, and Thomas came in and because all the things were there we got straight to the point and did a lot of work. So that 20 minutes he spent there was invaluable. And it's an amazing skill he's got to jump from one to many other projects and then see that he can actually comment on it and push it forward.

LF

So is that quite a big part of what you do, your role within the studio, to come and help these teams to review, to be able to narrow down and better articulate exactly what it is, so that you're saving time the whole time.

FM

Yes. If Thomas has 10 minutes on the project you've got to really use that time well. And different individuals find different ways of doing it and I coach some things where they send things... if they're doing a really major change I always push that they send an email to Thomas beforehand saying 'We're up against this, we're doing this for this and this reasons' so he's not surprised. We're sending lots of drawings to him. And I have done in my experience... And I know that, so I can help out with that. It's a big part of it, yes.

LF

It seems like you're having to invent this way of working. It seems like there's no other model that you've been able to base this on.

FM

No. It was very interesting. There are critics. Francis Golding did something similar to what I'm doing, slightly more structured, at Fosters where he was asked to come along and be an internal design crit. The way I put it is, when I worked in local government and I was the boss I would say 'We're doing that' and it happened because I had authority. When I came out of local government I didn't have any authority. So I come here and I say 'I think we should look at triangles', say, and if they don't look at triangles I think 'Was it because triangles were the wrong thing, I was wrong, or did I not express why I thought triangles were right?' and I'll try again. And what I've found very interesting about it is that I have to think about the process in myself. It's not their fault or their problem, it's my problem if I haven't communicated why I want something to be done. And if I haven't done that I've got

to find another way of doing it, or perhaps what I was saying is not quite right. And I found this a really quite interesting thing to do. I often say 'I've not got the authority to tell you what to do but if you don't do what I'm suggesting I'm going to ask you to tell me why you didn't.' And there's usually some reasonable explanation.

Sometimes they just don't like what I do, the proposal. Sometimes I also take the role of pushing insane proposals to prompt people to think in a different way, and that sometimes is very, very productive. It's a matter of balancing these things to see what works. I relish the fact that I have no responsibility. At my age I just don't want to worry about things and be called up, I can almost choose what I do. But I want to influence and there's a conflict there. So I garner my influence mainly if I can give good advice to people which they see is useful and valuable, and secondly because Thomas responds to my suggestions in crits.

LF

So I have a question about the creative process of the studio. I've read quite a lot of interviews talking about the process and some relatively recent ones. What do you think the key aspects of the process are? Are there key elements that you think are most successful? I don't know whether it's about the making element and the workshop, the flat hierarchical structure? What do you think the secrets are to the process?

FM

I don't know really. It's not an easy one. When we started doing the famous Cauldron, we had the first discussion 'Yah, yah, yah' and we looked through all the previous Olympic opening ceremonies and got a sense of what it was, and knew where we were going, and we then said well it should brought together, it should be something which is showing these things coming together. We got that idea. There were two or three other ideas and probably after three sessions we had got it in principle. You put things together and they all come up and make this single piece. And there was a crude little video which we had done for that and then Thomas went off to negotiate that to be approved. So that was a remarkably quick process, really easy and then we spent two years and we looked at what every piece of the shape should be like - 'this should be flat, this should be oval, this should be round. And these things, do they interlock? How much of a variation between the sizes? Everything?' But the idea was there, and that's incredibly satisfying. It's a peculiar process at that stage where everybody's ego is pushed away, you're working at one thing, and you can speak equally about a project and focus on it and that's what works. Usually what we want to have is a three or four months time where we don't contact the client. Because we go like this (FM draws a diagram), and finally might get there. And it frightens people to see all these steps along the way. One of the troubles is they see this and they say 'Oh, I really, really love that' and we say 'Oh, no, no that's all wrong' and they say 'Ohh, but I want that over here and I want that'. But it's just a bit about what we do and the only way we can find out is by exploring all these things. It isn't going to be a straight line. There are some straight lines that are totally satisfying and there's others which are just wavy lines, but most often it's a messy curve.

LF

So you have to shield that as best you can from the clients, depending on who they are, maybe?

FM

Well it works and it doesn't work.

LF

Pauline was explaining a little about the recruitment process, which sounds like quite an unusual process. But then that makes sense because from your perspective if those people are the key secret to the process in the end you're going to have to do that.

FM

We have a wide variety of people who deal with these issues in different ways, which is good. And they have different characteristics and that's fine. And when you spot some of the people they're just really on top of it and they are what you need. Really, really incredible. By just taking the loosest most open of briefs, all over the place and then getting it into shape... On a recent project a studio member sat down and started to do some simple analytical drawings and narrowed it down to what you could do on site. And I said to her 'Why did you decide to do that?' and she said 'I felt it was something we needed to do.' No one told her to do it and she did it. And it defined what the parameters for the site were. And she's just so good at that kind of intervention, which is what you need. And there's a new guy who came in, and the project leader had been complaining about the landscaping on this scheme for a very long time, saying it's not right, isn't working, and making up why he doesn't like what it's doing, the piece being bitty and things. I went to a crit on Tuesday and it was brilliant. I said to project leader 'what's happened?' and he said 'Well, this new guy came in and he just did it, it's there.' Problems, difficulties, and he had a really interesting discussion about rocks with Thomas and what we can do with an underground car park – the discussion was at a completely different level, and he took the same thing that other people had been struggling with for months, and just got it into shape.

LF

A different perspective way of seeing the whole.

FM

Because it's a studio, if you try to say it's your project, that's really unhelpful. But you've got to add to what's been done by the studio and that's done by your personal skill. But not as a personal skill, but as a contribution to the work that's been done by the studio. And that's really, really good. There are tensions of course. One employee said 'I've been out of university for ten years, everybody else I know is becoming an associate or something else in a studio, I'm still this way. What am I going to do in the future?' And I asked them 'With all those issues do you like the work you're doing?' and they said 'Yes.' 'And aren't you doing amazing projects?' 'Yes, you're right.' But there's that problem. The best designers actually really want to design. What Thomas gives them is an umbrella, instead of having to run the whole bit of a business, Thomas gives them the umbrella so they can sit at a desk all day and do what they like, design.

LF

Yes, it's a lovely image with him flying in the air over the umbrella. Fantastic. With the teams, how are project teams selected and put together?

FM

It used to be done across the entire studio, it's now done across group leaders, so they more or less keep the people there, you have to as there's too many people. It has to do with what's happening with projects, and they start and stop with amazing speed. You could be all out with 15 people doing a submission, it's over and the next day they're all working on another project because it will be two or three months before that project will be back. Then people zoom into those. There is a degree of thinking about who is going to be right for a project, which I think is good. There's a few

people who just know everything about IT, and we're modelling things and to do this in three dimensions is actually a very, very complicated process in itself. We've now set up a team, (led by one studio member) who is going to do that for the whole of the studio. Because he can do in five minutes what they would take three days to sort out. We're slowly working towards the fact that everybody is doing research on granite, on metal meshing, on glass, when in fact one person could say 'This is what you actually need, this is what you do for metal'. And that's the one that's sort of interesting, as we have some incredibly creative people who are doing mere slog work but you don't really want just slogging people in the studio. So it's a curious sort of problem about what kind of skills you need, how you assemble that into teams, and so on. There are some projects where the group who are working on the project was actually one person who did it, everybody else was on the halo of that. Another project has fallen apart, nothing to do with the person who was brilliant doing the project and yet 'Mmm, that project failed because...'. It's really hard to do that. The systemisation of this, gathering information, thinking about it and making an honest assessment of what people are doing, it's very, very difficult.

LF

He understood the essential need and how difficult that was. The next question, in terms of growing and expanding and changing, is with the structure of the studio itself, and how the design of it supports the process.

FM

Design in what respect?

LF

The layout, areas within it, the workshop. It seems like it's a key tool to allow you to do what you do?

FM

Have you been to see the three buildings?

LF

No, but I'm going to one this afternoon and then hopefully I'm going to see the others. I met John and he told me there are two others.

FM

When we moved in to this building Thomas was emphatic 'We want to be on one level, and we want to be in one place'. And that was when we thought the maximum was going to be something in the order of 60. And you know what happened then. You see things going through etc. When you have outposts, they are very, very different. Mostly 366 is to a large extent Google which in its own respect is self-contained anyway. And they beaver away in that premise with their own product, just insane deadlines, just working all the time. Field Street I find very calming because it's very quiet. It's slightly unoccupied at present, it has a couple of projects which are just rumbling on, but it is really an outpost. Acton Street, when we go back to that, I'm not sure how it will work in the other one, I think Linton Street, I'm not sure about that, it's just space we need. Yes, for the way you work if you're in a single space, lots of things just get sorted out. If you have to communicate in a more structured way between premises and move people around it becomes a task in its own right. And that works because we move people from team to team. I think no one has stayed... The Google team have been there since they started Google. But there is quite a bit of movement between teams which is good. The organisational things are more problematic and communication of just simple instructions is more difficult. It has to be a hierarchical system, but has to be fairly structured. One of the

things that really pleased me about the London Borough of Southwark when I worked there we had six Chief Officers and six departments and we met every other week. And then each of those six people went away and met with their senior people every week, and then each of those people were obliged to meet with their senior people. So in a series of three meetings we got to line managers for everybody in the organisation. And that's good. It reduces the scope for error. What the Chief Executive could not bear that I did was that I would not only tell a decision on a party line, but the arguments of who said what and why so that they got a nature of what the issues were and he said 'No, you just must tell them what the decision was not any of the discussions we had'. And I said 'I don't think that's helpful for people, you want to be alert to what's happening'. And I know it changed my method of working. But that was in a very large organisation, 18,000 people, to see that there was this hierarchy of communication, fairly structured, to see that you get down to what's going on. It isn't necessary to know what's going on about designs and projects really but there are other things which it is necessary to do and if there isn't any formal way there are invidious and really problematic informal ways of hearing things. And that becomes the big thing. So it's unmanageable really. What we do is have a studio meeting and people present projects. They talk about those to the whole group. And there's an option for individuals to present which works well, and it's got into a very nice system where you must do it in a slightly humorous way and think about the presentation as a piece of work in its own right, and that's very, very interesting. Because they do choose good photographs or something slightly funny, and that sets the tone for the studio and lets people have some idea of what's going on with projects.

LF

So can anyone attend?

FM

Everyone is expected.

LF

Wow!

FM

Usually the attraction is a glass of alcohol before or afterwards.

LF

That's fantastic. That sounds like a great way to keep everyone connected.

FM

Larry Page has a system where he speaks by video to all members of Google on a Friday and Thomas attempts to have a session when he speaks about something. It's not quite as successful in my view. But it is a good communication thing and it's slightly light hearted and it does get the message across. But it's not a replacement for much more structured information.

LF

I'm interested in disciplines and what role they play in the studio. And again, Pauline's given me a bit of an idea of how things have shifted in terms of designers coming in with specific disciplines or broader skills. And how they then work within this environment.

FM

I think we only have one, maybe two product designers. We have one car designer? And they're working on architecture, which is fine. And we had a theatre designer and she did things in theatre, no she didn't do anything in theatre she did things on products, a little bit of interior design. We don't have a landscape section, we don't have an interiors section, and I think that's right. When we've been doing landscape usually we've been working with people who know an awful lot about plants, which is what we don't know about. And we're not good at landscaping. Most architects think they're good at landscaping but they're not, it's a real problem. But I don't know whether we could find a landscape architect that could work with us. I don't like the idea of a person being a landscape designer and only doing landscape. I do an awful lot of crits for Cabe and I do them for Transport for London as well. And I always say when there's landscape or an environmental person on the panel 'I expect you to comment on everything about the scheme. Of course you'll want to pick up things about landscape but it's about everything'. Because if you separate them out then you're trying to make one aspect of the project more important than another.

LF

So disciplines don't seem to dominate too much?

FM

Nor should they. Let's put it this way, everybody here is doing a Thomas Heatherwick design and what I would like to see is that we had people who could understand how the Thomas Heatherwick landscape aspect would influence the design, how the Thomas Heatherwick interior aspect would influence the design. The Thomas Heatherwick approach to environmental issues. So that they're applying their expertise within a shared view rather than fighting with it. That requires quite a bit of skill. We work with a couple of structural engineers who understood the way we work and who do things for us, and that's fine. And we're now working with somebody in other places where they just don't know what's going on, and it's a problem. That works quite well. But structural engineers really can just say 'This isn't going to stand up, you have to do this'. Whereas landscape people will say 'It will look better if you put a tree there'. It's not quite so overpowering.

LF

It reminds me of certain theatre director/designers who devise work. It seems there's a similarity possibly, when they travel the world with a theatre. I'm thinking of Robert Wilson. He has these core teams that he's had since he developed the Olympics in Los Angeles in the 80s.

FM

For 30 years he's done the same thing and every Robert Wilson thing is absolutely gripping, but it's there. What is so fascinating is that Robert can sit and talk for 3 hours about what he's doing and you're mesmerised and he gives you the clues which you then go and spot in each performance.

LF

He's almost the only one I can... I know it's completely different but...

FM

Robert le Page.

LF

Oh yes. But then the way he works, they're very different though aren't they? Wilson has teams in Germany he's worked with for 30 years and they will build it because they understand the devised nature of the work.

FM

And the truly remarkable thing... I haven't by any means seen all of their works.... they're always lifeless. Because people are so frightened. I remember one where some of them were walking across the stage, their mouth had to be lit by a spotlight so they couldn't move the composition and they were so stilted in their movements because of this being trapped by the light. And the Robert le Page thing I saw, Spades, flats coming down, going up here, a piece of sand here. It was a mechanical process. And the one thing about theatre is that contact from an individual to another individual and it's amazing one person can hold a room of thousands of people by what they're doing, never permitted, neither in Robert Wilson nor Robert le Page work. And you then go to see Lear with Ian McKellen and you're just there. It's contact with him. It's curious.

LF

Yes, well I suppose Robert Wilson never has a real person in real time on stage. The time is always so distorted.

Great. So then just coming to the end, I would like to ask about education (you have touched on this a bit anyway) but what would you say are the core skills that you look for when you're hiring new members into the studio?

FM

They have to be good at what they do. If they do design, they've just got to know it and they've got to be able to effectively work with it on a computer. If they don't have skills there's really little point to their being here. But what those technical things are it doesn't really matter. I think about building in a particular way which is amazing. I cannot read music and I've been with friends and they say 'Isn't that a beautiful tune' and I look at that and I cannot believe that a person could look at that and say 'Yes, that's beautiful'. But I look at a drawing of a building and I say 'That's spatial work, that one's not right, and I just do that' and I don't know quite how it came up. I don't know how. It's always the test when a building gets built, is it a surprise, it always is to a degree a surprise, it shouldn't be too much of a surprise. That's the sort of thing I think a person has to have. What people learn, what they start with and what they end up with here, is interesting. There is a way actually, maybe this is what it is. There is enough slog work where you're just going through options, you're doing Photoshop work and things which are boring, and you can take a person with the right attitude and enthusiasm but no knowledge and training and by doing that observe Thomas as an apprentice. It would be interesting to see how long it would take them to get on to the next thing and the next thing. That would be quite interesting to do. Almost saying 'What you've studied doesn't matter but your attitude towards doing it does'. And see how they get on. It means the guy who is an industrial designer who does buildings, and he's really good and he's found out things as he goes along. No problem. The fact he has no architecture education simply doesn't cause any worry, in fact it's a strength.

LF

Is there a shift more recently though now, in terms of needing... because Pauline was saying a lot of the people that they're looking at possibly recruiting tend to be more... Part 1 or Part 2...

FM

To get a project through things is nothing to do with architecture, I think child psychology would be as relevant a degree, and yet to get all that going, to keep the thing going, to get it built, to keep them happy, is the navigation route that needs to be taken. And you don't really need to have a degree in architecture for that, and you don't learn any of that in architecture courses. It's never, ever touched on in academic courses, this bizarreness in the world.

LF

So based on that and what you see the needs of the studio are, do you think uni-disciplinary education is still relevant or do you think it may be outdated?

FM

What do you mean? Just take me through how you define uni-disciplinary.

LF

Specialist focussed. Interior, exhibition, theatre, product, industrial, fashion, textiles, all the divisions of disciplines.

FM

Before I answer I'll tell you something... Cass does a part 3 course for architects, you do part 1, you do part 2 then you're supposed to work for a year then you do part 3 which is all the technical stuff about law, contracts and such things, and apparently because of the EU it has to be changed. But the woman who was doing the course decided she wanted to do it in a way that she'd bring together people from completely different backgrounds. So they're doing negotiation and stand-up comedy. The one I'm doing is planning law and screen writing. And her attempt was to show some of the messiness of these things to open up to more responsive things rather than doing it by rote. And so we're not going to go through chapter 12 of the Planning Law, thank God! But we're going to go through the general thrust of planning. And as of Tuesday we're going to do some play acting where we have teams presenting the three key stages in planning to a team. So they do a pre-app, a formal app, and then a formal planning application presentation and the screen writer will help them do that. But the thing that's interesting about that is that even in the existing coursework what they're doing is making it messier, more complicated, and pulling out skills which are beyond the net (idea) of what it is. And I think that's really interesting, and I'm happy to do it, and see how it works out, it might be a bit of trial and error. So I'm deeply confused about what higher education is about any more. I think if it doesn't do... If you don't focus hard on something you really haven't gained and you're going to start flipping around on top of things but really do one thing well. So if it's pottery and you really learn that, you've learned quite a bit. We did a programme when I was in Southwark for people who had suffered a heart attack where we gave them gardens to maintain. We took a bit of the park and raised it up to this height, and they had to walk to this garden to tend it. It was the most therapeutic thing they'd done, because they had to get up and move, their plants were growing and so they could see progress, because there were seven or eight of them there was a tiny bit of competition between them, they were all men. And I went along maybe twice, and they just wanted to tell me everything about it. They just wanted to be engaged, and their therapy was something to be involved in. And I think the teaching and learning comes from something to be involved in. And I suspect that is by focussing intensely on something rather than taking the wider view. So I suppose if I was to sum it up I would want you to have really intense study, almost on a very focussed area, which was in the bounds of a wider group. But you have to put those together, and it is not a complete education... when you finish you don't say you are a potter or an architect or a landscape architect... but 'I have these



skills that I can offer'. So when we are in the interview process, this person is someone we would like to have in the studio and their work supports that.

LF

Fantastic. It sounds great. So just the final question then. What do you think undergraduate education could learn from this studio? Is there one key thing?

FM

Again I'd like to pre-empt this. My last year at architectural school, we chose a tutor who had recently arrived in the country. He hardly spoke English. But he was thoughtful. He actually designed our project. We'd say 'Oh, I'm thinking about doing this'. And he would say 'No, no, no. What you want to do is that.' 'oh yeah, that's right.' 'No, no, no. Move this in here and put that in there.' But that's one of the best ways of learning and if people as a year were put into a studio that were doing things under someone who had a particular point of view. And at some point, it hardly matters what the point of view is just that someone with a point of view does it this way, and you can then either embrace it, rebel it or look for another one. That is in itself comprehensive education. The way architecture is taught is by a studio, and it came from Ecole des Beaux-Arts where there were famous architects who set up the Atelier, and then the people worked in there and they worked to help each other and the younger people did washes on the drawings and the more senior people did these things as a team. And it was to a very large extent like this studio except it didn't have outside commissions, they were students. And unfortunately what's happened, is that because everyone is doing this and they're doing that at home, they're not in the same space. The time that I was at university was right at the end of the time when people actually worked in the same room. Of course that's the dynamic that's important. If this was a student place and the students were doing a project under someone who had direction for them, they would learn a great deal. There's a book by Donald Schon called *The Studio (The Design Studio)* in which he talks about the studio as an educational thing.

LF

I think I've heard of it.

FM

It was actually unbelievably written in 1985 and I read it when I was in my house. It's a bit gushy about things in there, but there were the same issues for architecture and education at the time. He was really saying the way... he goes carefully through a crit and how the crit was an open ended discussion and sometimes the teacher was directing, sometimes asking questions and the students responded. He was really, really pushing the studio as a model for other disciplines to use as a way of learning and thought it was a really good thing. Do you know Jeremy Till, he's head of Saint Martin's Architectural side? He's saying 'Why would people come to architectural school when they're paying all this money and there's nothing really for us to teach them, it's a big problem. But he got worked up about architectural research and rightly said that most areas you do things and then you do research, in architecture you are researching the entire time. If someone said 'We've just been given a £50 billion project and we're doing it for the first time' and they say 'Wow, that's an amazing research project'. Well we're doing a £5 billion project which has never been done before. It's pure research. And I was arguing with Jeremy and he was agreeing that we should go to the Research Council, because of course grants are now given with an aspect of research in them, you may know Cambridge wanted to close down it's architectural school because it didn't have any recognised research projects which reduced the whole School. If people understood that everything we do is live research, application of ideas to a unique situation, then they'd say 'Wow, that's a

really, really interesting way. How can you balance environmental things with spatial things and keep them all going and come up with a single idea? How in the world do you do that?' And they would be looking to us to see how we do that rather than saying 'Oh, they don't know anything about research.' And research projects as they're defined in architecture are pathetic. 'What's the impact of a pink ceiling on the feeling of people in a room?' Yawn. And I think that there's a real potential for a studio continuing to be involved with architectural education where the people actually work in one space. The conceit in architectural education is you give them an abstract problem which they treat as if it's a real problem and that works only to a degree. Florian Beigel tried to do this at Metropolitan University which is now at Cass, to take real projects so they had a real studio that were doing real commissioned projects. It works to a degree and they actually built the place where they now work. Florian's a funny guy, strange. There's a task for you to find the project. But a bunch of students in one place working together jointly on real projects could be very, very interesting.

LF

We strive to do that but it's a very difficult thing to manage, difficult thing to assess, and then you have all these other problems. I do see people trying to do that, to try and hold on to that, but space is a massive problem with much more hot desking so you can't get students together.

FM

What the AA did is they put a place out in Dorset or Devon (Dorset – was John Makepeace's school Parnham) where people go and build buildings. And that's quite interesting and is supplementary to the degree. Part of the thing is the peculiar assessment of the achievement of people. You sort of say 'If you're not doing the right thing we'll kick you off the course, if you've been through it you've been through it'. Make no decisions between the person who's scraped by and the top, you'll find that out. And it's not a definitive answer but it's an exemplar of what you're trying to do. I started my studies in the United States and came to the Architectural Association and thing that was utterly amazing was the assumption within the Architectural Association that you were absolutely brilliant and they would do everything they could do to help you. And that's amazing and wonderful and the challenge was for you to take advantage of that, rather than to just slip by. They weren't 'Why are you trying to do that?' and that state of mind is wonderful.

LF

That must have made a real difference to you.

FM

I was an external examiner at Westminster for five years, actually seven in the end, and one of the most striking things was there was one woman I just wanted to fail. I said 'She's not doing anything well, her detailing is bad, everything is bad about her, she can't explain what she's doing.' 'Take a deep breath, she's Greek. We get a call from her parents every week. They basically say 'We're spending a lot of money, our daughter's going to pass. We can't fail her'. And of course it actually means the parents knew their daughter was useless but they've invested in something and in the end we negotiated – I didn't stand up and say she had to fail – a low grade. But why does anyone believe grades? Just say 'Yes, that's fine, you've done your things.' It's so distracting.

LF

I deal with the first years when they first come in, and you build up this fantastic relationship over four weeks, where you're getting them to experiment, to play, to be free, to open up, and then you have to give them a percentage mark.

FM

It's pathetic.

LF

And the relationship, everything starts to change, you start to feel the potential and then they close up a little. It's a real shame. In Chicago with my Masters there was just Pass and Fail, it was two years, so long as you met with the relevant people and you were producing that was fabulous.

FM

It must be right. That's so fascinating and it's so obvious isn't it that all of a sudden this has been marked higher than this one and this has a distinction. Someone said the bottom ten or 15 percent, most people know about those, and yes these are the issues you should deal with and recognise, but the in between, there are so many fine grades that everybody... you'll aggrieve more people by helping those than you'll support and it doesn't work. It's tough but... no grades, just see the work people do and then they can make something of it. The year out was meant to be for architectural students that they would work in an office for a year, and a lot of people come in here for a year out and they say 'Oh wow, it's really, really useful.' And you try to ask them 'Well, what did you learn?' and they can never be specific about it which is really the plus point. 'I just know what's it's like now.' They've had to go through good crits, bad crits, seeing things, rushing to get things done to a timetable. And there's an amazing thing to be said about cookery school and it was with Terence Conran and he said 'I want them for the first day to do something' and unbelievably when you go to catering college you come in at 10am and work to 5pm in the afternoon or 3, and you have courses on the theory of vegetables and stuff like that. And they then admit 'Actually I can't do these hours working late at night' so the first day in your course you worked in our cookery school and always I would take people there for meals and I would ask 'How long have you been working here?' and they say 'This is my first day.' But by the end of the first week they realise do they like the rapport of working in a kitchen, do they like working from 3 until 1am, and was this something they wanted to do. It seemed so self-evident and that was a pretty important aspect of working in catering. OK, restaurants. And it was what they learned from our course. Yes, a lot of them may have learned how to chop vegetables and yes they learned about how to do other things, and there were certain courses that you did and it was interesting. It failed because it's always cheaper for restaurants to snatch trained people from other restaurants. And it went back to you'd get the lowest job you can, and from that you'd go to the next best place you could go, working your way up, learning by your own instinct until you could get a job that you want. Not a bad progression really.

LF

Thank you.

FM

I don't know what you'll make of all this.

LF

It's absolutely brilliant. Thank you. Very, very helpful.

FM

Who else are you seeing in the studio?

LF

Today I'm sitting in on design panel review this afternoon which is great. Next time I'm going to the workshop, the archive, and talking to Amanda about the studio system. And the next visit I'm seeing Thomas at 4 hopefully, and I might be meeting Matt as well to get a group leader perspective.

FM

OK, well I hope it all works.

LF

So I will eventually get back to you so I can send through the transcript.

FM

I usually ask if you're going to use a quotation let me know beforehand. I've never said no to anyone, but I just like to know what you're saying.

LF

So if you see the transcript then you'll read that and then if quotes are used in the PhD or in a presentation I'll highlight those and let you know they're the ones.

FM

Just to see the context and that it's accurate. I don't think I've ever said no to any but I would just feel slightly better about it.

LF

Yes, I've got that on the transcript so it will be there officially.

END

**Interviewee:** Alice O'Hanlon (AOH)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 23.09.15  
**Location:** Heatherwick Studio, London

**Notes:**

LF

How do you define yourself when people ask you what you do, outside of the studio?

AOH

Outside of the studio? It really depends on who I'm talking to.

LF

I like that.

AOH

Because archiving is a very specific niche field so certain people I talk to I would lead with that because they would fully understand what archiving was. Someone who I thought might have no idea what it is I would always lead by saying I work at this studio and these are the sorts of projects we do and these are the sorts of people that work here. And then I would go on to explain what my role was, kind of in the context of that I guess. So it really depends. Does that make sense?

LF

Yes it does. I think that's a common answer, depending on who it is and how you start approaching it. It's not so straight forward.

AOH

Because obviously I'm kind of part of the archiving community and meet up with other archivists fairly often so I would just talk about my role as the archivist here. But other people...actually because very few art and design and architecture studios would have an archivist most people would probably be quite confused about that or wonder what it entailed and I'm sure it's different everywhere but, yeah.

LF

Yes, the only one I've read about before was in a study about Olafur Eliasson.

AOH

Which studio?

LF

Olafur Eliasson.

AOH

I know a few artists who have archivists and also Fosters and Rogers Stirk Harbour and Partners, and I presume Zaha does in some form because she's opening a museum about her studio so she must have. I'm sure there's probably also other studios and maybe they take different forms or they're called different things. They might not have the kind of formal training. We're a rare breed in this sector, I think. So it's interesting to me that it's becoming more common for people to have that kind of consciousness of their archive and they're still practicing.

It's quite a trendy thing.

LF

I can imagine so much could so easily get lost, physical things, non-physical things, the idea of trying to keep hold of it and recording it as you go is key.

AOH

To make sense of it as well, that's the thing, well we'll get on to that. Because when I started everything was physically downstairs, it had been kept to a degree. But unless you know what it is then its value significantly decreases. But what me and my colleagues are also doing is almost like pro-active archiving, to encourage people at the time of production to keep more, document more, to take photographs which is interjecting in a way that wouldn't have happened with traditional archiving because you'd usually just inherit an archive of an artist or designer and then sort through it and put it into an order and make sense of it. But what we're doing more here, as well as that, is to make sure things are captured and protected in the first place. I'm kind of interfering. But hopefully to a positive end. It's interesting.

LF

Fantastic. So could you just perhaps tell me a bit about your design background and what brought you here in the first place?

AOH

I have quite a varied background. I did my art foundation but then I did an English degree at UCL and then worked for a number of years in art administration and events organising for various different arts culture/heritage/places. So I worked for the Museum of London, for the RIBA for a couple of years, for a literary membership association. Then I had a bit of a career break and went travelling and decided to study Fine Art MA at Camberwell College of Art and it was through my art practice and research there that I got really interested in the concept of archives in a quite conceptual way and I was starting to think 'Well, I want to carry on my art practice but obviously it's very hard to make a living doing that, so I kind of want a job as well to do alongside that is something that I feel really passionate about'. And so I applied to study an MA in Archives and Records Management at UCL. There's only 5 public universities in the UK that do that qualification, and to even get on to it you have to have heaps of experience. So everyone ends up volunteering for ages. I think there was a bit of a cross-over, so while I was studying my previous MA I started doing bits of voluntary work. So I volunteered at the V&A archive of art and design, the British Postal Museum, the Natural History Museum, various places to build up my experience and I was keen to focus on art and design archives just because that built on my personal interests and experience. It seemed more like an obvious route to take and also I thought it set me apart a bit because most people I studied with studied history and Latin and things like that and wanted to go down a much more traditional route. So I was doing my studies and then I just saw this job opportunity come up and thought it looked really interesting. I researched the studio and came and chatted to them about my background and my studies and they liked that I had the combination of formal training with the natural background and interest in that area so it was a good fit really. But it was quite daunting as well as a first proper archive job because there had been no archivist here before me so I was having to set everything up from scratch. It was my first paid archivist job as well, also quite non-traditional, because most jobs you get as an archivist you go into an archival institution which already has systems set up and you're following on from someone else. But also it's more that kind of retrospective archiving whereas this is very much a live environment. But I was excited to take it on and see what happened. So that's how I ended up here two and a half years ago.

LF

What are the core things that you have to do within your role?

AOH

The core role and responsibilities?

LF

Yes.

AOH

I'd say broadly speaking it falls into two categories. There is lots of historic material to deal with. Downstairs you'll see the archive space is almost as big as up here and it's full of physical objects. When I came here they were physically down here roughly in chronological order. Although because no one had been managing it that closely there was a lot of disorder. The first job was trying to put everything physically in order. But there was no database or information really captured for any of the objects. So there's been a lot of setting up systems and processes and creating a database from scratch. The long term goal is to take every physical item and photograph it, condition check it, catalogue it with information, put it into the database, repackage it, think about its conservation. There are over 10,000 objects probably. I think we're up to 1,000. Apart from the physical there are digital archives so I've been working with the digital team and someone else to think about our digital preservation strategy so that's a big chunk of work. But we're only really starting to find our feet with that because it's so huge. And then there's the live side of things. So the space downstairs is very much used for overspill so we have about 23 live projects at the moment and we're continually making physical objects for those and we instantly run out of space up here to store those. So they have to come downstairs. And people just call it 'Archiving' and I've had to just let that go because it's too complicated to explain formally what an archive is, so we just term it as 'Live Archiving' and then at key stages in the project, at the end of the project, we do a big appraisal session and confirm what we want to keep and what we don't, and then that formally becomes archived. So the space downstairs is half historic and half live and because of the pressures on the space, because we ran out of space over a year ago, also my role involves getting things catalogued and sent to off-site storage because we don't have enough room any more. That's quite a complicated process. Getting information for the objects, checking they are in ok condition, thinking about how they're going to be packaged and transported and kept in a good condition somewhere else. So there's a lot of pressure on the space. I would like to spend all of my time cataloguing and doing those nice more conceptual things but there's a lot more storeroom management that comes into the job at the moment. When I started for a couple of years it was just me but I've managed to extend my team so now I have an archive assistant, and a conservator who has just started recently. So we're now a team of three, which is a huge difference actually. The archive assistant focuses on the live archiving, being the bridge between the archive and the project teams and the workshop and getting stuff into the archive catalogue as soon as it's made and taking stuff down for people. Whereas I'm trying to think of the bigger strategy and catalogue the more historic stuff. But that's just the project archive. So there's also Thomas' personal archive as well, all of his sketches, notebooks, diaries, personal objects he's collected over the years, gifts from people, awards, photographs from decades ago, there's all sorts of stuff in there. So there's that as well to deal with. It's a very, very varied role. And working with the exhibitions team to plan for exhibitions and what's safe to go in those, or even showing them what's down there, but then thinking about the conservation of objects, helping them with curating up here.

LF

It seems to be constantly changing. It's changed from a week and a half ago.

AOH

Yes. So we talk about what's down there that can come up, what's safe to come up, thinking about the environment here. We're about to put UV film on the windows to protect the objects, because as you can see it's not good for them.

LF

Is that what happened with the colour (on a rolling chair)? I was wondering what happened with the colour.

AOH

So yes, it's very, very varied. And working with the live teams as I said, to encourage them to think about what's entering the archives and making sure if they have important meetings with clients, or if they're making important prototypes or testing materials, anything like that that they're photographing, videoing.

LF

So you're archiving process all the way through as much as the finished product?

AOH

Yes.

LF

So even if a client... there's this lovely diagram (I show the diagram in the note book) and that's what the client sees and what they miss.

AOH

Yes, so we want all of that (what they don't see).

LF

So you record all of that?

AOH

Yes, we want more of that than the final really.

LF

Because the final is more obviously recorded, but this is very easy to get lost.

AOH

But also it's very curated and edited and we choose to tell a particular story. So my selling point... I have to be the person who is saying 'Right, while the studio currently exists our archive serves the purpose of going into exhibitions, being a very public facing thing, but also internally acts as a kind of source of inspiration and knowledge for current studio members'. But my job is also to think what happens when the studio doesn't exist any more, in however many years, whenever that is, what's going to happen to all this stuff? The chances are that a bigger institution will absorb it into their collection hopefully, like the RIBA or somewhere like that. God knows because it's huge. But if they do they need to understand what it's about. Everyone has a different opinion, but what I would like is for our archive to tell a very honest full story of a project from start to finish. So it's not just this edited, curated output it's everything from an idea scribbled on a napkin through to the built building. It has to be. An archive should be everything that's naturally produced as a by-product of our activity. Ideally we should be keeping everything but we have to make pragmatic



decisions, because we make one-to-one mock-ups and prototypes and we just can't keep all of that. If a project goes on for ten years we make hundreds of models and it's very hard to keep all of those. But the argument would be if you're going to destroy something at least photograph it before it goes. With large prototypes that we test, we encourage people to take really extensive photographs of the process of doing that so even then if you destroy the object you've still got the record of the fact that it existed and how it was used. But my job as the archivist is to try and make sure all of that behind the scenes process that drives us, that is the heart and soul of the studio and how we work, that that is kept. And I think that's the biggest culture to change because as people see it at the moment, they see 'Oh, this stuff goes into exhibitions and into our books' and they're very conscious of that, and they want to tell a very particular story of the project. But really what we want to do is save everything so that we have the option in the future to tell a bigger story. This is what happened from A to B. And in the database we're recording every single person that works on the project, every single maker, if we log a model we put every person that's worked on that model. I think the tendency in the past was it's Thomas' archive and obviously everyone knows who Thomas is and they're all his projects, but you end up with all these objects and files downstairs but with no other information, it's just Thomas's stuff. I wanted to make sure that we're capturing the people history of the studio as well as what the studio produces. I think that's really important. And that's what we try and motivate people with, but I don't know if it works. That's the biggest challenge. They are so focused on their deadlines and client presentations, so everything is driving towards that. People really just see the archive as a kind of storage space for their project, but we try and make them think a bit more long term about what it means to the studio. That they were once students researching architects and they would love the opportunity to go to one of their heroes' archives and see all of that material and see how they worked. So we try and encourage them to think in that way as well about here, and have a long term view.

LF

Because it seems to be such an interesting and valuable process, that so many... even university institutions could learn greatly from it.

AOH

The fact that we have our workshop in-house and we put so much emphasis on making so to then just chuck away stuff we've made, it edits out big chunks of the story. I think some people would only keep presentation models, but I think we should keep all the sketch models.

LF

This is so key, and so unique, because most other studios wouldn't allow the time for this (referring to the diagram). This is why the end result is so fantastic. You wouldn't want to pretend that you had the idea and you just came up with that.

AOH

When I talk to people they say 'No, we shouldn't keep that model, because that idea was a dead end and it doesn't feature in the final design'. But my argument is that it was valid at a point in the design process, we don't just waste time making things for no reason. Any thought you had, any idea you explored was valid at that moment in time so it's part of the story. It's like following someone's stream of consciousness. If you start lifting out things it's not really going to flow. You kind of need all of those roundabout things. Someone else coming in from a completely objective point of view might be fascinated by that trail and think 'Oh, I can see actually why you made that decision and why you u-turned'. Whereas someone who has been ingrained in

the project for years they might not have that perspective any more. It becomes a bit stop start.

LF

It's exciting.

AOH

Sorry I'm rambling.

LF

No it's brilliant. I'm itching to go downstairs but I really want to ask you these questions at the same time. So how would you describe the creative process of the studio? Because the fact that you're recording it, you possibly know it better than the people who are working in it.

AOH

I think because we get odd fragments of stuff coming to us, it's not necessarily in a chronological order, like sometimes it will be down to space. So someone wants to archive the biggest model in the project bay because they need to clear space. I wouldn't say we always get a very clear picture and I've only been here a couple of years. I remember talking with people like Amanda who were involved in the systems and saying 'Is there a clear path for all of the projects that I can use to understand archiving?' But from what I can glean it does vary quite a lot from project to project. Some are competitions. Some people come to us. Sometimes we're starting from ground zero and others we're starting from a slightly further along point. My sense overall is that we're very – and I've heard people say that other studios, other practices probably have two or three ideas and settle on one quite quickly and then spend more time refining and exploring that one idea. A lot of things are explored early on. So we will have for a project boxes and boxes and boxes of early sketch models, potentially hundreds before you've got to that more schematic stage. There's a lot of exploration so I guess I probably have a better knowledge of that stage because that's when we're producing more physical material. Then when we get to schematic and design it's probably much more digital and I don't trawl through digital files, I'm not that familiar. And then beyond that it's the presentation models that would be presented to clients and things like material testing and samples. Projects would archive those sorts of things as well. So I can see what a wide variety of materials are brought in and tested.

LF

Great. What role do you think design disciplines play in the studio, if any? Do you see the different disciplines?

AOH

I don't think I'm the best person to ask about that. I just know that projects tend to have a variety of people at different stages in their training on them, and that it's a mixture of designers and architects but obviously some of our projects are more architecture driven and some are more design driven. But I think as far as I'm aware we're trying to get better at pinpointing what people's particular skills are and place them in the right places. Whereas now we're trying to really harness people's... and I think that because we're having champions and people heading up things, my sense is that they would end up working across lots of different projects rather than working on one or two which happens now. But I don't know practically how that works really.

LF

So obviously it doesn't play any part in the archiving, your pure focus is on the project itself whatever that is?

AOH

Yes. Quite recently we've started piloting this thing, and I'm not quite sure how it's going to work, that each project has been nominated an archive champion, who is the bridge between the project and the archive. So they're meant to be the person who is the most conscious of archiving the project and should tell us when they want to archive physical material and fill in the form and should tell us when they've taken new photographs of something significant, and tell us when they've produced a design report. We had three or four initial meetings, because there's obviously 20-odd of them, so we did the three sessions where we split them into groups of six or seven and we did a presentation about what our current strategy was with the archive and all the things I was talking to you about with the point of it and what we see its value being, and what we would like them to do. It's kind of a useful tool for us if people have questions for their project, and we can say 'This person on your team is meant to be the archive champion and perhaps they can help with this stuff' but I'm not sure in practice how it's going to work. But it's still nice to have nominally a person on that team who you can go to and ask about things but we tend to have several people from a team coming to talk to us, so there can be a bit of a crossover of communication. I think you just have to accept it's always going to be a bit ad-hoc because it's not at the forefront of people's minds.

LF

Is there ever time for a team at the end of a project to be able to sit and then go back through a project and see the value of reflecting. Because if you're able to document the whole process you've got a fabulous tool right in front of them to sit and go through. It seems like that could be such a valuable thing.

AOH

Yes we do try and do that. Either at the end of a project or at a key stage, say when they've reached the end of schematic or the end of detail. Not that many projects have finished while I've been here. But there have been a couple, we have gone down to the archive and laid everything out. And partly I think we've seen the reaction of people that it's a really valuable exercise for people and they do really enjoy it and there's a lot of 'Oh, we forgot about that' or 'I remember making that' and it can bring back a mixture of memories and emotions for people. But that's really important for us to just get them in a room and lay everything out and get a sense of the chronology because it's not always obvious at all what order models were made in, and to get a kind of brief description for each thing. It's not in good enough condition and we can't invest the time to fix it or bits are a direct duplicate of something else.' My preference would be that that was very rare that we get rid of stuff but obviously I have to be partly driven by people on the project because they have the best knowledge. But it would be rare, hopefully. So that's the idea. And we also started introducing a thing which is hard to stay on top of just because we have so much work. But we were calling it like a project stage questionnaire, so when a project reached a key stage we would sit down, myself and Rob, with either the archive champion or someone who knew the project quite well, and get a conversational subjective frank telling of the project to that date. And we just want to catch people's thoughts at that moment in time because things change with hindsight and you forget things. Just to say 'How's it been going? How do you think decisions have been driven? Have there been particular inspiration points? What would you say are the key elements of the project? Like for the Garden Bridge there would be the furniture, the benches, the planting, the balustrades. Just defining basically what they feel are

the key things they've been working on and how decisions have been come to. Funny stories, or anything like that. Again it's this more behind the scenes honest reflection that perhaps would never be captured otherwise. That's something that we're quite keen to do. But when you've got 23 live projects and you're dealing with trying to get through 10,000 historic objects and trying to create space for all of the stuff we're producing it's very, very hard.

LF

There are so many different strands to think about.

AOH

On Friday afternoons we have the studio meetings and you hear what people have been up to and someone will say 'We were out in LA last week and had this amazing meeting' and you're thinking I can't remember what the initial question was, but appraising is a good thing to do.

LF

So just my last point, because I don't want to take up too much more of your time. What do you think undergraduate education could learn from the studio in terms of the processes here and how the studio works and thinks?

AOH

Gosh. I was just interested here at the variety of people working here with different qualifications. So I think we really draw out people's skills and have an interesting variety of people here. I think that's quite good for people at the beginning of their training that you don't necessarily have to go down the obvious route. I think we're quite unique in having an exhibitions team, and an archivist, and all these people that are supporting the projects that go on and that those other roles are available. In terms of how people work and how they're trained I think the fact that we have the lunch time talks is really interesting, that we bring in people quite diverse in areas like artists and designers and product designers and material designers to do talks about what they do so we can learn from external people as well. But yes I think the process of the way we work as well, like starting from scratch and having no pre-conceptions at the beginning of the project, and just starting from nothing and building up from there, it's quite an artistic process. Often when you see the sketch models and materials tests it could just be a blob or you know it just doesn't bare any resemblance to the final thing, it's really fascinating to see that process is worked through and it's a very visceral and emotional, materials-driven thing. It's not like 'Right, we've got to design a building. How many floors does it have? How many people are going to be in it?' It seems to be a much more organic thing than that.

LF

You've hit the nail on the head with quite a few key things there. Thank you.

AOH

Shall we go down stairs?

LF

Yes please.

(After the formal questions are completed, LF and AOH go down to the archives. An informal conversation starts before the recorder is switched back on, discussing the reduced making facilities and work space in universities now)

AOH

Do you think they realise that before they start the course? That they're not going to be able to make in that way? Because there must be so many students that are driven by that, who are very artistic.

LF

I think the strong students will do it no matter what. The problem is for the weaker students who perhaps don't have the confidence. The designing of new university space is being driven by people who don't understand creative work and creative educational needs.

AOH

So is this part of the focus of your PhD then?

LF

It's becoming that. Initially I was interested in the creative process, and space is obviously a part of that. But use of space is becoming very important.

AOH

That's so funny.

LF

Yes. But I'm not saying anything that other people haven't already said now. It has been said and it has been said in the papers in lots of different ways.

AOH

Is your PhD not just focusing on them, it would be looking at how other institutions are running their departments as well?

LF

Initially I was just looking at design studios and their practice, creative studios who aren't defined by a discipline any more. Because more and more are working this way, inspired by Ron Arad, Thomas Heatherwick, and I've realised a lot of other things. The development of technology, there's a whole rise of social awareness and people wanting to do other things. So it's not just about going to a big named architect, it's about designers having their own philosophies of wanting to do new things in different ways. So you see the wonderful explosion of flexibility of thinking and yet education is becoming more and more narrow and restricted. And I thought this just doesn't make any sense. So the PhD is supposed to be looking at the processes of the studios but it's becoming more and more apparent that the implications for education are massive and we are not, in education, keeping up. They are slow moving corporate machines any way but they're really not getting it.

AOH

Archival training is even worse. I did mine at UCL but it's the same modules at all the colleges and it's still so focussed on such traditional, physical objects and things like palaeography, transcribing 17<sup>th</sup> century documents, and I think there were one or two modules about digital archiving, and digitisation. And three of us out of a course of 40 chose to do a digital humanities module all about digital humanities and research done through digital forms. And it was totally fascinating. And all the jobs you see coming up now, that's the future. That's the thing everyone is interested in. Yes, the physical will still exist but it's how to engage communities in them through digital platforms and crowd sourcing and all this stuff, and the course is just so behind the times. And it's failing the students because they're going out to a world where the jobs they're being trained for do not exist. And they're all having to deal

with digital preservation and none of us know what we're doing because we haven't been taught properly. And you're paying £9,000 for that education and it's not what you need to know.

LF

And it's getting more and more of a problem isn't it. The report was the first round of interviews and Thomas took part in that as well early on. And it was a whole cross-section of people, not necessarily designers, but people within the design community, experts in different ways. Heads of the D&AD, the Design Business Association, authors, educationalists as well. And all of them passionately felt that undergraduate education wasn't doing the right thing and actually to my surprise they were all involved much more than I thought when I actually contacted them, because they all cared so much about it, and they all felt that a design student shouldn't be... And Fred Manson said this when I interviewed him a couple of weeks ago. If a student leaves undergraduate education thinking they are just a this or a that 'I am just a graphic designer' then education has failed them. But that's exactly what it is still doing.

AOH

It's just amazing because the world is not like that any more. Everybody does multiple things.

LF

It's too complicated, the university systems are so rigid and now they're cost centres, it's all about finance.

AOH

A couple of years ago I had a special tour of the new architecture studio in Central St Martins up the road and they were like 'It's so fabulous, all the walls and desks can move, it's all about hot desking' using all these trendy words. And I thought 'Is this a good thing? Isn't this quite unsettling if you're a student trying to make work and you just want your space to do stuff in.' And we're saying 'What kind of contact time do they get?' and they're saying 'Well we don't really do one to one tutorials any more because we don't feel it's what they need. What they really want is feedback from their peers rather than from us, this one individual on high telling them what they should do, so we just sort of focus on group crits'. And you're thinking 'That's bollocks, you basically don't have the teaching staff or the times. You're making it into this other thing which is complete nonsense.' Yes, of course you go to university to be peer reviewed and you all bounce off each other but you also want... that's why you've gone to an institution, you want that knowledge and guidance from people who are meant to be experts in the field. They're just getting no one to one time. And paying serious amounts of money, it's like daylight robbery.

LF

It's not good.

AOH

I was really lucky. I did my Fine Art MA part time for two years at Camberwell and it was an amazing course, an amazing course leader and we got so much one to one time with her and all the other lecturers, and visiting lecturers we had. We had an amazing relationship with the community because it was only 40 people on the course, so we would constantly have the opportunity to exhibit at local galleries and then they closed the course after four years and merged it with Chelsea, because they were basically the same course, let's just merge them together. Probably everyone who was at Camberwell wanted to go to Chelsea anyway. We were all thinking 'No, we chose to come to Camberwell because it's a completely different culture and it

allows for a broader diversity of people because you allow part time study whereas Chelsea does not'. My unlucky friend who started the year after me did a year at Camberwell and then her second year at Chelsea and they were constantly complaining. It was just terrible because suddenly there were 130 people on the course, they had one tutorial each term, no exhibiting opportunities, hardly any group crits, and because the course was so huge that sense of community got completely ruined. It was basically full time students, part time students, there was no integration and even then it was too big. It was just terrible compared to the first year. And they're putting the course fees up to be one of 130 students instead of 40 with no contact time. And prepared in no way whatsoever for the real world.

LF

It's a bit dire.

AOH

I have a young son but I just think if he got to university and he was interested in creative, I don't know what I would tell him to do at this point in time. Figure it out another way maybe. But it's such a shame because my experience at Camberwell was pretty amazing and I would definitely have told other people to go there, but not now. It's such a shame.

So what do you teach?

LF

I teach in School of Visual Communication and my course is Theatre, Performance and Event. I looked at undergraduate courses everywhere and it was the only one I could find that I thought was starting to do things right, reflecting practice.

AOH

I got on to the reserve list for Motley Theatre...

LF

Oh, did you? I did a little bit of teaching. I was designing at The Gate so I came in because they were designing for the same play. It was a brilliant course.

AOH

It did sound good but obviously not a route to money. Not that that's what drives me either but you need to live don't you?

LF

You do and at some point it gets to the point where you need to make that choice. So I'd chosen the BCU course because I felt it was very responsible because if they want to just be pure theatre, brilliant, and hopefully we can provide all the practical and thinking skills for that. But as a theatre designer, I ended up getting all my other design work because clients liked my theatre work.

AOH

Well bringing it back to here I think that's what we really like about people and pride ourselves on. The fact that there's someone working in the workshop who has studied ballet and then sculpture and then ended up here. Pretty much everybody here does something on the side that's creative or has a really interesting past. I think we choose people for those reasons. I've done sets of interviews now and we always say it's half CV and half 'Will they fit into the culture?' It's about people's attitude and are they interesting people. Not like 'You need to do this, this and this

on the side' but we're really interested in people, curious people, from interesting and diverse backgrounds because we see how that feeds back in.

LF

Well that's something that came out of talking to Amanda as well, and that's absolutely fascinating. That's Hugh, Thomas's dad?

AOH

Yes.

LF

It seems like he's played a big part in creating that sort of creative culture throughout the studio and understanding the importance of that. He seems to be integral. It makes complete sense. But then everything that you read about this studio it makes total sense but nobody else is doing it.

AOH

I don't practically know how that works. Actually what I think is interesting is that we have these design reviews now on a Friday morning, I don't know if you've heard about those.

LF

I sat in on two a few weeks ago.

It seems like it would be great for everyone to be a part of the design reviews, to get a sense of the process of what's going on. The two I sat in on were great, with all the questions asked, and the circles they went round in on one of them, round and round and round and round, asking the same things, perhaps three times they went round, in three circles. It was fascinating! The places that I've worked in would have said 'Right, forget it, move on, we're not doing this again.'

AOH

Is that because people weren't giving the answers they wanted?

LF

I think they just couldn't work it out so they just kept going around in circles.

LF

But it felt like you had the permission to do that, and no one was getting frustrated with anybody else, which I thought was quite exceptional. Normally I think someone would have got irritated. Someone would have said 'Stop it! We've had enough of this.'

AOH

If it's any interest my step dad teaches at Coventry in the art and design department, he's on the BA Fine Art course, and is just this year started an MA in Painting but I'm sure he'd be fascinated by this topic.

LF

Many people are saying we need to be following more of a fine art model and maybe the fine art model is more appropriate to now.

AOH

Flexible.



LF

Yes. It's interesting with many designers now preferring to be referred to as designers, and they won't even be interviewed if you say 'We want to interview you in the design capacity'.

AOH

What do they want to be called?

LF

Artists. Even though they are, as far as I understand, designing things. But it's almost like design is a dirty word.

AOH

That's weird because I'm sure art used to be a dirty word. Hasn't that flipped around?

LF

Yes.

(AOH has an incoming private phone call so the tape recorder is switched off and LF explores the archive).

END

## 16.3 Jason Bruges Studio

**Interviewee:** Jason Bruges (JB)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 04.12.15/23.12.15  
**Location:** Jason Bruges Studio, London, and at home via Skype

### Notes:

JB says that they have a process description written down and that he can send it to me.

### 1<sup>st</sup> INTERVIEW – in person

LF

How do you define yourself if someone asks you what you do?

JB

It's very contextual. In the outside world, if I'm at a dinner party or speaking to my kids' friends' parents or something like that, where it's out of context, I'll say I trained as an architect but now I work as an artist and I have an art and design studio which I run to help me produce and build work. It's a bit of a long hand thing but it's essentially true. Probably the shortened version of that might be architect-trained artist working on site-specific installations. It's all quite long hand. What I get called, probably all sorts of things. I use artist quite a lot, I use the Venn diagram that's almost like art, design and then architecture coming together and it being a crossover between those really. Visually and probably descriptively that's probably an accurate crossover of the things we're doing. In terms of the briefs, probably in terms of what the work is and does, that's probably true. In terms of how we run as a business we are probably somewhere between an architectural practice, an art studio and some sort of digital design studios. I suspect we're somewhere between them. There will be certain things we do and certain things we don't do that work in different ways.

LF

Does that relate to how you define the studio as well? Does that all fall into the same bracket?

JB

Right now we have two threads of work which are art commissions and design commissions, at the outset. And we're defined really by the philosophy and the palette – it's a mixed media, quite high tech architectural palette. But it's all very much about bringing spaces to life, working with the built environment. For some people it's quite easy, they're commissioning us to create artwork as far as they're concerned. That's one side. On the other side we're solving problems for people. So where the brief is more function-led we're designers, and where it's more art-led we're artists. It's a blurry line in between those two things really. But as far as the art world goes we're not artists really, because we're not a bunch of classically trained artists, so they can't get their heads round that. As far as the architectural world is concerned we're very hybrid, so again we're on the very outer reaches of architecture as far as the architecture world is concerned. It's quite interesting really. And in terms of clients we're described as artists, lighting designers, digital designers, whatever is convenient.

LF

You just slot it in.

JB

We say “OK, yes, we do that”.

LF

How has the studio evolved? You set up in 2000?

JB

2001 to 2002. I started building the work we’re doing now in 2000. I probably actually started doing it in 1995-96 when I was at college, so it’s sort of an extension of my studies at the Bartlett, which was investigating architecture that could perform, and change, and interact. So the idea of interactive, responsive, intelligent architecture that took you from robotics, cybernetics, computer science, biomimicry, things that are potentially very playful and performative, but at the time there was no reason to do that. There was no necessary function other than special effects which was the very best idea at the time in terms of what I could do. So off the back of that I worked as an architect, I obviously worked as a senior designer at Imagination, and then I started to get enough commissions to do things that meant that my hobby turned essentially into a job. All the initial work was for public realm art commissions, which I think gave me the most freedom to do R&D and create new work. It wasn’t intentionally functional in the most obvious way.

LF

It sounds like you’re still doing exactly what you were wanting to do then really?

JB

Yes. It’s all carried on. So 20 years of the same work really. It gets commissioned for different uses, that’s the bottom line. It’s still mixed media, it’s still technological, it’s still environmental, it’s still site specific. And the focus of it changes a little bit depending on the sorts of people we have in the studio, because obviously you get a strong furniture maker and you’re creating things in really beautiful boxes, and the next minute you’ve got someone in that’s got an interest in something else and it sort of shifts. Some of the interesting things, because we are like a little orchestra, we are the sum of all the things that people are doing here, obviously I’m conducting it and steering it, guiding it.

LF

That’s lovely. Has your role changed within the studio?

JB

It changes a bit depending on who is in the managerial bit of the team. Currently I’m very much focussed on new business, evangelising what we do. I’m quite hands on in bits, but in other times I’m quite hands off, so again trying to be quite clever with my time. It goes through cycles of me getting really hands on or not, depending on where the needs of the business are. Depending on where the creative processes are. A lot of our processes are quite long, so our projects that are seven or eight years long, so the Toronto Underground Station we’re currently working on was 2007-8 and we’re still working on it. So my role on that project has changed over the time and in the beginning I came up with the idea and presented it, now towards the end I’m making sure everyone is doing what they should be doing and that it’s moving forwards. A little bit of client liaison, but not very much really. I’ve had quite a hands off approach. I’m quite a believer in people getting on with things as well. Giving people as much exposure and opportunity within the projects themselves. So whilst my name is on the studio door as it were, people get quite a lot of exposure to clients, to the opportunity to build things, the opportunity to learn about budgeting, project managing, and also talking to the press. We’re also looking after old projects.

LF

So it's very hands on for every one here.

JB

Yes. I'd say everyone signs up here, they certainly do a lot more things than they'd expect. Whether it's taking measurements of the door at No 10 to climbing the top of the Shard to travelling all around the world, looking at sites and things, meeting interesting people and collaborating with them. We collaborate with all sorts of people.

LF

How do you describe the process in the studio?

JB

We have a process and I can send you a description of it. Please remind me to do that. It's broken down into stages which you can probably model against different... it's quite architectural perhaps. It starts with feasibility and concept, then you get into scheme design and detail development, then detail design and construction design, then production planning, production, handover, assessment, and maintenance. We try to keep to those although if a client is working with a certain accredited process we will mould our processes. And if we're doing a temporary piece for TV production, which we have done in the past, or a very quick piece for something like an exhibition or something temporary, the stages will be different. They'll be quicker and less of them. And if it's a built environment, a permanent thing, we'll probably have a lot more stages because we're fitting in with contractors and the architects and therefore that set of stages is quite fluid. It also depends where in the world you're working, because if you're working in the US versus here the stages are slightly different and have slightly different names as well. And in some environments it's so informal like working with an advertising agency, you forget... well, we'll keep stages but we'll be literally concept, build, handover.

LF

Really quick?

JB

Yes.

LF

That's interesting. You have a really clear process and then you just use that as your template to work to. So it's a guide but it probably changes.

JB

It changes for each project. It's a guide really, to make sure you've not missed anything out and that you're doing all the right things. And that if people don't understand what we do, we can explain it. And if we've got to cut down on the amount of time we're spending on something we can say we're not going to do these things, but you do realise we're just going to design it and deliver it, rather than design it, then have a workshop, then give you a package of information, then go out to tender. And also it depends on the procurement route as well. If we're doing design and build, it's closed book, that would be one route. But all the tendering will be internal, and it will be for us industry benchmarking or tendering for ourselves. But if it's a client's tendering process we then have to work with that and it's all externalised and that's another process. Then we have to look at whether there are any licensing or planning processes involved and work out how long they're going to take, so depending on whether it's a permanent or temporary thing, we can very

quickly work out whether we're speaking to the mayoral office to find out if we can do it or not. Or whether we're speaking to a local planning authority and working out is it a licensing thing or a planning thing or an advertising thing. Or whether it is something that doesn't really exist yet but we still need to go and see the Highways Agency. We're looking at a façade for Sea Containers at the moment and we've got 15 major stakeholders, from the mayoral office, to the Port of London, to TFL, to two councils to everyone in the building to our client. We've got about four clients on that one. Very quickly, I can look at a project and say "Right, these will be the people we have to deal with". Like when we did the top of the Shard we said on day 2 "Who are the people we need to make phone calls to today" – it was a three week project when we did it – "we need to have sign-off with the mayoral office, we need sign-off from the fire brigade, we need sign-off from TFL, we need sign-off from CAA". It was literally phone calls to them all to get verbal sign-offs so we knew we could get ahead.

LF

It seems like it's much more complicated because of the nature of what you do, because of the world you're in. More complicated than any normal straight forward project.

JB

We're inhabiting spaces that aren't quantifiable. So we're always having to get specialist agreements or advice, going to see people to explain "We're doing this thing, it's not an advert, but it's on the side of a building, it's only going to be there two months, so is neither a permanent or a temporary thing". You're rewriting the rules quite often for each project. That's sort of the fun of it really. It sort of sits in the world of architecture really but you've got bits that are more theatrical. It's going to live for less time.

LF

How do you create teams on projects? Do you create teams?

JB

We sit and do have teams that are literally working on it day to day, and there's a sort of matrix structure. So we have a team leader and then you'll pull in people across the matrix to help out, and that team might change over time, and also might have external members as well. So we'll have some freelancers that help, and companies that we typically work with quite a bit, that might help with certain aspects. What we try and do on a lot of the early conceptual stuff is to do it all in-house, so that we're really prototyping, making, testing, doing ourselves. It makes us agile and also means you come up with strong concepts if you're all working on it together. But we'll get to the point where we'll say "No one here knows potentially how to drive a motor in that complexity". We've got coders who might do to a good level but across a lot of things. And then we'll say "Actually, we need someone who knows a lot about that kind of control system". We did some work for Google, I'm not allowed to talk about what it was, but we had to work within a completely new protocol for Google, so we had to get people in that could work with those specific coding languages. You might just have some very specialist requirements for a project.

LF

When you're creating a team in-house, is it about bringing in whatever skills you think are appropriate within the studio, who is available, and bring a variety?

JB

It's availability and skills really. Sometimes not all of those things are always available. Someone might have to consult briefly on the project and we might have to send it out more, or we might have a team that's going to work on it in a certain way.

LF

Great. Another question is about the physical layout of the studio, and how that helps your process. It appears to be really important to have these two worlds together.

JB

We've talked about how we all work in the same space in terms of design work, so it's classic open plan so we can overhear each other. I've always maintained that having a workshop is really important, we can build and test and we don't just send things out and wait for them to come back, we can just do it here. And quite often if a client's given you two weeks to come up with an idea you can't send something out to see what it's going to look like, you've just got to do it. If you're waiting for things to come back all the time, you're not going to iterate fast enough, you're not going to really explore things quick enough. And that's always been a challenge and that's going to continue being a challenge. The cost of that space has gone up three times in the last four years for us to have that space, so that's quite a big expense so we're having to think about that a bit.

LF

Just because of general rent in the area?

JB

Yes. It's increased by a factor of three times.

LF

But could you function without the space?

JB

We're looking to move anyway but we've got to work more cleverly, we have to fit more people in a space, we're going to probably grow in size just because of the size of projects we're getting. We're definitely going to grow in size, we'll have to fit more people into a smaller space. But everyone has the same challenges. There's a lot of people in different offices.

LF

It seems like the making is the thing that gets squeezed out I suppose for all the same reasons.

JB

Everyone will have the same problem. They'll say "That's a big luxury, that sort of sized space" and then you end up pushing your making somewhere else or I don't know. I think everyone is challenged on the making side of things.

LF

And yet it seems like it's such a fundamental part of what you do.

JB

Testing, prototyping, looking at how things work, we do all this but that really works at that size (pointing to an installation set up).

LF

You can really start to feel how it will be as a person walking through the space and experiencing it.

JB

And the thing is we've typically got three or four of these sorts of things being tested at the same time.

LF

Do disciplines play any role within the studio? If you're pulling teams together on expertise that's one thing but that's not necessarily the discipline that they come from.

JB

I think there's discipline and there's experience. So it's a mixture of the two really. And there are some people I suppose who might act a little bit more like technicians because they've got a very narrow skill base that's very specialised versus one that's broader.

LF

So some are more technical in their roles.

JB

There are people running projects from different disciplines. Like Dagny who's working on a potential project in Dubai. She did all these different courses, Design Products at the RCA for example, so she's running projects. Tom, he did IDE at the RCA and he did Mechanical Engineering before that, so he's running our technical side of things, he does a lot of production and he is running projects. He'll only run certain projects, ones that have a completely creative front end someone else will run, but he'll run something that's more about "Actually how do you make this thing?" or run the back end of the project. But he'll still be involved in the creative, but his specialism and responsibility might be in other bits because of his set of skills. And in fact they're both RCA trained so that's interesting.

LF

And on the two strands of those two courses as well.

JB

Yes, they're right at the opposite ends of it.

LF

Great. Are there core skills you look for when hiring?

JB

I look for core skills like ability to communicate, to draw, to design, self motivation, someone who has really explored outside the norm of things, who is creating novel and innovative work, and again it's quite hard to pin down what that would be. Obviously there are certain sets of skills and people that really suit this environment, so we're picking up architects, interaction designers, product designers, creative technologists. We've hired civil engineers, mechanical engineers, industrial designers, and it's really people that are certainly top of their discipline but I suppose it's an interest in hybrid worlds and environments, and applying that to the built environment and to the kind of work we do, really. They might have a background in graphic design, we've had people with a background in set design, lighting design, so there are quite a lot of different things but the commonality is very much quite

practical. People that have built, tested prototypes, created interesting novel work themselves and are highly motivated to do that sort of thing, and are very much a “Can do” sort of person. Even if they don’t have a certain skill set they can still hack together a test of something. That ability to really get involved in things, even if they don’t do core software engineering, or programming or coding, it doesn’t really matter. You might emulate, you might test, you might hack things apart, and I’m drawn to people who are obsessive and interested in the things they do really. They could be a jeweller, a writer, a graphic designer. There are lots of people we haven’t yet employed although saying that Helen is a jeweller, and we’ve had writers. I really enjoy different points of view.

## **2<sup>ND</sup> INTERVIEW – via Skype**

LF

Is there anything in particular you think undergraduate education could learn from how your studio works? Whether that’s the way it’s structured physically with the workshop or the way you work as teams?

JB

I would encourage the way we work in cross-disciplinary projects, which I see people talking about but not really happening. I suppose it’s relevant at undergraduate and very relevant at masters as well. I was critting at the RCA last week and I keep thinking there’s people talking about it over here, and there’s people talking about it there, but it’s not happening as much as it should even in a perfect environment for that sort of thing.

LF

We are all going to struggle if they can’t do it there.

JB

It probably is a bit but not as much as it could be I think. I was chatting to Alan Penn from the Bartlett the other day about group projects really. It’s people working in groups rather than doing solo work is a big thing. Because the real world is groups, whereas so many design creative and undergraduate things encourage solo work and people working like this, and in the real world it isn’t like that on many levels. Even if you are pursuing a career as a soloist you’re still working with a lot of people. I think that can be brought out more.

LF

Brilliant.

JB

I think designing through lots of different means, and keeping it quite broad about how people actually design. By making, drawing, prototyping. I just think you need to free up really, if you can’t build something how do you emulate it. Could you act out how it could be used? Could you film it? There are a lot of tools available that people don’t use because they’re used in different disciplines. You see the tools that people use if they’ve been trained as interaction designers are very different to the tools that products designers are using actually or architects or interior designers. They could use each other’s skills more. I don’t know quite how that happens. I suppose you get in tutors from different disciplines, in terms of “How does a film maker do this?” and get someone in to talk about films. Or “How does an illustrator do this?” or “How does an architect do this?” or “How does an engineer do this?” You can get very happy in your own silo – architects can, I know that for sure. So that’s another thing. A way of working.



This is an interesting one, I don't think, on courses, people are told to prototype and test and do things that actually fail enough. Because we're probably doing quite a lot of that and people are upset by that, but really if you're pushing interesting things it's actually quite a good thing, and you probably learn more from it. Everyone's told that.

LF

Yes, it's really difficult isn't it, especially in education where it's all marked on percentages and grades and everyone wants to do well. The notion of "Actually, it's OK to fail" doesn't really sit comfortably.

JB

Yes, and being marked on a process that describes failure could actually be perfectly fine. You could describe a failure really well and beautifully and it could be communicated really nicely. Or a number of failures. Process, yes, the workings behind something is so important.

LF

Brilliant. Those three things are fantastic. They're really helpful. I know you've come through architecture, so it's a bit different, but what I'm trying to get a sense of is with undergraduate design education is still so uni-disciplinary, and actually from the things that you're saying that they could take from how you work, would automatically start to change that. But I wondered what you thought about that. The article you wrote in The Guardian about the education system ensuring Britain's strength, do you remember that?

JB

Ah....Yes.

LF

There's a great thing in there when you talked about your architecture education, so I'm imaging this was when you're at the Bartlett, you said it was taught in very loose terms which created a multitude of hybrid practices and talents, and I think the nature of design education when you're going in to be a graphic designer or a theatre designer or whatever, tends to limit you and by the nature of it not encouraging hybrid practice.

JB

Yes.

LF

So I'm just wondering what your thoughts are with current undergraduate design education? Do you think we should be getting rid of single discipline undergraduate education? Is that still helpful when everything is so much more fluid now?

JB

It's weird. I think there is some merit in it, but it might be that the courses can be set up so that you major in that thing, but you're learning other things as well perhaps. I think getting an obsessive depth in something is really good. But it's how that interrelates with other things. If you're doing a degree and then an MA it's a combination of those two things, and potentially them being different is where it starts to get interesting. If you go and do some kind of computing thing, after having done graphics, I think that's what potentially makes you a really interesting creative coder, because you might have graphics and be coding, and you wouldn't get those really amazing things you get with that sort of person otherwise. Those sorts of

hybrids don't occur if you don't get depth in a couple of things. You can have courses that do that but then they're actually narrowing of it again, in a weird way, so you could have a computer graphics programming course. But then you wouldn't get such narrowness. I do think people need to be taught to quite a big, great depth in certain things but it's probably just the way that you're giving people insight into how they then move from that and perhaps it is a wider thing. In architecture, there are lots of examples of where architects are doing other things, and I imagine that's in graphic design, people go into quite different things actually. So it's probably about how these courses are useful and how they're applied, and what you might go on to next. The journey, really. I suppose people worrying less about learning one thing and then having to be that. That's potentially a stepping stone within a career of learning lots of things. You don't want to get rid of those skills, because they do take a while to learn. I have a very basic understanding of graphic design through lots of different things but I would certainly be sure that I need to go and learn a lot more about it if I was to really get under the skin of it. I know I'd have to go and look at it, probably I'd spend a year or two years at least, to get up to speed on how do I design a font, how does it work and what is the understanding of some of the classics behind it, as it were. I would still protect the single things, but just look at how they fit into other things. Perhaps they sit naturally next to something else, perhaps they do sit next to some coding courses.

LF

Great.

JB

I suppose the other thing is there used to be and there still are some construction courses where you do civil engineering and structural engineering in the first year then you split into different streams afterwards, so it might be you do a creative course that is a foundation at degree level then you split off into other things that then become more specialised. So you're getting an idea of what you might prefer to do. But yes I think getting a depth in something is important.

LF

That's fantastic. Really helpful. Thank you so much. It's been so brilliant meeting your four amazing team members and if they're all as amazing those four, I'm not surprised you're innovating the world with what you're doing. They're such interesting people and so creative and they're so happy working at your studio, it's lovely to hear.

JB

So did you speak to any of the others?

LF

I saw Jing, Anam, Andrew and Martin.

JB

Brilliant, excellent.

LF

Thank you.

END

**Interviewee:** Anam Hasan (AH)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 11.12.15  
**Location:** Jason Bruges Studio, London

**Notes:**

LF

How do you define yourself if someone asks you what you do?

AH

My background is architecture. What I do here, what I applied for as a main role is visualising. And that basically entails me taking concepts and ideas that we have and generating images and visuals and animations that we present to clients. That's what my role is. Because I have my background in architecture I also like to make things and fabricate things and make things more real. So there is that within me to want to make more things that I've design on the computer digitally and make them more real. I do some prototyping as well, laser cutting, 3d printing, alongside my digital experiments. So that's what I do at the office.

LF

Great. The next question is looking at your role, so the main role is visualising, but you cross over as well, it seems?

AH

Yes, it's a natural progression. You're by your computer so often and your designing things in that box and that screen and there's just a natural feeling that you want to take that out and make it more tangible and more real. Having the technology, we've got a 3d printer now, and being able to laser cut things and bring things to life is where I want to go with things. I also did a robotics course this summer in California, it was at an animatronics institute and it was run by the guy who did animatronics for Ghostbusters. That's another thing as well. Because when you're animating things digitally you're also wanting to try and generate those movements in real life, but it's a lot trickier to make those kind of things real. But I made a walking bipedal robot with a body. It was good. It was quite easy to do but I controlled it through my computer so I created a 3d interface for it and then I was able to alter the movements in real time from my computer to the servers. That was fun. That was taking that natural progression from the computer to the physical world.

LF

Great. I can see that makes sense. In the process of animating you're thinking about how you make it move so it makes complete sense that then you're going into the 3d and making things move.

AH

It's a lot trickier. I only had 20 days out there, I was there for five weeks but realistically work wise it was 20 days. I managed to construct a walking moving thing and I'm still working on it, but it was great to experience and do that. I definitely want to carry on doing that kind of stuff and making more stuff real. That's what you do in architecture as well but in architectural education you're more in the clouds with your crazy concepts and ideas. There are some units that want you to make things more real and that are more human scale, with physical prototypes, but when I was at university you were more in the clouds. But then coming to a practice like this there aren't as many of us so you're thrown into doing things that you wouldn't normally necessarily do, but then it's good that you're getting that push to go off and

make this prototype. I've definitely got the itch, I need to just make more things now. Not just being in the clouds and on the computer.

LF

Exciting. So what was your background then?

AH

I have done six years. I did three years of my undergraduate in my BArch. Then I did a further two years in my Diploma in Architecture. Then I did a year and a half in practice, between that, at a very commercial office that I was doing large scale buildings, master plans, the CAD drawings and the usual stuff, and I didn't really enjoy that. But I did that in between my diploma and my undergraduate because you have to do that before you start your diploma. I realised that there was a very big gap between the education side and the practice side. There wasn't that airy-fairy cloud in the sky thing. It was very repetitive and mundane and boring, you weren't actually designing at that stage. You were learning the details and all that, which was interesting in its own way, it's just that it's so far from what you do at university which is so conceptual. This is a great place to be because there are so few of us you're forced into that position and it's a challenge but it's fun. You're pushed in every direction - drawings, 3d modelling, and physical prototyping - and you have to make it work which is more exciting, it takes me back to university in a way. Because you're conceiving something, trying to come up with an idea then take it through to completion and making it real and tangible. Definitely better than my year out I would say in architectural practice. After my diploma I graduated in June 2013 and then I started work at Jason Bruges in September 2013, so it was only a few months break really, and I've been here for two years, it's been awesome.

LF

Where did you study?

AH

For my BArch I studied at Greenwich University, and then for my Masters I studied at Westminster University. My year out in practice was at RHWL Architects. I don't know if they've changed their name now. Then I also did some freelance work for tutors during my time in diploma, working on their projects. There was one that was the Pleasure Gardens during the Olympics, and it was an oyster bar and I was helping in the construction of this oyster bar. They were awesome. They actually taught me animation so that helped me with the skills that I was going to be using here. That was fun. Then I came here.

LF

Great. How would you describe the process here? I suppose it depends on what you're working on.

AH

To me particularly, from if I'm starting a project you mean?

LF

Yes.

AH

Basically, Jason and the guys at the top will discuss new projects and opportunities and they'll want sketches or ideas or visuals for those potential opportunities and so they'll come to the visualising department which is myself and this other guy, who is awesome. Then it depends on how many days we have, sometimes it can be a week

worth of trying to come up with a visual for an installation or it will be a day or a few days. That will entail me talking closely with... Jason will appoint a design manager and they will work with the visualiser to come up with a strong enough concept and a design for the installation and then Jason will go up and present what we've come up with together. And if obviously he's happy with it he'll go and do that otherwise there will be a bit more of a conversation for those days that we're visualising. Then after that if it goes well with the client and they like it, which in the case with some of the projects that I've worked on it has gone well, then they come back to us and they want to make it real. So, one particular case study I'll give you I recently... I think it was in April, there was a project with a client from Wolverhampton University and they wanted some artwork outside of their building. So I came up with a concept with the project lead. The client really liked it so there was a stage where I had to do some R&D because there was certain software that I didn't know and there would be certain software which would be a lot easier to take us to the next stage of fabrication and detailed design. So I was learning that whilst developing the design further. Sometimes what we do, like in the case of this artwork, we designed it, they liked the concept, but then we wanted to push it further. So we did that, we took it to another level, but then that made the detailed design and the fabrication process trickier, which meant that I had to really learn the software really quickly, which was really great and fun and it pushed me. It was probably the project that pushed me the most and I learned the most from it. With that project, after learning the software, I was able to help with creating construction drawings or detail drawings with the design lead, and with the help of the engineer. He's really awesome. That was me being a part of an overall process, pretty much the whole thing with prototype stage, where we were testing things with the software and taking them out of the software and making laser cut files, and producing physical models. And also generating the detailed drawings for the detail drawing package, and we're currently at that stage. That was a whole chain of process. But normally I'll go up to scheme but not necessarily detail, but this pushed me more, which was great. That's normally my process. It depends how much is needed and the type. It's very subjective. It depends on the project and what they want, and this particular one was more about the fabrication and physical model rather than... we do a lot of lighting installations and my background is not lighting. But because I've come from architecture naturally I was able to apply those skills to this particular project to take it through to the furthest stage which was great, and a challenge.

LF

What are the key software packages that you use?

AH

There are so many.

LF

Are there? Does it depend on the project?

AH

The predominant software that we use for visualisation is Cinema 4D, and that allows us to animate and 3d model stuff. I wouldn't say it's the most accurate for construction drawings and stuff like that. I would use Rhino as well. And within Rhino I use Grasshopper, a parametric tool which allows you to model procedurally and change things very quickly. I used that for the Wolverhampton University project and that gave me more control over how we fabricate the parts. I also use After Effects which is an Adobe software, like Photoshop, and all the Adobe stuff pretty much, and that's for the visual part and post-production stuff. I also have been recently learning game engines, so Cryogen is one of them, and that allows you to

create real time renders without having to render. You just plonk your model into the game engine and it's already rendered. It doesn't need to go through that process of being produced. It's not post-production, it's already there, you can change the materials and see what it's going to be without having to click on a button and render to see what it is. So I'm learning that as well. I occasionally dabble in a bit of Arduino and processing but that's very little and more to do with the robot side. I'm looking into ways to have voice recognition for my robot that I designed in America. It's a bit of a challenge.

LF

Did you know any of this software, did you use any of them when you were studying? Or have you picked all of this up since leaving?

AH

When you're at university because you're an architect they want you to have an arsenal of tools and I only started using Cinema 4D in my final year and that was just a year before I started here. Then I didn't use Grasshopper as much as I've used it here, I barely used it. I did not know it as well as I do now. But other stuff, Photoshop and the Adobe stuff I learned in my final year. The Photoshop runs through your architecture course and you learn CAD packages like MicroStations and AutoCAD and stuff like that, which I haven't really used here. And Rhino I picked up also in my diploma. Cryogen I learned here, Grasshopper more here, Cinema 4D there's a lot I didn't know before I started here so I learned a lot more here with the other visualiser Adam who is awesome. What else have I learned? And the Arduino processing was more here. And the robot was at the course, whilst I had my sabbatical. I took a break for a month and then I came back. I learned some code and building robots, so that was fun.

LF

How does this studio compare to the other studios you've worked in?

AH

There's a lot more freedom, a lot more exploration. They really want you to push the design of the concept sometimes to the point where it probably shouldn't be pushed to because of the budget. We need to be more aware of that I guess. Or take that into account because sometimes we just run out of money. But I love the fact that it's pushed so much and we do want the best outcome at the end of it. Whereas the architectural company that I worked at before... Working with my tutor was fine but working at the architectural practice felt like it was... the design wasn't really to my taste or my liking and it was just an office or a school building. I got more into thinking about how the details were done with parts of the building, and those were interesting but then I felt like my creativity is growing in that process and I wasn't able to push that enough when I was there. When I'm here I'm able to... you're not a CAD monkey, you're not just sitting at your computer and drawing a set of toilet or door schedules for someone else in the company and it's boring. Over here you're pushed into every role in some way, at some point. In these past two years I've been pushed which has been great. That's why I've probably been here for so long, why I've been enjoying it. I've been pushed more and I'm learning and that's the most important thing I think. I wouldn't have got into doing this animatronics course if I hadn't started absorbing a lot of the stuff around me and watching Adam and Vincent, very tech guys, bring stuff out of their computers and make it more real. It gives you a thirst to want to do that yourself and push it a bit more.

LF

And I suppose the size of the studio helps with that as well, because you're a smaller group.

AH

Yes, we're very tightly knit. When I was working at the other company... actually it started off with about 80 people and then there were a lot of Black Fridays, a lot of people started to go, so it came down to about 50, but it was still quite a big office and it didn't feel as connected as this. It is nicer because of the scale. You feel like you're not on your own completely. It's good.

LF

How does the physical design of the studio help the way that you work?

AH

That room's great. I want to be in there more actually, that's the workshop. I like upstairs but I actually would prefer being down here more because it forces you to not just be at your computer and make stuff, so it's good. But upstairs is good because we sit in sections so we've got the visual people and the account people and the managers. People have their sections and it's small enough so you can talk to everyone. I think it's a good layout but personally I would prefer to be down here because I really want to make stuff. And there's a 3D printer, we just got a new one. I think natural progression after doing so much more making and bringing stuff to life I want to be down here. And there are the tools as well. I'd love to have my laptop down here as well.

LF

Could you do what you are doing and be in the workshop space?

AH

The only restriction is my screen for my laptop because it's very small and for visuals you need a big screen. You want to see it on a nice big screen. Because my screen's not very good, that's one bad thing. There should be more investment in the software and the computer side and the stuff that we make the visuals on, if it was upgraded more regularly. But that's to do with cost. It's trickier. I've been upstairs and downstairs, sometimes I come down here and work on my laptop and it will be fine and if I'm not doing visuals I'm doing Grasshopper stuff and parametric stuff, it's not a problem. But when I'm visualising I want to go upstairs. But that's not a hindrance or anything because it's very small anyway, it's not like I'm travelling far.

LF

Do you find it inspiring to be around the others in the workshop?

AH

I like being down here, because I've got a cookie head, I get inspired even when I'm up there. But it's nice because you're around all the people who are making stuff.

LF

Yes, there's something about it isn't there, it's infectious.

AH

Definitely. It would be good to be down there more, balance it a bit more, because I'm up there a lot more now, but I'm hoping after Christmas I can keep coming down.

LF

You've answered this in a way anyway already, but the next question is looking at disciplines and exploring the roles that they play within the studio.

AH

I have a main section and that is visualisation, but there's also a desire to not just be that and I think you are pushed, more than any other place that I worked at, into other directions and other disciplines. With Wolverhampton University I was pushed into detail design and engineering documents and drawings which was "Whoah!" but fun. The software side of it was fine and getting those drawings out in a very quick way and learning how to do that was fun. I'd say you're only in your box if you choose to be, here, and you have to push yourself out of that box yourself. It is tricky because there are so few of us there are only a certain amount of us that can do a certain thing, so we have to do those things. But then I feel like I have to have my own time outside of work to try and figure out how I can push myself to get out of that box and do other things, therefore that means that I can get out of that box here and actually push myself and show what I can do here. There's a lot of learning on the side, which I don't think is a bad thing because I feel you always need to push yourself. I want to get out of that box.

LF

It sounds like it's quite an inspirational place to encourage you to want to be learning and thinking more about what you can do, how you can get out of that box, and what other places you can go with it.

AH

Yes, that's true. It's the people around you. Being next to somebody who has been here for over six years and has gone from just visualising and not using software as much in the beginning as you would and then being able to take it to the stage where he's able to control the software so well that he can actually create something physical, in reality, where he's lighting the Shard. That's amazing, that you can do that, and it's infectious, so you want to be able to do that in your own way, and 'get out of my box'.

LF

What core skills or common skills do you think you generally need to work in the studio?

AH

Being enthusiastic and passion about an idea and pushing it and being self-motivated to prove that it could work or it might work. And having that self-belief and executing it in some shape or form to prove it is something that they like to see. I don't think anyone here, that's working here right now, isn't passionate about wanting to push it and do something different or make something different. People have all got ideas so I think that's really important to have if you're here. What else? Just really hard working and self-motivated. If you're not self-motivated in that way I don't think you're going to enjoy it as much, you're not going to push it, you're going to stagnate. Especially in my role you have to keep learning and learning the software because the design leads will come to you and they will say "We want this!" or "What do you think about this idea?" and you think "Oh, I've got to figure out a way to make that real or make that digitally real". In some ways it's that you need to keep going at it which is a challenge, but it's a fun challenge, because you're constantly picking up new skills. I don't feel like I'm stagnating, which is good.



LF

It's one thing if they're inventing new designs and new ways of doing things, but then it's actually about you having to almost invent new ways of communicating that. It's not straight forward. It's requiring invention the whole time for everybody. It's not just the idea, but it's obviously then how do you communicate and execute it and if it's a new idea there might not be a method. Or it's you having to trawl through all the methods you know and then come up with perhaps something new.

AH

That's what I do. In my head I'll go through a list of ways, and they may not be the best ways, but I'll go through them thinking "Let's try this, let's try this, let's try this". and then I'll talk to Adam and say "What do you think?" and he'll say "There's a better way" and I'll say "OK, great!" then he'll teach me something new. Then that goes in my memory bank and I'll use that because it might apply in some way to something else that we do. You build up the skills like a giant list in your head then you deploy them however they come and want you to deploy them. But sometimes it's scary because you think "Oh no, I don't know how to do this!" but then you force yourself to learn more, which is fine. There's a lot in my head.

LF

Part of what I'm doing is trying to get a sense of how you all work and how you use space and the skills that you need, to then take it back to undergraduate education. Usually undergraduate education is structured around specific disciplines. Based on your experience here, do you think that is still relevant?

AH

I think it is a bit outdated because I personally would have like to not have just done architecture for three years in the beginning. I think in America you're able to minor and major in things and I think that's a nice thing because you're still not completely sure, and it would be nice maybe to minor in Python or Computer Science, an area within that that would have potentially pushed my computational skills even further. I think I was always very passionate and creative about creating crazy ideas that I had in my head. I don't necessarily think I found that as soon as I got into practice. I thought "Oh, this is what it is". I know you have to work your way up with everything, but there was such a disconnect between undergraduate and my year out on experience. And I think being able to spread out more in terms of what I was learning, and not just... you're spending most of your time in architectural school designing stuff that you're never going to be able to build, but you're creating crazy ideas for a given site and, even in diploma, that's your core module. You design a project for something somewhere and that's your portfolio. Any units on the side where you have some computational skill development, what you'll do is they'll give you a few lessons and then you'll have to go off and do a lot of self-learning which is great. But I would have liked more of the computational side of it, to be more of a core part, or more modules and time dedicated to that. That's definitely helped me here. The more I knew from then I've applied here as much as I could. Then there were some other units that were about environmental studies and other stuff like that, and detail design stuff. That wasn't as exciting but I would have personally preferred more development of computational skills earlier on. I think those have really helped push me. I think we need to still allow the room for exploration at that stage. I don't think anyone, unless you're really certain after A levels about exactly what you want to do, I don't think you're completely sure... not always. And to do it for three years, and then to do it for another two... I thought it would be a bit different at diploma. I did a film unit in my final year which was really fun, and that actually taught me animation but again there's not enough time to spread out because it's just focused on one part of one degree with one final outcome and all the

modules lead to that. It's not really exploration. Even though you are allowed to explore within your project, sometimes you just want to push things from your project and they'll force you to animate more or work on a type of material study that you've developed with that project. But you can't really do that because you're on this trajectory and it's so fixed.

LF

Yes, it's giving that flexibility, isn't it? So that you can go wherever the project takes you.

What do you think undergraduate education could learn from this studio and how it works?

AH

More physical one-to-one making. It wasn't really a big thing in undergraduate and making little miniature models wasn't enough. Physical giant scale one-to-one prototyping is definitely something I would have loved to have done. I've done 1:2 stuff here, it's still big and it's fun and it pushes you. But definitely more making. When I was doing my undergraduate they stopped you from doing the computational stuff early on because they wanted you to develop your hand drawing abilities, which was fine and enjoyable. But, I think also there should have been an equal amount of time, or more, spent developing the computational stuff because it is so useful. Deploy and use... I've used a lot of computational skills here and it's pushed me more out of my box. Going with the times anyway, and it's such a digital tech time. If I'd had more of a head start... But I'm learning as quick as I can right now.

LF

Getting them to be embedded more into modules could be a better way of doing things, and more making, and more workshop spaces, perhaps.

That was the last question, that's brilliant. Thank you.

END

**Interviewee:** Jing Liu (JL)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 11.12.15  
**Location:** Jason Bruges Studio, London

**Notes:**

LF

So, I'm looking at five different studios. Here I think I will talk to five or six members. In another studio with larger numbers I speak to a few more. I'm asking similar questions to everybody, and also getting the chance to come in and see what's going on and see how everyone uses the space and how they work together.

JL

What's your background?

LF

I was a designer working for about 20 years. I worked with Jason at Imagination, doing large scale branding. But theatre has been my main focus. I started in interiors but then I moved into theatre design, museum exhibition design, branding etc. So all over really.

JL

Interesting.

LF

And then I've been a lecturer now, this is my seventh year as an undergraduate design lecturer. I've been fascinated seeing over the last ten years or so the studios like this one that are developing and they're not defined by a specific discipline.

JL

No, it's really hard.

LF

I think that's really interesting to try and see what studios like this do, what you do, how you do it, all your backgrounds. Getting a sense of where you have all come from. In the end the idea is to try and see, even though I'm looking at five very different companies, there are similarities. And I'm interested in what that could mean for undergraduate design education. Is that all right?

JL

Yes. That sounds really like you are contributing to the next generation.

LF

That's what I hope.

My first question is how do you define yourself?

JL

I am an interactive installation designer, public artwork, interactive installation designer. Is that too long? A spatial architectural designer focussing on the relationship between people and the space. I'm really bad at summarising I think.

LF

I think that's brilliant, because that's the difficulty of it isn't it? Trying to define that is hard.

JL

It's always tricky for me to explain what I'm doing to my family even. Each project is different. You use a little bit different skills, or you use a little bit different technologies on different projects. But then we do lots of high tech things, if you like.

LF

Does it change with each project?

JL

There's a tendency for us to move towards more high tech kind of things, it's really to combine our creativity with the technology that is available out there, which is really developing, being developed in a fast speed.

LF

You're constantly evolving?

JL

Yes. Learning the new things.

(Jason Bruges comes over to say hello)

JL (to Jason) I'm am trying to describe what I am doing!

JB

Oh, good luck! (laughs)

LF

So, could you tell me a bit about your background and what brought you here to the studio?

JL

My undergraduate was architecture. I had a degree of five years of architecture education in China in Beijing. Then I decided to do a Masters course somewhere abroad. Because the UK is only one year Masters, at that point I thought I was not young, so I chose a one year Masters instead of two years in America, and also UK is a leading design country around the world, really. So I think it's really good for me to explore the design industry a bit further so I chose here. I chose the Bartlett. I was lucky to get the offer from there which is an architectural design course. At that point I didn't know that I'm going to be in the industry I am in now. I thought I only want to do a little bit further architecture. However I did have the interests in the relationships between people and the space. I'm pretty sure that all architects are interested in this kind of general thing. However I'm really, really interested in how people fuse and how people interact, that kind of thing. Whereas some of the architects only focus on the space, on the form.

In the first little task on my course, the tutor had a list of questions for us to answer, and none of us knew it was the list to know what is your interest in the specific area each tutor is interested in. Then I chose the one that... I didn't know it was interactive architecture, but then I chose the one that answered the question and then the tutor chose me to be in his group, because he thought my answer showed I was interested in that.

LF

Interesting.

JL

So I was lucky to be chosen to be in a group led by Stephen Gage, who was my tutor, who was the tutor of Jason as well. So I was pretty lucky. So Stephen, and another young tutor who was in his first year of teaching, called Ruairi Glynn – both of them are really good aren't they – and I could have perspectives from a really experienced tutor and an energetic young man leading me. That was the only year on this course that one group had two tutors in such an amazing combination. Stephen Gage only tutored the Master course for that year, I think, and then he was just lecturing and being in the crits, not constantly tutoring the whole process.

LF

Was the Masters just one year?

JL

Yes, just one year. It was really intense.

LF

It must have been. I can imagine. So you thought about America but didn't go in the end?

JL

Yes, that was a little bit combination decision in between the duration of the course. Although America is cheaper than here, however thinking you need to spend double of the cheaper price which will be relatively a similar price to here. Here is really expensive to be honest, living expenses, tuition fees, it's a big chunk of money, and living expenses are also really, really high. But also at that point if I want to go to America I needed to take two English exams. However if I wanted to come here I only needed to take one. That saved a bit of time.

LF

Great. So, what is your role within the studio here?

JL

My job title is designer/project lead. Now I work leading, so I will be assigned a project to me after the management team get to a point with the client where the project is a relatively solid one, or it has some solid work that needs to be done, some solid design work to be done. And it's in the status that it's good to go with one leading person, and then I will get the job. Then at the very first stage I will work with the visualiser to come up with a concept and then later I will work with other people in other specialisms. That's pretty much team work for each project. I am one of the people who are constantly there to gather everything together. But at the same time I'm the designer of the concept. So design and management all together in one person.

LF

That's interesting.

JL

I think it's quite unique compared to what some of the other companies are doing. I think our studio has a point to have a think if we separate the management job, like project management, from the project design side. I don't quite understand what was the discussion happening, but then later on we think it's probably better for us,

considering the scale of us (to work this way). But I think it's quite good, personally in terms of personal development it's good for me so that I know not only the design work but I can also learn the whole process of a project and develop lots of other skills. You have to have all the skills to be a professional.

LF

Yes. And I imagine that if each project is unique in certain ways, it's not so straightforward really. So, you being able to do everything and keep hold of it becomes essential. Rather than a more traditional interior project say, that doesn't require so much thinking, you are inventing as you go, so it seems crucial perhaps to be in that role keeping hold of everything.

JL

Exactly. I guess with each project you need to have one person constantly there. Otherwise the project will lose consistency throughout. Some of the projects can be fairly short, just a few months. However, some of them can be one or two years. We did encounter difficulties with some of the projects that take such a long time and we can't have the personnel to be constantly there. We had difficulties handing over and some of the knowledge has got lost and we need to pick up or create our own thing. Doing some things that had already been thought about before but had got lost. Then probably we even change the original thinking because people think differently, which is a shame.

LF

That's great, because I was now going to ask you about how you would describe the process of the studio? You have started to describe it, and given me a bit of the structure, with the one person going through the whole, and you being responsible for concepts and then the team will come in and support as you go. Is there any more you would add?

JL

In terms of the process for a project, in general we go into concept and scheme design phase. I am pretty sure you know. Scheme design, and detail design and then we get into the fabrication, construction, installation kind of thing. That's the generic process of each project. Then, as I said, you have a new business team to getting all the new business, before us. That's an extra bit. And probably some of the very initial concept thinking might have already happened at that point. Just a very little tiny bit. Maybe it's the credentials that shows our previous work, that kind of things has been sent out to the client and the client already knows a little bit of what we are and what we are doing and what they can expect potentially from us. My feeling is that every time I get a new project it is not new for the studio already. For the heads. They know it and some discussion has already been made. Then I can take the job and I do some research of the site ... Am I getting into too much detail?

LF

No, it's great.

JL

And then I do research on site, and on all relevant things that you can think of with the client with the project and then normally we come up with two, three or four different concepts. Before that probably we have a sketchbook of ideas. That's probably even more initial than the concept. And then we will have a workshop with the client to see their taste. Then we will get the initial feedback from them and then we can think 'oh they like this kind of thing'. Then we refine the sketchbook into two or three more developed concepts. For a sketchbook it's only going to be me as

project lead to work on that. Then, in concept stage when we are developing the two or three concepts, we may need a visualiser to visualise things for us. What we are doing is hard to show your ideas by only static sketches, it's a bit hard if you want to communicate with the client better. Some of the clients, if they don't know quite well about design, they won't understand the sketches. Even if the people from the design industry can see that they are very nice sketches, some of the clients can't get that. So, we find most of the time that animation works the best. Because we are doing lots of interactive things and time based changes, showing the different stages of the artwork and how it..... The idea is not only the aesthetic idea, it's how it's going to be acting, reacting and performing. For example, if that is only a form, if you see that installation over there (pointing to an installation within the studio), that is only a form, but pretty much most of our clients come to us and expect something animated. Something mobile, transformable. You can't show that simply by sketches. That's what I want to say.

LF

Great. So is that what the visualisers do?

JL

Yes. They are really, really important for us. They are crucial. We can't live without them.

LF

Do you know what software they use?

JL

Yes. Cinema 4D as far as I understand is a really powerful animation tool. 3D combined with movement.

So, normally, if I do it, I would normally make 3D model, how I want the thing to be, in Rhino. That's the 3D tool I am using. However, I can't quite use Cinema 4D and I want those visualisers to help me animate the parts of the model I am making. Most of the time I can sit with them to brief what I want and they can adjust on their screen. Or they can explore themselves a bit, depending on their tastes as well, we can share thinking. But, I like to lead the thinking because otherwise, sometimes designers can go wild in terms of 'oh it can be that, or that' and it will be endless, so it needs a bit of control sometimes.

LF

That's really helpful. So, how does this compare to other studios you have worked in?

JL

No. This is my very first job and very first company I stayed. Not even in China.

LF

So, were you aware of Jason while you were studying at the Bartlett?

JL

No, not really. Again I was Lucky. I graduated and then I was lucky to be in the last year that UK still issued post study visa for foreign students and I got that and I took my time, just being there. I didn't really be in a rush of finding a job. Then Stephen my tutor asked me three months later after my graduation 'have you ever found a job?' I said 'I'm taking my time'. And he was like 'why not try Jason Bruges Studio?' And I said yes I will prepare for that and I thought probably before that he met Jason and probably mentioned. There was a Chinese project that they were doing and I

think that was the link. But I'm not sure, and I never opened up this conversation with him. I came into the interview, I had two interviews and in between these two there was two-month gap. And it had been really long time for them to make decision, because I think it was really hard for them as well. A student with no experience and from China as well, and can't communicate that well at that time. Then Stephen introduced me to another studio and Dominick who is another student of him because Stephen probably thought I couldn't get the job here. I am really lucky to have him there. He is really kind to me and helped me quite a lot. Then I contacted them as well. On the same day I got both calling me back saying do you want another interview. Then, I came here.

LF

So, does the physical design of the studio support the process in any way?

JL

Do you mean mechanical design?

LF

The space and having the workshop and how the studio is laid out.

JL

The space?

LF

Yes, the design of the space with your workshop there?

JL

Yes, it will help a lot for sure. It's not the ideal space for us, we always want bigger workshop...ah what else?...well just bigger workshop really. Upstairs is fine, we just want a bigger workshop.

LF

Is it always a really busy space?

JL

Yes it is. We are fighting for space for prototypes. To be honest the state that you see now is actually the best state for the past three years. We just newly built the benches with wheels which is amazing so that you can move them around and spread out for bigger things. Also, we re-arranged the space so that now the electronic and small scale things are happening in a semi closed space. It's very good for them, in that space behind the wall, in the hidden corner, because it provides our senior electronic engineer, he needs really quiet space and it's really good for him. Also, electronic things need a cleaner environment. However, you do generate lots of dust, if you cut wood. But this arrangement is much better than before when the electronic bench was there (pointing to the main part of the workshop) and all the dusty bits were nearby. It's too constrained for bigger scale work. You can't turn around with a large piece of timber. Tom did this. He is amazing.

LF

So Tom sorted it out?

JL

He is a relatively new employee here and he functions really really a lot. Excuse my vocabulary!



LF

So do most of you end up coming down to use the workshop at some point?

JL

Let me think. Apart from the visualisers, apart from the management team, all the people who are involved in the design process, other than visualisers, will be here at some point. Because we have ... Oh, I stopped at concept design and didn't go further ...

LF

With the process?

JL

Yes. Then we will probably have another couple of meetings with the client to discuss concept and then luckily, if the client is good at making decisions we can have just one concept design and we can develop that into a real physical prototype. But most of the time we have two parallels working on two prototypes maybe to show the client the potential. Some of the clients, even though you have a really amazing animation on the screen, they will still ask 'what is it going to be looking like in real world?' A prototype is a great way to show the client what it is going to be potentially. It is also a good proof of concept. That is really important. So, prototype is really important as well after visualising and animation. Then probably the concept prototype will loop a couple of times I guess so that you develop your concept by doing the prototype. You are not changing the concept but the way you might want to realise your concept. Then you might build another prototype maybe.

LF

So there's quite a bit of back and forth, starting with a couple of ideas, prototyping and then refining.

JL

Yes. Refining in different sorts of ways. Sometimes you just want to stick with one technique, one technology, to try to solve all the problems you have.

Do you want any examples?

LF

If there is something easy to show me?

JL

How are we doing on time. Do you need it to be short?

LF

No. I'm just conscious of your time.

JL

Well, I can just say that. One of my projects I'm working on right now is using transparent LCD screens, which is a relatively new technology. LCD screen are normal but transparent you can see through. It's not that new, it's not brand new, but we are using the smaller screens to build up some kind of sculptural thing. Then also combined with the arrangement of the content on it you start to view it in novel. It's quite common for you to see it in window shop, at larger scale and you see screen showing content and you have larger object behind it. They are kind of overlapping with each other. However, it's rare for you to see an arrangement of screens sculptural. That is one of the things I am working on. And we have had loads of

problems. Because at that point I didn't really think of using that technology anyway. I think of using projections. So, my imagination was just transparent Perspex and projection onto it. You know Pepper's Ghost? So probably thinking of that then the client got excited about that visual. There were issues and lots of attachments to the screens and we thought maybe transparent LCD screen would be better, and for content because you need a really dark environment for the Pepper's Ghost to be working. However, if we are using the screens we need a really bright environment for that. So that is one issue. I'm really glad that yesterday I got a really good sample from a Chinese manufacturer. Really, really bright with amazing LED panel with even illuminated surface. Brilliant. Another problem with that is that each screen has a cable of power, a cable of data and then two control boards, probably one for screen and one for content. I don't know. And the connection cable can be only that long (demonstrates the short length). The very first visual we had there was only one object hung there. Now I think we have 40 there and lots of months of stress. So, we gradually slowly developed to see how we can do that. So first of all Vincent, our electronic guy, he extended the ribbon a bit further, which is very helpful. Also, we have outsourced another type of screen which has a small board attached to it so it has smaller impact to the screen. I am contacting all different manufacturers to see if I can find the right product that I can use.

So, for each prototype, I freaked out when I first saw the LCD screen. What can I do with it? It's not going to be anything like the visual I had. Now, I am gradually, with the help with the electronic guys and with the help of Jason, keeping inputting and feeding something, that's helping. The other day I thought 'oh now I can see it has legs'! Meaning I can see where it's going.

LF

It would be lovely to see it, once we've finished the interview.

So, the next question is to do with disciplines. Do disciplines play a part in the studio, depending on people's backgrounds? For example, if someone has an architectural background, do they mainly only deal with the architecture or if they have an electronics background do they only deal with the electronics?

JL

Of course, while we tend to stay in our comfort zones. But the reason for us to be here is that we don't want ourselves to be limited by our own discipline. I guess people in this industry have a general building of learning, like we like to learn new things. Personally, I have no knowledge on electronics technology. But now I am getting on it and gradually learning, slowly. Then in terms of like design people from the architectural study and the design people from let's say product or other discipline, we share a view. However, we also have different understanding of interaction. I don't know how to describe. We came up with it in a conversation the other day. People from the architectural education, we share some of the thinking which the other people don't have. But I'm pretty sure that they share their own thinking that we don't in that way. But it's really good to see how other people are thinking. I think it's a really good healthy thing to share thinking. Because you can't think one thing in all different aspects, which is really good. But, yes, of course, we were trained in that way and tend to think in that way. That's for sure. That influences us.

LF

So that's probably a common aspect of everyone here, people who are drawn to be challenged and think in different ways, who want to learn new things and be taken out of their comfort zone?

JL

Yes, to keep learning. But are you more talking about people from the Bartlett and people from the RCA and how we get on with each other?

LF

No, it's more just trying to see if within a studio, say that does architecture and product and a broad range of things, do designers get pigeonholed into that one area and get stuck in that.

JL

I see. The studio itself doesn't have that clear separation, that's one thing. So everyone who studied design related course we will be the designer/project lead. Anybody who has a background in electronics, they will be the electronics engineers. From my understanding these are the two main separations in our studio. I don't think I can cross over to the other side ever, but I can gather the skills from that side onto me so that I can understand that better and design better. Because if you don't understand the other side and you design something, that will cause trouble later. If you don't understand the whole electronics thing and you design something with technology you just get the whole thing wrong or probably you imagine something that is just not do-able at all. Once you get more understanding, you can do your job better. But, I don't think I will ever to be in that side.

LF

Not fully?

JL

No, not fully.

LF

You are a hybrid?

JL

Yes, a hybrid. I like that word!

LF

Brilliant. So what do you think the core skills are for some to work in this studio? Whether, practical, social etc.

JL

Creativity for sure, not only on paper but practically. You need to be able to test build. That's very important. Expression skills, how well you can express you ideas to others verbally and hand drawings. Communication skills, because you can never know everything. You need to ask people for what you need. Working in a team, team working I think. A good pair of eyes! Personality wise, I don't know, you can be any personality you want I guess.

LF

So the last question is about education. Obviously, you studied in China at undergraduate level. But, I want to see what you think about undergraduate education based on your experiences here, and whether you think a uni-dicsiplinary structure is still appropriate. Or whether you think it should be something broader.

JL

I think it should be broader. One example, when I was studying my architecture courses, before my year my university had arranged a coding/programming course for them. Then they thought 'oh it's not any use for an architecture student', so they stopped that course before I started. So we didn't get that course. However, now I think if I did learn that it was going to be really useful for now, and what I'm doing now. But, I'm not sure how the other people who are now architects are thinking. Because I am in a very multi-disciplinary industry, so I think that would be better. But I'm not sure how the others would think. Probably they don't need it.

LF

Perhaps it is about a split with two paths, either the straight route or a more broad route, including a variety of things like coding, so that you can start to create your own education.

JL

One thing is that if we provide as many as other things for undergraduate and at same time we have the main stream of architecture training. Along side we could provide more disciplines. That's one thing. The other thing is that with the students, are they aware of those things being useful in the future?

LF

I don't know. It might be hard to convince some of them at the moment.

JL

Yes, because I am thinking of me back at that time. Also, my classmates. Although we didn't have the programming course, we did have some other courses which was on the boundary, not a main architecture course. You even probably can't see the relation between that for some of the students. So for those courses some of the students just don't treat them as seriously as main course. For example, Lighting course. However I think it's crucial for an architect's career for you to understand how the light works. Because lighting is a really, really important thing in human life. If you don't have light the buildings will not work that well, if you only depend on daylight. You still need to understand the daylight even. So, some students didn't treat that course seriously and I'm pretty sure they are getting into trouble now, if they are doing architecture. I think it's the problem of if the students are aware of those courses are necessary for them to learn at the same time. It's another issue. But I do think providing more different disciplines is very good for them. Probably they can find their own interests among those. Similar with the high school, I don't know the system here. You can know more things and then decide which route you go to.

LF

Our secondary school system now is very restricted for creative subjects.

JL

Yes, the same in China as well. You don't get in touch with too many artistic/creative things. Unless your family is related to that, maybe.

LF

So, the last question on the back of that, is what do you think undergraduate education could learn from this studio?

JL

All different kinds of things. Really broaden the eyes, broaden the vision. But probably if they are very curious about the world they might know already lots of

amazing things happening in the world. It's the same in the studio for us. We are exploring all the amazing things and new research that is happening around the world and then doing our own work. Probably another thing is they can see into the future a little bit. Because when I studied I can't really tell how professional work is going to look like if you are working, and how work is actually. It took me a while, in this studio actually, to know the process. I think in the students' life, the most thing we did now in the process of the whole project is only concept to scheme maybe. That's the most points we got to in the student life. But then probably it's good for them to have a vision of what's expected after that.

LF

I suppose with architecture it's particularly difficult to help you through all those stages. Did you have work placement opportunities when you were studying?

JL

Yes I went to two architectural companies in China, but I don't think they treated me as a proper employee. It's hard for them as well because you don't have the right skill set. They can only give you what you can do. Probably rather than doing a specific job, just showing us everything would be better than being there sitting in front of your desk doing a thing you are familiar with. You know what I mean?

LF

Yes, may be more like what I'm doing now, coming into a studio and seeing and hearing what's happening and talking to them?

JL

Better than being given a piece of a job, that you could be doing back in university. There isn't any difference if you do that.

LF

Yes, that's tricky. But I like what you have said about curiosity and getting a sense of what's coming and what the future industry might look like and how you might fit into that.

JL

It's more about knowing how it works than doing a piece of a job.

LF

Brilliant. That's everything. Thank you.

(Jing then takes me to the workshop and shows me her installation)

END

**Interviewee:** Martin Robinson (MR)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 18.12.15  
**Location:** Jason Bruges Studio, London

**Notes:**

LF

How do you define yourself if someone asks you what you do?

MR

That's an interesting one. In the scope of this job here?

LF

Yes.

MR

This job has developed. I class myself as a production manager and I've earned that role. I wasn't employed initially as a production manager. I don't actually have an up-to-date contract or job description.

LF

If they asked you what field you worked in, what would you say? If somebody just said to you "You're a project manager for what?" What would you say?

MR

I would say interactive art which is architecturally led. That's my niche, or my line. Or I'd say I work for an interactive design practice, I'm not sure if we actually do artwork. Architecturally led is the thing I usually say because of the scale of it.

LF

Could you tell me a bit about your background? What brought you?

MR

I took the long route, I'll give you a break down. I originally studied fine art sculpture in Brighton many years ago, and then from there I continued doing my own fine art practice, then I fell into a job of working in rock and roll doing production of live events in Brighton. I was self-employed and rummaged along doing my own artwork, concerts and installations and that mounted up. I did that for eight or ten years or so, and then decided there was a way I could see to combine my art with the knowledge of the real world of installation and decided that I needed to know more about computers. So I left that whole world and got a training job doing network engineering with a lady that worked at a school in Kent. She taught me, like a bit of an apprenticeship really, all I needed to know about networking. And luckily, because of working in that area allowed me to have time to do my own exhibitions over the four years, I was really pushing my own work, pushing the IT. Then someone recommended this studio and said they were looking for a part time IT guy and I thought "That's the back door, that's the way in". I didn't come in here with my art ability, it was more the fact that I was able to do IT and I had a really good knowledge of all these other things and a passion for art. So the then production manager who I had an interview with said "Yeah, this could be perfect" and that was my plan, my back door approach to get a job here.

LF

That's fascinating.

MR

It took a long time. When I did fine art this industry wasn't around. People weren't paying money to just come up with stupid ideas of things that just move and flash and all this stuff.

LF

So how long have you been here now?

MR

Three years in March. I've definitely done well to change my role.

LF

How would you describe the creative process of the studio?

MR

Each team member has their own passions and interests. And that's been more refined over the last year. You can really see that coming through a bit more. Then obviously you've got the directors that have their vested interests. A lot of it at the moment is led by the client coming through the door and then negotiation between the two. At the moment I think maybe we're a little bit heavy on what people want rather than stuff that we're producing internally. I think it would be nicer if we were a bit more confident in saying "Let's give a bit more time in developing our creative skills in house" then people would actually look at it and say "I want to pay you for that". At the moment we've got the balance just slightly off. But saying that it's about revenue as well, and if someone comes along and wants something then obviously you'll go with that. But there's a creative conversation when it comes in. We often talk it around into something that we really like and we can get something out of it. I think that's the good thing about the studio is that we do take risks and things because we want to keep it interesting. We could easily just be boring and make more money, probably. I would have thought. There's a risk to it.

LF

So it's trying to find that balance depending on how much work is coming in and what you want to do.

MR

Yes, the whole conversation about how much time have you got to allocate to this. But Jason is very keen on if there's an opportunity for a small budget, high risk bit of research he'll gun for it. And that's probably to his credit. And the managing director would probably worry about that, but Jason is always keen to break a few rules, which is good.

LF

That sounds great. The next question is how does this compare to other studios you have worked with?

MR

I've never worked in a studio.

LF

No. You've done a completely different path.

MR

Yes, which I'm really pleased about. I think I've been many different people and I think coming straight to a creative career, if I'd just gone studio to studio to studio, I think it's not in the real world, it really is completely, just the whole industry, it's completely separate from the real world and what's going on, it feels sometimes. But obviously over the last three years, and to be honest even before that, I've been doing my own projects. I've dealt with studios all the time and I know a lot of studios now both UK and overseas. So how does it compare? I don't know. Most of the studios are very tight knit groups that get on well on a personal level. We are a small studio. I've got friends that work in 50-odd groups and that's a very different... we have to wear multiple hats in this place. There isn't a particular department that does something, you have to be the so-and-so and the so-and-so, and people find it's easy to forget that. There's no point moaning about this, that and the other because ultimately the person next to you has got to sort that out. So it's a small team. What's different about this one? I'm not sure. It's quite eclectic. It seems to have an original feel to some of the other studios I've been to. Not sterile. You're also, I've proved it and a lot of others have as well, if you've got a passion and you're driving to do something then you can get them on board. You're not just stuck, well actually sometimes it feels like you are, but you're able to rally it through.

LF

That's great to have that, to be in an environment that supports you to do that.

MR

Yes. I think if you're passionate and you are good at something then they do see it which is great. I've been in other situations before where you are there to do that thing. I guess in the creative industry that should be the case, you should be able to do that. So you can do that here, which is great.

LF

It's great to allow that flexibility. How does the physical design of the studio help support what you do? In terms of having the workshop, how everything is laid out.

MR

On a personal level or business?

LF

On a personal level, in terms of what you do here.

MR

I've worked in workshops previously, I managed a workshop, my dad's got a workshop. On a personal level I very much feel at home down there, that's probably why I do production, that's my interest. I think without that it would be a little bit dull. It would also change the business, it would become more about talking and planning than actually physically altering anything. I know a lot of the guys here are really keen to research things and take things apart and break a few rules. I think that would be extremely difficult without that space. Just being tied to the desk. I think if you've got a practice like ours, if you haven't got a physical space, you're missing a trick because there's no way you can design anything just by drawing it out. You need to get stuck in. We're very fortunate though, a lot of studios don't have it, so we are very fortunate that we see that as a key thing. And Jason is certainly someone who wanders downstairs and picks a few things up, you can see it drives him a bit when he sees people doing something interesting he'll come and have a look. That would be lost I think, or missed.



LF

It seems like it must be contagious, if you walk in, whatever you're doing up here I can imagine walking in and wanting to get started on something.

MR

Yes, it's really improved now as well because it's more organised downstairs. Before it was a nightmare to be down there but now when you do come in you get a nice sense of... you can see clearly people's thoughts and the progress of projects. I think it would change. If it was just a studio like upstairs it would be like any sort of standard place.

LF

It's what makes it special.

MR

Yes. I think so.

LF

And you see with some other studios I've seen who have had that space, that space has started to shrink and go.

MR

Well financially it's difficult to keep. We're moving soon, and that discussion will be "How much do we use it? How much do we need it?" and I can see the business logic of saying "We don't need this" but I think the directors still see the importance of that. Because when you bring a client in and you've got a physical thing you can get more sell from that than just sitting in front of a computer, I think.

LF

I imagine it would give them more confidence as well, physically seeing, even if you took something that you'd made and took it to them, the difference of them being here and actually seeing the space and seeing it in it must give them more reassurance.

MR

It does, I really think it does. If you've got a great workshop tied in you can show the client we built this, then I think that's a big sell. Outsourcing is all the rage because you can save money, but I think we've found a balance now. And we've got Tom on board who is a senior engineer, so they've backed that. So us being able to prototype things is super important. I've been to other studios where they've got fantastic workshops. You went down to Heatherwick didn't you?

LF

Yes.

MR

They've got a huge... that's really a core thing for them, the physical, being able to play and see.

LF

Yes but because of the growth of the studio they are spread out now of the five different places, so it's a little more difficult. And I suppose they can't physically create five workshops.

MR

Yes, when you're like that it's like how do you deal with quick, snappy communication and sharing things. Sharing ideas and things you're interested in and being able to show someone. Yes, it becomes a very different beast, doesn't it.

MR

I remember when I started here that I... I love sharing things, I'm interested and passionate about stuff, and I remember when I started emailing things round and no one really did. I was really surprised having come from different jobs and I thought I couldn't wait to work somewhere where you can have these conversations and do this and do that. But it took time to get that momentum. I was surprised actually. Because it's like with any work, people are just too busy or head down and doing all this sort of stuff. It took a while to come around to that. But it's a lot better now with people, you can fire something off and say "I've seen this interesting thing" that no one else would really be that interested in, but then the people here would say "Ooh, yeah, we should have a look at that".

LF

That seems really important, all of that creative conversation and dialogue. I suppose that nature of the workshop down there is that it just triggers that automatically, because if you're suddenly able to see what someone is doing you can connect so easily.

MR

Yes, you can. I think like you say when you see something, doing the things you're supposed to do and then you stand and have a conversation...

LF

What do you think the core skills are for someone to work in this studio? They might be practical or social skills.

MR

Social I'd say are top of the list.

LF

Really.

MR

I'd say socially good. It's a tight team and you've got to get on with the people otherwise you're out. Very highly technically able. A good eye. It's a good question really. Focussed on what you want, focussed on what the studio wants. I think being loyal and having an energy is seen as a real plus. I've seen Jason a few times meet people and the vibe you might get from someone's energy towards the industry, I think that's a key factor. I'm just thinking of the new people we've taken on recently. It's come down to them being highly skilled with an original take on something. A proven good record and fitting in with the team I think.

LF

Yes.

MR

Definitely getting on with people is high on the list.

LF

For a small team like this I suppose that is so collaborative in the way you do things.

MR

Exactly. We've had freelancers come in and out and if someone is a bit of a pain or something you'd think, not being horrible, but maybe they didn't quite grasp the getting on side of things. It's like anything, it's all to do with how you get on with someone. And for a lot of us actually, thinking about it, there's a lot of client facing for everyone. So that's important, that they need to know that you aren't a time bomb, and you can be trusted.

LF

Great. The last couple of questions are looking at education. So you came through more of a fine art education and that's a different approach.

MR

Yes, many years ago. It is, and I've read a really good book on holiday. I believe I'm a wide achiever. Because, this is a good one, you've got someone that is linear, who will do this and they'll get to that point and that's a good thing. I've always been the person that's said... but with the IT I said "I've done this part, I know this industry inside out for ten years. I can get things built, I know everything about that". And in my fine art I understood all those things. I needed another part to me to make myself more whole. So I'm happy to jump sideways. Whereas some people might see that as misguided or the fact that you haven't had the design title in your title since you left school. But for me I think I feel rewarded being able to jump from industry to industry and take what I need from those pots. I think that's really important. So my education... I always knew that I would get to the point where, like this, in my heart of hearts and I would get to that, but I didn't... when I left college it was years ago, I was just going to do fine art and that's what I did, it was my drive. I knew I'd get somewhere but I didn't know quite how I'd get there. Obviously I've done a postgraduate in photography as well, I've got a fine art and photography, I did that in 2011, which was I think a shrewd move because I was doing the IT, I was doing freelance production, I was doing my own exhibitions, and that unit was tight and I could see it was coming to the point where I needed to find someone who would be interested in all these things. So I did the postgraduate in photography part time whilst I was working full time at St Martin's and used that as leverage to start talking to studios to meet a few new people. I did two exhibitions in London as another "Hey, come along, let's have a chat" sort of thing, "I'm interested in light and installations and all this stuff". And that was the key move. I was living in Kent at the time and you didn't... to meet anyone of use was very difficult, you had to be in London, so that was an excuse to be in London, get a postgraduate, meet new people and create your own network. And it worked. But it was a targeted move and tricky because I was working full time. But I just saw that and I thought "That's the key to it, to get the in".

LF

I'm hoping to take the research back to undergraduate education and to see if there are any recommendations for changes in some way.

MR

I never thought about a job when I was at university.

LF

You didn't even worry about it?

MR

No. I was just doing fine art.

LF

It is a difficult situation now with the fees. If you've only got students for three years what can you do to help them the most? That's why I'm looking at studios who are not defined and move around fluidly. Because if they've only got those three years should they be coming out as a Graphic Designer or Illustrator or should we be doing something more fluid or more broad in some way to help them come into an industry that is as it is now?

MR

That's true. We take people straight from college and Jason will go to an MA show and pick people up and say "Do you want to come and work for us?" If you look at it I think it's less about being like an illustrator or a graphic designer, it's more about... for instance, like photography was a vehicle for me but if anyone said are you a photographer I say no because I'm a sculptor who deals with photography as my vehicle, as a tool. And a graphic designer can be someone who is graphically aware but has a huge skill set. Studios need people with a good eye, technically able, socially aware, being able to deliver yes, know your tools yes, but you need a very broad range of skills, and I think, like you say, if you are just a graphic designer... that's difficult. Because now I've had to learn loads of different software and all this sort of stuff and it's never ending. I imagine when you're at university it's probably even worse now. You have to know how to do video and graphics and photography. That I imagine is tough. I don't think it's easy coming out of college. Every year there's an influx of young people looking for work. I enjoyed it though, I just fell out of college and started doing my own things. It wasn't lucrative, but it was good fun.

LF

It seems you somehow had that healthy mindset though, like you said, that you felt confident perhaps to some extent that you would get to where you wanted to go, but you were also really happy to jump and explore.

MR

That's the key. I could see... and my mum was always saying "I don't get it" but I could see the benefit of everything I did. I'd be doing a rock and roll show and I'd be talking to the lighting engineer and talking about all these things, and everyone I'd spoken to seemed to be useful or interesting. So even though, and it seems strange, that's how I feel. Everyone and anything that I did during that time I was able to take something from. There was never a "Oh, I'm not doing what I want to do" even though it might seem it from the outside.

LF

Do you know why you have that outlook? Is there anything that might have given you that? Is there any inspiration?

MR

I don't know really. I've got friends that are similar, that talk to anyone. I don't know. It's just an approach that if you communicate well with people or you meet people... I don't know, there's just a wealth of stuff out there.

LF

I think students are concerned about paying off the debts, of how they're going to make a career for themselves. I think they don't see that breadth would be of benefit.

MR

So they seem to be almost under pressure straight away from when they start university to get this nailed, don't be distracted.

LF  
Yes.

MR

Yes, that is a pressure, isn't it? When I went there was a sense of freedom and I think the tuition fees just came in the last year when I finished. So I guess that was a golden period, you could take massive risks. When I did my undergraduate I was a bit of a nightmare probably, and I could have done better but I got a lot out of it. Postgraduate, when I did it in 2011, I worked very hard, I made the most of that year. I just thought it was actually really difficult to get on a postgraduate. I've looked at MAs as well now, I'm thinking I could do it in a year's time, but you've really got to make the most of it. And I can see why they probably are. But also university is just about life experience as well as just knuckling down.

LF  
It should be.

MR

At university I was doing loads of things but I definitely didn't have the foresight and the understanding of the range that was within the industry. There's a massive range. You can be someone who can know technical things but not be a technical manager, that talks to clients and the client facing bridge. There are so many different ways of approaching the same thing, it's the same with theatre, you know yourself. I certainly didn't know all these jobs. There aren't just the headline jobs. There are all these things in between.

LF  
Yes. That don't have names almost. They're making them up.

MR

Exactly. I've had that here. I remember I sent an email and I thought "I'm now production manager" because I was doing production management, I said "This is what it is". People have often said "What do you do?". It's not really defined, I'm not going by a defined list, I'm just doing, these are my skills, this is what I do. You work it out. Sometimes people are a bit scared to just make their own... if you're good and passionate you can make your own title. But I think talking to people just opens doors. When I did the live events, these people I still know now, and they were just open conversations about creative ideas or things we worked on. I think for any student it's really key to see and talk to people. It's interesting you do that. I've got a friend, she's a producer at The Abbey in Dublin. She's over here quite a bit with shows. I did a few spot lights for some shows myself. It was good fun. Twice a day the same thing for two weeks.

LF  
But then it must be interesting to watch. In my theatre experience, I used to love watching the show change, seeing the actors change, and how the audience affects things.

M

Yes, stuff like that is gold dust to understand, people and the systems. You just sit and just absorb that, it's brilliant.

LF

And seeing the actors reacting. They would improvise a lot. And you'd see them one night improvising something and everyone would be roaring with laughter so they

would try it again the next night and it would fall flat. But it's like somehow the audience can tell and sense when it's genuine and when it's fake. I wouldn't be able to describe what the difference was but to watch that as a craft was fabulous.

MR

That is a real skill. The feedback.

LF

Brilliant, thank you. I'm conscious I've gone over your time.

MR

Don't worry about that.

LF

Are you all right?

MR

Yes. Is there anything else?

LF

That was the end. Education and hearing your thoughts about that. It's really helpful.

MR

I think what's interesting is the crossover between art and business. Don't some colleges teach business and art alongside each other? I'm sure they do don't they? Business students and art students in the same building?

At St. Martin's I remember going up to the fashion department saying "Guys, I'm here". And they really weren't sociable. At all. I was determined. I literally walked around the building and thought "I'm going to make the most of this. I'm going to go and see what everyone is doing".

It's still within the profession, people still say "Why do you want to do that? I'm doing this". It really is very funny when you come across... I find it very surprising when you've got people that are thinking of all these great things and working on something that's supposed to be dynamic, but they're as rigid as everyone else. Even in business they're very formulaic. "Why would I want to talk to that person?" Well, because it's a very original viewpoint, that would be really good. It's funny. People are a little bit suspicious, which I'm surprised at.

LF

I think education partly sets that up from the start. If you're all segregated already, it's not going to help, it can't help.

MR

I'd bloody tell them "You're at college, you need to just let go and get on with it". There are very few opportunities in your life where you can let go and really absorb everything, and that's one of them. If you're going to be too hot up and worried at that age then it doesn't bode well at all.

LF

No it doesn't. Brilliant, thank you. This will really help.

MR

It was good to meet you.

LF

Thank you. And you.

END

**Interviewee:** Andrew Walker (AW)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 18.12.15  
**Location:** Jason Bruges Studio, London

**Notes:**

LF

How do you define yourself if someone asks you what you do?

AW

It depends on who is asking the question. I try to tailor that answer to the audience. If people on the street ask me what I do I say "I'm an architect" because that's what I trained as, what I studied for seven years, it's my passion and forms a significant part of my identity. Though there are legal requirements to use that term officially, (as I'm not technically a qualified architect yet, I'm only just beginning my part 3). So I can't ever say I'm an architect in an official capacity. Instead I say I'm an architect in the sense that I practice architecture, I work in an architecture studio. If people know me a bit better and they want to know more specifically what I do, I say I work in interactive architecture. Rather than "I am a something" I say "I do something".

LF

That's interesting.

AW

But here my title is Designer and Project Lead, that's what my emails say. That's a long answer to a simple question.

LF

It's not simple though, I'm realising. Could you tell me a bit about your background and what brought you here to the studio?

AW

Sure. How in-depth shall I go?

LF

Certainly your educational background, that would be fascinating to hear about.

AW

OK. I went to study at a hybrid school at Manchester, a pioneering experiment when Manchester University and Manchester Metropolitan came together to synthesise their design courses. I think it was Dr David Dernie, an ambitious professor, who had this vision, and he wanted to join the more traditional architecture school of Manchester University (with all its prestige of Norman Foster, local roots, giving lower-middle class students a leg-up etc), quite a modernist school in some respects with an increasing emphasise of ecological / green thinking - with the arts and crafts ethos of Manchester Metropolitan University, (a former technical school)- so it was a hybrid course. In many ways more rigorous – as during my time it had a very strong theoretical underpinning (no soft touches) but with a strong emphasis on physical thinking, making, communicating and exploring through materials. It was a mixture of optimistic northern modernism and quite a classical training. It seems unthinkable now but I didn't touch a computer for the first two years of my course – astonishing considering what I do now. It was all chipped mint-green drawing tables, French curves, set-squares, Rotring pens and scalpels and things like that. Though I



was surprised how little direction we were given in terms of drawing practice – the onus was on us to be self-directed.

I quickly discovered that I was more interested in the theoretical side of architecture perhaps than the design side (not that they're exclusive). I think that was because I found the design side (at times) quite predictable/ formulaic and quite limiting. We did a project in the second year which I think really kick started this curiosity... it was like my turning point. It was titled Spatial Musical Translations – or something like that. It was only supposed to be an introductory project – a gentle 'fun' stepping stone into the second year. Obviously links between architecture and music are ancient – links with rhythm and metaphors of cadence, counter-melodies, harmonies etc are year 1 of any basic architectural history. But what this project was trying to get at was something on the one hand more superficial - the relationship between I think musical forms and spatial forms, and on the other the links between spatial psychology and psychology of sensory stimulation and theories of perception. I got so interested in that because it was... I felt like architecture was tapping into something, was hacking into something innate within us, and I wanted to understand that more than perhaps door schedules, where the toilets go, what I thought was the nitty gritty core of architecture. I'm bouncing around a bit incoherently here but in essence, Manchester provided me with a very good foundation of the essentials (structure, history, poetics, craft, decorum etc), but it also opened up to me interesting philosophical questions about the subject – from subjectivity (and its dangers) to gestalt and theories of perception.

I enjoyed most of my time there - I got my scholarship, my first class degree, did very well out of it. But then as soon as I finished that it was the financial crisis. I was all lined up to go and work at quite a big, agile, well respected practice called BDP and I had my contract torn up because I was going to be working in a Building Schools for the Future project, which of course the government cut completely. So that left me in the wilderness. BDP were sort of the local finishing school for the highest achievers at Manchester. I was invited to interview there and was expecting to be shown the ropes. I really lacked any confidence at the time, despite the fact I had just done quite well, I was really running low on energy and confidence and I just accepted the first job offer I had. I didn't apply anywhere. London felt like a different country – a distant hyperspace. The student world was less connected then – or perhaps I was just naïve.

That first and only offer was interestingly from my ex-examiner. My RIBA external examiner came in and said "If you're looking for some work come and work for us". And it wasn't until I got to the Bartlett and everyone reeled off their impressive CVs that I realised I probably should have held on a little bit longer. After that I wanted a bit of an escape, I wasn't really satisfied by what I was doing in my part 1. Not only did I find it quite mundane I also found there was a growing schism between my politics, my intellectual curiosity and how I wanted to explore my ideas and answer my own questions. And I realised that's just not going to be possible through traditional practice, it's just not going to happen. So I wanted to go to the Bartlett to see if I could explore new ways of thinking about architecture or see if I could unearth some kind of niche way of practicing that allowed me to keep a roof over my head but at the same time still explore these ideas. I went into Unit 14, that's Jason's old unit, Jason taught there for a year. He didn't teach me, he was a teacher there for a while, but there's an awfully strong legacy between Unit 14 and this practice. A lot of former Unit 14 graduates have either worked here at some stage and they've now all gone on to teach similar courses at different universities, or they've collaborated in some way - so it was quite a family/fraternity of Unit 14ers. That unit was loosely about Cybernetics and Architecture, so it was about theories of consciousness, theories of

perception, space, interactive and conversational theory, mixed with spatial design. One of their old briefs that used to be used over and over and over again was called the Experimental Toy Factory, which sadly ended by the time I got there but that was the incubator for where a lot of my research evolved out of. That was where I first got to explore interactive architecture, programming, coding, electronics, all that sort of stuff, and tried to create interesting interactive environments, not just standard bricks, mortar, and inert spaces. Oh but there was a lot of indulgent guilt in the process. That's sort of my background in a nutshell.

LF

And then did you come here through connections with the course, after that?

AW

I should probably be really careful with what I say now. If I was more professional I wouldn't say this. I took a different job first before I came here. I was working at a more traditional, quite classical practice over in Angel. It lasted ten days then I had a quite the argument and I left. Not everyone here knows that actually. My former boss came across remarkably arrogant, and so rude that I didn't want to be spoken to like that. I now realise looking back that it was more of a tempestuous character and impatience for those taught differently – but at the time it felt unnervingly draconian. I realised very quickly that in lots of practices there is this culture of bullies and lickspittles and people that know their place and the tyrants and the underlings. I have no problem with authority, I don't want to live in some sort of wishy-washy post-structuralist dystopia, but I like authority to be earned a little bit, not just assumed or presumed. And regardless of success or standing, that doesn't give you the right to speak to people as if they're beneath you. I lasted but a couple of weeks there, and I quit, and I was suddenly in a position where I needed to find a new job. Ironically that was one of best experiences of my life and since leaving I've formed a good connection with my old boss because we do share parallel views on lots of things. But nevertheless we were incompatible at the time.

I got the ball rolling quickly and earned a job offer from AHMM, they just won the Sterling prize, they were and are a really good firm – I could happily see myself there. I accepted their offer, signed the contract, but then I spoke to Jason on the off chance and said "Do you know what, just as a plan B I'll see if he's looking for anyone". Knowing Jason, knowing his work and he also came into my university a couple of times to see my work I thought I should at least indulge my curiosities. I emailed out of the blue and simply said "Is there anything going?", I came in, had a couple of interviews, they went well, but then I told him "It's a really generous offer but I think I'm going to go with AHMM, I'll sign the contract and go with them". And I was expecting him to say "Oh well, best of luck" and that would be the end of it. And he said "No, no! Come in". And it was him, Richard, and Rick, so all the directors, the three most senior members of staff in the company, just took me out onto the balcony and said "Now, what do you want, how can we get you to come here?" That sign, or that intent, that sort of being genuinely wanted, feeling like they're actually going to make me – not only do they want me, but they're going to make me feel welcome and they're going to help me, support me – I thought was too good an offer to turn down. So in the end I had to cancel my contract with AHMM and just come here. That's how I ended up here. Hopefully not burning bridges in the process.

LF

Fantastic. What a great story.

AW

I'm far too garrulous for these sort of questions, so I'm really sorry if I'm rambling.

LF

So with your role within the studio, you are one of the Project Leads?

AW

Yes. It all depends really. It depends on the project. So we often do, not exactly role-reversals, but we often act as support for each other. For example, Jing, I believe you spoke to, she supported me on a project we did in San Francisco. I had the brief, I was the one liaising with the client, so I was the one sitting in on the calls and designing the presentation and sketches. But sometimes we need extra input from other people and not just animations and things, we sometimes need creative input as well. We always need creative input. And she was for example answering to me in that case – collaborating together really – but she would be working on tasks I set based on client feedback. There have been other occasions where, again with Jing, she was working on a project for Hamburg, and she needed someone to do some sketches for a few concepts, and Jason was saying she didn't have the time to do it so I was producing some sketches and drawings for her. It's quite a fluid sort of... there's not really a fixed hierarchy. That's actually one of the things I find appealing about this place. And if I'm jumping the gun with one of your questions I'm sorry. One of the things I loved was, it sounds so stupid, but the fact that Jason goes out and gets milk. It's really hard to get across to people how rare that is. Some people would say "You do that receptionist", that dismissive, "I'm too important" for something... which Jason does not have at all, which I find really warming. Or for example a few weeks ago we were doing a project for a bird museum on the Scandinavian coast and some Danish clients were coming in, and essentially we had one week to do about three weeks worth of work and even though it's bad practice to stay late and we try to avoid it, and we're really pushing so hard to make sure it doesn't happen again, it wasn't just the junior staff that were staying late and putting in the hours, everyone was all hands to the pump, people were staying until 10 or 11 o'clock including design manager Rick, he stayed until 10 or 10.30pm. One of the production managers stayed almost every day until 11 o'clock. It's never Us and Them in the studio, it's just Us. I really like that attitude. I hope it lasts! But how I work is just essentially... I'm a project lead so I'm responsible for client liaison, financial management of the projects, making sure the designs are executed and built the best that they can be.

LF

How would you describe the process in the studio?

AW

It all depends on the brief. Some are more abstract, open-ended. Others the client isn't sure of what they want and seek guidance. Others are very specific. Yet a lot of the time we won't even have a brief to interrogate or respond to. Much of our work is pre-emptive. It grows out of the soil of chance conversation or knowing a client or site, we might propose something we think can enhance the space in question. When it comes to a more generic competition brief we analyse and pick out key points from it, we also then try to project some of our own studio ethos / philosophy on to the brief and see where we can work with it and what we maybe need to adapt to. Depending of the situation we'll seek to base our research on the site's context – be that geographically / historically or related to whatever the topic may be. Most of this will happen in tandem with sketching out some ideas quite roughly, followed by a series of internal reviews of those ideas. They will then get developed a little bit further and will be reviewed again. Then we will start to tender, create a pitch, which we then send off to the client for review, and that will usually be early concepts. That's a more open-ended brief. Sometimes we get very, very specific briefs and we have very, very short deadlines, in which case it's a slightly more condensed process, and perhaps we don't have the time to develop ideas as fully. But that seems to be

how it works – analyse brief, sketch out concepts and ideas based on research and based on the brief, and then just keep reviewing and reviewing and reviewing and refining. It's almost like percolating. And every now and again through that percolation process it will be a spanner thrown in the works, out of the blue, a moment of serendipity or sometimes a Jason nod, or someone in the studio will say something which will completely reverse our direction for the project. That happens more often than not but it doesn't always lead to a change in the project, it's just ideas will come in that might act as a bit of a centre of gravity which forces the project slightly off course, which is sometimes useful, sometimes not. It's quite standardised, I'm quite surprised because I thought every project would be totally unique when I came in. But actually we have quite a well practiced ritual of design which is very helpful.

LF

It seems like you're such a inventive studio, you're creating new things with everything you do. You'd almost imagine your process would be more complicated and that you're not able to follow a standard process.

AW

It all depends on the stages of work. This is the architect in me coming out now. The RIBA has very set, co-ordinated stages – (for detail design, production etc) although it's changed now and no longer stage A, B, C, D any more, it has different labels. But essentially you still have a concept stage, scheme design, detail design and then you have handover documents, with details on electronics, drainage etc. etc. etc. And you have maintenance approvals etc. It's very rigid, agreed hangover from the old fee scales which unfortunately were gotten rid of in the 80s. With us, once we get past that concept stage, that's when it becomes a much more bespoke design process, because into the early concept stage there's always going to be a little bit taken from what's going on in the studio. So if someone is working on something experimental or if someone's just seen something amazing that they would like to practice, it's only natural that if the right brief comes along sometimes we'll try to shoehorn in some new ideas, just because we'd like, as a practice, to be one of the pioneers of new technology, and new medium for example. Without going into too much detail, because the project is not off the ground yet, we're currently looking at heat as a building material. Heat as an artistic medium. It's quite interesting. It's usually something quite concrete or tangible and visceral. Even if it's light, heat as a material for art is very rarely used. That's something we might try to work into the project. But before we can do that we need to know how possible it is, because we don't want to be pitching to a client who has maybe given us £50,000 for a project, for something that might be impossible and cost £5 million. So you're always pre-filtering. It's once you get past that concept stage that things become very bespoke, because that's when we start talking to our programmers, our production managers, looking at the technology that exists out there and trying to see if it's possible, and how can we do this, how can we solve these problems. Then we might prototype something, test it, re-prototype it, take it apart, do something else. That's quite unique to this practice, but getting to the concept stage is fairly formulaic – but still with enough room for novelty and surprise.

LF

So do you as creatives in the studio get time allocated for research and development, that's not related to a specific job? So if you've got ideas that you're thinking about that you want to explore can you take time to do that?

AW

If on the rare occasion we weren't frantically busy then we might have some R&D time. I know for example people like Anam (a visualiser here) was given the chance to go on a five week course to study animatronics in Hollywood. And because she's been working so hard for the last two and a half months, this week she's had quite a few half days where she's been able to do her own 3d printing of her own ideas. Much of that research is conducted in her own time but using the 3d printer to execute it, to test it, using a little bit of time in the studio is encouraged, not just permitted, because of course it all feeds back. If Anam can find a solution or has a creative idea then there might be a project that comes along and we think "We're doing some interesting shadow play with these rotating sculptures, that could be quite interesting". So all work feeds back in. However, in terms of do we have designated time to do something, I think I've not experienced that yet. I've only been here about four months. If perhaps, for example, I said "Have you seen this bit of technology, Jason, this is really interesting. I'd quite like to do something with this", and if for example I didn't have any particular project to work on, I would probably be given a few hours in the week if I wanted to really test it out, but the onus would be on me to develop that in my own time and then bring it in, and once it's a little bit more past the wishy washy wouldn't-this-be-nice stage, and it came to be a bit more "Let's actually see if we can use this" then I think there would be time devoted to it. As far as I'm aware there's no official quota or "You can do this, you can do that". I think if it was to improve the skill set or the knowledge of the studio... because this is a business at the end of the day, if it were to improve the knowledge of an employee to the extent that it would massively feedback into the practice, like for example Anam's animatronics course from Hollywood, then I think they would make time and they would fund it, for sure. But in terms of just ideas I think the onus is for you to do it in your own time, but that's why we're here. We're all, not lost souls, but quite individual, independent thinkers and we're always going to be doing these things on our own time. Dagny has her own exhibitions in her own time, Jing did some experiments in her own time, and I teach / lecture in my own time. So we all have our own different diversions and things.

LF

How does this studio compare to other studios you've worked in? It sounds like there's quite a difference just from the little bit that you've told me before.

AW

It's different in the sense that the hierarchy isn't so clear cut. There isn't a distant disconnected person at the top that's far removed from the most junior members of staff, or perhaps only drops in occasionally to the most junior members of staff. That could be more to do with the scale and size of practice rather than perhaps type of practice, that's something that probably you'll be able to answer. But in my experience it's far more common in conventional architectural practice to have that almost army or military-like chain of command. So you'd have maybe a junior designer, a part 1 designer, a part 3 architect who would manage those people, then above him they might have a team leader and above that you'd have your managing director or studio manager or owner. Whereas here it's much more fluid. For example, there doesn't seem to be a junior member of staff, there are people who have not been here as long and people who might do more manual tasks than others but it's much more fluid. Everyone has a valid contribution. Obviously in terms of chasing new business that happens with more senior members of staff but even then that's not always the case. For example, Jing brings in business from China, I bring in business from contacts I have in the art world as well, it hasn't happened yet but we are having conversations with a few people. We generate our own work as well. In terms of culture of other practices, again I don't know if it's because it's unique to

this practice or it's the type of work we do, I can't say, but everyone is much, much more supportive and encouraging here. You are not ever made to feel like mistakes are a bad thing. You don't want to make big mistakes, or squander huge amounts of money, but you're always given support and the time you need. If there's something stressful people pitch in and at the same time there is little passive aggressiveness, there's no hostility here – or at least I've yet to be exposed to anything toxic. That could be down to good recruitment and looking for certain character types but I've never had an argument with anyone here in four months, and I can be an antagonistic character at times. It's really nice here, everyone just gets on really well. That's not the case in general architecture practice which is a much more, as I said before, lickspittles and bullies, and it's much more competitive. It's almost got that base horrible social Darwinism feel to it, which is everyone is in it for themselves. Everyone is dominating or trying to dominate, fighting – either explicitly or implicitly. Things like in a conventional architecture practice, if you want to get good jobs the boss can so easily manipulate you. They won't necessarily have to say anything – the clues lies in the culture of the practice. People get in at 8.15am when they're supposed to start at 9am, or they get in a bit early and start at 8.10am, and 8.05am, then 7.45am and there are those that get in earlier and earlier and earlier, it gets noticed. Their willing exploitation / subjugation will get them better jobs. But at the end of the day doing that is awful for the wider profession because for starters it's unhealthy (one only need look at the mental health statistics for our profession). I think it should be illegal, and if it's not illegal then we need to rewrite our contract laws. But ultimately it devalues the profession. Because yes, you working and staying a bit later instead of leaving at 6pm you're leaving at 8pm. Yes, OK, that might mean you're learning something and sometimes you have to pitch late, but actually all you're doing is you're working for free. So when, say, a practice that nurtures these behaviours pitches for a job and it's going to take 100,000 man hours, if you've got 10,000 extra man hours for free, actually you can just say "We'll only charge you for 90,000 man hours". Which means a company that's doing things right, saying "You start at 9am then you leave at 6pm, occasionally you stay later but very rarely", they get undercut. Politically that's an absolute disaster and it's this whole new liberal, we're all in this for ourselves, Generation Y "We can all exploit each other equally", that's what equality means. I'm getting a bit ranty and incoherent now. That's my big problem with practice. There was a great article by Andrew Maynard I think, he's an Australian architect I believe, and his philosophy was he was always the first person in the office and the last person to leave, and he was the boss. So he would be there and no one could get there before him and everyone had to leave before he left. And that was the rule. He said he did this (and I'm paraphrasing) because there's a myth that people think with architecture you're struggling for your art, you're slaving away for your art, you're burning the candle at both ends because you're producing this agonising beautiful craft, and actually he said "That's bollocks". 97% of the time you're either sat writing emails or you're on the phone and he completely pricked that pomposity of what the architectural process is. I'm not unromantic about it, I love design and art, I have no doubt in the motive force of architecture and I've no doubt about the intense ritual of design, how important that is as well, but let's not kill ourselves. A lot of the time is spent on logistics and quite mundane administrative things, and I think, like I said here, we do start at 9am and we do finish at 6pm. If we do have to stay late, that's because we're doing our own thing or... there's no competitiveness to stay late, late, late. That's the thing with practices. Other differences in terms of my experiences are the ego of the people who are your superiors. They don't have that same egotism here. Again I won't mention names, but I have heard certain practice leaders utter quite openly "You know what, I'm a fucking genius, yeah. I'm a fucking genius. In any other country, yeah, if this was Portugal, if this was Switzerland, I'd be a fucking Professor of Architecture. Only in this stupid fucking country am I not allowed to teach. Why? Why?"

I've even heard quite homophobic things like "It's not even architecture, it's just fucking hairdressing. It wouldn't surprise me if he was gay". And I thought "Are you kidding me? Two members of your staff are gay. Do you think it's appropriate to hear that?" I'm sure it was just an explosion of hasty bitterness because I doubt many hold those beliefs sincerely but it's still disturbing to hear. Where the ego conflates intellect for wisdom. You can be very smart but it doesn't make you wise. Equally confused is morality for righteousness. That feeling that they're on a crusade and they're the only ones that are right and they have the answers and everyone else is just an idiot and immoral. The whole culture of delusion and spite and bitterness which I actually think originates in architecture school. In architecture school at the Bartlett, even though I was very lucky and I had great teachers and I think we were the exception, like Jason Bruges is the exception, the unit is the exception, but in the Bartlett there was such a culture of competitiveness and infighting and people only looking out for themselves (outside of their units). In Manchester it was different. Everyone was much more communal, helpful, if someone had a bad crit in Manchester everyone would flock to their aid saying "OK, but I like this. What about this? Have you thought about this?" And after the crit they might say "Do you want me to show you how to do this thing on computer very quickly?" A very quick anecdote and I know I'm going a little bit off brief, but hopefully it feeds back in, I remember seeing someone in a different studio, they were looking at an artist's website, I think it was Yuri Suzuki, he does these very beautiful sound art and robotics, actually not too dissimilar to some of the projects we do here, a brilliant designer. I saw someone looking at the website then someone else came in afterwards and said "Do you know anything about this sound artist? I can't remember his name. Yoliias Wuki?" Obviously this person had been to a lecture but they couldn't remember the name. Now that guy could just turn around and say "Yeah, Yuri Suzuki, have a look at his website" but he says "No, no idea". And it's that idea that "I know something but I'm not going to share it with you because you're my rival, you're my competitor". I hate that because it's a race to the bottom and reinforces that notion we're all in it for ourselves. There's plenty of great political speeches about rat races and how we're not rats – usually from the left side of history. I honestly think it's that neo-liberal project that we're all in it for ourselves, we're all in it as individuals striving for something, and that makes us not a community or a collection of people working to strive towards some goal. We're actually a bunch of individuals looking out for ourselves. I really find that it's very hard as any practice to isolate yourself from that. Now of course let's not be naïve or delusional, Jason Bruges is competing against other practices, of course it is. But we don't necessarily perceive them as our rivals, and we're determined not to change our ethics and our practice to gain an unfair advantage. So we try to gain an advantage through quality of work and through making sure we hire the right staff who are really passionate and enthusiastic about what they do. Whereas I think other practices try to gain advantage by having... OK, they want people who are very skilled, technically brilliant, have lots of software skills, to use the expression CAD monkey but that's what they want, someone that they can just give instructions and they just obey. And it's quite ironic that the person that I worked for last time had very strong views on capitalism – they were an ardent anti-capitalist by mouth, but yet the two big buildings they've completed were for banks, accountants, marketing firms and luxury buyers / speculators. That's OK, you can have that schism, we're in the real world, and someone else is going to do it if he doesn't do it. I'm not calling anyone a hypocrite for that. The only hypocrisy I would cite is for attitude. To hear them talk about privilege and private school people with scorn while the majority of workers in their practice were privately educated and grammar school educated, and again, I'm not making any judgements about anyone who goes to those schools because that's fine, not a problem with that at all, but there's a certain culture of authority that these schools engender "You are the best, but you also have to also do as you're told, and

you don't answer back". And it's no surprise that they hired those people that don't answer back. Whereas here we don't view it as answering back, we just view it as a dialogue. Whereas for them it's "I'm right, you're wrong" or "I'm superior, you must do as I say". Whereas here it's just a conversation. So I say this type of practice is about conversation, other types of practice are much more about rules, competitiveness, and it's not healthy. And probably I ran around in circles there but there you go.

LF

I think it's fantastic. I think there is a rise and rebellion against what you're talking about, certainly from ten years ago. And I think that's very exciting.

AW

I hope so. I really do. I'm actually quite frightened by it. I'm going to steer clear away from Althusser and State Apparatuses and stuff... but no I'm not actually, I'm going to indulge it actually, I won't avoid it. He was talking about how ideology reinforces itself, how ideology works and is institutionalised. And while he went mad it appears true. You just look at how our schools and education system works. It's top down. We have Cambridge and Oxford writing their own entrance exams now. We have other universities writing papers for A levels so they can weed out who is the best. That's what A levels are there for. A levels are a university entrance exam now. They're not "What do you know about physics? What do you know about art?" They're "Are you good enough to get into X university or Y university?" That's embarrassing. And before that all the anxiety... I'm saying stuff that anyone that watches the news will tell you. You can go to a park and hear some mad man gibbering this stuff that I'm saying. I know this, it's very obvious, but if it's so obvious why is nothing happening about it, why do we accept the status quo. Why do we accept that the purpose of education is either vocational or about going to university and then eventually about a higher paid vocation, or perhaps something more academic? Why is that the accepted model? I think it's absolutely no surprise that the type of practices we have, in architecture or perhaps in almost any walk of life, is a direct consequence of this, because that's what we're doing and it's very much top down. I think it's very difficult, almost impossible in fact, for any practice to isolate themselves from those forces. Because everyone who comes in the door, everyone is going to be tainted by them, including myself. And it's one of those things. How do you shelter yourself from these forces? There aren't any anymore. Wind the clock back 20 years, and you had people like... even further sorry, the 70s so 35 or 40 years now... people like Gordon Matta Clark. They could go to New York straight from Cornell I think it was, and buy these abandoned lots and start cutting buildings in half for a few hundred dollars. And he could set up his strange surrealist café where he makes used car stews with all those bizarre artistic friends, and they could do these things, they could set it up because there was the property and the things available to do that. Even in this country 20 years ago, people like Morrissey, love him or hate him, he just dropped out of society. He said "Do you know what, I'm not ready for this yet, I'm not ready for work, I'm not ready for this. I'm going to drop out of society for two years and I'm going to live in a council flat, and I'm going to practice my voice, I'm going to try and find my sound, my soul, what it is that I'm trying to say". And he was given that space. OK, it wouldn't have been a glamorous existence. You'd probably have to live on beans on toast most days, let's not romanticise it, it was probably bloody hard. But there was still that sense of "It's a social duty, what we're doing, regardless". And now again it's part of that same project that those social chrysalis', whatever you want to call them, these cocoons where you can just remove yourself to have a bit of breathing space, because I think imagination and creativity needs a breathing space. They're being completely commoditised and commodified now. You can't drop out. You can't have that



breathing space unless you come from privilege. James Blunt, I really have no time for this man. Someone wrote an article about how all theatre, music etc. it's a bit of a generalisation, but all of these things... people are coming more and more from an upper middle class, upper class background. And he wrote back saying "You're just being a class snob. I was in the army, I dropped out and I did all this myself". And actually the author had the audacity, quite rightly so, to point out "You lived in your parents house, they paid for your studio and you didn't have to earn a living for two years". I couldn't do that. If I wanted to set up my own practice I couldn't do that because I don't have the resources or the time or the space. And again it goes with that whole perception of risk. The idea that people at the top are there because of some kind of ingenuity and brilliance. This is ridiculous but it's no surprise those that are there console themselves with this myth. My family background for example, I come from a council estate, and I've moved away and done quite well for myself. But I am fully aware that's not because I'm brilliant. I'm fully aware that so much of that, 90% of that, is just pure luck and coincidence. Yes, OK, I asked the right people the right questions and I worked hard, of course I did, but so does everyone, a cleaner does, I'm no more special than they are. It's just luck. And what I don't like is the attitude perhaps, that somehow they're special, they're brilliant, they've done it all on their own backs, and again it all comes back to this "Where is that breathing space? Where is that chance for people now?" And I think slowly but surely it's being removed. I think practices like this, we do quite optimistically say, I think they're growing and there are more of them. It's not my experience in fact. I think actually the opposite is true. Yes, there might be practices like this but they're mostly full of the same type of person. I see less and less people from my background doing the same thing I'm doing. I think more and more people are frightened now. I'll tell you a very quick anecdote because I know I'm... if you can keep up with this you're a genius.

LF

That's why I've got this (the recorder).

AW

I'm just a stream of consciousness, a stream of semi-ignorant consciousness. But I remember I was at Newcastle teaching and it was the end of their charrette week where we'd built these amazing structures. We had to do the takedown and I told the students somewhat foolishly "Oh, yeah, you just go and have a drink, and I'll tidy up". And in the end that was a bit of a mistake because there was a lot more to tidy up than I thought, I thought I was just being a nice guy. Then one of the other members of staff that teaches at Newcastle, more senior, been there for years and years, came in asking where they'd gone, I said "Oh, they've all just gone away. I don't think they want to come back and help, actually. It's my fault. I sent them to the pub. But I don't think they're coming back". And he said "Aah, you see, that's because you're a service provider now, you're expected to clean up". And he was joking around, obviously he was being a tad facetious, he was a very funny chap. In all good humour there's a degree of truth to it, because actually it's true. The attitudes of people, I was teaching undergraduate and postgraduate, the attitudes of a growing number of undergraduates is "What's in it for me? What knowledge are you going to give me that I can translate into pounds and pence later on?" So the idea of just patient learning, breathing space, knowledge for knowledge's sake has been completely overtaken by that sort of ruthless "We need to know what I can get out of this and how it's going to benefit me in the long run". I don't think it's because suddenly mankind has become nasty, I think people here have become frightened because we live in a much less forgiving world, with a shorter safety net, and I think that's what scares me. I just feel very, very lucky I'm here because I feel supported, loved, and

encouraged and I know that the vast majority of people out there aren't feeling that right now. So sorry if I've bounced from pillar to post on your questions but...

One paragraph answers now, I promise.

LF

The last questions are just about education really. Are there any core skills that undergraduate education could take from how you work here?

AW

So you're not saying like I'm obviously saying it should be free?

LF

Yes. Apart from it being free.

AW

Do you mean what sort of things people should be learning?

LF

Everything you're talking about. The environment here, the attitude, the support, the good experience you've had from Manchester at your undergraduate. I've just rolled three questions into one now. From your experience teaching as well. If you could create your own ideal course and your own ideal learning environment what would that be?

AW

Two very quick caveats to that. 1) I don't know if there is... I'm not a positivist, so my philosophy is that there isn't some ideal out there. I think it's going to be very difficult... it's like the law of models, the more specific you make it, the more alienating it is. But then at the same time the more generic you make it, the more wishy-washy and ineffective it is. It's like BluTack. You can stretch it, you can bend it all you like, but you can't destroy it and you can't change it all that much. It's still BluTack. The cynical pessimist in me would say that it's irrelevant what you do to education, because ultimately the end in society is that you have to get a job, you have to have a mortgage or pay a rent, pay bills. Until we change what society is, education is just another arm of filtration that leads to this end goal, which is this neo-liberal capitalist system that we live in. That's a cynical pessimist in me, but I'm not so pessimistic. I think there's lots of things education can do, I just don't know if it's university. In terms of designing my own course, which I have done in the past, I usually like to start off getting people to think about things that they perhaps wouldn't have thought of before. The last thing I taught I did a course, a one week course only, it was called Tracing Echoes. It was basically thinking about architecture in a new way – or at least a way alien to many students. There was a mixture of people there from first years to fifth years, I think first of all that's really important to get people that are five or six years into the study, to mix with people that are just coming through the door. That's the first thing I would say. The second thing I would say is to really encourage people to be curious. It's really such a wishy-washy thing to say but curiosity is so important. It's a question of how do you stimulate that curiosity. If I can just very, very quickly interject, as I always do, and rewind the clock. The best I have ever felt in an architecture school was in my first few months and I had a tutor there called Dominic Sagar. I almost didn't see him as a proper architect. In fact there was a joke once, I said "Oh, we've got a proper architect coming in" because someone was coming in to look at our work. But he said "What do you mean a proper architect? I'm a bloody proper architect". He was a really nice guy. And the very first thing he made us do, I don't know if we've got the book here,

we should have a copy of it, you probably know it *The Bannister Fletcher Book of Architecture*". It's a 1,200 pages bible of architecture. It's like a compendium. I suspect no one actually reads it cover to cover, you just occasionally use it for reference if you need to look up a term or a period. It's on its 20<sup>th</sup> edition, it's a big tome. And he basically got it out and he made us all put our hands on it and say "I swear an oath to only produce good architecture". It's that sense that architecture is serious, but by God, if you don't love it, don't do it. That's the first thing I would say, because it is going to be hard. Architecture is difficult, no matter which way you dress it up, no matter what you do to education, architecture is a really difficult complex process. So you need to make sure that you only get people that are doing it for the right reasons. Now what those right reasons are that's not for me to decide. If it was my imaginary course I'd say hopefully they would be quite left wing, they would do it because they have a sense of civic virtue and civic pride, they would do it because they actually believe the world isn't OK as it is, that something needs to change and they've got an idea they would like to realise. That might be through something like urban design policy, or it might be through bricks and mortar. Or it might be through poetry or lecturing. Whatever it might be, they feel that the world needs to change and they need space where they can practice how they want to change that world. But also the humility and sense to realise architecture cannot solve every problem but is a tool to address them. But to go back specifically to this one week course we did, the first thing we did was we said this is what the traditional definitions of architecture might be, this is why we want you to think differently. So I taught with a partner, and she's a dancer, and so we were saying what about physical thinking. What about looking at the body as a drawing tool? Body as interface. We started saying rather than using the computer or a sketchbook and a pen and paper, whatever it might be, what if you actually drew with your body, how would you interpret a chair or wall through dance? Because that's one way of pre-conceiving architecture. Then I started talking about "How do we perceive space? Is it through Gestalt logic? Is it through Proxemics, claustrophobia, why are some people frightened of the void and some people are frightened of tight spaces? What is it in their psychology? Is it something latent or is it something programmed? Most of the spaces that we occupy are going to be static, predictable, controlled spaces. What about if the spaces were dynamic, unpredictable and uncontrolled? What might that look like?" Basically getting them to think about architecture beyond what they see on *Grand Designs*. But I'm also very, very aware that cannot be a model for everyone. This has to be something I think for the first year. I think the first thing you do when you get through the door should be to have a complete de-programming, not re-programming but de-programming. Get rid of all the assumptions about what architecture is, and then show them what architecture can be, and also let them suggest what architecture could also be. Then after that year then maybe you move on to something a bit more rigorous then you start to get a taste of everything. But I think the first year is very much a de-programming, de-bugging time. You grow up and you see lots of programmes on TV like *Renovation*, and *Changing Rooms*, and it becomes a bit like you're just creating nice shapes and nice forms. There's nothing necessarily wrong with that. I've been to plenty of places where the architects haven't been that sophisticated but actually they've done a bloody good building and I think "Oh, wow! I love that! That's an amazing roof light. It's really cool". I've gone through these spaces and thought "I like that" but I think if you're a student of architecture it has to be a bit more than "I like this, I like that". It has to be a questioning of why you like this and why you don't like that, and even if you like it, that might be a good thing. You have to have an understanding of ethics. I also say, and this may be really controversial, I would say you should have to do... instead of doing an arts foundation course, I think that's not necessary, you don't need to have great artistic skills in terms of penmanship, or whatever it might be. Sketching is important but it's not the most important thing. I would say instead of doing a one

year foundation course, you should do a one year foundation course in philosophy. I think it's really important. Because you need to understand why you're doing it, rather than just doing it and going with impulse. Because if you are an impulse designer that's fine. But you need to understand what are the ethics of going by impulse and how sustainable is that. There's not enough "Why?" A lot of the architectural theory I found in architecture schools, both when I was studying there and afterwards when I was teaching, it's post-rationalised and it's like a collage of bits and bobs they might have picked up from different lectures. A bit of Deleuze and Guattari always seems to be regurgitated and spat out at the end of something. "I'm talking about the nomad now, this is a striated space". It's all a bit "OK, but why? Where is the Aristotle in your work? Or Hegel – not just pontification about literal mistranslations of Derrida and Co. The ideas of poetry and use, where do these come from?" There doesn't seem to be any sort of solid driving force behind it. It's almost like "I'm doing this because I like this and here's some interesting intellectual magpie collage of why I'm doing it as well" rather than actually ever really stopping to think "Hold on a second. Why am I really doing this?" So I think that's what I would do. And that's why I'm not allowed to teach. No, I'm just kidding.

LF

Where do you teach? In Newcastle?

AW

I've taught at Newcastle several times, and also at Nottingham. I was a studio assistant at Nottingham. And at Newcastle I ran several design courses and workshops on interactive architecture, getting people to know the technology a little bit and why we do what we do. Really just sowing a few seeds. Not because I want them to become like us, quite the opposite in fact, I just want them to think about the possibilities of architecture and why they don't have to obey the standard models. Understanding that this is finite. I'm not saying everything is infinite and everything is subjective but there is more to design than this. And you guys, some of you might have the answers to that. So get thinking, basically.

LF

Brilliant. I'd love to watch my students faces listening to you.

AW

They'd probably be asleep by now.

LF

They wouldn't. Last question, I don't want to keep you too long. I'm just wondering what your thoughts might be from the design education point of view. Newcastle is a school that comes up quite a lot as pioneering more forward thinking ways of teaching, and Kingston has come up, because of Daniel Chary particularly, who I interviewed last time. And there are non-university models like Fixperts and Makerversity.

AW

Like Hack spaces and things like that?

LF

Yes. And obviously there's a lot of interesting things starting to develop whether it's in university or out of university. But, generally, the way that the design subjects are still set up in university is that they're very regimented in their disciplines, with minimal crossover. What's your feeling on these design discipline specific courses and do you think there'd be any mileage in a course that is not discipline specific?

AW

I would say, again cynical hat on, it's probably impossible to create something completely open ended. I know you're not suggesting this but there's that old quote "So open minded your brain falls out". We need barriers and structures to push against, otherwise if there's nothing to push against you just... there's nothing there. No shape, it's amorphous and open, which is great in some respects, but at the same time what is the intent? On the one hand I would say actually what we need to do is make architecture students much, much more aware of the flexibility that their skills allow them to achieve in society. You need to make them aware of that "By the way, you've got amazing computer skills, probably, and you can do one hundred different things with that. Also, you've been writing 20,000 word theses or a dissertation or whatever it might be, you have talents to explore a career in literature probably, you've got more skills than perhaps the average person if you want to do an English degree you could do an English degree. And by the way, you're a good model maker, you can go into craft, or product design if that's what you're really interested in". We need to make people aware that they're actually much more agile than they realise, rather than perhaps at the beginning, and say "OK, there is no end goal here necessarily, let's just explore some ideas together" because then you run the risk of actually ironically creating very, very specific people at the very beginning. So you say "OK, we can do anything you want" then people find something they like and then they explore that idea and they write loads and loads and loads and then they come out with a very narrow set of skills which is only good for one thing. Whereas actually if we say "Let's do something quite open" but architecture does naturally just through it's own rigour teach so many different skills that makes you quite pliable in the long run. So it's almost ironic that the freer you are then perhaps the more narrow you become. A bit like what you were talking about hotdesking. So here for example we don't hot desk, we all have our own computers, we all have our own desk. We have a seating plan. It's not fixed, per se, but we know where we're going. We have an order. And I think if you do the whole hotdesking thing then it sounds on paper like everyone's free, everyone's more mobile, everyone's connecting and this, that and the other. Actually, does anyone really use it. They've told me that people are actually quite isolated and they don't really connect because there isn't that familiarity that we have people every day. So I think you give with one hand and take with the other. I do think we need some kind of structure. I would say some kind of foundational course in philosophy is a good start, because then you can start to understand why this is what you're doing or what it is you want to do. And then I think maybe have workshops throughout the year. At Manchester we had design months. Sometimes it was at the start of the year, sometimes it was in the middle of the year. Sometimes actually at the end of the year as well, but very rarely. There would be one month or six weeks where you would have 30 or 40 different workshops where you'd get to do something quite specific. So you'd say "OK, this week we're going to look at eco-skyscrapers, or maybe next week we're going to look at photography, so there are different things". If you're doing your course and you wanted a break, you're going to look at music and theatre and architecture. Where you can look at something quite specific and you could perhaps instead of doing that you could have a six week process workshop. So you're just going to look purely at process. "We're going to have no end goal, we're going to have an under-specified (cybernetic term), under-specified goal but our intentionality is to explore something in depth. We're not going to give you any definition but we want you to come in and explore something in depth". It's a difficult one actually because I've not really thought about it too much. I just think it's one of those difficult ones. I've read a lot of post-structural theory and I find it all really quite scary because I genuinely do believe you need some kind of structure – even if its constantly evolving, or re/self-organising.

LF

One suggestion from the other studios is taking different dimensional routes, where it could be two dimensional architecture or four dimensional graphics. You're sort of following a thread of something to hold on to but it's a chance for you to explore without having a prescriptive end.

AW

The problem I have with this is that I just don't know, and I'm not frightened to say I don't know. It sounds absolutely fascinating because it's sort of what I was touching on a bit in my other work and I've not quite found the answer, and it sounds like you're getting close to some possibilities. When we get this back I would genuinely love to read your PhD, I think it will be right up my street. It's just very difficult right now, just because I know that there's such huge forces at work that actually I don't know if education is a shelter any more. And one of the things I just wanted to get across, I don't know if it really answers any of your questions, but just as a final note, I'm very paranoid about these new schools of architecture which are trying to bridge that gap between practice and education. I am scared by that, because on the one hand, yes, absolutely it's a common complaint now that the stuff you learn as an undergraduate does not prepare you for the real world, I hate that expression as well, at all, that's true. But then I don't think the answer to that is "Oh, therefore we should accept the real world for what it is as this completely finite, this is it, we can't change it, so what we need to do is we need to change education to fit that". I thought yes, undergraduates aren't prepared for architectural practice but if architectural practice is completely submissive to market forces, maybe education should say "Hold on a second Practice, why don't you come a little bit closer to us, or let's maybe meet in the middle". I'm so sceptical of any sort of one size fits all answer. I think there needs to be plurality in design schools, there needs to be choice in design schools, and ironically I realise by saying plurality and choice I'm sort of complicit in that neo-liberal project because that's all about freedom of choice, that's the ultimate irony of the day. But I just think there needs to be options and flexibility and understanding that architecture is a traditional practice, bricks and mortar, it's difficult, and we need to train people in that. But if maybe we didn't burden them with a sense of timing where they need to be an architect by the time they're 30, they need to have a house by the time they're 35, or we didn't lumber them with huge debts, then maybe they would have that, as we've talked about, that breathing space to realise that's what they want to do. And if they don't we need to make sure we have educational systems in place which allow them to explore their own ideas and come out the other side. Because otherwise we're going to end up with this mixture of obsession and obsolescence. So we obsess over something "Oooh, it's new, fantastic, brilliant, I'm bored of it now, something else". You have to understand that design is hard, it's tough, it takes time, and actually we need to be more respectful to the time element. But when time is so commoditised and we have an 'accelerationist' philosophy in the western world which says everything must be done quicker and quicker, progress, progress, progress, progress, I hate that word "progress". When we are bound by these strong forces, it's very, very difficult to find a new way of rationalising things. Because if it's all about time, time, time, time, time, and time is all about money, money, money, money, money then I really find it hard to think where are these little educational oases going to pop up because they're just going to get starved immediately of resources. It's like CAS in London for example, that's getting closed down, there's an occupation there right now, the students are occupying it. But I don't think they're going to win. Thanks for listening to me ramble on here.

LF

No, that is absolutely brilliant. You've made a lot of sense.

AW

Varoufakis calls himself an erratic Marxist. I think I consider myself an erratic Marxist designer.

LF

Thank you so much.

AW

I was looking forward to today actually, it was good.

LF

That's great. I'm glad.

END

## 16.4 Punchdrunk

**Interviewee:** Felix Barrett (FB)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 27.01.16  
**Location:** Shoreditch House Hotel, London

**Notes:**

The audio is very poor quality due to the ambient noise.

LF

For this study, I approached five studios and requested that I come in and observe process over a number of visits, interviewing a cross section of members within each studio. So that's how I came to Punchdrunk.

FB

So are we one of the five?

LF

Yes

FB

So who are the other four?

LF

Thomas Heatherwick, Ron Arad...

FB

Blimey!

LF

I chose Ron Arad not only for his practice but also for what he has done at the RCA with the Design Products course and their really innovative education ideas. I found out he also taught an undergraduate programme in Vienna, which I am really excited to find out more about.

Heatherwick's was chosen because of the breadth of what they do, and how he describes using one process to design everything. Jason Bruges, who are a 4D architecture and electronic interactives studio. They are a mix of architects, designers and some members with no formal design training. Then, finally Assemble, who I will hopefully start visiting next week.

So, through my research on Punchdrunk so far I have had the chance to see The Drowned Man, I attended the three day design master class on the set, and I managed to see Against Captain's Orders with my son and husband. Since contacting Punchdrunk directly Alex (Rowse) has enabled me to see a Lost Lending Library at Silvertown, and then I was invited to Greenhive Care Home to see Pete and Julie pitch their design ideas to the Home. Finally I had a day in the store a couple of weeks ago to help them build the sets.

It's been absolutely fantastic and I have a great body of information now. And today I am interviewing you, Pete and Alex and then I have organised Skype interviews with Julie and Livi.



FB

Great. So, lets do it.

LF

The first question is how do you describe yourself when someone asks you what you do?

FB

A Theatre Director.

LF

Great. And how do you describe Punchdrunk when someone asks what you do?

FB

I would always say we are a theatre company even though some people think we should be saying everything else, you know, 'we are an entertainment this, or a media that...'. I think at the purity of it, even if we are working on something digital that's going to be on television or something that's at a music festival, or even working with a brand on an app, it's knowing that what ever the media, it's always with a theatrical lens.

LF

So what ever you do, that's what holds it all together?

FB

Exactly. It implies story, it implies art, it implies crescendo, it implies proper meaty dramaturge that leads to a satisfying experience.

LF

I enjoy reading reviews where theatre reviewers try to describe what you do. Your works seems to baffle them.

FB

Yes. In the early days when we didn't have much work on and I was trying to get it to happen, rather than explain what the idea was (which could lead to confusion) I would blindfold them, put headphones on them and play them some music and talk them through an experience. Because it was about what it felt like and you have to experience it to understand it.

LF

I think that's what Pete did when he pitched the Greenhive Green idea as well. The pitch was Pete telling them a story. Obviously with Julie's design images supporting the story, but primarily it was simply telling a story.

FB

We have never tried to define ourselves. When I graduated I think I used the term 'Site Sympathetic' but that was always a fudge. The term immersive has become a way to describe such a huge variety of work. We would never use it ourselves. It is probably accurate but it just feels strange and self-referential.

LF

The use of the term immersive has exploded.

FB

Yes! And now there's a whole backlash. So many people are doing it – whatever 'it' is – that it's become a buzzword.

LF

A lot of our students try to write about it, and they are struggling to work out what it is, if there are different levels of immersive, where does it start and where does it stop.

FB

And also it was happening in the 1990s. It's nothing new. It's just a different way of articulating it. It's actually been going for centuries. You could argue that the Mystery Plays were immersive.

LF

So, the next question is how has Punchdrunk evolved since it's creation?

FB

I think we are in the third act of a five-act play, or right at the cusp between Acts 2 and 3. Act 3 will be starting in April. We are radically changing our attitude towards our creative process and practice.

In the first Act we were young and hungry, doing the work for the sake of it. And at the time we didn't care if people saw it or not, because we were doing it for the sake of trying to break new ground. I wish I had documented more, but I didn't document because it was all about feeling and experience. For the people who saw it, it just lives in the memories. I didn't realise at that age that memory is as supple as it is when you are young! So Act 1 was about experimentation and trying to prove concepts, to prove ourselves and trying to shock. The police came to our first five projects and tried to shut each one down because they thought it was some kind of intervention or disturbance. We found that, in a good way, we were getting under the skin of the environment around us.

The second Act was about becoming more formal, more structured – we became a charity. We were focused on establishing ourselves and getting the work to a wider audience. In New York just under a million people have seen our show. It's just ludicrous when the first show, with exactly the same rules, exactly the same kind of show, was seen by 200 people. 200 to a million!

The best bit of advice I was given before I went to university was 'just do it, don't hypothesise, just do it', and I lived by that for seven years in the first Act. I just made work, whether it was ready or not, we just did it to see it for ourselves. In the second Act we started to hypothesise about things more because there was more to lose. We worked to build a reputation for creating high quality performances, and if we produced something underwhelming it would jeopardise everything. And because the projects had grown in stature we needed more resources, more time to find funding and space. That was a huge learning curve for us. It's all been about putting the foundations in so we can build and grow without stymieing our creative output, so we have the freedom to experiment and explore new things.

Now we're ready to start the next Act. We are about to re-model and emulate that first phase (the first Act), but we will be an older and wiser version of ourselves, more aware of the commercial sensibility you need to be sustainable. We are pushing ourselves. To rest on your laurels is the worst thing you could possibly do. So all I want now is to work on ideas where I don't know how things will turn out. It might work, it might not. But the journey and going through it will be the thrill.

LF

So how can you see that there are five Acts? Do you know what the others will be?

FB

I can hazard a guess but I don't want to jinx it. But I think I have always known there will be five. I always knew there was nothing else I could do, and it's the same for all the team. It's not just a job, it's something you have to do. I think the third Act could be quite long. I think two and four could be shorter, but one, three and five will be chunky.

LF

Have you had to change structurally, in terms of size?

FB

We haven't changed structurally at all, which is something we are addressing now. We are such a small team, we can't scale. Until recently we could only do one show at a time, and because the shows take three years to put on we only get a fraction of the work done that we want to. So, this third Act will be about scaling and training. We will have a buddy system so that we are always nurturing the next generation.

| In the early days we didn't have the capacity to train anyone new and only a small number of people understood the process. But now the team are more experienced we're able to focus on finding new people and introducing them to how we work. So I will be able to do less on projects now. For example, I am far less involved in Pete's work. It's the same philosophy and the same principles, but the team drive it. That's exciting.

LF

So was Punchdrunk Enrichment the first step in branching out and expanding?

FB

Yes, and now we're able to use the same principles across lots of other projects. And that's quite liberating because it frees up my time to begin thinking about new ideas and new formats – no masks, fixed, linear, across the city in the streets, with no design what so ever. Hopefully creating an intoxicating potency but with nothing physically designed by us, shifting the perception of the audience.

LF

I'm trying to imagine what that would be.

FB

Well we will send you on one if you want to.

LF

Yes, please!

FB

We are planning all manner of stuff, looking at how you can use the natural environment as a backdrop. Creating experiences in the real world that have real impact, where you as an audience member become the lead character in the drama. You won't know who is a performer and who isn't.

LF

I went on Robert Wilson's Walking experience in Norfolk. My students thought it sounded boring, but I tried to explain the intensity of the experience and how the senses were really heightened and stimulated, even when there was no threat at all.

FB

And you knew there was audience around you, you knew weren't alone.

LF

Yes.

FB

We're trying to make it work with only one audience member. We have been testing it for many years, and it is very intense. It's almost the ultimate exhilaration, combining the feeling of losing all control with the sense that someone, or something, is guiding you through the experience. It's quite full on so will have to put in safety mechanism where you can metaphorically wave a flag or you know there are safe points. That's where we are using Games mechanics, with safe houses.

LF

The amazing thing about that area of countryside (East Anglia) is that you can find areas that are so remote there is no sign of human intervention.

FB

At our trials base for this, there is a church and a pub and from them there is a five kilometre walk in all directions with no road access. So we are going to see if we can swap out the people who work there for performers. And then suddenly you've got journey, you've got quest and at the end of it you've got theatrical concept.

LF

Do you have a date for this?

FB

We've been testing it for years and we are doing another round of testing soon. When we launch it to the public we don't know. The problem is the cost of it. When we first trialled this travel thing the cost was £20,000 per person. It did involve being chased by a helicopter. Now we are trying to work out how we can do it for £20. But that will probably be through technology.

So, we are always asking questions. Maybe it will become a proper show in five years. But, we are still working on it at this point.

I'm not being very design specific, is that alright?

LF

Yes, because what I'm looking at is not necessarily called design anymore, some people don't identify themselves as designers. Just as you are trying not to label what you do, I am trying not to label this research.

FB

Yes, I love it. People are so hung up on labelling and labels get you nowhere.

LF

So, the next question is how has your role within the studio evolved?

FB

Well, it was my baby back in the day, and there were really just a few of us doing it. In the first Act no-one else knew it. I was the only one who had it in my head. So it was a process of just getting it out. For the second Act, we put systems in place to support

the company so it could function without me, so I could work on other things too. I think it was important to do other projects and work with new people in order to bounce ideas around and learn different approaches to creating work. And now it's really exciting with this third Act, pulling it back into the studio, into Punchdrunk. To do that I need to be fully involved and really lead again, which I'm really excited about. But I also need to delegate – I totally trust the team and I need to empower them because they are the ones operating it. So now it's as much about knowing when not to do it, as it is about knowing when to take a step back and let them get on with things.

LF

It seems like this is perhaps the biggest challenge within the studios I've visited – where unique creative processes have developed within a small team, but then they face the pressure and challenge to grow. Working out how to grow while keeping the essence of what the studio stands for is a real challenge.

FB

It's all about practice, it has to be about practice. No one can sit new members of the team down and give them a lecture on it. It's about working with them, experiencing all the process so that at the end of it they will pop out going 'I get it', or they won't be right. We won't know that until we have gone through those steps. I wish we could recruit. Recruiting is a daily topic of conversation.

LF

How would you describe the creative process of the studio?

FB

Instinctual, because if it's premeditated it doesn't work. It's heart over head always. And we are building work for ourselves, we are the core audience. If we don't like it then why bother. It's visceral and emotional rather than intellectual and heady. That rigour has to come, but it comes after we have connected with the project. In terms of the practical specifics of it, for me it's always sonically driven. So there's an idea, and then you need a sound track. If I can find the right bit of music then I can see the shows.

That's the shows, but we are also working on formats. So, for example, Against Captain's Orders is a different format to The Drowned Man. So formats can house different shows. The interesting thing about formats is that more often than not they are ideas that have knocked around in my head for ages, I just haven't known what to do with them. The process is getting the germ of an idea, the tiny seed and extracting it, giving it enough water and sunlight to grow into a tree. And bloody hell I didn't realise how long it takes. The process is about seeing it through.

And then also there is the specific process for a show. So, the piece of music comes first. It's crucial to know what that is otherwise you can't do it. And there's a building. The building will tell you what show it wants inside it. You listen to the building. Once we have the building I walk around it once by myself. If the security guard tries to come around with me I tell them not to. Then you listen to the building and you follow it. As you move around the space you are being led. You are listening. It's emotional mapping. You are trying to find the safe places and the most threatening places of the architectural footprint. As you map it and as you log your route around it you are building a picture of where the danger is and where the safety is. After doing that you have almost got an emotional arc running through the space and it immediately tells you what narrative it wants to have. Then you find that bit of music and then that's it. The show is done. Then it's just a process of filling in the gaps and

sharing that information. It's so instinctual and it all comes from that first visit. Because at the second, third and fourth visits you already have preconceived ideas and the purity is spoilt. When the audience come in they will be seeing it for the first time, so they will see what you saw. So will the cast. We rehearse off-site most of the time and the first time they come into the building they play hide and seek and try to make emotional connections to different spaces. They embrace that by being almost childlike about it, so that you can play in a space. It's about your physical reaction to it before the head engages.

LF

When the actors come in to the space do they know who they are, do they know their characters?

FB

Yes. So in the process of *The Drowned Man*, we had the space in January. I saw it, it was a difficult space. It was very claustrophobic, very wide, like a film studio. So there was the film studio, that was natural, then the claustrophobia of it and the low ceilings lead to madness which lead to Woyzeck in one journey. Then it's about the world and the music that overlaps. There was a clip that my Dad would play, a cowboy song. So we had that, we had a cowboy song, we know it's a film studio with it's spaces. Then Livi would start to talk about those spaces, and actually we would know where they needed to be in the spaces because of the emotional pathways. So, this is a safe space where the character's happy so therefore his house is here, or this is threatening, so this is where he will get beaten up. Then that ends with the more conventional part of the design process, with research, construction and all that, which takes about three months. Then, along side that we would work with the cast. The rehearsals are totally conventional. We have six weeks in a rehearsal studio where we don't talk about the space. They don't even know what the space is. So we are building a show that could exist on the stage. And that's so critical, because you can get lost in the fluff of it. If we went on site from day one the shows would be terrible. They wouldn't have any focus, they would be all tricky and gimmicky. So you build a lot of material, a lot character, a lot of awareness of who you are, source material, why you are there, the language of the show, then we go on site. We play a long three hour hide and seek, like children running amok in the space, forgetting all the narrative. Then it's about slotting scenes from the stage into the rooms. But this is a kind of moot point until the audience comes and then everything changes again. We are constantly re-building until the end of previews and then even beyond that. *The Drowned Man* wasn't finished until three months into the run.

LF

How long were your previews?

FB

Five weeks.

LF

So that's about 5 months of development in the end.

FB

There was 12 hours of material!

LF

How do you create your teams for the different projects? It sounds like it's always the same team?

FB

It is the same team. With Enrichment they are slightly more self-contained, but it is the same team, the same people. We need to expand, but it's often difficult because the team are hugely talented and have quite specific skill sets.

The team is also self-selected. Livi was a volunteer. When she was an undergraduate she emailed me and asked if she could come and help out. She was 19, and she was brilliant. We were so volunteer based, that anyone who got involved and got it was great. And now she is part of the core team, and paid to do it. There was never any interview or audition. It was natural.

LF

It's amazing that you are one core group.

FB

Yes. We are very much a family. And I think that's what we will need to address when we try to grow.

LF

The next question is about space and where you work. What's interesting about Punchdrunk is that you don't work in one space. You have multiple spaces. You have your office, you meet here at Shoreditch House, you have the Store and you have your sites.

FB

I don't really like our office. It's so not indicative of what we are. But we are about to take a permanent space. We are going to lay down roots for the first time and finally try to build our dream live/work space. This is almost like going back to university again. We are going to take over a big warehouse complex. In terms of process this is going to be the most radical. The space is huge, and will be solely for our own R&D. We are building a village with 16 proper structures, all with full sound and lights. We are bringing on board a video games developer and we're experimenting with the intersection between live experiences and gaming, testing out various near field technologies and looking at how you can create long form narrative experiences that bridge the two art forms. It's a prototype that we're really excited about.

What's interesting in terms of process is that each one of those sixteen buildings is housing an R&D idea that we want to develop more completely. So we are actually building an analogue Pinterest. Because I bloody hate technology where everything's on a screen and you have to tap. This will be a living and breathing experience. If you want to go into the Butcher's, it will house a whole idea with narrative, ideas, characters, music on a gramophone. It's all going to be there. We are going to immerse ourselves in the stuff that we are going to be researching over the next five years. It's going to be so ground breaking for us because it's going to be like being at university again where we are able to fail, because the public can't see it. It's also about fusing main working practice and Enrichment. It's something Pete and I have been talking about since we formed the Enrichment department. So, the first public audience we will share and experience the space with will be school children. We are going to use them to question how you tell a story across these different platforms. How you go from real to digital, from the classroom on a PlayStation back to the real. The ambition will be that if The Drowned Man was a three-hour movie, what's the ten episode HBO TV series of our work? What three-month experience are you going to make. So as a process it's a living breathing research laboratory. It's going to be amazing, and hopefully a good example to the rest of the sector.

LF

That's really interesting because most studios go the other way.

FB

I'm more excited about this than anything else on the horizon – we're trying to emulate how we used to work, but doing it with 10 more years of experience behind us. I don't know what the outcome is going to be. That's amazing. I don't know what it's going to look like, what it's going to feel like. I have no idea what the hell the show at the end of it will be. But, inevitably that will come. We will be able to sleep inside it, eat inside it. In the middle of our village square we will be able to drink, dance and make merry. Cry together, laugh together. Host people. It's so versatile.

So I don't know when you are completing your research, but hopefully you can see it. We are actually starting designing on Monday.

LF

So when will you move into the space?

FB

We move into the office space soon, and after that the actual village will start being built.

(FB shows a digital image of one of the designs for the village)

So Livi knocked this image up in about ten minutes. This is our process. We were just trying to explain how it would work. We will have some wooden structures, because wood is cheap. It will feel very rural and slightly New Englandy.

LF

It will be fantastic to see your new space, because it is bringing all your existing spaces together under one roof – your computer office, your social space (Shoreditch House), your Store and you site.

FB

Yes, and going back to how we worked at the very beginning.

LF

No one does that. I can't think of any studio that has done that.

FB

No, I don't think so either. That's why we are trying to work out how to articulate and describe it. Because it should be a test case for the Arts Council.

LF

With one of the other studios I have visited, their space is divided over two floors – computers upstairs and workshop downstairs. When I speak to the people who work upstairs they all want to be based downstairs, to be surrounded by the creativity, smells and noise of the workshop. But, also, the studio needs to grow and so they need to move and because of the demands for space the workshop part might have to shrink. Which seems such a shame when all these amazing staff want to be in the workshop.



FB

We are doing this because we are growing. So all our creatives are becoming full-time employees, but, as has happened, they then become desk-bound which is awful. So the idea with the village is that it's a space to actually be doing things, making work. We will have a two-year lease, and then we will be looking for something permanent, five times the size, so that we can actually grow. So that if we grow to 200 staff, the village will be large enough to hold that.

We are going back to basics. Wiping the slate clean. Asking what will the next fifteen years look like, what will theatre look like in 2026? Who knows, but let's have a think. It's going to be the most magical few months. And without the pressure of press night!

Anyway, come and see it.

LF

Yes please. I will talk to Alex.

FB

It would actually be invaluable for you to see the birth of it.

LF

Whenever it seems like a good time, I will come. I will speak to Alex.

FB

It would be good to speak to Livi.

LF

Hopefully I will be interviewing her by Skype.

FB

Well Tuesday we start work on the design.

LF

I will try and line it up quite quickly then. Brilliant.

So, what are the core skills need for someone to work within Punchdrunk?

FB

A quality, rather than a skill necessarily, is an awareness. If there was a core skill set I think it would be easy to find people, but it's not. An attitude and a hunger. A hunger, that is what it is. We are all striving for something. We never ever get there, but we all work every hour God gives to try.

LF

Great. So the last question is about education. What do you think undergraduate education could learn from how Punchdrunk work?

FB

Punchdrunk is very much inspired by what I got as an undergraduate. What was amazing about Exeter was that it was very practical, and it goes back to the belief that it is better to do than to talk about it. You don't gain anything from talking. It's such a waste of energy, instead of actually doing as an artist or a maker.

I was lucky enough that in the first couple of years at Exeter, they just instilled in us to make, make, make, and in our final year I was able to craft the specifics of it to my own brief. I could do whatever I wanted to do and it was being assessed even though strictly speaking it wasn't on the curriculum. That was amazing. I owe them everything. And the work ethic thing... I was only meant to do one presentation and they let me do ten, because there wasn't one definitive thing, I was doing a series of experiments.

LF

Do you still keep in touch with the course.

FB

I'm supposed to be going back in a few weeks time. We have a baby coming, so I think I'm going back in May to do a lecture to the students and I can't wait. I sincerely hope so. We were the last intake of 42. There are now 142. But I don't see why they couldn't still be the same. I'm sure it's still practical based.

LF

That's one of the things I'm interested in – looking at the growth challenge for university courses. Universities are pressurised to grow and many courses seem to struggle when the numbers have to grow.

FB

Surely you can grow so long as you have enough staff to support it, and everyone can still do their own thing as long as you have facilities. I mean even with me some of the staff didn't even come and see what I was doing, didn't bother to turn up. But as long as you've got the practical. I really don't think the secondary school approach to being talked at by a lecturer with students sitting down does anything. It's futile.

Plus, university should be about failing. If you don't fail how can you learn? You can be told what's right but what good is that? You can try it out yourself, make some mistakes and see first hand what is going to work for you.

LF

It's something that has come up with every studio – the importance of failing. But, it's really hard to try and encourage students to see the benefit of failing, when they are paying £40,000 for their education.

FB

To learn to fail when school is about succeeding, is really difficult. It needs to be broken back down.

LF

I think it could be worked into the beginning of their studies at university.

The last question is looking at the structure of undergraduate education. There are a few courses that have been mentioned to me that are trying to break down the uni-disciplinary approach, but the majority don't. What do you think of uni-disciplinary courses?

FB

Maybe I always knew what I was interested in, but I never set out to be this that or the other. I didn't even know what I was even five years after graduating. I was just making work. My brother went to Birmingham and did the drama course. I didn't realise it was Acting. That's so specific. The good thing about Exeter is that you do a

bit of everything. I hate acting and I'm bloody awful at it. Any sort of performing makes me nervous, but you are forced to do it. Again it's the failing thing. Even if you are bad at it, just try it. I'm all in favour of not knowing what the end result is. The more bases you cover the better it will be. You don't need to know what you want to be, you just need to know what you are interested in or what you would like to know more about.

How can you possibly pick? I almost went to Film school - a really narrow, specific course, but my schoolteacher said 'no, I'm not going to let you do that. Go and get a proper broad dramatic background and then you can do film after that'. Thank goodness.

LF

One of my earlier interviewees, Daniel Charny suggested that maybe design education could be structured in the way we buy music now, picking and choosing from different places.

FB

I like the idea that you could do a module in Classics, or even something scientific. Is that more what the American system is like?

LF

Yes, the American system (Liberal Arts) is more like that, where you are broader at undergraduate and more specific at Masters (except for the MFA).

FB

At Exeter, the Masters students all came to do one thing, and as a result of that the work was far less interesting. They all thought they knew what they wanted, therefore they were trying to do it. They thought they were doing what they wanted to do rather than defining their own practice and finding their natural path.

LF

When I studied in Chicago (MFA course), it was fantastic to have two years to explore what ever I wanted, with four advisors (an Architect, Sculptor, Photographer and Theatre Director) having a chat with me once a week. Otherwise I was left to my own devices.

FB

How come you ended up in Chicago?

LF

I first went on exchange while doing my Undergrad. I chose Manchester because it offered this exchange. It was such a great experience I applied to go back to do the Masters. Then I fell in with a theatre company who lived and worked in an old car dealership warehouse, who were very experimental and devised their own work. I had no rules, no idea what I was doing. I was just doing it.

FB

To have no rules and no idea is the perfect combination.

LF

That's everything - thank you.

FB

Great. I can get on with my homework now. But please come back. Come and see it at various stages.

LF

Thank you. I will. I'd love to see the space as you build it.

END

**Interviewee:** Pete Higgin (PH) and Alex Rowse (AR)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 27.01.16  
**Location:** Shoreditch House Hotel, London

**Notes:**

The audio is very poor quality due to the ambient noise.

Question for Alex: was it Hogeschool van Kirshe in Amsterdam or could it be

**Hogeschool voor de Kunsten in Utrecht?**

LF

My first question is how do you define yourselves individually, if someone asks you what you do?

PH

As a company or individually?

LF

Individually, say if you were at a party.

AR

If I was at a party, and it's a bit out of context, I would say I'm a creative producer for a rather strange theatre company. That's normally what I go for.

PH

If I say I'm an Enrichment Director it prompts quite a lot of questions. It depends, actually. If I'm talking with my parent's friends they immediately think I'm an actor and I have to tell them I'm not. So the job of trying to get people to understand that you could be working in theatre and be doing more than just a performing job is sometimes tricky. But I think I describe myself as the manager of our education outreach department, often directing that, and then explain what we mean by Enrichment.

AR

But you are an Artist as well. You should chuck Artist and Manager in there.

PH

Yes, but like I say, if it's at a party and it's someone I've not met, then ...

AR

I often use the word participatory as well, because I feel like that covers a wealth of things as well and people will get the word.

PH

In terms of roles that's how I'd describe myself. But I'd probably say that I do lots of different things and wear lots of different hats. What we do is multi-faceted – sometimes you are doing press, sometimes you are doing marketing, sometimes you are just doing a face-to-face meeting with designers.

AR

It's the nature of being in a small company isn't it? You do a bit of everything.

LF

Great. So then how do you describe Punchdrunk in the same situation?

PH

You take a deep breath!

If I was doing a talk... oh no, we are at a party. If I was at a party I would describe us a site-sympathetic theatre company. Then I would also say we are an immersive theatre company although I don't think this is a term that we necessarily internally feel comfortable labelling ourselves with. It's quite a loaded term and quite a misused term. But, it's a term which people have defined us by. But I think site-sympathetic is quite a neat way of describing what we are doing because it is saying we use site and we are sympathetic to any site. We are not site-specific. We are not looking to exclusively respond to the history of the site and create works of art. We are just interested in site... (the tea is arriving). I think that's a neat-ish way of describing who we are. The site can transcend lots of different spaces and also it encompasses the fact that we are in schools sometimes but we also might use outdoors. We are as happy to be in a big warehouse, which we carve up into a building within a building, as we are to be working in an old ruin of a castle which offers up all of its ghosts and its history and stories. I think that's often the important distinction in terms of the type of theatre company we are.

AR

I go quite matter of fact about it, and I do use the word immersive because I think more people understand it now, even if it's not necessarily how we would actually like to describe ourselves. And if people don't understand immersive I often say we create worlds for you to explore – with a cinematic level of detail, atmospheric sound and dramatic lighting. I know that doesn't necessarily always apply to the Enrichment work, but that's the sort of easiest way to get into the other work.

PH

You are often led to talking about the work, trying to describe what the work is. And Alex is right; the easiest way is to almost compare it to a film. But you are inside the film and you are able to go wherever you want. I really like to describe the experience (and this is an audience experience for a traditional Punchdrunk show) that you are the camera to your film. You can choose if you want a long shot, if you want to do a dolly back track or a focussing in on detail, you can. You become the lens through which you experience that filmic environment. We help with that, with the lighting, the sound, the atmosphere and the aesthetic.

It's not easy to describe and it's not an easy thing to convey in words, often to people who are in the business of theatre. They find it interesting and are intrigued by it, but often I get the sense they don't fully understand it. I think it's something we find even when we go and talk about projects in primary schools, actually you can talk the hind leg off a donkey about a project, and the penny will only drop and probably should only drop when somebody comes along and actually experiences the work. Then they get it. And actually, in talking and explaining something, do you want to explain what somebody is about to see when actually the beauty of what somebody is about to see is discovering it in the first place. Part of the experience of the work is not knowing, part of the power of that is the unexpected or not knowing what to expect.

AR

I think you veer between those where just the concept of not being sitting down facing a stage is really bizarre to those people who understand everything immersive and site-sympathetic and go to these things all the time, probably the kind of students that you are teaching where a lot of what they are creating is installations and multi-media. So it's interesting to veer between the two.

LF

It's interesting that the people within the theatre world are perhaps those who struggle with it the most. You see that the reviewers struggle to write about what you do.

AR

Some do and some don't. It's good to be honest if it's not your thing. Some people really like it and some really don't. I think we are used to a range of reactions. Some would rather sit down and watch something and they are never going to like what we do.

PH

I think the truth is that we love that form in terms of sitting down and being in a traditional theatre. It's not that we are anti any other form of presentation. It's just that we choose to do it differently. I think often the label of interactive - 'ooh it's interactive theatre' - it's not interactive in the truest sense of the word where you are either being asked to shape or go on stage. You do inherently, but you are not....

AR

You interact....

PH

Yes, but it's not interactive. Not to say it couldn't become more interactive. There is a real perception of freedom which we strive to create but actually we are also doing as much as we can to make sure people are being lead around the building by design, by sound, by the performers. There's lots to scatter people but there is also lots to hold people. It's heavily curated, but with the ability for you to make the choice to cut loose and go wherever you want, to time your interval, to agenda your own evening

LF

It's not a simple question, is it!

PH

No.

LF

How has Punchdrunk evolved philosophically since it was created?

PH

At its heart it still remains the same mission of striving to make audiences feel punch-drunk. We are still looking to play around with site and with space. That remains a focus. There's always been a sense that the process of building a show can develop people and create an opportunity, and I think that has evolved into the Enrichment programme largely, in that we started out by necessity but also by design giving opportunities for work experience to volunteers, often design students, a diverse range of voices who could help us to create our worlds. It has always struck us that the idea and the concept itself is something that excites people and something that gives a huge palette for creativity, a huge canvas for creativity for lots of people to input. There's a sense of no ego because this thing is so big it has to be about everybody doing their bit and everybody feeding in where they can. As opposed to egos bashing or somebody's will being greater. Obviously, we are an artist lead company and Felix is the Artistic Director so to a certain degree we are at Felix's whim. But, there is an innate understanding that to create this type of work we need a broad set of skills in terms of people in order for it to work. No department sits as an island. Every department feeds into the other. Even down to where do you place the

toilets? You can't have that conversation in isolation. You have to have facilities talking to design, talking to lighting. It's an organism. We have always been aware that that's the case. You have to talk and you have to communicate across departments and you have to collaborate. I think that spirit of collaboration continues throughout the company's history and hopefully beyond as well.

We are always looking for new ground. What's the next challenge? What's the next big thing? What's the next new development? And I think that's always been the case. I think audience focussed, audience centred, has always been the most important part of the jigsaw puzzle that is a work of art we create. That hasn't changed, and that can't change because that's fundamental to the way we create work.

We've evolved as a team. We started off as a small team - a few of us out of Exeter University. But, along the way we have gathered great people. I'll let Alex talk in a minute, because Alex has a fresh perspective on this. But, I think one thing we have always tried to create, and I think have mostly been successful at, is we create a strong community. The whole idea is of creating a team of people working together to create a world. I've always had this strong sense that when you take over a building and then when you make it your own, and when you have complete control of it, you create this world that you are looking after and people get very excited about that. I think there's something very childish and innate in all of us to create worlds and look after worlds. So, I think there is something incredibly rewarding about that and something that people really warm to. I think there has always been a sense that we need to treat the staff as well as we can and we need to create a good working environment that fosters people's voices and contributions. I would hope that that continues to be part of our philosophy. Of course it's not to say that it's not changed as the operation of these shows has grown over the years. When we ran Faust we had a production team of probably 5 core people working to maintain that show. On The Drowned Man, the stage management team was probably three times the size of that department.

AR

So, probably an expertise that has developed just in Event Management over the years from when you guys were students and everyone was pitching in doing a bit of everything, to now knowing how to run that Stage Management team and how to run Facilities. Running a well captained and a well oiled ship.

PH

Yes. In terms of making this work often we've learnt by tripping up and the fighting fire model where if something goes wrong, make it right. Actually having to start with health and safety and rules and regs is a key starting point for the creative journey. That sounds really boring when you say that but actually, fundamentally, if you can't make something safe then you can't do it. We are fortunate to have a very thorough Production Manager who has been able to be very creative with how we take risks and do things that are innovative but are also incredibly safe, and that we can reassure councils and insurers. What's always common throughout the company's history is that there is not necessarily a template for the work, so you are often making up the model as you doing it, which is exciting!

And of course we've seen the developers approach to site change. We have had to change our philosophy in terms of how we use buildings. In the early days we would have to say we were doing an art show or something, which developers could relate to. If you said you were a theatre company and you wanted to do a show they would just walk away. But, now, we are in a generation where developers are actively seeking out artists in order to help regenerate and be able to place make. Whether



that's happened as a part of what we have done, or whether it's a general movement that's happened and would have happened anyway, who knows. But it's a definite change - not having to fight a battle to make developers understand who we are or the fact that you can do interesting and artistic things in old buildings or new developments. It's more about trying to secure a lease for a long time and pay rent on a building, which we never used to do in the past. So there's a different relationship there. And actually there are more people out there trying to do it, and the property market in London is crazy now. If a space comes up and it's a premium you've got to get in there at the right moment to be able to utilise what's on offer.

I've probably gone off philosophy ....

LF

No, it's great to hear about the logistical challenges and how they have evolved.

So how long have you been with Punchdrunk Alex?

AR

I joined about a year and a half ago. So, not very long, but I came in at a really exciting time when we were just getting ready to go into production for Against Captain's Orders which was the first time Punchdrunk has done a museum show. It was the first time we had worked not in a found space, or not in a school, and on such a large scale. And then there has been lots of new and exciting things ever since.

LF

So it seems like you coming in is quite a change as it sounds like Punchdrunk has been the same core group for a long time?

AR

I think, from my perspective, from the outside coming in, that there's a core team of artists and I think that hasn't changed for a long time. And watching them work together is very joyful. They have this kind of shared language, or maybe a developed telepathy. When I first came in I would sit there and watch them and they would be like 'Oh, do you remember when we did that, it was a little bit like this, and you know when we did that scene when they were at the film and they've just got it?' They really bounce off each other. It's amazing, and that can be an artist to a set designer, to a lighting designer. There's this kind of symbiotic way of creating that's always a joy to be around. And I think a lot of the producers and managers have been there a long time as well because it's a lovely and thrilling thing to be part of. I don't think many people leave very often. Of late, there has been a bit of a push to expand our freelance network as we begin to grow our programme, but of course that contracts and goes back down again depending on whether we have shows on. And we are slowly adding roles to the team, as we grow, which means new people come along and enrich the team and offer fresh perspectives. But I think that core is always going to be there, with that shared history.

PH

I think the challenge is how do you grow the team and share the ethos. I know from major feedback, from you coming in Alex, that there is no Punchdrunk way or Punchdrunk method or key principles necessarily written down in stone in any way, not that it needs to necessarily be that formalised, but increasingly it's unfair to chuck people into a scenario whereby we are talking about shared reference points from a past project which you can't necessarily begin to understand. So, we are at an interesting point where there is a potential market out there for the work and we will need to empower and grow people.

AR

I think the difficult thing is it's not really something you can write down in a way.

PH

That's good to hear because we haven't.

AR

(Laughs) It's OK! It just takes a bit longer to get your head in it.

LF

So actually experiencing it is the only way to really understand it?

PH

We do shows so infrequently compared to lots of other theatre companies. Alex was lucky that she came in at a point when we were starting a big project. Some people might come into the company and it's four years before we do the next big thing. There's always something little going on, but it's in the big worlds where you really get to see everything and all the facets developed.

AR

I think we are getting better at documenting...

PH

Yes, we are.

AR

Of late there's been a concerted effort to remind ourselves that we need to find a way to document the projects we are doing. It's not the same as experiencing it, but if we can capture a moment on film and it's done really well, we can put that with some of the sound track and we can get those sought of quotes from children or participants that really sort of makes you understand what it was like to be there. That is better than nothing, and I think that some of the short films we've got helped hugely in communicating quickly and a little more easily what we do to the people who are willing to watch them.

LF

I've shown the Under the Eiderdown film many times to students and staff, and they had been moved to tears by the film. Everyone wants the best for children, wants them to grow up in a creative world, or maybe they wish they had been in more of a creative world when they were growing up. I don't know, but it really does hit people.

PH

In terms of the evolution of our approach to documentation we have moved on from going 'we can't capture it so let's not try' to 'we have to document it'. Even if we don't show anyone it we need to be able to understand what the world looked like, how it was laid out, how we could re-create it and how can we convey it to future partners. Often, not documenting has been symptomatic of doing something very quickly when all the resources are focussed on making and realising it and only afterwards do you wish you'd done something. You are so caught up in the world of making you forget to take a picture of it. There has been this ephemerality that has probably been used as an excuse, but actually we need to document it.

AR

Yes, even if it's just for us. With *Against Captain's Orders* we've got roughly cut archive footage of the whole show scene by scene, done by a film company. But we'll never show that to anyone because we would never broadcast that journey in that way. But, for us it's going to be really useful in the future if we ever do that kind of show again, just to remind ourselves of what it was like to be there.

LF

Great. So how would you describe Punchdrunk's creative process?

PH

There's a number of different models. In terms of how we come up with an idea and then realise it?

LF

Yes.

PH

I think on the bigger shows Felix can see it and it's a top line approach – this is what it's going to be, this is the world in which it sits. That's very top line, and then to flesh that out, bringing in a team of associate artists to help realise, research and make the world real, whether that's design wise or choreographic or understanding the performance it populates. So it's a team effort led by a vision to begin with. I think it's the editorial process where the world's so big that nobody can have control over the facets of everything. It's almost about setting the brief and creating the canvas and then filling it in. Whether it's Maxine editing the performance or whether it's Felix kind of editing sound, people are left to go off with a fairly set brief and then it's conversations and chopping down and refining and refining and refining. On a bigger show the creative process really begins once you get an audience in, which I think is what is different about our work. Often people come in and say 'Oh once we get it to opening night it's there, it's done'. Actually, the one thing I have learnt over the course of doing this for the last fifteen years is that you get to press night or you get to opening night and that's when the work begins because you are running flat out and you have to keep on running. Because that's when the audience come and you go 'that doesn't work, that doesn't work, we didn't think they would behave like that, we are going to need to re-jig that around'. So, everything can exist hypothetically but then you put the audience in and you think 'oh, we didn't think that would happen'. That is when the main body of the work happens which is why there is such a long preview period and why it takes time for the world to live and breath and for people to exist within it. Before it settles down into a routine and a rhythm. And perhaps it never does. It's on going.

LF

I was going to say does it ever feel finished?

AR

You guys never seem to stop tweaking?

PH

No, because you can. The world is big enough to keep going. If you think that there's a draw in a room that belongs to a character, and in there there's a book, which is a diary, which is full of information. You could keep on developing the lives of these characters and the lives of the people who live in these worlds. So you can endlessly develop. And actually the performers can as well. It's not until they are living and breathing it that they begin to co-curate that experience and begin to establish what

their relationship to another character is. So, it does grow. So there's a sense of real input from everybody who's created it. It's a co-created thing with a strong artistic vision at the top, which, once it's up and running, it's manifested, maintained and manipulated by all of those people working on it, whether they are performer, designer or stage manager. But in terms of the way that we work in the Enrichment department it's similar in that we will have an idea and then we will share that idea with a group - a designer, a performer - and then we will bash that idea out. It's a lot of talking actually.

AR

Loads and loads of talking....

PH

We are not necessarily in the business of sitting in the studio and making work like you might do in a more traditional theatre company.

AR

I think that when it begins it seems to me that there's that thing of lots of talking and it's just saying anything that comes into your head. And that's not a bad thing at all. We kind of throw all these ideas around and some of them stick. Then the phase, which I really love as a producer, is the kind of logic checking, asking where are the holes, where do we need to bring that down so it makes sense. I think with Pete, whatever artists he will be working with, the approach is always from the audience perspective, isn't it? You are always asking what do you want that audience to come away feeling? How do we want them to respond emotionally? That is the same for the adult work and the enrichment.

PH

Yes, it is. Your end point is 'we want to make sure that by the end of this project children are enthused about books, and they are engaged in writing and see themselves empowered as writers'. Which is pretty huge. Pretty specific in terms of the outcome of a piece of work. But actually we are very goal orientated in what we do because often we are going into schools and asking what do you want this project to address. For example in the past we've made a project about story balloonists who have travelled the world in hot air balloons and the head teacher was like 'I want the project to be magical, I want it to be about the stories and I'm fascinated by balloons'. We also worked in a girl's school once, a lovely school in Hampstead, an all-girls primary school. And the head teacher was very much interested in trying to get the girls to take risks because they were scared of failure and that would often limit what they would do. So we created a project about breaking the rules, about female explorers and female heroines throughout history. It was all based around a travelling museum as well that had a magic portal into the lives of two girls who used to attend this school years ago. As we were saying earlier Lara (LF and PH had a discussion before the interview started), as I was talking to a 'key holder' last night, they were saying 'It's interesting that Felix always talks about starting with the space and the space informs the type of show you do. I suppose that must be different from the Enrichment work? And actually I think it is different in terms of the physical structures we bring in, but actually for example when we make something like the Lost Lending Library we are making it with a primary school in mind and how this fits around the kind of organism / organisation that is a primary school. It has to fit into the working day, it has to be educationally useful and it has to be able to be beneficial to teachers. It can't take over the whole school etc. So our buildings are organisations that we respond to. How the hell do you do something that is sitting in a care home when you have to consider lots of individual needs, the fact that there is already a programme of work happening there, that participants have some form of

dementia? We are responding and adapting to the needs of the different buildings and organisations that we are going into, which includes the physical architecture. But it doesn't stop there. So, it's the same process just a bit different.

LF

It seems like you are still taking over the whole building whether it's a museum or a school. The physical design may only be a part of it but the impact and ramifications affect the whole building. With *Against Captain's Orders*, at the end when the curator announces that she thinks objects shouldn't be behind glass and that the kids should now go out and explore, all the kids cheered and ran out! I imagined them running riot in the museum, breaking the cases liberating the objects! It was brilliant and you could feel that energy running through the whole building.

AR

Yes, we were a little worried about that, but the museum spoke about the energy that was brought to the museum with that show. Even front of house on the other side of the building said they could feel the ripples.

LF

When we exited I wanted to try and follow all the kids but it was impossible. But just watching my husband and son, seeing how they felt and reacted differently once we had come out was great.

PH

Yes, that philosophy question is about the individual response and actually very much embracing that everybody's responses are valid, and actually that it can impact individually although it isn't necessarily one route. The work can impact on people in lots of different ways, often from personal experience. More so perhaps than other work.

LF

With the other studios I have been asking about space and the studio space they work in and how it is fundamental to the way that they work. They tend to have one main space. But you seem to have multiple spaces – with the office, the store, here at Shoreditch House, and the site as well. I was trying to work out how the spaces influence and affect the way you work. But, speaking to Felix, he told about your new plan to move into this massive space and bringing it all together?

AR

I think that is the dream. It's not ideal that we have to shift between crouching in a coffee shop at one moment. The office is quite small as the team grows. It's good to be at the Store, to be surrounded by all of the materials that you can use. I think in an ideal world it's great to be working from the site of where you are making the show. It makes it so much easier.

PH

I think in the truest studio sense, it has always been on site and in amongst it. I remember very early on when we did *Faust* it was a revelation for Stephen Dobbie the sound designer to be on site. But of course it makes perfect sense for everyone to be there. When we did *The Drowned Man* there was an office /show split and actually you need to all be in one place and I think what Felix is talking about in terms of the home being in Tottenham does that for us. It's a visible manifestation of the practice and actually we are itinerant and we set up studios. You go to Greenhiv Green, you go to *Against Captain's Orders*, you go and look at the making of the *Lost Lending Library*, it's about what do you need to put in place to be able to make this work. It's

about setting up that site or that place. And it comes in phases with toilets, water electricity, internet, phone - all of those basic amenities - workshop, performance space, office. I think we've got better and better at understanding what the house needs to look like to maintain the work. I'd say we've got an itinerant studio and we are getting better at event planning and understanding what we need to get in place to do things quickly and efficiently. In a sense we set up the studio where ever we go.

AR

It's hard when we are actually going into someone else's space, someone else's home, with all those considerations that Pete mentioned. But we know what's essential to us. For instance going on set for *Against Captain's Orders* we needed a room where the sound designer and everyone could have a desk and just be there to talk to each other rather than generating loads of emails. Face to face is valuable.

LF

What's interesting is that for you growing means bringing everything together. Normally, growing means fragmentation. To me bringing everything together sounds like the best way to do it, because of the danger that fragmentation will bring dilution.

PH

I think we are at a really interesting point where we are trying to imagine what the next big thing looks like for us. And actually, I don't think we have necessarily given ourselves space as a company to do pure Research and Development. In a sense we've experimented, we've tried opera, we have done an art exhibition, various different medias and genres and forms we've tackled. It's about taking an itinerant practice and trying to embody it in one space and to be present in that space. It's not about changing an ethos. It's about bringing an ethos under one roof. To not have to go on the train from site to studio, but to have the studio there (at the site). It's also interesting when you look at *Sleep No More* as a place of work. That is a five-year-old show that is probably more highly tuned and developed than anything we have ever done before. But, ironically, although the team has an oversight of it we are not there directly learning from that practice. In terms of maintaining a show and developing a show and a world, they have probably got more expertise than the staff in the UK. If you want to look at a model for the Punchdrunk studio, they have been doing the same thing for five years.

LF

What core skills do you think you need to be in Punchdrunk? They may be practical skills or attributes.

AR

It feels to me that what is essential is to have an audience focussed approach. I feel that is what helps my work because when you really, really care about the audience's journey and their response, and respect the audience and their response as well.... having gone to Punchdrunk productions in the past before I worked for them and now working for them, I think that respect for the audience is so important. That commitment to taking care of your audience, and pushing them to take risks as well. But always bringing them back in. And I think that's probably true of everyone who works for Punchdrunk. They really, really care.

PH

Yes, and I think on the face of it the idea of looking after your audience doesn't sound like a revolutionary thing but your right, it's ....

AR

It's looking after them emotionally...

PH

Yes, and the attention to detail and knowing that it matters if a letter doesn't have something in it. It's not a surface level thing. It's an extra level of care. Knowing you have to double-check every detail. If one thing slips it's not 'oh it doesn't matter'. It's understanding the importance.

AR

You're right. It's the commitment to quality and that's why it's such a joy to work for Punchdrunk because anybody in our team, no matter what their role is, could walk around a show and say 'Oh, do you know what, I noticed that some of those clipboards are blank. It doesn't make sense because the doctor's been working in that room for ages'. We need to sort that out right away, because it's absolutely right. They shouldn't be blank. That commitment to quality and making it the very best it can be.

PH

And being a team player, a collaborator, is key. It might sound a bit cheesy, to be nice.

AR

(Laughs)

PH

I know it sounds a bit cheesy!

LF

It's come up with every studio. It's really interesting. I say this to my students and they don't believe me. Perhaps they think that with really successful studios there have to be egos, and that it's not necessarily about being nice.

AR

But of course it is. That's why we work in the arts. That's why we work in theatre. Because we care about culture. None of us are going to be rich. It's not about the money or putting ourselves on a pedestal. It's about working with great people to make great things.

PH

Yes, so being nice is important.

LF

It's not going to work otherwise, is it? Perhaps for students it's hard to understand because they haven't done much collaboration yet. Collaboration is a hard skill to develop.

AR

We are always nice, we are very experienced collaborators, but we also know the moments to stand our ground as well. That commitment to quality, we know what makes our work really amazing. People always agree with us once they've seen it. But, yes, I can understand that collaboration for students can be a little harder at the beginning.

LF

So, the last questions are about education, because my aim is to take this research and explore the implications for education. What do you think undergraduate education could learn from the way Punchdrunk works?

PH

I don't feel like I'm necessarily best placed to comment on undergraduate education as it is, mainly because I feel so far away from it. It might be interesting to understand if there is something specific you would like to challenge, although you might not want to lead us?

LF

The main thing is the structure. Now universities are businesses, money seems to be driving things rather than creativity. Focus is on trying to reassure students that they will get a job at the end of their studies. To support that, the emphasis seems to be on a one-discipline structure, with students going in and coming out as one thing – say a Graphic Designer.

PH

Yes, creating siloes.

LF

And it doesn't appear to reflect the fluidity of the creative industries now. But I can see from the student's point of view, if they have to spend £40,000 they might not have the confidence to go into something that appears to be more broad. They might feel safer with the specificity. I am trying to find ways to work more fluidity in this more rigid structure.

AR

I didn't graduate too long ago, a few years ago, and I didn't do an Arts Degree. But, I originally thought I wanted to so I did an Art Foundation course at Central Saint Martins. Then I wanted to go on to do a BA in Fine Art, but I changed my mind at the last minute and went to do English Literature at Goldsmiths. That Foundation course was incredible because it was so experimental and so fluid. I almost feel it's a bit indulgent talking about it now, but they would chuck you in a white room and you could do what ever you wanted. There were materials available to you; you could work as an individual or as part of a team. There didn't necessarily have to be a reason why you did what you did. And I think at the time, being 18 back then, not having to justify what you've done why you've done it or the reason behind it was really exciting. Just to experiment. They took you through different rotations like most Foundation courses do. But it was that opportunity to experiment, to spend a couple of weeks in Fashion and be like 'this is not for me but I've really enjoy working with fabric or making installation with fabric'. That was great. But I don't know whether degrees hold any element of that moving around departments and just meeting different people and getting the opportunity to collaborate between different departments. But that was what I felt was really great before I went on to do my English degree because I didn't want to be an artist. But that insight of the two things – learning about the great storytellers and how they tell stories, and being able to write copy and all those things for my degree, and then having done all this experimental stuff on a Fine Art course has boded quite well for my career path of choice.



LF

The idea of the Foundation came from the Bauhaus, and Lazlo Moholy Nagy (who set up the New Bauhaus in Chicago) believed that the true Foundation course could be done by anyone; bankers, lawyers etc. He felt it was perfect way to stimulate creative thinking.

AR

I agree. It's a chance to play and it's fine to play.

LF

Unfortunately a lot of the Foundation courses are being cut, and some students are reluctant to do them because they see it as an extra year.

AR

And they pay?

LF

If you go straight after A 'levels it's free.

AR

I did get it for free, but I didn't get a grant or loan for accommodation, so I was working a couple of jobs during mine. So, yes, it is difficult. I was from a middle class background, so I was lucky enough to have the support to be able to do that, but I do understand on the flip side that if someone's thinking I'm going to be spending £40,000 on my education I want some kind of guarantee of what my career is going to be afterwards. It's tough.

PH

It's sad that it's become like this. It's like when you have the careers choice interview at school with 'what are you going to be? Where are you going to go?

AR

'How do I know?'...

PH

It's awful if you are trying to make a decision about an outcome that is going to happen in three years time. My experience of life generally has been that I didn't know what I was going to do next, but I did what I liked. I did the things that I liked. I loved drama; I was good at drama so I went on to study it at university. Going to Exeter, it was very open. It was a very small department, we were very encouraged to experiment and kind of break free of the shackles of the traditional stage. That was fantastic to begin with that room and we talked about the ability to fail and the importance of failure and how that can help impact and develop your own practice. And I think that's vital, being able to experiment, being able to dip into things, to be able to try out mediums.

AR

And working cross-departmentally I think is really exciting.

PH

But I also struggled. I came out of university and things weren't pigeon holed, so I do understand. In retrospect, coming out of an Arts degree, you watch all your friends in geography and law and where ever and they are at massive careers fairs, and you are not at massive careers fairs.

AR

And you don't understand what the jobs are and how you could do them. It took me about two years to understand what a producer was. I was getting producer and production manager mixed up all the time. I think a placement is key as well.

PH

Absolutely. And I know that in the degree that I did the Drama department were actively trying not to pigeonhole you into going into stereotypical roles. What they wanted to do was to create the next Punchdrunk. And I think there's probably a place for both of those things in university life, and I think that should be embraced. There should be students from all works of life who have the option to kind of go on a creative experimental journey and to understand and not know where that might turn out, and that it doesn't necessarily matter. It makes me sad to feel that maintenance grants are being cut now. I came from a working class background. I got my tuition fees paid and got a support grant to go to university. Had I not had that I wouldn't have done that. I wouldn't have been able to go down that route. And I didn't go necessarily knowing what I'd become. I thought maybe I might be an actor, but soon realised that if you are going to pursue that path you need to be pretty committed to it and really want it. So I didn't know what direction I was going to go in. I certainly don't think it should be as reductive as 'you are going to be a graphic designer, do this and then come out a graphic designer'. Because actually life begins when you leave university. That's when your career starts. Not at university. You are not going to become a finished product by the end. There's no point in industrialising education in that way, I don't think. You're going to change your mind by the time your twenty. You don't want to feel like this is the path I've chosen. It's like with film. I've spoken to people who say 'I want to be a film maker, I want to be a director, I'm about to take a job where I'm an editor and actually if I did that no-body is going to look at me as a film maker again. They are going to say 'oh your IMDB credits are editor on this film'. So we don't want to get into a system where you are pigeonholed into 'Oh you are just a graphic designer'. Actually, we are very much like that in terms of departments talking. We have had scenarios in projects where departments are sitting side by side, and it's like 'oh that's the lighting, that's the sound, that's the facilities'. Actually, the reality of the work we create is a mash up of all of those things – talking to one another to create an organism that functions together. In a world where we are going to see the intersection of digital, and theatre and film, and multiple platforms, I think we need to be encouraging experimentation more than we do with 'this is your job'. Because actually the role of what a graphic designer is will probably change radically over the next twenty years in terms of the tools they've got at their disposal, in terms of the job they do.

AR

I wonder if it's about, not generally across all courses and universities, but in maybe what is traditionally considered drama or fine art, I think what unites them all is that it's about an experience, whether it's the process of the artist making something and that's the experience or whether it's the audience experience. And I think it would be interesting to see something like an experience design course, but not in a computer way. Perhaps where those with different disciplines and different skills can collaborate. And I think some universities do have the laboratory approach. There's a university in Amsterdam that has a drama department and a games design department, and they work very closely together to create experience. They'll bring in someone with digital knowledge of new technologies and they will be able to use that. Or they will have a more traditional performance collaboration. I think it's called Hogeschool van Kirshe in Amsterdam ( or could it be Hogeschool voor de Kunsten in Utrecht?). I've met a few students from there and they are fascinating, because the couple of guys I met were gamers or coders and they came on placement

at the last company I worked for. But they had such an intricate knowledge of traditional theatre as well and of drama. I think because they were so used to collaboration they could imagine how to achieve things in different ways even if it's not their skill set just because they will always know someone who could do something. Because you are never going to know, I could never be an extremely skilled graphic designer, performer, producer and write. Because someone who's been doing graphic design for years has been doing that regularly and has built up this amazing wealth of knowledge. But, if, and I think this is the case at Punchdrunk, where our go-to graphic and sound designer can imagine across everything, that is what makes it invaluable.

LF

It makes the graphic end product so much richer in thought because of their broader understanding. Yes, there are a few schools in Europe that have come up during my earlier research, that seem to be much more creative.

AR

Yes, and they have the funding as well. They give their students money to make the shows.

PH

Also, we are constantly being told about the economic output of the arts, but we are not matching it with the investment to begin with, so we are a victim of our own success in a way. We don't need much but we could give a lot back. It seems bonkers that we can't invest. We need to be creating a culture which continues to produce good artists and makers and creators. People who have been through the system and are reflecting on that - the universities need to listen to that. Education isn't a straight line of departmentalised segments of information for digesting. It's not like the Matrix where you can plug in and come out knowing everything. It's much richer than that and it needs to acknowledge that.

LF

Brilliant. Thank you. That's everything.

END

**Interviewee:** Julie Landau (JL)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 17.02.16  
**Location:** via Skype

**Notes:**

LF

So, how is Greenhive Green going? I was just looking on the Twitter page again.

JL

It's going so well. I think it really grows and develops from week to week, and so much of it is actually about our relationship with the residents. That's what's been the loveliest thing about it actually. The workshops are of course important and we keep adjusting them each week, and learning. But, actually, getting to know each other and that relationship and building on that. We are not sure what people remember from one week to the next, but there is a sense that people are becoming familiar with us, and comfortable. And likewise, we are becoming familiar with them. You just get to know people. That's the most enjoyable part of it in a way.

LF

I was just looking at the pictures with them all in the hats. Obviously I don't know them, but it looks as though the ladies in particular are just so happy.

JL

We had this idea. I don't know if you've seen the documentary 'Advanced Style'?

LF

No, I haven't

JL

Well, I'm obsessed with this documentary. This young New Yorker man became very interested in these very fabulous older, mainly women but obviously there are also men. These women in their 70s, 80s and 90s who just dress absolutely fabulously. They are so glamorous. They are older women who are refusing to not be seen, which is a thing I think a lot of older women say. I was just really inspired by it. And then we spoke to Julian who is our mentor at Magic Me, and one of the things that he said, because in essence it's a fancy dress workshop. The guidance he gave was actually that for older people they really like quality fabrics and materials, and just think about the touch of things. So it's not something we could ever go to Escapade and buy something silly. And actually we were very lucky that a woman from a costume shop, I don't know if you know it, called Prangsta. It's almost like a little mini Angels. This brilliant woman just gave us loads of absolutely exquisite things and I think what people appreciated was the lovely furs and feathers and those amazing textures. The things were really good quality and I think that was what was really pleasurable about it.

LF

They were really lovely photos and it did look like they had been transported somewhere – back in time maybe – but they really did look captivated by it. How long have you got to go now?

JL

Week five was yesterday. We have two more workshops and then what we are currently discussing at the moment is the eighth week where it is the party and the finale, and the one-on-one experience. This won't be one-on-one but it will have the essence of the Punchdrunk one-on-one. So each member of the committee will have their own performance.

LF

That will be lovely for them to have some sort of personal experience.

JL

Yes. Some sort of personal experience that is somehow personalised to them as well. But all that's very much in debate at the moment about how that's going to work. But I think what we have decided is that originally we were going to open up the florists and we were going to move it forward and the residents were going to come in through the florists. And actually what we realised is that we have spent all this time familiarising ourselves with this weird and unusual space and people are now comfortable there. And actually, suddenly in the final week, to introduce a new space, we don't think will be of any value. We also wonder how we are going to introduce this new character. We are now thinking the one-on-one will be with a performer, a new character. Maybe, we have this character of the Mayoress who always calls to help us with the tasks. But she is always away on some ridiculous mission somewhere. Perhaps she will finally come back. But we will be there as well so it is comfortable and familiar as well. But we don't want to tell a story and I just think the extra character will give it a sense of importance.

LF

Brilliant. I shall keep following.

So, I'll start with the set questions if that's OK.

The first question is how do you define yourself, if someone asks you what you do?

JL

For this project?

LF

For Punchdrunk, unless it changes?

JL

No. I just say designer.

LF

And how do you define Punchdrunk if someone asks what you do?

JL

I suppose I would say they are an experiential theatre company. Then, if people look confused, I would say it's an immersive theatre company, creating worlds which people can then immerse themselves in and become part of.

LF

Can you then tell me a bit about your background and what brought you to Punchdrunk?

JL

I studied set design and I think when I was studying I went to see a theatre company called Shunt. One of their first productions. They were actually a couple of years above me at Central where I studied and they had studied, in that more collaborative style of theatre. And I thought that's the kind of thing I'd like to do. Then I had quite a long journey of doing more traditional theatre at the Edinburgh Festival, then working in shops doing shop windows, so a bit of a change of direction. Then, I really missed it and applied through Enrichment and got a job doing their school projects. I did some Under the Eiderdown's for them. It's a very different way of working from doing traditional theatre.

LF

Well that's one of my questions – how does the process working for Punchdrunk compare to other theatre and design projects you have done?

JL

I think collaborative. It really is very collaborative. And I suppose with something maybe more traditional you hand over the design and you are done, more or less. Where as this is just constantly evolving. Matthew will have ideas about the design, and I will have ideas about the script. We definitely own our own parts, but we all create something together, with Alex and Pete obviously.

LF

Do you have a defined role within Punchdrunk?

JL

Oh yes, it's always designer.

LF

So you are clearly defined in your roles as a team when you are working?

JL

As in would I do any other roles within that?

LF

Yes.

JL

Uh, no. I don't think so. Maybe it is quite broad I suppose, in a way. There are no designers in Punchdrunk who aren't makers. I'd say in traditional theatre, the designer would hand things over to the maker. In Punchdrunk, you have to be quite a good maker yourself. So 'design' is definitely a much broader role than it might be working in another company.

LF

Yes, I can imagine.

How would you describe the creative process with Punchdrunk?

JL

I guess it comes back to this idea of collaborating, when you get together with your director, producer etc. So it would be me, Pete, Alex, Matthew, and I think that's usually the set of people. And it's usually lots of chatting with everyone bringing their own inspiration and thoughts to something. And then going away and everyone is developing their part. So Matthew might be developing the script, I'll go away and do

some mood boards. Then coming back and spending time together again and then going away and refining things. Especially with this project, because none of us have really worked with people with dementia before, even now, each week, we will go away and re think the workshops. Hopefully learning from each week and evolving what's going to happen the following week and refining it.

LF

Perhaps in a way that's the same as the larger shows as well? What they have in common? It sounds like *The Drowned Man* took five months to really fix the performance. No matter what the project, the process is this constant questioning and not settling for something being complete.

JL

Absolutely. With *The Drowned Man*, I did a lot of installation and buying on that show, and you would set up a room and you would think it's great and the details were there and everything. And then it would change, and it's always changing. Months later when I went to see the show things were still changing, for the better actually.

LF

It makes you, as a team, perfect for the challenge of what you are doing right now, because it is so challenging and it's about watching the residents and seeing how they are responding and being able to be flexible enough to respond to that. It seems like this way of working is almost second nature to everyone in Punchdrunk. I wonder if others would struggle with this project (*Greenhive Green*) because they are not used to working in such a flexible way.

JL

It's funny you saying it because it has become a second nature, and I only notice it when you work with other people. I think it also helps the more you work with someone as well. You work better with them the more you work with them. So, we've now worked together on a few projects and you become a better-oiled machine, in a way. You understand how people work and support each other.

LF

I suppose, to take those kinds of risks, you need to be able to trust each other, and know how each other works.

JL

I think so. Yes, definitely.

LF

Did you work on the *Lost Lending Libraries* as well?

JL

No. I worked on *Under the Eiderdown*. Then Matthew and I have worked on a couple of shows with Hijinx in Cardiff. Do you know them?

LF

Yes (have read reviews of them and the Cardiff projects).

JL

They are amazing. They work with adults with learning difficulties. We did two shows with them over the summer. The first show we were there for a couple of weeks. Hijinx invites different groups and styles of theatre practitioners to come and work

with them. They've had Complicite, Blind Summit etc. Lots of people who work in different ways. So, Punchdrunk were invited and we did an immersive piece of theatre. It was really successful. We had an amazing group, a mix of some adults with learning difficulties and some performers who want to learn more about working inclusively. We had an incredibly collaborative, supportive group and the show went really well, so they invited us back and we did a much bigger show last summer with a longer run. And that was great too. Those were both very intense, with the two of us in Cardiff. Then I've done other, more commercial projects for Punchdrunk as well. We did a collaboration with Absolute Vodka.

LF

So quite a mix of size, scale and type of project.

JL

Yes. That's the nice thing about working for Punchdrunk, every job is just so different and challenging in a way.

LF

The next question is about space. The other studios I am going into tend to have one space where everything happens. What is really interesting about Punchdrunk at the moment is how everything is spread out – with the office space, meetings in Shoreditch House, the Store and the site. I'm interested in the role space plays, and how the space you use affects process. But Felix has also revealed a bit about the plan to move into one big space, which blew me away.

I would like to get an understanding of how Punchdrunk use space and how important it is to you. The Store seems like a really vital place because you have everything there and you are making there and the history of Punchdrunk is all around you.

JL

The Store will still stay where it is. I'm pretty sure that's right. There will be the office and performance space in the new building, but I'm fairly sure the Store will stay where it is. I'm 80% certain it's not going to move to Tottenham.

What's the question again?

LF

Sorry. How do you think this new combined space will change things? How do you find working in the separate spaces? Do you think the new space, bringing site to the building for research and development, will make things better or different in any way?

JL

I think it's amazing to have that as an option. As a designer it's nice to do something which is more permanent that you can keep changing and evolving and improving on. It's an Enrichment space as far as I know.... I'm not sure actually. I think it's great to have that but I still think it's important to have the element of being able to go into schools and create that kind of magic where something springs up in a space you are familiar with. So it feels more like your world is this magical place. But, it is exciting to have a place where you can permanently develop and improve things. Sometimes with Enrichment you ..... I hope it will make things just a bit sharper in a way. Sometimes when you are working in the store there is a moment of feeling like you are slightly muddling through. You are taking stuff to another place and it's hard to set things up in a way.



Sorry I don't think I'm answering your question very clearly.

LF

It's not a very clear question. I'm trying to work out how important space is to be able to do what you need to do, and the kinds of spaces you need.

JL

Do you mean to work?

LF

Yes. I did the three-day design master class on The Drowned Man set.

JL

With Hebe?

LF

Yes. And that was brilliant. I think they set us up where the Punchdrunk design team had worked, around a big table. They talked through the process of moving the creative team onto site. It made sense to be there because of the scale of that project. But with the smaller projects, with the schools, you obviously can't do that. Does that have an impact on how you work.

JL

Yes, I suppose you have to be realistic in what is achievable. You have to work quickly. As a designer generally, you have to be very practical. That's essential for Punchdrunk. You have to be able to turn up in two days, install something and create something magical. You have to be really organised, really practical and really hands-on. Perhaps in a way you don't have to be if you are just handing something over to a production manager to figure out, working in a traditional way.

LF

Do you find yourself moving around quite a lot then, from the office to the Store to the site?

JL

Constantly. Constantly running around all the time. I don't spend much time at the office at all. That feels like a very different team. It is a very different team. But there are lots of us running around doing different things and meeting up at the Store and it's nice.

Space massively impacts on what you do, of course. One example is when we did this Absolute Vodka collaboration. It was in this amazing space in Islington. It was this block of flats with a space underneath that was to be a theatre. It looked like a massive car park basically. A really weird space. Then we had to build this bar within it. The design was totally informed by the space. There was a narrative and a story to the experience. But at the end people go to the bar and that doesn't really have much to do with the narrative. So the design was totally responding to this weird car park industrial concrete space that we were in. So it felt like you were in a kind of underground bunker. Any additional walls we added were concrete so it felt like part of the same structure, so it didn't feel like it was theatrical in a way. It felt like it was a continuation of the space we were in.

LF

So that's going back to the site-specific, site-sensitive skills as well, that perhaps other designers don't have. Responding to a space in a more connected sensitive way.

JL

Or, just incorporating it as part of your thinking. Otherwise, what's the point in a way. You could be anywhere.

LF

Like Architects putting their own stamp on cities without any awareness of the site. Creating buildings that could be anywhere in the world. Some of them need some Punchdrunk lessons in site sensitivity.

I think that's great. Because understanding space is complicated with Punchdrunk. You don't work in a typical way and that's the tricky thing for me to work out. What you often see with studios is that they develop together in one space and when they become successful and need to grow and they tend to split and fragment. There is then the danger that they might lose part of the process and the togetherness. Going to the Punchdrunk Store you get that sense of togetherness. Even on a simple level you can look around you in the Store and see a standard of finish to aim for. That easy way of absorbing the quality and ideas by being in the space. So, it's so interesting with Punchdrunk because it feels like you still have that togetherness and now you are going to grow but bring everything even more together.

JL

What's been really lovely for me is that you get to work with so many other designers. I'm leading on this project but I've worked on other projects where it's Hebe leading, or someone else. You get to know people's skills or specialities and you learn so much from that. When I work with Hebe, her attention to detail.... I think I have a certain attention to detail, but her attention to detail and the quirky touches that she brings really adds something. It's so amazing and I learn so much from her. Or I will work with Grace and she is an amazing scenic artist and she will pass on some of those skills. Each designer has their own strength that they bring and I think you personally grow so much from that. How often as a design do you get to work so closely with another designer and grow from their working practice? I think that's actually been one of the nicest things about working with Punchdrunk for me.

LF

So that's process. It's not dependant on space, it's just about being with each other wherever you are. With other studios it's perhaps more about space because they don't get the opportunity to work together. They tend to work on their own. So space and being in one space is key to connect in a basic way. But, it sounds like you really get the chance to cross-over, collaborate and see how each other works and learn from each other.

JL

Again, I don't know if it's a space thing, but having that warehouse with all of those props, all of that furniture, you are always going to call on that. And there is a Punchdrunk visual language, so we all do design to that. But equally we are coming back to the Store which has the same weird and wonderful things as your resource and so that also kind of helps you to stay within that world and your brief because we are all calling on that same resource. That makes a big difference.

LF

Yes, I felt that walking in. It didn't feel like a normal theatre store. It felt like it was Punchdrunk, almost a personality in itself.

JL

That's obviously an incredibly helpful resource.

LF

What core skills do you think you need to work as a designer for Punchdrunk?

JL

A very boring one to start with but I think you have to be very organised. It's essential. And flexible. Creative is an obvious one. Good practical skills as well.

LF

That links to your making as well?

JL

Yes, good hands-on practical skills. And I think with the flexibility, it's about being able to work collaboratively. I'm not quite sure what that skill is – maybe it's communication.

LF

It's interesting asking this question because most of the answers are personal skills (like collaboration and communication) rather than practical. From an outside point of view, you might assume you have to only be excellent at the practical skills. But they are not the only important things. Clearly it's really important in a really innovative creative studio you need the social/personal skills like communication and flexibility.

JL

Is that just Punchdrunk or the other studios as well?

LF

It's with all the studios. The human skills are key. You do all seem very close in Punchdrunk.

JL

Yes, we like each other.

LF

It's what you would hope but not necessarily what you would expect.

JL

I think we all work so hard and I don't think would be particularly bearable if we didn't get on with each other. We spend way too much time with each other.

LF

I think about communicating this back to students, and I'm not sure they can appreciate it. It's a hard thing to understand unless you have really experienced proper collaboration. I think they tend to think the practical skills are key.

JL

And they are important too. The thing I would say to students, because obviously we have loads who come and do work experience with us, is that the people who I'm happy to work with or have been great aren't the people who have the best skills, it's the people who feel that nothing's a problem. They are happy to do it and happy to get on with it. They are the people you are happy to have around. All they then need to be able to do, as a secondary thing, is to listen and follow instruction. Because then if they are not doing it well, you are giving them the wrong task or you are not explaining it clearly. But actually, the worst is someone who kind of feels it's boring

or that they are above it. But if someone is just happy to get stuck in that's key. That's how I would explain it to students. That's the starting point.

LF

Yes, it's a good healthy attitude.

The last question now is about education. I'm trying to piece all this process information together to see what could be taken back to education as recommendations. So, is there anything that you think undergraduate design education could learn from Punchdrunk and the way that you work?

JL

It feels like a bit of a cliché, but being comfortable just trying things out that might not work. Experimenting and going for it. But I think a lot of that is about working with people you feel comfortable to be able to do that with. As an undergraduate. Because once you are in the world of work, you have to work with who you work with, sometimes.

LF

So, the failing side of it. Not being too worried about thing not working out.

JL

Yes, because then you can just change it. I'm not sure if that's helpful for an undergraduate.

LF

Actually I think it's really key, but I'm not too sure how to introduce that yet. It's another common comment from the interviews. Encouraging taking risks and failing. I don't know any module where failing is celebrated, but I think it's something the university system needs to look at. Because clearly it's how you learn. I think also with the fees, it's hard to convince a student to take risks is difficult.

JL

But the truth is you are going to fail whether you are trying to or not, it's going to happen anyway particularly with the lack of experience. I guess it's just about being OK with it. It's going to happen.

LF

I'm also looking at undergraduate courses and the uni-discipline focus. You mentioned that you have done a lot of different things with visual merchandising, traditional theatre, interior design etc. With your course at Central, would you have benefitted from more exposure to different disciplines when doing that course?

JL

I can't really talk specifically about my course. It was quite a strange course in a way, because it was quite broad with collaborative theatre practice. But I think what's been massively helpful for me to stay as a freelancer is just thinking about spaces and space, whether it's how someone lives in their home or how someone moves around a set or moves around a retail space. It's very transferrable skills and I think that's really nice as a creative person to be able to use them.

LF

So how did you get that understanding of transferrable skills? Where did that come from? Was it just your outlook or did your course help you understand that you had those transferrable skills?

JL

It's partly me and it's partly circumstances, falling into things. It doesn't feel like it was particularly well thought through or planned. Maybe it's retrospectively I think that now. It's just how my career has gone. Now I feel very comfortable moving between those areas. The course itself felt very broad. I think it's really important as a creative person to be flexible, to keep yourself going.

LF

That's everything. Thank you. Transferrable skills is a big issue at university. Trying to help students to understand how the skills they are building can apply to other areas.

JL

I always think there are so many people out there and they're not sure what to do or worry that something is not quite the right thing. I always think 'just do something, and you will get some skills from that and it will lead to something you like'. I do understand. I didn't have to pay for university so it was a different time. Lots of naval gazing about doing the right thing. It's tough.

LF

Brilliant. Thank you.

END

**Interviewee:** Livi Vaughan (LV)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 30.03.16  
**Location:** via Skype

**Notes:** Skype / Internet signal was cutting in and out, so at times the audio is scrambled.

LF

If someone asks you what you do, how do you define yourself.

LV

So, I say that I work as a set designer for Punchdrunk, and, as soon as I have said that, I feel that I have to qualify it because it isn't like doing set design. We actually end up saying we take over disused buildings and we create worlds that an audience member can explore to stimulate all the sense and create an environment for you to enjoy, because there isn't an easy way to explain what it is and it's so different from people's perceptions of what a set is. No stage, no separation from the audience to the performers, so I really use the expression of creating worlds. I think that's the closest I can get to explain what we do in the company.

LF

Great. So is that the same with how you describe Punchdrunk?

LV

Yes, I suppose so. It's such a difficult question, a tricky one to answer. Yes, so I suppose we are a company that creates theatrical experiences. And I'm sure you've spoken to Felix, Pete and Julie now, but they range so widely. We have our mask shows, but we also look to technology, and one-on-one performances and a variety of different ways of relating to an audience. So, creating experiences and environments I suppose are the key words to help sum up what Punchdrunk is.

LF

Great. So, the next question is looking at your background and what brought you to Punchdrunk?

LV

I feel it was completely accidental and really early for me. So I studied at St Martins doing the Theatre Design for Performance course. I was doing my Art Foundation and I hadn't even considered that theatre was something you could do. Obviously I had seen shows but I hadn't thought of Theatre Design as an actual job. I really wanted to do Fine Art but I couldn't draw so that was out. I liked physically making something that people could respond to. I happened on the theatre course and I wasn't interested in the more traditional paths offered like design for dance or opera. Really that was making something for somebody else, which I suppose I do now too. But I did work experience. I was interested in site-specific theatre and I found Punchdrunk and started volunteering and I found the world so incredible and epic and open and free and the opportunity to make something that is all around you and all encompassing and that was really exciting. So, it really was just a journey. Sorry I'm in the worst place in the office because everybody has to come past to hang their coats up behind me.

So it was really organic from a starting point. Does that make sense?

LF

Yes it does. So you went straight from St Martins to do work experience at Punchdrunk?

LV

Yes, I was in my second year. I was working with another colleague from my course. At that time it was really separate. There were lots of different designers and everyone was doing different things with Felix overseeing from the top. There was freedom to be allowed to try different things and everybody worked so coherently and it was so balanced, which is what interested me in the beginning. And even after we developed as a company and got more specific roles there has always been a sense that everything holds equal weight and importance and it felt like we were all working together to create something. I'm not saying that traditional theatre doesn't do that, but that feels more structured and in a way what we were doing felt quite fluid and honest I suppose. We were responding to the space and the text and all working together to make something.

LF

So then with your role in Punchdrunk, is that clearly defined or is it quite fluid in terms of what you do?

LV

We are in a place where it is becoming more defined. In general it's defined. Over the years Beatrice Minns and I have worked very closely together as the two Associate Designers and our roles are both collaborative but also looking at different areas. It's quite defined in terms of process we have created and the certain steps we always need to go through to get there. In that respect my work does stay the same. But obviously each project is completely different and we don't just do shows in buildings any more. We do shows out doors in huge space, and do shows within cities. So the job changes depending on the project. But I suppose it's always about the aesthetic and the journey and the visual language of the piece that we are making.

LF

So then how do you describe the creative process? Are there core things that are key?

LV

I think the key element is putting the audience's experience at the heart of the work. I think that covers any kind of project that we do. We look at that audience journey, from the street even before they have started the experience, from how they arrive, from the time they are given to decompress before they go into the show, to then go into it, explore it and finish it as well. So, we look at that arc quite closely. There are a few different elements we always try and come back to. So using as many of the senses as we can. Sound and performance and design all have equal weight. The space has a lot in it and you can explore whatever part you are interested in. If we are talking about our mask shows, I would try and hope that a room can hold enough information and excitement to hold an audience member just as much as a performance does. So that you can learn about a character and have a journey around a room just from what's in it. So, you could follow a performer through a space or you could follow the lighting. It's both the senses and the physical journey. It's taking all those elements and putting them together.

The process is quite hard to describe because it changes every time. It's not as logical as having a text, building a performance and then supporting that with a design. Everything is being created at the same time, separately, and it just sort of comes together and everything shifts to support the next thing. Beatrice and I are building a room to a set level, the performers are rehearsing off-site building some work, and

then they come into the space and inevitably there are some things that don't work and things that are frustrating about what we've created. So then we alter it or we will see what they are doing and support that with more design or what ever it needs. So it's kind of a layering of ideas. It's the same with the sound. Stephen will make the sound and then adapt it to the space and the performance. And the lighting as well. For me it has four lighting states: all the domestic lighting that we light the space we; the theatrical lighting that lights the rooms; the lighting that changes for the performers so when they are doing a scene the light moves with them in a more traditional theatre way; then there's lighting that changes in a room when a performer isn't there. So, everything is layered and hopefully works on different levels. So, it's harder to explain than it actually is to do. It's easier just to do it.

LF

Brilliant. So how does this process compare to any other studio/company you have worked with?

LV

Unfortunately.....not unfortunately, but unfortunately for the question... I have been with Punchdrunk all the way through. So, it's not possible for me to compare at all.

LF

Great. So the next question is trying to get a handle on the importance of space and it's uses. I'm trying to get a handle on how the spaces you work in support your process. You have the site, and the store for making, the office space etc. I can see the store is very important. But it seems like you move from space to space a lot?

LV

On our bigger shows we do have that move to site. The store will come over, we will have a workshop, a make room for prop making, a design space. You have to be on site, it's really important that we are all there together and that we are working into the building. It's almost like when I am design the show. From the top level I am deciding where the walls are going to go and the layout of the building, with Colin our producer. The most boring things happen first, like where the toilets are, where the loading bay is, where the bar is. Actually they are probably the most important. But then all the office spaces are just as important because we need to be together. In the past my art and design studio is on the top floor and the making is at the bottom but it doesn't work. We need to be together, because we work quite fluidly. Although we might want it to be the case one day, we don't start a production knowing what the outcome is going to be. It would take me almost four or five months to design every room, prop etc. before we were on-site, which is never going to stack up as a project. So we need to be around our team on-site in order to create the work.

So, really excitingly we have moved. We had our Store and our office space. And actually the office has been a really horrid place for a lot of us to work in because we are not used to being at a desk and being so sedentary. We want to be physically doing and making and reacting. Really excitingly we have just moved to our new space in Tottenham, which is where I am now. That's really exciting. I know Felix has told you about his ideas for the village. I drew up all of our ideas on paper on ground plans and I had done a really rough idea. But immediately we could go into the space and draw it on the floor in marker pen and chalk. Felix and I respond to being in a room and what we can see and feel. It's so much more exciting for us when we can have that experience. Before it was different. There are different stages in Punchdrunk. When we are building a show we are on site in it, like I was describing. Then there's time between the shows that feels quite separated, with the office and the store. So, it feels like this new era for us is having a home where we can play to



our strengths, and each individual who works here has the opportunity to work on what they are excited about – so we have an area on lighting, sound, performance and design. It's all around us more. Because inevitably the gap between big projects is quite large, because they take a long time to fund and find the right space. So it will keep us being able to R&D and practice.

Does that answer your question?

LF

Absolutely. I can see how you have been striving to bring everything together for the big shows, but obviously there are limitations with that. And now you have the opportunity to create an all-in-one space, to work and develop.

LV

People who work in the office have always staid in the office when we go on site, which has created a level of separation that we never really wanted. Now it feels like everyone will be able to pop in and see what each other is doing. We have so many brilliant people here in such different roles, it feels much more inclusive and more like the way we started on the smaller projects.

LF

Yes. It's really exciting to hear. You are going back to this amazing way of working that usually only happens at the beginning of the life of a studio.

LV

That's absolutely right. It's exactly how it felt. We were getting to a stage where there was a lot more work overseas and we just didn't feel like a team any more. We've only been in here for about two weeks, and we have a lovely empty warehouse. It will be really interesting to see how it progresses and how we can get it to work all together. How we can balance time on the projects and keep work happening here.

LF

I was next going to ask about what roles disciplines play in the studio. You have answered this a bit already. But, I was trying to get a sense of how different people in their different roles are divided up. Whether they are clearly defined or whether there is a blurring of who does what.

LV

I suppose on one level there are clearly defined roles, for designing, lighting and creative director, but I think fundamentally at the beginning of a project we all work together. I think that's what's really exciting with the people we work with because we can talk to whoever else is in the studio and work together because we all fundamentally understand what we are trying to do there. A lot of our work is about conversation, where any of us can progress by talking to one of the other core members about it and feeling like we are on the journey together in a way. Where as before it was beginning to feel quite separate with projects happening all over the world, and often the people who needed to be together couldn't be. But the great thing is we have this core group. So, in some ways we all create the foundation of the project, obviously with Felix's head at the top. But then we can spread out knowing that we have each other to talk to.

LF

So moving into this new space will help with that.

LV

Absolutely. I think we can try things out here and test things. Because often when we get to the shows things we are interested in exploring maybe aren't right for the project but are something that we want to try. Now we can do it as R&D beforehand and hopefully make the projects more successful.

LF

So the last questions are about education, as I'm looking at how these ways of working could possibly go back into undergraduate education. Is there anything that comes to mind with Punchdrunk's process that you think might be beneficial to undergraduate education?

LV

I was thinking about this. Obviously, from coming off a design course as well. Since leaving CSM, I didn't use model making or technical drawing for ten years after leaving. This is an aside, but what I think that that course gave and I think is the most important skill is problem solving and coming up with ideas. And I think that college is the only time when it's important that you can fail and you can try things out. Some courses are based on technical skills and when I left I thought 'Oh God I haven't got any of those technical skills, what am I going to do?' Actually it didn't matter because you can learn those later and what matters is to be able to come up with ideas and creatively problem solve. And I think that's the key.

In terms of my role, I feel like it is four or five different jobs. It's strategic planning, looking at structure, looking at a building, looking at a city, deciding routes and journeys, and I do that in collaboration with Colin Nightingale our creative producer. It's almost like being an architect in terms of laying out towns inside buildings and structure. A whole level of design you don't normally touch on. Thinking about the audience experience and then only when I have done all that can I actually start to get excited about the physical design. So, it's kind of being able to see a project from above and being strategic and creative and trying ideas out are the most important elements.

It's hard to say because in a way, I think my course was actually really great for that. It allowed us to play and practice. I've actually been back to CSM and done some lectures for Michael and it's changed so much there in the new site. In the old building we were allowed to be in the basement, in the corridors building stuff and doing what ever we liked. It was so important to have that freedom to try. He was saying that now you can't do anything without a risk assessment before hand and that students don't even start to try ideas. But for me that was the most incredibly useful tool in my development. I wasn't afraid of trying out ideas.

LF

So you were in the old CSM building.

LV

Yes in Clerkenwell in a basement separated from the rest of the school, which we hated at the time, but yes, I think it was so great. We had a white space and we all had desks each. We had so much. Now they have nothing. I think one small room where they have to hot desk. You are never going to learn working from home on a model box, because it's not what it's about. We used to get frustrated that we had hardly any teaching on that course, but what we had was each other. It sounds so dramatic! But with my peers, the group I met then, we worked so well together and that was the foundation for the way I work now with Punchdrunk. It's about ideas, and talking

things through and working as a team. I think that was the most important thing. And for me that's translated into how I work with Punchdrunk.

LF

So the last question is looking at the structure of university courses now, with many still being uni-disciplinary.

LV

It's tricky. I suppose when you talk about one discipline, you mean set design or costume or lighting?

LF

Yes, and graphics, illustration, film etc. There aren't many undergraduate courses that have a breadth to them.

LV

I can only speak from my experience and mine was positive. I don't know, because on the one hand it's great to get to that skill level, on some of the more defined courses where someone has worked to that high level of talent and detail, and it would be a shame not to have that, and I think you can explore avenues after that. But for design, I absolutely think it needs to be as varied as possible. It's interesting because I work with a lot of Americans now. We have a great team of design people out there. But the skill set is so different, because they are so varied. A lot more of them are artisans rather than designers. So as an overview my team in the UK and my team in the US are complete opposites of each other. My UK team have incredible ideas and can be left with a very sketchy idea and deliver it conceptually to a really high level, but their making skills are much lower. My US team are the most incredible makers. They can do everything from welding, carpentry to detail work. But they don't feel that they can run with an idea independently. Obviously it's a massive generalisation, but what we've found is that everybody there does a turn at each different thing and then it comes together. But we are much more idea based here. Actually most come from a fine arts background here rather than design.

LF

So your UK team is more Fine Art background than design?

LV

Yes, they are actually Fine Art and English Literature. That side. Less have gone through design school and set design. I can only think of a couple who have. The US team are much more making based and skills based. Which is perfect for me. The more they are crossing over is brilliant and it's really interesting to see how people there work in a different way. But there are people we have here that I haven't found in the US yet, who I could trust with those beautiful ideas and small delicate details – the way of taking an idea and running with it and feeling confident in developing it as an assistant designer. That feeling comes from the fine art side for Punchdrunk rather than the design side.

LF

That's really interesting for me, because I am looking at the BFA model as well, because they can move about so much.

LV

In a dream world you just want to tack on an extra year at the end. Because I think you are right, a multi-disciplinary way would be so much better but then I think you need to bring it all together and develop yourself with those skills in that last year. I

think even though what I've said about ideas and things, I still think I would be so much better off if I understood how things were made so much more, and I think that would take my ideas to another place. Because I very much am 'I want it like this', but I have no idea how to do it. I have an incredible team who work with me, but I think having that practical side is invaluable.

LF

That's really interesting. Thank you. That's everything.

When Felix mentioned your new space, he said I could come back in but I wondered when would be a good time?

LV

I would say give it a least a month. After that we will be working on it properly. I know we are not doing anything for a couple of weeks until we sort the fire alarms out.

LF

Brilliant. Thank you. I should be able to send you all the transcripts soon.

END

## 16.5 Assemble

**Interviewee:** Maria Lisogorskaya (ML)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 01.02.16  
**Location:** Assemble Studio, London

### Notes:

LF

The first question is how do you describe yourself when somebody asks you what you do?

ML

It's a difficult first question. It depends who it is and where it's being asked. I think in a formal capacity I would say architect or architectural designer, it depends on who I'm meeting. Sometimes I would say "Oh, I have this company with my friends, we do different types of things like dot dot dot". Yes, it really depends. It's not because I'm trying to be quirky it's just it's quite difficult to say sometimes. And also legally we're not allowed to call ourselves architects.

LF

And what about Assemble then? So if they then ask you what your company does?

ML

I would say we work in the built environment and we deliver things that range a lot from engagement and workshops and art events to housing and workspace and strategy. Again I think it depends on who I'm talking to. If I'm meeting someone about a project about housing then I'll definitely emphasise that we work a lot in housing. If I'm meeting someone to do an exhibition then it would be about that side of things.

LF

And how has the studio evolved since it was created? It was created in about 2009-10 is that right?

ML

Yes, but as a formal company and a named organisation it didn't exist before 2011 when we did our second project, Folly For A Flyover. For that we had to set up a company in order to apply for funding. That's why we had to think of a name and set up everyone as a director. But before that it was quite fluid. It was more about the project than us. The first project, the Cineroleum, we didn't have a name, it was just the project and the group of people that did it.

LF

Has Assemble evolved since 2011?

ML

Yes, definitely, it keeps evolving. We started off doing things in our free time, even when we set up the company it was still a summer project, people took holiday from work to do it or we did it on the weekends. And then after that gradually we had our first permanent paid commission which was a competition and we managed to win it thanks to very trusting regeneration staff at the London Borough of Croydon. And it was a project in New Addington. It was to do with public realm improvements. That was when a lot of us started to take more time off work to do that as a job and

gradually it's developed into something which takes up most of our time. But a lot of us still teach as a way of having some regular income. And it's evolving because we're getting bigger projects and we're quite busy. But it hasn't changed in terms of... it's pretty much the same people and we're still non-hierarchical. And we don't have staff apart from a finance person who does all of our accounts. But gradually we're considering maybe we do need to employ people because we're struggling to make the most of opportunities. Because of the lack of a single boss it's quite difficult to... if everyone's out there doing lectures and travelling or whatever, who is doing... really we need to be more efficient. So yes, it's evolving.

LF

Are there any other collective models that you've looked at that you're perhaps aspiring to follow? Or are you paving your own way?

ML

We are definitely looking at people and learning from... a lot of us have worked in traditional practices and we're learning from some of those things. We have looked, independently not as a collective, at different collective structures but we are paving our own way in a sense, but not on purpose. It's just bit by bit. Stuff is just happening and we make decisions along the way when we see something is not working. And we have a summit coming up soon where we're going to be reflecting on a lot of things we've done and thinking about the future and all those things. We don't do that that much actually, we just do stuff and then meet up about issues. It takes ages to make decisions. Not every decision, but some.

LF

So how often do you have those? Is it once a year or whenever the need seems to arise?

ML

Whenever the need arises. Every Monday we have a morning and evening meeting. Mornings are a quick update and the evening is a review where we internally review projects. That's just dealing with project and immediate issues but the wider strategic things are quite hard to organise and it obviously takes up time, and it's quite stressful. So it just happens once in a while. I think the last one we had was at least a year ago. And then this I think also because of the Turner prize, there are a lot of questions about who we are, what's next, and I think we realise we need to meet up again.

LF

It must be quite hard to get everyone together? Is that part of the challenge by the nature that you're all doing other things? Simply organising to get everybody in one room must be quite a challenge?

ML

Well Mondays are quite good.

LF

So that is still often everybody together?

ML

Yes. Obviously we have a couple of people who are here and there but I think it's a good way. That's when people get to hear about what's going on and make immediate decisions. That's been working quite well actually. But that's not very

long, just an hour and a half or something. Whereas long bits of time are hard to organise.

LF

The next question is how has your role evolved within the studio? But I'm wondering whether perhaps your roles don't evolve if you're a collective?

ML

Not really. No. I guess there is a change because in the beginning we all worked on one project together. And now obviously we can't afford to do that because it would be a full time thing so we do have leaders who lead on projects then we all feed into the design sketching and brainstorming stage. But we've been doing that for a while now, it's not really changed that much.

LF

Actually one of the questions about teams, and how you structure teams. Do you need to structure teams for different projects?

ML

It depends on the scale but usually it's a buddy system, which is actually something that someone learned from an office they were working in. You lead on a project with someone. And that means you're responsible for the communication, all the delivery stuff, but then there's a wider team who help out or are there to brainstorm, and the whole of Assemble who are there on a Monday evening to review or whatever or to be there at the early stages of a design. And that's been working quite well because you can be a buddy on a project and leading one thing but then you could be just helping out doing a drawing for another project. So the role changes. It's quite nice because sometimes you just want to not worry about certain things and just do drawing for someone. That's quite nice. But one of the things we're finding now is one of the things we'll discuss at the summit, this has its benefits but the downsides are the admin and the amount of admin we have to do as individuals. It can get a bit much. Because you have to deal with everything – communication, finance, and programme.

LF

Yes, I can imagine that must become a challenge. I can see why being able to switch off a little and support on a project can perhaps be really stimulating just to help feed your creativity, alongside all the other things that you're having to manage.

ML

It's not always possible, but yes.

LF

Great. So how would you describe the creative process at Assemble?

ML

If we have a project coming in or someone wants to apply for whatever, then there needs to be at least two people that want to do something, unless it's really tiny. And then depending on what kind of project it is, early on we have a charrette or brainstorm where either the buddies bring something to the table to discuss, or it can just be questions. And then that gets developed then it gets reviewed once in a while on a Monday evening by the wider group. So that's like school where you get crits. Our office is quite small and there's a lot of conversation and there are also all the other practitioners in the building. Like you were saying we all get to meet and it's messy and we get to ask questions from different specialists and that all gets fed into

it which is really nice. And you'll be doing something in the front in that big space and then someone will come and chat to you and say "Oh, what's this?" Like any other office there's a lot of that. Sometimes it's a bit annoying because sometimes our office can be a bit loud. But that's the flipside. I think you've managed to find today is a quite peaceful day.

LF

That's great. It seems that conversation and interaction is key.

ML

Yes, I guess so. And we do ask each other questions quite a lot which is nice. There's definitely a kind of support structure. It can be a bit intimidating sometimes as well but it's quite nice.

LF

Because everyone's aware of what you're doing or wants to have their say in what you're doing?

ML

Sometimes, yes, definitely that can be the case, but that can also be really good. And different people have different approaches and skills as well.

LF

Yes, I suppose there's no way of really working in isolation here, it's impossible to shut yourself away really.

ML

It does happen though, because I think we've been quite busy and people do sometimes end up working in isolation. Not physically. A project's been delayed and you're working on another project and then suddenly both projects have similar deadlines. I think we have the same issues you get anywhere else but it is maybe easier to get out of that because of the regular review system. And people notice that you're stuck by yourself. But it's not perfect, there are still issues. And sometimes not having a boss can be difficult as well, maybe because... I'm not saying that we want one but just you have to think of everything sometimes.

LF

I suppose that's naturally just putting an extra burden on all of you.

ML

Yes. But it's also fun, definitely. We do have fun.

LF

Everything you do is public related as well. How do they input into that? Or is it different for every project depending on what it is?

ML

It depends on each project. Different stages on projects as well. For the Croydon one there was a lot of public engagement. We had a residency there and did a few events trying to get people out into the public realm, and getting to meet people and testing ideas through building things. That was very public involvement in that way. But then the housing project in Liverpool has been a long process of getting to know some of the residents and communities. I'm trying to think of a different type of thing. Maybe Goldsmiths project is in some ways a traditional architecture project but then it's trying to engage with the public by being a more public building. And I think



those conversations will come in a bit later on. But I think yes, we definitely try and collaborate wherever we can with people who have a stake in something. It depends on the project. We run workshops with kids and that's very engaged. It just depends on the scale and timeline of stuff.

LF

With the Theatre on the Fly it seemed like you were quite heavily involved with children?

ML

Yes, that was the national kids' theatre group in Chichester. They were involved in some of the building, and they used the space and I think that was a quite nice relationship. My mind's blank. Or we did a project in Berlin actually with an elderly squatters' group called Stille Strasse. And they actually didn't squat housing they squatted their community centre that was going to be shut down. So we did an exhibition where we designed a housing model which can accommodate communality and we worked with them to develop some of those ideas about socialising communality in old age. That was very difficult arrangement, because we weren't necessarily designing for that particular group, but we used them as experts to talk about some of the issues and develop something. And also the adventure playground at Dalmarnock, that's very much all about the public building their environment because architectural moods are very subtle, but it's about providing a framework for the kids to make a mess and build their own stuff and really be in control. They are all very different. But we are interested in how to bridge the gap between the built environment and people and the disconnection between decision making and that stuff.

LF

I suppose by the nature of what you do it has to be different each time because you're not trying to create a stamp that you're then imposing on all these public spaces. Every time it's new because it's new people in a new situation so you're having to come up with a new way of fitting in with them and working out what they need to come up with what you're doing.

ML

I guess so, yes.

LF

Slightly reinventing each time?

ML

Yes, there are such different types of projects as well. The scale of them. Something which is a huge building and takes years to build is so different from a one day workshop. So the engagement is very different. That's really exciting because we do want to just have challenges and try different things and learn more but obviously it's not the most efficient office model. Because if we were to take on similar projects to what we've done before we'd be much more efficient at them and we could earn more money but we haven't necessarily been doing that. We're starting to think about if we should try to be more strategic. No one wants to but we also should do because we have to become more sustainable. It's becoming better but it could be even better.

LF

Yes, it's such an interesting challenge, because you're pioneering so much and that's what's so fantastic. You're keeping going and everything is new and that's why you're blazing a trail.

ML  
Thank you.

LF  
But then like you say you've got to keep supporting yourselves and you've got to try and find that balance between the two.

ML  
Yes, absolutely. And obviously we might change and that's fine because it can't be the same forever. People's lives will be different in five years time. Who knows?

LF  
Yes, it will be exciting to watch. So with the space, how does the physical space you have around you affect what you do and your process?

ML  
Yes, it's amazing, it's very crucial because it's a place where we can all work potentially every day so it means we spend more time together and are able to continue as a practice. Also the fact that it's a big space with a yard and this element of informality where we can make noise and mess is obviously really amazing because it means we can test things out and approach design in a very different way than if we only had computers and clean space. And the fact that we get to share the space with other disciplines, and bumping into them and looking at what they're doing, learning from other crafts, it's really amazing. It's very crucial.

LF  
Do you have ideas of where you might go when you pick up and move? Are you looking at other places?

ML  
Yes, we're looking at a few places. It's been all a little bit vague. We might have a potential lead, so we're exploring that now.

LF  
Are you going to try and keep the same scale of space?

ML  
Yes, ideally even expand. I can give you a little book actually about our ambitions. It's called Open Studios. I'll just get it. This is what we're giving to people with land and buildings with money but also just setting it up for ourselves, what we want to do. This idea of having a huge space where even more disciplines can share facilities. It's pie in the sky, but we'll see.

LF  
Oh! It's making me think of Joan Littlewood and Cedric Price.

ML  
Oh yes, the Fun Palace.

LF  
Oh. You're going to build a massive Fun Palace!

ML  
Hopefully. Or we might just inhabit another leaky shed somewhere.

LF

That seems like such a great idea – producing the brochure. It's helping you all put down your philosophy of what you want, your ambitions, and then being able to go out and communicate that to others to support you.

ML

Yes, basically. Exactly. How you communicate these things is so important. Everyone has their own motives and you want to seduce people with opportunities with this.

LF

That's lovely, thank you, I'll go through it, it's so exciting. Just a couple more questions now really. What core skills do you think you need to be a part of Assemble?

ML

It's difficult because obviously when we came together we were just friends or people who knew each other, studied together, we didn't have that many skills. Obviously we had the kind of base. Well most of us had some basic architectural training and way of thinking about things but we definitely learned skills as we went along. Because when we got together it wasn't to set up an architecture practice it was just to do a fun hands on project, get something done, play around and it was not an intention to set up a collective. And so that's why it's evolved a little bit organically. You need to be entrepreneurial, work well with other people, and some people's skills are so different. Some people are so good at making things. Not everyone is at all. We all learn. Some people are really good at thinking through business plans, or I'm good at narratives, presenting a project in a particular way. Some people are better designers than others. But there are tendencies that people have and then over time they've developed and improved.

LF

So everyone has just had the room to develop as you've gone along to see where their strengths are and how they fit into those roles.

ML

Yes, and a lot of us did study together as well, so it's as if it's a kind of year group, with a few other people mixed in.

LF

So how many of you did study together?

ML

Gosh, quite a lot. Since the first project a few people have gone off to get real jobs. I think to begin with there were about 18, and out of those about 15 studied together. And now there are 15 of us. So 12 of us studied together.

LF

That's amazing for the course. How incredible! They must be loving it. "It's not just one person, this is our entire course". I'm sure the marketing team are very happy about that.

ML

They're a little bit crap. Not crap, but... It's funny, because a lot of us teach now, and I feel some of the universities that we teach at have been better at exploiting our...

advertising our success than our own university. They are very supportive and they are very proud but they're just not very tech-savvy.

LF

That is amazing though. Because the last questions are about education and the process through education and what you think education could learn from Assemble and how you work. Also I'm quite interested in what education system you all went through to get you all to where you are now.

ML

Yes, we were quite lucky. Our education was quite focused on the public. Thinking as well as just producing. It was friendly architecture. The focus when we were there at the time was not about being a 'starchitect', it was about trying to understand and engage with a place. And we did do a few bits of making as well. But I don't know. Maybe it was the environment as well, it was quite a friendly one, it wasn't too cutthroat. Some schools are very like that. And it attracts a mix of people as well, which I'm sure every school does. Some who are much more academic and others who are drawing much more.

LF

And a lot of you are teaching now as well. So you're obviously seeing education first hand now at the same time. Is there anything that you think in what you've developed here that could be taken back as a useful way of working in education? Perhaps you're seeing it happen or not?

ML

I agree with you about space, and having that luxury of making a mess and meeting people from other departments, seeing what they make and just getting on with stuff. I think it's psychological as well. There's a lot of feeling that you don't have time to experiment, or this is the end of the world if you don't have this thing by tomorrow. Because I remember being like that at school and it was a bit stressful at times. And the emphasis on success and failure which some schools have can be a bit unproductive. Because we started this in our free time there was that luxury of just tiring it out and it doesn't matter if it doesn't work out and just seeing where it takes you, which you don't have in the office. But it's also a feeling you don't have at school sometimes, and you pay so much for it now. When we studied it wasn't that expensive, it was just the beginning of top up fees. So I don't know how you go around that. Because if you're paying for it then you obviously don't want to see it just go to waste. I don't know.

LF

Yes, I think that's key. It's coming up a lot with the other studios as well. One of them, Punchdrunk, who are performance based, are really interesting because it all came out of experimenting, not worrying about failing, putting on shows to 200 people and it didn't matter because they were developing ideas. And suddenly they get to this point and they've got a million people coming to see a show in New York which is unfathomable. But what does that do to a small creative group who just want to experiment? The pressure that's put on them externally is massive. How do they free themselves from that and still be in that mindset where they can make mistakes? I'm hearing it from other studios as well. But also students now as well feeling like they can't fail and they can't experiment. And yet it's that mess where perhaps you don't know what you're doing, but you're just doing something that's really interesting and experimenting, where the most exciting stuff comes from. The question is how do you hold on to that, or even give it to people in the first place?

ML

Yes. It's crazy. Maybe it needs to have a day a week dedicated to something like that. But a lot of people work as well as studying. I don't know. It's funny. I went to see Google's offices a few years ago in Palo Alto and they were saying that employees there have a day a week where they do something else. Obviously they have the money to afford that sort of stuff and it's that corporate approach but still trying to maintain that mind openness to other things. Because they realise it benefits your work in the end. So I don't know how universities can introduce that but it would be good. Sad.

LF

Yes.

ML

But maybe starting to deal with at least a space which is like that. I teach at Central Saint Martin's and it has really good facilities but there is also that management control. I think just because of the sheer numbers of people. You have to timetable everything in and there are just not enough resources to go around. It's just like Casualty.

LF

Yes, it's scale. That's part of the problem. The schools becoming so large, it's a vicious circle with fees and size. You need the money coming in to keep feeding it. And the more students the more you have to timetable them and rotate and hot desk and you suddenly lose that chance of holding it together.

ML

Yes, exactly. Hot-desking. There's no studio space any more. That culture of just being in the same place.

LF

It's the complete opposite of how you're functioning here.

ML

Yes, we're so lucky here. But obviously now that we're moving and looking for other spaces there's even more realisation of how amazing this is. It's not impossible but London is hard.

LF

Yes, to find this here? What about out in the countryside? There are plenty of barns where I live, it wouldn't be a problem.

ML

Where do you live?

LF

On the Welsh border, in Ludlow. But then you're a long way from anywhere.

ML

Some people have moved out and it is something we talked about. We're a little bit divided. Some people aren't prepared to do that.

LF

It works in some ways but then it cuts you off in others.

ML

Yes, it depends on what you're doing and who your clients are. But it sounds nice though, being in the countryside.

LF

So the last question is on design education. Obviously architecture is a different route. But what are your thoughts on uni-disciplinary design courses? Do you think they are still relevant? Or would something more fluid be more appropriate based on the experiences you have here and with your teaching?

ML

I guess so, it's hard to know, because on one hand yes, definitely, with the foundation years having more fluidity... I think some courses already do, because fine art doesn't mean anything. Everybody does so many different types of things. I don't know how... In the other way something like architecture... Yes, I think it would benefit from having more influences in terms of making and thinking but it's also difficult to compress the basics in so short an amount of time. I'm not really sure, but sometimes I get frustrated that students quite early on are taken on different tangents but they haven't learned to do things well. And haven't understood the basics. But on the other hand it's really great when they do experiment because that takes them to new paths. I don't know. Maybe it's figuring out the right time for everything.

LF

Trying to find a balance between the two. Making sure they get the basics but then also getting that exposure?

ML

Yes, absolutely. Exposure, so they know they can move on to something else. Because there is also so much bad architecture being built, bad quality buildings, which isn't necessarily to do with designers but maybe to do with the contracting and budget and planning systems or whatever, but it would also be good to teach people how to make things well. There are lots of contradictions, I don't know. The kind of stuff we do doesn't always answer those problems. We approach it in different ways and we explore different types of themes and some of our stuff can be beautiful but I don't know if we're the best architects yet to design good quality, affordable, mass housing. Maybe we are? But there's still a lot to learn about the basics. I don't know.

LF

That's great. It's not easy is it? I think what you're saying is that the basics are essential, but then it's being able to have that experimentation around you, surrounding you, or available at key times. And trying to explore that.

ML

And maybe not every school has to be the same. Maybe just having more options as well.

LF

Yes, it seems like everyone is trying to do the same thing.

ML

Yes, it's funny. Whatever is on trend.

LF

Brilliant. That's lovely, thank you.

ML

I'm glad it all happened in the end.

LF

Thank you. It's been really helpful.

END

**Interviewee:** Collective interview with eight studio members (C)  
**Interviewer:** Lara Furniss (LF)  
**Date:** 16.06.16  
**Location:** Assemble Studio, London

**Notes:**

LF

How do you define yourselves if someone asks you what you do? Do you have different answers for different people?

C1

Yes. It's always difficult because we have had it hammered into us that architect is our title, so it's kind of awkward. It's more natural to describe ourselves as part of a collective. I give a kind of vague answer that is I am part of a collective that design things and make things. Otherwise I just give the official spiel that is on the website.

C2

I think that is the general consensus, what we have on the website. After the Turner Prize we had quite a big conversation about it, because there was a lot of press asking 'what are you guys, are you artists, designers, blah, blah, blah'. We had this big lunch time discussion with everyone going round asking how do you describe Assemble, and the most popular one was what it says on the website – 'A collective who work across Design, Art and Architecture'.

C3

It also depends on what kind of relationship you want to establish with that person.

LF

So you might tailor your answer to a potential client, for example?

C3

No, it's just that people react differently when you say you are an artist or designer.

C4

I think the easiest way to describe what we do is through the work, and so we talk about the projects that we've worked. I suppose that's skirting around the issue.

C5

But if someone says what do you do, what do you say?

C4

I might try and describe what I'm working on.

C5

But you don't start with that? If someone comes up to you at a party and they say 'hey, nice to meet you', 'I'm Louis', 'what do you do?' 'Currently I'm ....'. Is that what you would say?

C4

Yes, probably.

C5

So you wouldn't say you are a creative entrepreneur?



C4

Yes, I might. 'I'm a creative entrepreneur living in the knowledge economy'.

C6

What do you say Louis?

C5

That I'm a builder.

C1

What do you say Jane?

C7

I'm finding it really awkward recently. I just end up doing an awkward pause.

C1

What comes after the pause?

C7

It depends on how I feel each day – 'oh, well, today I build children's playgrounds'.

C5

I think I just hate that people haven't heard of Assemble. You say 'Hi I'm part of Assemble', and they say 'what's Assemble?'.

C1

What do you say?

C8

I say 'I do the finances and admin and general office stuff for a collective of architects, artists and designers'. And then I'd say 'oh they do stuff like adventure playgrounds'. I always use that example. It's the first thing that comes into my head.

C5

Because it's quite straightforward isn't it. 'Adventure playground, yes I know that, cool'.

LF

Great. I think that's everyone.

So the next question is about the evolution of the studio, and how it has evolved. Maria mentioned that you were having a summit in March, that might alter the direction a little bit?

C1

Well, I guess we didn't really have a clear basis for forming Assemble. We didn't have a particular direction. We didn't say 'lets form a practice like this and do this kind of work'. It was mostly formed out of a single project that kept rolling because we really enjoyed that way of working with each other. I guess the summit was the first time we had very formal conversations about what we imagine the group to be and where we want to go. We've done it more informally in the past, and usually in relationship to a particular project, like 'I don't imagine that is a kind of project that we would take on'. So, I guess it's more formalised now, but it is still very much an aggregate of what everyone wants to do at a particular time, rather than there being a really clear goal that we are aiming for.

C2

I think in the summit though it was quite an enormous mountain we set for ourselves.

C1

I like your metaphor! (laughing)

C2

I think we have been very settled in our way of working for the last two or three years. So we are now starting to interrogate that and people wanting different things from the practice. We haven't been very quick in enacting the outcomes of that. But, the discussions went on for a long time. Three days of solid talking. We would have to stop ourselves at midnight and say 'No, we have to go to sleep!' But it was really good to talk about everything and we did come to a shared way of moving forward and how we want Assemble to change. But actually how that works bureaucratically and setting up the rules for that is taking quite a while to sort out. Partly because of managing it along side earning money, so it takes a bit of a while. But eventually we will get there.

C3

We have a 70-page....would you call it a dossier?

C4

Definitely a dossier.

C3

Everyone put it together on different issues and different people sharing different discussion.

C5

It sounds really boring but it was actually really fun – punctuated by food and stuff.

C1

In a Scottish castle.

LF

So you actually went away?

C1

Yes, and without internet – not on purpose.

C5

I think I had a bit of 3G.

C2

Not to get too soppy, but the thing that was really great was realising everyone's commitment to Assemble and that people are in it for the long run, well for the next five years at least. Being able to take a bit of a longer-term view.

C6

I guess, in a practical sense, the arrangement is that we all work freelance. It feels like that has kind of suited us to date, and people can do what they want. There is a kind of unspoken obligation, apart from with the finances etc., we essentially act as independent groups of two or three at a time. Increasingly that is becoming more difficult, especially as we have got projects in different places. I guess one of the

biggest challenges that has been tabled was to become less freelance. I don't know if that's an important issue or not.

C7

I think one of the things that is particular about Assemble is the fact that everyone is the same age, so in terms of things like babies and families it means that we have been able to change the way we work in quite a directed way for such a large group of people which I think would have been a much bigger challenge in other circumstances.

LF

So are all of you here from the Cambridge course?

C1

About half the people here are from the course.

C5

Is it three quarters of the office? Then there is the blurry edge of people who haven't really been working for Assemble but sometimes attend reviews. And then there are probably 4 or 5 more people (who didn't study at Cambridge).

LF

So it seems like the main thing then was for you to remove some of the freelance nature of what you do, to give you a more secure base, and then to look long term and work out how you can continue as your needs change?

C4

Yes, it's trying to find a system that better reflects what we want from each other as a group, what we want being a member of Assemble but also what we want as a job.

LF

So, with the evolution of the studio, I know you are looking for a new space. Have you got that fixed yet?

C2

September is the deadline, when we get kicked out of here. It was originally July.

C5

We are probably going to go to Bermondsey, the area.

C1

Which is ironically a school building.

C2

When you were saying earlier about space being really important, because this is part of a much larger development, to save on security, the landlords have let us be here as guardians effectively, and we get really low rent. But it's short term. So we are going to another similar scenario in Bermondsey where it is also part of a much bigger development and they have already evicted the previous residents. We are coming in on a mid to low term rent, lots of space, but it is relatively unstable. It's a relatively short-term thing.

But what we are working with at the moment, which is our longer-term home, which is still in negotiations, which is great. We are working with Haringey Council, and they have a property that they are trying to develop. This is top secret at the moment.

I don't know if the leaseholder knows that we are involved. But we are hoping to have a much longer-term lease there.

C3

It has been amazing and so informative to have had this space. We could have easily done more kind of Architecture projects. But we had this luxury of space and there was this really informative moment when we were doing research for another workshop project and the people we met (like Steve) mentioned they were looking for space and it kind of all came together. Its really transformed Sugarhouse, in the sense that it is a real resource, which is provided for in collaboration with someone else. It gives you a sense of gravity and it's a resource that attracts other people. So it's not just a set of studios, which are completely separate from each other. I think that's really changed the feel of this place. It used to be quite lonely here.

C6

Having the carpenters and also the art house has really changed the character both of the way that we work here and that we are among lots of other people doing interesting things.

LF

So do you hope to carry that on into your next temporary space in Bermondsey?

C1

Yes, we hope so. It would be great to have some ceramicists, a metal worker.

C2

It will be bigger than what we have at the moment. That's why we are looking for somewhere really big and really cheap, which is not easy to find.

C3

But it's also great because a couple of the carpenters have started to run classes in the evening, carpentry classes, using the front of house, and it would be great to encourage that more with the tenants.

LF

The next question is looking at your process. How do you describe your process?

C5

We have design reviews every Monday evening and we have just moved to a new system actually. Because people work in pairs on projects generally, the review is an opportunity for the wider group to see what is going on on projects.

C4

The way that most projects work is that we have a buddy system with two people. Then they are responsible for liaising with the client, making sure the project is going ok. Then they involve other people in the group at different times when a project might need some help or has a big deadline. So there is a degree of independence that each team has. Then there are these broader group discussions but also occasionally projects need a charrette or a group design bit at the start of a project. But it depends a lot on the nature of the project.

C2

It's quite good with the new system we've moved to with reviews, because I think we all felt that the way we were reviewing things was that there would be someone presenting, everyone else watching. It wasn't like you were working through things

together. So now we have lots of smaller groups happening at the same time, and you sit down and look through the drawings together, have dinner, and it's meant to feel more like a tutorial than a review.

C3

Also, because the first couple of projects we worked on all together, as a big group, I also felt it's quite important as when you are in a one or two person team you have quite limited resources and experience as well. I think those first projects only happened because we were such a big group, it made it possible. I guess it's more difficult when we are working on more formal conventional projects. But ideally we would have everybody working on every project. The good thing about the reviews is it is like being at architecture school, in that you get a lot of input from other people, but it also replicates the bad things about that system in people just critiquing a particular process or design and not really being constructive. I think it is always a challenge to try and work out how to make the most of everyone else.

C2

Also, in terms of design process and methodology we also use the space a lot. We will test things out by making one-to-one mock-ups of things as part of a lot of projects even if we will not be building the things ourselves, in terms of developing what the design potential is of a certain material.

LF

That leads on to another question, looking at the importance of the space. It's clearly a fundamental part of your process. Will you keep it like this, with making at the heart, when you move?

C1

Yes, and that room (next door), although it looks really chaotic, it is crucial. It's difficult for us to manage it, but it is really useful to have access to it to make bigger things. And it's the same in Yardhouse, where they have that shared bit in the middle that allows them to move out of their studios and make larger things and test things. In Bermondsey there is a space in the middle like that that we can use.

C3

I guess we are debating exactly how that space is going to be used. It does feel the same and it is really critical to have that flexibility and ability to make big things without the pressure of having to hire or pay for a large space. And sometimes it is just used to make small models. It is a luxury.

C5

It was also used as a factory to make all the tiles for Yardhouse which took over for a month or so, and then that's an amazing potential to have that space.

LF

Are there core skills you think you need to work in Assemble?

C2

I feel that having worked in Liverpool, trying to set up a group, and trying to translate some of the things that have worked really well about Assemble, it's really, really difficult and I think you forget how amazing it is and how unusual it is to have such a large group that function together. I think a huge part of that is about the friendship that underlies the working relationship. People have a lot of patience and understanding for each other which is really difficult to establish in a purely

professional workplace. I feel like that is a totally fundamental part of how Assemble work as a group.

LF

So that would have been well established for those of you who studied together, but what about the three of you who didn't study at Cambridge?

C7

I'm related to Eleanor.

C8

It's fine. Everyone is pretty friendly.

C1

It was the first project really that brought us all together. A lot of us studied together, but I think going through the first project all together we had to decide and question so many things about what we wanted this place to be like and what type of environment was affordable and who would build it. We now have a shared reference point which is really useful for other projects. And it was a massive bonus that it was really great as well, so it's a good memory.

LF

So your first project went very well?

C4

Yes. And partly because it doesn't exist any more, and it was well photographed and well documented, it feels like it was a success if only because a working relationship was sustained beyond it. It wouldn't have happened otherwise. It was the project that spawned the group, not the other way around.

C2

I guess now it is just accumulative. It's been six years.

C4

Of patience!

C3

It's easy to forget how crap some working relationships can be.

C7

We started out wanting to have fun. We went to Venice.

C4

That was fun. And the summit was fun.

LF

Where was your castle?

C2

It was more of a glorified cottage, near Sterling.

C1

And we have parties. We are going to have a party in July and a final demolition party, maybe in September.

C5

We have a football team as well. We play in an architecture league. It's called the Architecture Football League.

C8

It's actually a little sexist. None of the girls actually play.

C2

We played rounders together a couple of years ago.

C5

We have a table tennis table as well. We made it and it's pink. It's actually not flat.

C1

We also play games at the end of lunch. Shall we show you. This happens every day after lunch, it's to decide who makes tea or coffee.

(Assemble play the game – guessing numbers - and each person gradually gets eliminated. LF takes photos. At the end the loser gets up to make the drinks but realizes they don't have any milk. So, they go out to get some while the interview continues).

LF

So the last question is about education. Is there anything you think education could learn from how you work? When you are teaching is there anything you have observed?

C8

One thing I think students don't have is space that they can occupy. Where they can populate and be a bit rough around the edges. Where we teach it's all quite corporate and we are not corporate. The space needs to allow for messiness, experimentation and chance.

C3

I feel like what Sugarhouse and Assemble supports are some of the best things we had in education, like space and facilities and also people who have specialities in other fields. But those are qualities that seem to be leaving education. It's rare that any university is expanding their workshop facilities. I think that also builds a worrying sense that in a city it's often only the universities that have those spaces and facilities, like amazing ceramics and glassblowing facilities. They are the things that feel worth keeping hold of.

C6

I think the thing as well is that there is an onus on the individual, the creative individual, across all the creative industries, not just architecture. Maybe you did group work at the beginning or something. And there's a lot of focus on the student and the tutor and how that works. But I don't think there is that much scope for recognizing the way you work with your peers in the broader sense. Portfolios are always made individually in isolation. I think it would be nicer to recognize that when you actually practice, and do what you want to do, it is always with other people. I don't know how you do that though.

C1

The increase in fees puts pressure on people to achieve something at the end so they can't really relax.

LF

Architecture is clearly run and managed differently because of RIBA, looking more broadly at design education, what are your views on the uni-disciplinary structure. Do you think it is still relevant?

C3

Personally, I found the Foundation by far the best year of my life, in terms of an eye opening experience. So definitely in architecture that's quite unusual. They normally go straight from school. But, I would make the Foundation mandatory.

C8

I think also it's about freedom full stop. From leaving schooling to being creative is a massive change.

C1

I didn't do that much work when I was doing my Foundation, but I had the feeling the world was for exploring.

C2

I also think a certain maturity is really helpful. By the second or third year of a design degree it is very self-directed with what's expected. You see a lot of students really struggle because they are just too young and they have had a very, very didactic form of education in school with what's required to tick the boxes. And to go from that straight into a degree is really difficult for many students. I think that's why the Foundation is amazing as there is not that much pressure on it in terms of marks or anything. And as they say, 'try before you buy'.

LF

So how many of you teach? Are you all on architecture courses? (about 5)

C8

We have a role in Liverpool that we haven't really started yet, as a multi-disciplinary, at John Moores.

LF

Are you setting a new course up?

C8

It's very open. They are keen for us to work with different students across different courses and across different Uni's as well. Really, really open.

C2

Primarily between architecture and fine art courses. It's quite difficult because we don't actually know what our role is or where to focus our attention.

C3

It's also quite hard because we are not that involved in the institution, it's hard to see how we can fit in with different schedules. We also haven't really started it properly.

LF

Lucky them! So will you start in September?



C3

It's a position we've had since January. It runs January to January. We have a certain number of days running across the year. We started by having open tutorials with any students from any course for us to better understand where students are coming from, in terms of fashion versus graphics etc, and to get a sense of what was going on in the school. We thought we might find we have a different set of conversations with different students. But we have not really acted on what we have learnt from that yet because that happened while the students were gearing up for their degree shows. Most of our teaching will happen between September and January.

LF

I will look and see what they have put on the website about what you are doing.

So that's it. Thank you.

C2

We will look forward to reading your conclusions.

C1

So, with the people you have been speaking to, what are the issues within Undergraduate education?

LF

With the drop in Foundations and the drop in creative teaching at primary and secondary school, the three years at undergraduate are going to be even more crucial. So, should students go through those three years of undergraduate thinking 'I am a Graphic Designer', when the design world is so much more fluid?

There are so many common threads coming up between the studios already, space being one of them. All five studios had a making space like this at Assemble to establish themselves. Punchdrunk have all been about making, but they are trying to consolidate their spaces and move into one big space.

C1

We know where it is!

LF

I think they have realized that they need to do what you have done and all come together into one big space.

C3

How many of them are there?

LF

About 15 – 20, but that is going to change and grow.

So some of the key themes coming up are taking risks, play, mass collaboration, a creative process that is much more fluid, being allowed to be free and experiment. But, as you mentioned, the fees make these really difficult. Telling someone who is paying 40K to take risks and that failing in the creative process is a good thing, and they look at you like you are from Mars. How do you change that mind set?

C4

That's a huge psychological barrier for the students.

C1

Not only the students, but also for the teaching staff, being cut so much. That's the ideal I suppose, that people are free to go and try things out and learn with great facilities and support for what they need. But everything is being squashed massively (in the creative subjects).

C4

Academic wages are also very low in the UK. They are higher in America.

LF

I think space is a big thing. As you said we have these corporate buildings now, where students can't make a mess. You need that workshop space where you can have that fertile cross-over that you have here. It makes so much sense. But many universities don't have that.

C5

Also, university buildings have become such marketing tools, attracting students from all over the world, getting massive numbers of students in. It does feel that that is a huge part of how university buildings are designed. It's the image of the university or the student experience.

LF

Yes, big atriums and corporate banners hanging down.

The last thing, linking to the first question I asked, is that none of the thirty odd people I have interviewed can define themselves or their studio easily. If that is a true representation of the creative world now, that it is not easily definable, do we create a wrong mentality from the start by how we label courses? Courses in Europe, like DAE don't have design discipline labels in the titles. It's all Man and this, Man and that.

C6

One of the courses is 'Food, Non-Food'.

C1

So what do they do?

C6

This guy applied here and one of his installations was he had a bag of wine and a tube going up his nose connected directly to the wine. He was doing a talk and I think the intake of the wine was controlled by the audience. It was part of his Food, Non-Food course. He was getting drunk during the talk.

LF

That's brilliant. So maybe it will have to fall to independent art colleges to take the risks with the names.

C1

It's funny though, it's not just in schools. It's about people feeling they can take ownership of a place and have free access to it. If you went into student houses where people have moved out and they are living in a house that the landlord doesn't care about and they can do what ever they wanted, versus students living in student accommodation. The ones in the houses would be amazing, filled with stuff, really messy and filled with pictures and peoples things. All the student accommodation was all the hallways were really clean, with perhaps nothing in them, just a fire

alarms, and all the rooms were a bit crap. It's the same I guess if you are renting or you own somewhere. You can just make nicer places.

LF

Yes, everyone needs to take ownership and put creativity back into their local areas.

C6

So what are the cuts happening to primary and secondary education?

LF

The EBACC is the main thing in secondary, where creative subjects have been omitted from the five key pillars of learning. You can only take one creative subject at GCSE and it is not seen as a primary 'pillar' subject. It's regarded as inferior. Creative subject departments are being cut and the staff laid off. Some Universities are saying they won't count a creative subject GCSE towards the points to go to university. Time for creative subjects has also been reduced in primary schools with more and more emphasis on SATS and time spent on English and Maths. One college I have been talking to, Hereford College, who are independent, have applied for funding to start up arts clubs in the county of Hereford to start addressing this. When I interviewed the D&AD they were talking about developing a mobile unit to travel the country to promote creative subjects to 14 and 15 year olds to try and encourage them to choose creative GCSE subjects. The RSA also seem to be doing things like that. Everyone is concerned, but no-one seems to be joined up about it.

Government is not going to support creative education, so it's about looking for the alternatives. And if somehow students do go to university to study creative subjects, what are we going to teach them?

C3

There is this really good book called 'Inventing Kindergarten' (by Norman Brosterman) and it's about the Kindergarten system created by Froebel. In it's original form it directly influenced Modernism and the Bauhaus, Frank Lloyd Wright and Corbusier all went to Kindergartens. It's a really seductive argument. It probably glosses over much more complex things. But it is amazing.

LF

There are people like Sir Ken Robinson talking a lot about the importance of creativity in education, and cross-disciplinary ways of looking at things and how creativity should be fed into every subject so it shouldn't be seen as an add on.

C1

Yes, it's funny, this is going to sound so negative, but my boyfriend has a Doctor in Philosophy now and he really struggled to get a job in Philosophy because it's being massively cut. He's trying to be a teacher now, and training, but he is also training to be a teacher in English to be more employable. There's a general lack of value over those areas of thinking when they are so important – arts, philosophy – all those areas that allow people to think more freely about things and to question things. It's not given the same value as more scientific subjects, it's a shame. I don't know how we ended up veering towards that direction. Maybe because the other seems more quantifiable.

C6

There's a lot of talk about the creative output of the UK and the value that that brings to the economy and attracting people to come here. I have heard people talk about that in politics.

LF

Yes, it makes no sense. The Creative Industries Federation, the All-Party Parliamentary Design and Innovation Group, Nesta and many others have all written reports and sent them to the Government and the creative industries bring in more money than the financial sector. It doesn't make any sense.

C5

I know what you mean, but it's a shame to talk about creativity and only talk about the arts because you do get creativity in other subjects like maths and science. People in the science and maths industries are suffering because they feel that they are not being paid to explore and experiment, they are being paid to develop certain products. They are also creative subjects if you play around with them.

LF

So it's happening in those areas too.

The STEAM agenda is positive, trying to put the Arts back into the STEM subjects. At a Design Museum talk this week, a lady from Rhode Island School of Design talked about her campaign to force the American government to give equal support to the arts and she succeeded. It took five years and she created a map of where STEAM was happening all over the world to show as evidence of how the arts are being valued. Now she has secured the funding and the next challenge is who will get the money and how it will be spent.

Thank you. That's everything.

END

## Appendix 17: Beyond Discipline Symposium transcripts

**Date:** 13.07.17

**Location:** Punchdrunk, Cannon Factory, Ashley Road, London N17 9LH

**Attendees:** Alexandra Rowse (AR); Pete Higgin (PH); Colin Nightingale (CN); Jessica Banting (JB); Julie Landau (JL); Livi Vaughan (LV); Joanna Jarvis (JJ); Lawrence Green (LG); Gareth Williams (GW); Hugh Heatherwick (HH); Mark Burrows (MB); Martin Robinson (MR).

### 1. Introductions

LF

Before we get started, it would be great if we could go round the room and if you could introduce yourselves and briefly explain why you are here this afternoon, that would be really helpful.

JB

I'm Jess, I am now a full time designer here at Punchdrunk, for the last 5 weeks. I have worked for Punchdrunk on and off for the last 8 years freelance. I think it's such an interesting premise, and I would like to learn about how we could instruct our future designers

LV

I'm Livi Vaughan, I'm a senior designer here at Punchdrunk. I'm here because Lara interviewed me and I'm really interested to hear your findings.

CN

I'm Colin Nightingale, I'm Creative Producer at Punchdrunk, I'm curious about this because the intersection between design and architecture is something we have been playing around with for a long time.

JL

I'm Julie, I'm a freelance designer at Punchdrunk and I designed the Greenhive Green project, which is the project that Lara saw.

AR

I'm Alex, I'm the Producer of Punchdrunk's Enrichment programme, which is our learning and outreach work. I worked with Lara on her observing of the Greenhive Green project for her case study.

PH

I'm Pete, I'm the Director of Enrichment and Director of Punchdrunk Village where we are sat today. Welcome! Why am I here? I was interviewed by Lara, and anything about design, anything about creative education is always of interest. I'm fascinated to see where you have got to.

JJ

I'm Joanna, I'm a colleague of Lara's, and a fellow PhD student, and I'm also here as moral support. But, I realise I have been teaching undergraduate students for nearly twenty years now and in that time I have seen an enormous change in the attitudes and expectations of the students when they arrive and their lack of understanding of their own creativity. To me, Lara's research is so important for us so that we don't become a really weak link in that chain that takes students from school into careers doing all the exciting and creative things that all the people in this room are doing. So

I'm following her research with fascination and I don't think it is possible to overstate how important it is.

MR

I'm Martin from Jason Bruges Studio, I'm Production Manager. I think this subject is a personal quest of mine to maybe understand better the route into the creative industries.

MB

I'm Mark, Head of Making, rather a grand title for a Workshop Manager, from Heatherwick Studio. I'm here because I spoke to Lara.

HH

I'm Hugh Heatherwick from Heatherwick Studio. My interest is from one point of view education cradle to grave both formal and informal, and whether organisations actually connect up and value creativity from that point of view. And then from this other point of view I'm interested in how design and so called creativity manifests in studios and how one establishes organisations and professional development systems that are considered really useful and not just necessary from a top down point of view. So, again, as you were saying, I find this research fascinating and I'm really interested to see how it evolves, much further, after the completion of the study.

GW

I'm Gareth Williams. I've written a lot about contemporary design practice, and felt for a long time that boundaries are breaking down and that design is not disciplinary focussed. Along the way I met Lara and she invited me to be part of her supervision team for this PhD. Now I am Head of Design at Middlesex University, so I obviously have a huge invested interest in how we learn lessons from this study to teach people to entre the creative industries in probably new and different ways than we already do.

LG

I'm Lawrence Green, I'm Director of Research in Art and Design at Birmingham City University. I'm Lara's Director of Studies. It's been a great pleasure to be on the team and it's good to see it culminating in getting the results out now and hearing your reactions and responses to it.

**2. Presentation** - At this point the research findings are presented

### **3. Discussion**

JL

I think it's quite reassuring, what you have said. Because it feels like a more formal way of going 'oh, yes, doing what I feel sometimes is a more haphazard way of working is actually what other people are doing'. Livi and I both did courses where we came away thinking 'oh, I'm not sure if that was a proper educational experience' because we were left to do some many things, to design and make and experiment and work collaboratively. But actually that has been so helpful. So it is like 'oh yes, that was quite good, and it is what other people are doing'. So, I have found your talk really reassuring.

CN

I found it fascinating that you have found such similarity between the things that are important across all the different organisations in terms of skills and that the social skills, and people actually being able to communicate, was the top thing we are

looking for. In the journey I have been on with Punchdrunk, I am not from any formal arts background at all, and I fell into this world and I had to harness at the beginning working with a lot of volunteers and trying to work out how to make things happen with very little resources. Often it was the people that could actually communicate with us and who we could share our vision with, that we could actually work with and create something with. The idea that technical skills, being able to use CAD and things like that, are actually nearer the bottom of the list is fascinating because I have sometimes felt like a fraud in the world that I work in because I haven't been through anything formal before hand.

GW

I am quite lucky because I have actually read the case studies that Lara has written about all the different practices, and I can attest that it really is the case that the questions are the same and the structure of the case studies is the same. You can go across and between them, and there are quotes from you in there and you could lift those words and the language would be exactly the same, regardless of what the nature of the studio's predominant output is. The way you talk about things is the same, and I was really struck by the similarities and not just the way the practitioners talk about their work, but also the original motivations for setting up the studios in the first place and the kind of collaborations you do together, the structural things Lara has talked about, with relatively flat hierarchies, the common ground about how you grow and the challenges with space, they are exactly the same language. It's fascinating. But I can also imagine it's quite unHINGING when your work is described, but it is not talking about the work itself, it's talking about the structure and the scaffolding around it. I think it's a real achievement that you've managed to look inside the studios, beyond describing the outputs which are well known and we know them, but you've managed to identify these characteristics and it's really fantastic.

PH

I think the interesting thing is trying to structure the unknown, ultimately isn't it? Because we are where we got to because of the journey we have been on, and a lot of practices cannot easily be classified. A lot of what we are talking about within education generally is that we have an education system that is designed for a society which no longer exists. We are living in a world where we can't necessarily predict what the work force or what the design process will look like in the next ten years, if you want to be radical about it. So there is something about the education system itself. I know educators would hate us to say you have to keep changing and be iterative, but actually there is a need to be thinking about constantly evolving, not formalising the creation of something when you don't know what it is you want to create yet. And actually some things happen because they respond to barriers and you rebel against it. There's something interesting in how do you create that fertile ground because some of the best work comes out of the most oppressive situations. So it's recognising that and actually would you want to model that? Can you engineer that? What are the best parts you can take? Are we ever able to create the formal structure for the next brilliant thing that happens or is that not the case and should we be embracing what we do now and what we know we could be doing better?

JB

I speak for my own education coming in to this, but what you were saying about feeling like a fraud Colin was interesting, because I feel like even for myself you were asked to choose a role. As a designer, I went to drama school, to Mountview. You do all the disciplines, you do a bit of lighting, sound, stage management, a bit of everything. Very small, small modules. And then you take on core roles. So I always knew I was going to do design and construction. What was really tricky for me was I was in this environment that was allowing you to go across these disciplines to enable

you to understand your own, and to work in the same environments. But, coming to the end of it, they were like, 'great, so are you going to be a designer or a scenic artist or a prop maker?' And I just didn't get it, because I was like 'do you have to be one? Surely it is so much more enriching if you are able to pitch into all?' I feel like I had this traditional learning, and then went and worked with traditional old school designers, and then working with Punchdrunk I had these really strange two worlds that I was flipping from and I felt like a fraud in both of them. You are told you are meant to pick something, and I wasn't picking them. So I felt like a 'Jack of all trades, master of none'. And that felt like a bad thing to me, and that I was a fraud, and actually I am only really starting to learn in the last few years that I am really, really glad I have that, and I do feel like there are more opportunities now to embrace those things. I do think it's really interesting to see where this might go. I don't know how this will work in the future, but it seems to make sense that you use these studios, or artist and designers to help inform how we educate people and how we do it to be more fluid and also to be like 'it's OK, you learn these disciplines and you re-appropriate them to the work you want to do or is required of you'. I don't have a conclusion for that other than to say that it would so interesting if you were able to instil those feelings in an individual going through the system so, what Pete was saying about coming together to evolve organisations, that that is OK, that it is OK we don't have one clear route, because that is where the best things are born out of.

LF

The biggest challenge with our education system now is that they have to choose at 18 (if they haven't done a Foundation) a route, and that they are going to be a this or a that, an illustrator etc.

JB

And you are buying into that because of the way it is set up now, with the costly element. I am aware that students want it so much more tailored to themselves, and that is obviously very difficult in this sort of system, so it would be interesting in even within those structures you could try to instil that sense of freedom in your work and see what is born out of it, and not have an end goal necessarily, because I think that is really restrictive.

MB

I feel in my education I followed a path that was more about rebellion than anything else. So I suppose the question I'm asking is if you supply all that rebellion there as part of the curriculum, what is going to happen to people who want to do the opposite of what is being offered? I would find it interesting to see without the opportunity to rebel, are people going to say 'no, I don't want to look at art, I want to do hard sciences?' And the other question is the forum you have entered in to is very successfully creative people in the art and design world. Did you look at the creative activity that happens in more academic areas like science and engineering? More hard nosed areas?

LF

No, I haven't. I have had conversations about Physics, that initially came up at CHEAD (The Council for Higher Education in Art and Design). I was asked to present some of the findings to about 50 Deans and Heads of Schools of UK HE institutions. The interesting thing about that was that they were all agreeing and recognising that things need to change, that the current system is not representing practice, but that they are not sure what to do. Some have started to think about it, some are already trialling things, and this discussion came up them. Cardiff Met talked about what they are doing, and I have actually been down to visit them. In the last few years they have developed a whole new curriculum following the Physics model, which they



described to me as an 'onion', probably quite similar in shape to what I am drawing, with a core of knowledge in the centre, and the freedom to go off and explore your own direction around the outside. It's really interesting that it sounds similar, and a next step would be to look at creative models in other areas to see what the similarities and differences are between them.

In answer to your comments about rebellion, I completely understand what you mean. If you remove all the restrictions students have to deal with now, what is going to happen? But, my feeling is that it is the exceptional students that have the courage to rebel, to stand up against the system and make it work for them. But the majority of students don't have that. So, my concern is to be able to provide something for the masses as opposed to the ones who are exceptional. Obviously, I heard some brilliant examples during my interviews. Thomas (Heatherwick) explained that he told Manchester Met that he wanted to go and learn architectural metalworking at another institution, and they let him do it. I was in that institution too, and I never had the nerve or clarity to say that I wanted to go somewhere else. It took that understanding of who he was, and what he needed, and also courage and the support from tutors who allowed him to break the rules and go and do something like that. But, I think most students, from my experience, are so ingrained in following the system in school now, without any fluidity or opportunity to break the rules, and they have to tick boxes all the time. The majority of students coming in are simply still in that mindset, and it takes three years to try and get that out of them, to try and re-programme them to not think that way.

GW

Have you posed these questions to your students, in terms of how they might relate to this kind of education?

LF

Not directly yet, although I am trialling it through designing this introductory module discussed in the presentation.

GW

My feeling is we need to hide these ideas within more traditional curriculum design for the really boring and basic difficulty that if you have a really interesting programme that is about multi-disciplinary design no-one comes and does it because no-one understands what it is. If you have Product Design on your course people will come. So it's those kind of really awful disciplinary boundaries are the bricks that HE is built on and if you knock it down, you don't get a course because the students aren't there.

LF

Yes, that's clearly difficult. Obviously you (Punchdrunk) have had many schools allow you in and you have changed their worlds!

AR

I think it's interesting, because I was just thinking about that last idea of there being a creative hub, because the creative hub is the place that you could absolutely control and that is the link that seeds out to this range of institutions you have, whether it's nurseries, secondary schools or universities that are always beholden to those structures and ways of describing things. Because I think with the schools we work with every school use the National Curriculum but they all have such different personalities depending on the Head teacher, the demographic of children and what their backgrounds are, how many have English as a second language etc. There are so many variables. So our approach is very tailored when we are convincing those

schools to work with us. If you have those creative teachers who although they work to the curriculum use it in a creative way. I think it's about how those educators twist and use the curriculum to serve what they know is best for the pupils.

HH

I think there is a need to separate this word creative and creativity, in a way, from everything. Going on a bit from the comments Mark made, your title 'Beyond Discipline' is fascinating because if we look....we sense our environment at the moment, everything I am wearing, touching, absolutely everything has arrived as a result of a discipline, a particular craft and discipline, and is made from a material. So, all I am trying to say is... what you have arrived at is very exciting indeed, but then one needs to go to another level, or a number of levels because what is creativity? One person says 'he's amazingly creative'. I come from a music background. We all have different views on creativity, but there is an academic science to do with 'what is creativity'. So in order to have firm ground I think your hub needs to have interrogated this world, so it's not just the world but the universe, so there is a firm base there. And then we get into Disciplines. If I am using gold leaf what is the creative process, do I know the laws that govern gold leaf? What is being created in relation to that Discipline? It seems to me that both Discipline and beyond Discipline are need in the same place. And then there is a particular type of discipline, that I have worked with in the past, and is here, and it is the immense possibility of using drama and theatre to touch everything, to look at everything. It's something that I have found with communities or individuals, not matter where they come from. So part of the hub has to have the Disciplines in a whole range of creative areas, it has to then have an understanding of what creativity is.... Professor of Creativity or something. But then the other thing that is particularly creative theatre centre, because if that is going to move...if you have councillors who are going to sit there and say 'I don't know anything about that', 'bloody money into fancy stuff.. no'. And all sorts of committees and individuals have got to be moved to say yes we want that to work, and high quality theatre practitioners can actually make this, they can cross over into committees, they can create wonderful pieces of drama that involve difficult people and enable them to see themselves.

So, your first question then, about large and small and scale, it has to be applicable to each discipline. I know with Heatherwick Studio, where Thomas comes from in relation to that. But it certainly doesn't get into the headaches, whether a big headache or small headache, that Mark has had in trying to realise some model or other.

MB

It almost goes back to the V&A work we did at the time of the exhibition. What was exciting about that was the anticipation of blowing somebody's mind. Absolutely upsetting them. I remember taking them to different parts of the museum and showing them the ironmongery, and then challenging them to make a piece of clothing with that as inspiration, so absolutely upsetting their preconceived understanding. Even walking in here, I was imagining it on the way in, understanding that primary school children come to this space. That initial blowing a mind apart saying this is something different.

LF

That's what I'm hoping, to create these moments to blow their minds in primary, in secondary, so they start to open up towards creativity and what that is, and be more open to it rather than the narrow approach it has now. Hopefully then they would end up in this wonderful creative hub, being able to move around, obviously not forgetting the craft and the discipline, but finding their segment within the wheel (the

dimension diagram). Whether they are someone who will always spin around the wheel because that is the way they are, or realise they sit within this segment of 3D design and that is where they fit. So, it's not about not allowing people to specialise and focus, but it is about opening them up initially to what creativity is to hopefully bring them with more open minds, and better understanding, to that HE moment to then find their own place within it.

GW

There is a danger I fear in all of this for discipline itself, with specialist subject knowledge that takes a lot of time, with the 10,000 hours rule to become an expert. So, that is why disciplines are taught in that way. You narrow your focus, you know your subject, you know how to work with gold, you know how to produce a play, you know what you are doing because you have spent a long time doing that. This post-disciplinary landscape you describe, in the time that we have to teach and learn, you can only skate across the surface of a lot of different disciplines and using that phrase you used - 'jack of all trades master of none' - there is a risk of a lack of disciplinary depth of knowledge. So that is the real tension I think for all of this. How do you go down deep and across into the proximity of those other neighbouring disciplines for the collaborative creative moment. That is tricky and I think you are describing some kind of change in education where the disciplinary emphasis comes a lot later, basically a long Foundation, where you try different things diagnostically, where you find where you are going to put down your roots.

LF

I suppose it is the next step on from Foundation, where you are starting to become more specific. Talking to the interviewees within these studios and how they work, it seems to be more about 10,000 hours of creative process and thinking, not 10,000 hours of working a specific discipline. It's more about developing a way of thinking process than specific discipline.

GW

But where does that leave the skill of a particular making method and craftsmanship?

LF

Could it come in a later date when the student is in a position to decide that they want to do that? Do they even know what it is? I think it is a disservice to take students on just to bring in fees. There is also another issue about there not being enough creative jobs for all the graduates. They need to be leaving with creative skills that they can apply and transfer beyond any traditional discipline.

AR

The things people are saying that it is about collaboration, and process and being able to experiment, and those being the things that actually we only get to do once we leave university because that is when you have to do it in order to develop what you want to do, to make a living and survive and set up your own business. I didn't have a design education, although I did do a Foundation, so I am not quite sure how it work. But, if you go onto a degree are you forced to work collaboratively? Do you have the opportunity to work like that? If you are in Jewellery design do you have the opportunity to work on a project with a purpose that you develop with someone from sculpture? Is there any shaking up where you are just chunked in a room with a bunch of stuff and allowed to play?

LF

I think a lot of institutions, from the talks I've been to, are trying to develop those things. Some are trying to weave them into the curriculum but can find it difficult to

move from one department or school to another because of assessment. The university structure doesn't really allow for that. Students who are really strong will get up and say 'I want to collaborate with Jewellery and do a piece of architecture', and usually this is in the third year when students have more freedom to go and do that. So, it's possible and different schools are trying to enable it in different ways. I have been to Sheffield Hallam, who have close ties with Ron Arad's, so it has been really interesting to talk to them. They are trying to develop innovative models but they are not embedded in the curriculum, so they will not be assessed or seen as part of the formal curriculum.

AR

Could that be something, if we are talking about changing the curriculum, if it feels that structure and discipline are still important, is it about having the space to do that?

LF

Yes, having the space, like the hub, to start trialling and testing and working together. That is why I imagine it needs to be part of a wider institution, but separate.

HH

From a technical organisational point, what I have found all the time - from the Studio, the Hereford school, the V&A - you have three types of organisation, but they are all 24-7, and they all have their priorities. So a key element in this is how it is possible to get people even to give their time to this? Our project worked reasonably well, the V&A, but I could go into a lot of detail even about how much time it took getting designers from Heatherwick Studio into the same place at the same time, and even then getting them to think philosophically about the work, allowing time to step back and time to reflect, time to then express. And of course they are all highly skilled people. Then, in the school, exactly the same thing. So the key there was the Head teacher thinking 'hold on, that's the teacher there that could possibly make this work'. So with everything you are speaking about, there needs to be that forensic level of analysis of key people, how they use their time, their evaluation of time, and really focussing, because it is fascinating. What we found with the Hereford project was the good will of the teachers that then came on board with the one teacher and were prepared to do things outside the normal system. And even then there were all sorts of weaknesses. It wasn't the perfect project. So any project that people are involved in, of taking discipline, lack of discipline or theatre into the community or school, the planning of that is enormous. There needs to be an evolution and a revolution amongst teacher trainers, head teachers, senior councillors, asking fundamentally how much time am I prepared to give to this, and then getting them to sign up to it.

MB

It's a good point, because part of your research was everyone coming together and talking about personality, and I think you were talking about it as well. Surely that has to be within the teacher that is passing the curriculum? Is that a challenge? It must be. I imagine it is, to find someone who has that personality that we all search for to work with, to find that in a teacher, and make sure they are in that place, at that time, to blow their minds.

LF

I thought, when I watched the videos of what you (Punchdrunk) did, what effect it had on the teachers. I think I might have even heard teachers saying they were at first nervous about approaching Punchdrunk's work, but how they have grown themselves through the process. So, perhaps if you find a few teachers who are willing and able, then you trial it, and then the benefits start to speak for themselves?

PH

The curriculum is dry, but you build something which can easily help someone hit that. But actually that is just a small part of a more holistic education. Let's face it, the curriculum is boring and agenda driven, but actually we can think of creative ways to go 'OK, that's the Maths done, these guys are engaged with that, they are hitting that, but actually the more exciting wrap-around stuff is what is going to enrich and imbue creativity and engage within the school. I think that is the key. You can address all that stuff in the middle that everyone crunches over, and get your test results, but actually that doesn't mean to say it can't be beautiful and really creative around the outside. So I think it's thinking about everything you are saying there, and it is a lot about not seeing education purely as a classroom set up. But it is about going into this hub you are talking about. Where is the industry in there interfacing with education, where are the creative industries coming into schools, so children can ask 'what do you do?' I will have conversations with nephews, and they ask 'you are an artist?', 'You do that all day long?' and I say 'yes, that can happen, art is not just a weird thing that happens in the art room'. It's about debunking myths that the system sets you up for, that says 'science isn't creative, and maths isn't about imagination'. Maths is massively about imagination all the time. We need to begin to debunk that. My approach with schools is, 'yes, literacy will happen, we are not going to come and do the commas and dot the 'Is' and cross the 'Ts', but you will have a bunch of kids who are so interested and excited about writing and the craft of writing that they will get there and you will be able to put the rigour in there.

I went to a conference recently about this. Teachers teach writing, talking about 'I have got to do grammar, I have got to do rigour, I have got to do everything' and all the weird ways to describe language that we never got taught, all the types of verbs and everything. And actually none of them are writers. I went to the conference and they all said 'no'. I said 'so you are telling people how to write, but is anybody a writer here?' Is anybody prepared to put a story on the table to enable that child? It actually took teachers away to become, and the teachers were very reluctant. So there is something inherent in it. If the teacher doesn't write, get a writer in, or get the teacher to see themselves as a writer. It's about discipline into practice, seeing a real purpose for learning and seeing a real application for something you are doing.

LF

You must then have such a massive impact on that school, that it will infiltrate and spread throughout the school?

AR

The flip side to that is that we are focussing on a particular part of the curriculum, on Literacy. We are using our practice which is very wide on a particular learning objective.

PH

The literacy is important, and it ticks a box, but there are lots of other things the project hits too.

AR

Yes, and we use Literacy as the way in, and get teachers on board to do it, because we go to them and say we are really going to help you.

Yes. I think the idea of 'purpose' is very interesting. Because at that young age when you are in primary and secondary it is all about 'Why am I doing this? For exams? To learn it? But what we all do is, we think beyond the discipline or how we are going to do and we start from a purpose or what we want to achieve or make the audience feel.

GW

Intrinsic and extrinsic motivations.

AR

Yes. That is what they don't teach at school. You don't have the opportunity to flex those muscles at school.

LF

Brilliant. Thank you.

HH

I think it is really exciting seeing where you have arrived at this point in the process. It just needs pushing.

LF

Yes, there is a long way to go. And it is going to be dependent on willing, creative people coming together to do it.

HH

From a structural point of view, the law of the land says at a certain age you have to send children to school. So the education system has a certain amount of money. So it does seem that one point of deeper analysis is how creative education, as you were saying, through the state system, and in an area that is relatively small could work.

MB

It's a much more competitive market now. I went to a school meeting about our primary becoming an Academy and it opened my eyes to the fact that now schools are businesses. The demand for variation I imagine go through the roof if they start to compete with each other?

GW

The marketisation of schools is very dodgy.

MB

I know it's dodgy. I sat there and thought this is scary but inevitable, and everyone is going to be part of a group wanting to make money.

GW

Look at how it helped the creative subjects in HE, with marketisation. It hasn't.

MB

It hasn't? I'm not welcoming it. But there is obviously a change there. Is there any way you could package something up which actually is better than what we have. It seems like there is quite a fundamental shift in education that seems inevitable.

LF

I think it would have to be with a different party in government, because I don't think with everything that is happening with the Conservative government they would invest and focus on creativity in state education. So thank you again for all your time and for all your comments.

END