Renaissance Synthesisers

New Frameworks for Composition and Performance with Early Music Instruments

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Abstract

Situated within the emergent post-HIP scene (which is delineated as part of this commentary's literature review), this project used research practice to approach the questions: what new compositional and performance vocabularies arise from experimentation with Early Music instruments, creative technologies, and mixed or digital media, and how does this practice relate and contribute to broader cultural frameworks? Objects of study included Medieval, Renaissance, and Baroque musical instruments (including modern copies and originals held in museum collections), as well as new studio and performance technologies, film, and recorded media. Creative practice was the primary means of research while exegetic reflection then drew on ideas from musicology, historiography, philosophy, and sociology to refine an understanding of the meanings of that practice. In particular, the project explored the relationship between post-HIP and issues of post-postmodernity. Findings are presented in the thesis' portfolio of concert and multimedia works as well as through this commentary. The project was completed at Royal Birmingham Conservatoire under the supervision of Professor Joe Cutler, Professor Jamie Savan, and Dr Andrew Hamilton. It was funded by the AHRC Midlands4Cities Doctoral Training Partnership.

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Figures

Portfolio Contents

01 Solo for Computer and Tape

Solo for Computer and Tape.mp4

02 Bad Death Ghosts

Bad Death Ghosts – Score.pdf

Bad Death Ghosts.wav

03 Glass Coloured

01 Glass Coloured Part One.wav

02 Glass Coloured Part Two.wav

03 Glass Coloured Part Three.wav

Glass Coloured – Score.pdf

04 A Ladder is Not the Only Kind of Time

A Ladder is Not the Only Kind of Time (WAVs)

01 Walkley Bank Tilt.wav

02 Frank Wheel.wav

03 Plonk Wheel.wav

04 Upper Coppice Wheel.wav

05 Little London Wheel.wav

06 Hind Wheel.wav

07 Swallow Wheel.wav

08 Second Coppice Wheel.wav

09 Roscoe Wheel.wav

10 Wolf Wheel.wav

A Ladder is Not the Only Kind of Time – Digital Booklet.pdf

A Ladder is Not the Only Kind of Time.mp4

05 Earth of the Slumbering and Liquid Trees

Earth of the Slumbering and Liquid Trees – Score.pdf

Earth of the Slumbering and Liquid Trees.wav

06 Appendix

Accrete at the London Festival of Architecture.mp4

Earth of the Slumbering and Liquid Trees – Rehearsal Video 1.mp4

Earth of the Slumbering and Liquid Trees – Rehearsal Video 2.mp4

Post-HIP – New Music for Old Instruments in the Twenty-first Century.pdf

Quartet for a Landscape.mp4

Contents

CHAPTER ONE: INTRODUCTION

Abstract

Chapter One gives an overview of this doctoral research project. I begin by stating the project's research questions and outlining, briefly, my own background as a composer and researcher. The project's scope, aims, and outcomes are then described, as is the structure of both the practice research undertaken and this commentary. Finally, I give definitions for the key terms used.

1.1 – Research Questions

What new compositional and performance vocabularies arise from experimentation with Early Music instruments, creative technologies, and mixed or digital media? How does this practice relate and contribute to broader cultural frameworks?

1.2 – Research Background

This doctoral project originated in three observations that arose from my practice as a composer and performer working with Early Music instruments. These were:

1. that there are a number of aesthetic commonalities between Early Music instruments and 'electronics' (in particular, analogue synthesis and digital physical-modelling processes),
2. that many 'Historically Informed Performance' (HIP) practitioners embrace an ethos and methodology that is liberating beyond that of the classical music mainstream, and
3. that much practice in the Early Music tradition (both historically and today) extends beyond the purely musical to engage with issues in the broader culture.

While I recognised an engagement with these characteristics to varying degrees in existing work, it seemed to me that they were (at least when understood as interconnected) under-explored and that, therefore, practice-led research could offer a number of original insights.

Much of my practice in the years immediately prior to this doctoral project had begun to explore these ideas. My work with the gambist Liam Byrne and contemporary-dance company Rambert Dance, *Body* (2015), for example, set the bass viol against fixed electronics and dance, exploring the corporeality of each (what I have now come to call 'the grain' – see Chapter Two: 2.2.3). In 2017, I was asked to curate a special 'The Night Shift' concert for the period instrument Orchestra of the Age of Enlightenment (OAE) and Historic Royal Palaces. Programming my own arrangements of pop and rock songs alongside arias by George Frideric

Handel, the project aimed to make connections between genres and (in the long tradition of the OAE) to engage with performance models outside the traditional concert hall setting. Finally, my 2018 music-theatre piece *After Violence* (created for performances at the Royal Academy of Arts, Dulwich Picture Gallery, and the National Trust's Sutton House) set songs by John Dowland for analogue synthesisers, lute, non-binary vocalist, and drag queen (Figure 1). The performance explored not only aesthetic connections across time, but also sought to understand the ways in which Dowland's music (re-composed) might meaningfully resonate with contemporary LGBTQI+ experiences.

This background and experience helped refine my understanding of the research questions, aims, and objectives of this doctoral project. Completed at Royal Birmingham Conservatoire, and supervised by Professor Joe Cutler, Professor Jamie Savan, and Dr Andrew Hamilton, the project has generated new insights (both musical and theoretical) of a character and scope beyond those envisioned at its inception. Research has led to the exploration of ideas in novel fields and, on a personal note, has transformed my own practice.

Figure 1: *After Violence* performed at the National Trust's Sutton House in 2018. Photograph by Dimitri Djuric, reproduced with permission of the photographer.

1.3 – Research Scope, Aims, and Outcomes

The ethnologist Owe Ronström wrote that "there are revivals not because there has been a past, but because there is a future to come" (Ronström, 2014: 44). It is this forward-looking quality that characterised this research project. Positioned within the emergent post-HIP scene (which I delineate as part of Chapter Two: 2.3), its aims were twofold: to generate new compositional and performance vocabularies and, by engaging with ideas from musicology, historiography, philosophy, and sociology, to understand the broader relevance of this creative practice. Research, in this sense, was necessarily interdisciplinary, engaging with materials and ideas from fields both within and outside 'the academy'. Indeed, post-HIP (as I define it) intersects with a range of other scenes – post-genre, non-classical, and so on – while HIP (more broadly) was for a long time characterised by its position 'outside' the musical mainstream.[1]

Practice (including studio composition, installation, work with mixed and digital media, and live performance) was the primary research method. Objects of study included Medieval, Renaissance, and Baroque musical instruments (including modern copies and originals held in museum collections), as well as studio and performance technologies.[2] Collaboration was central, as was an approach that (after Barbara Bolt) we might call 'material thinking'. Describing "the particular form of knowledge that arises from our handling of materials and processes", Bolt writes:

> we do not come to 'know' the world theoretically through contemplative knowledge in the first instance. Rather, we come to know the world theoretically only after we have come to understand it through handling. Thus the new can be seen to emerge in the involvement with materials, methods,

[1] I discuss this 'outsider' status in more detail in Chapter Two (2.1.2). Of course, as Tamara Livingston notes, the 1990s then saw "the end of the revival as an oppositional, anti-establishment 'movement' and its transformation into an accepted current in the musical mainstream" (Livingston, 1999: 77).

[2] Noting the distinction between original period-instruments and modern copies, I will use the terms 'historic' and 'historical' following Trevor Herbert's guidance wherein "A 'historic' instrument is a surviving specimen of an old form of an instrument, an antique instrument. A 'historical' instrument is a modern instrument that is copied from or inspired by an older model" (Herbert, 2009: 143). In general usage, I follow the normal convention wherein 'historic' means 'important or likely to be important in history' and 'historical' means 'related to the study of things from the past'.

> tools and ideas of practice. It is not just the representation of an already formed idea nor is it achieved through conscious attempts to be original. (Bolt, 2007; 2010: 30)

In practical terms, 'material thinking' meant experimentation – working with musicians, technologies, and instruments in an open, exploratory manner. The project's methodology could therefore be described as a process of 'thinking through' materials; of a 'hands on', absorbed engagement with instruments, technologies, methods, and ideas.[3]

The project's outcomes are new musical and performance vocabularies and an understanding of their relation to broader cultural frameworks. The thesis is constituted through, and as, a portfolio of new musical and mixed-media works (submitted as recordings and films, with scores where applicable) and a written commentary. The works submitted are:

Solo for Computer and Tape	16'33"	2020	Filmed installation for reel-to-reel tape machines, analogue synthesisers, guitar pedals, and laptop.	Commissioned by The National Gallery, London.
Bad Death Ghosts	11'47"	2022	Concert work for microtonally-tuned spinet and lap steel guitar.	-
Glass Coloured	12'08"	2023	Concert work for 3D-printed Renaissance cornett and Ableton Live 11.	Performed by Professor Jamie Savan.

[3] Bolt is, of course, drawing on Martin Heidegger's thinking on tools. Although beyond the scope of this thesis in their fullness, it might be worthwhile briefly outlining the duality of the Heideggerian concepts of *Zuhandenheit* (or 'readiness-to-hand') and *Vorhandenheit* (or 'presence-at-hand') insofar as they relate to practice-led research (Heidegger, 1953; 1996). Hubert Dreyfus refines these terms in translation as 'availableness' and 'occurrentness' (Dreyfus, 1991: xi). Mark Fell explains that ours is "an attitude of absorbed coping: it is constituted in practical activity and engagement with tools. Here there is no reflexive awareness or thematic consideration of the self and the situation; one is simply absorbed in the present situation. If for some reason this mode is terminated, [we] may enter a state of occurrentness. Here practical encountering of the environment and tools ceases, and theoretical analysis of the situation begins, constructing a self-reflexive awareness of the self and the situation as separable entities" (Fell, 2001: 60). This, I argue, (after Bolt) is the essence of 'material thinking'. Turning to phenomenology, Andy Clark and David Chalmers's model of 'the extended mind' likewise suggests a 'thinking through' tools; that is, they broaden an understanding of 'the mind' to incorporate the material world. Using the example of Scrabble tiles, they write, "One could explain my choice of words in Scrabble, for example, as the outcome of an extended cognitive process involving the rearrangement of tiles on my tray… In a very real sense, the re-arrangement of tiles on the tray is not part of action; it is part of thought" (Clark and Chalmers, 1998: 10). Pierre Bourdieu describes this way of relating to the world as 'practical sense'. He writes, "Practical sense is a quasi-bodily involvement in the world which presupposes no representation either of the body or of the world, still less of their relationship. It is an immanence in the world… a 'feel for the game'" (Bourdieu, 1990: 66). Finally, Fell summarises the distinction, thus: "I want to promote a description of creativity as a process of attunement to the material environment, not an isolated journey further into one's thoughts or mind or soul" (Fell, 2021: 14).

A Ladder is Not the Only Kind of Time	49'50" & 16'30"	2023	Album and film of new music for water-powered historical instruments, Medieval rebec, lap steel guitar, nyckelharpa, and bass viol. Existing, also, as geolocated audio accessible through the smartphone app, Echoes.	Supported by the PRS Foundation and Jerwood Arts Composers' Fund, Arts Council England, and The Marchus Trust. Performed by Benjamin Tassie, Rebecca Lee, and Dr Rob Bental.
Earth of the Slumbering and Liquid Trees	71'44"	2023	Large-scale concert work for sampled historical organs and ROLI Seaboard Rise 2 keyboard.	Commissioned and performed by Dr Zubin Kanga as part of Royal Holloway's UKRI-funded research project, Cyborg Soloists.

In addition to those in the portfolio, an appendix includes two auxiliary works that evidence preliminary experimentation and the development of my thinking. They are:

Accrete[4]	15'16"	2021	Studio composition for multi-tracked Medieval rebec and two sopranos.	Made in collaboration with Mary Duggan Architects and presented as part of the London Festival of Architecture 2021.
Quartet for a Landscape	11'30"	2021	Filmed, single-speaker installation with music for Baroque strings and harpsichord.	Commissioned and performed by Nordic Affect.

The appendix also includes: two short rehearsal videos of *Earth of the Slumbering and Liquid Trees* and my article, "Post-HIP': New Music for Old Instruments in the Twenty-first Century' (Tassie, 2021).

1.4 – Research Structure

Practice-led research was completed in four stages:

[4] Please note, only a short film documenting *Accrete*'s presentation at the London Festival of Architecture 2021 is included in the appendix, not a complete recording.

1. First, a period of exploratory research with instruments in museum collections, recorded media, electronic tools in the studio, and with instrumentalists via distance-collaboration[5] refined an understanding of the methodology, scope, and structure of the project going forward.[6]
2. Second, small-scale compositional and mixed-media work built on the project's first-stage findings. Creative and research questions were answered, while yet more were raised. The form of final-stage, large-scale compositional and performance or installation work was developed. Works produced in this stage include *Solo for Computer and Tape*, *Bad Death Ghosts*, and *Glass Coloured* (see: Chapter Three).
3. Third, this cumulative learning was applied in the delivery of large-scale projects. Works produced in this stage were *A Ladder is Not the Only Kind of Time* (see: Chapter Four) and *Earth of the Slumbering and Liquid Trees* (see: Chapter Five).
4. Finally, exegetic reflection, including through the application of interdisciplinary theory, refined and clarified the findings that came from creative practice. In particular, the project's second, more theoretical, research question was addressed.

While broadly chronological, aspects of earlier research stages were returned to as necessary. For example, work with museum collections (stage one) formed an important part of the project's third-stage research strand, *Earth of the Slumbering and Liquid Trees*. Likewise, practice and (theoretical) research were not bifurcated but were approached simultaneously and as interconnected; one suggesting inquiry through the other. In this sense, the project followed Hazel Smith and Roger Dean's 'iterative cyclic web' model of practice-led research. Illustrated in the diagram 'Figure 2', Smith and Dean write that the model "combines the cycle (alterations between practice and research), the web (numerous points of entry, exit, and cross-referencing and cross transit within the practice-research cycle), and iteration (many sub-cycles in which creative practice or research processes are repeated with variation" (Smith and Dean, 2009: 8). Stage Four –

[5] Although initially intended as in-person collaboration, it was necessary to work remotely because of restrictions around the Covid-19 pandemic in 2020 and 2021.

[6] Museum partners in this stage included the University of Edinburgh's St Cecilia Hall museum, the Royal College of Music's museum, and the museum Handel and Hendrix in London. Chapters Four (4.2), and Five (5.1 and 5.2) include a description of some of the instruments used, as well as the methodological approach taken when working with museum collections.

exegetic reflection – was careful to maintain the interconnectedness of practice and research, avoiding what Paul Carter calls "poetic writing about art, which merely perpetuates the process/study split" (Carter, 2004: 10). Rather, reflection allowed both for "particular situated and emergent knowledge… to be generalised so that it enters into dialogue with existing practical and theoretical paradigms" (Bolt, 2006: 12) and for the generation of original insights themselves. In this sense, both the submitted portfolio of works and this written commentary constitute the project's research findings; one is not only a translation of the other.

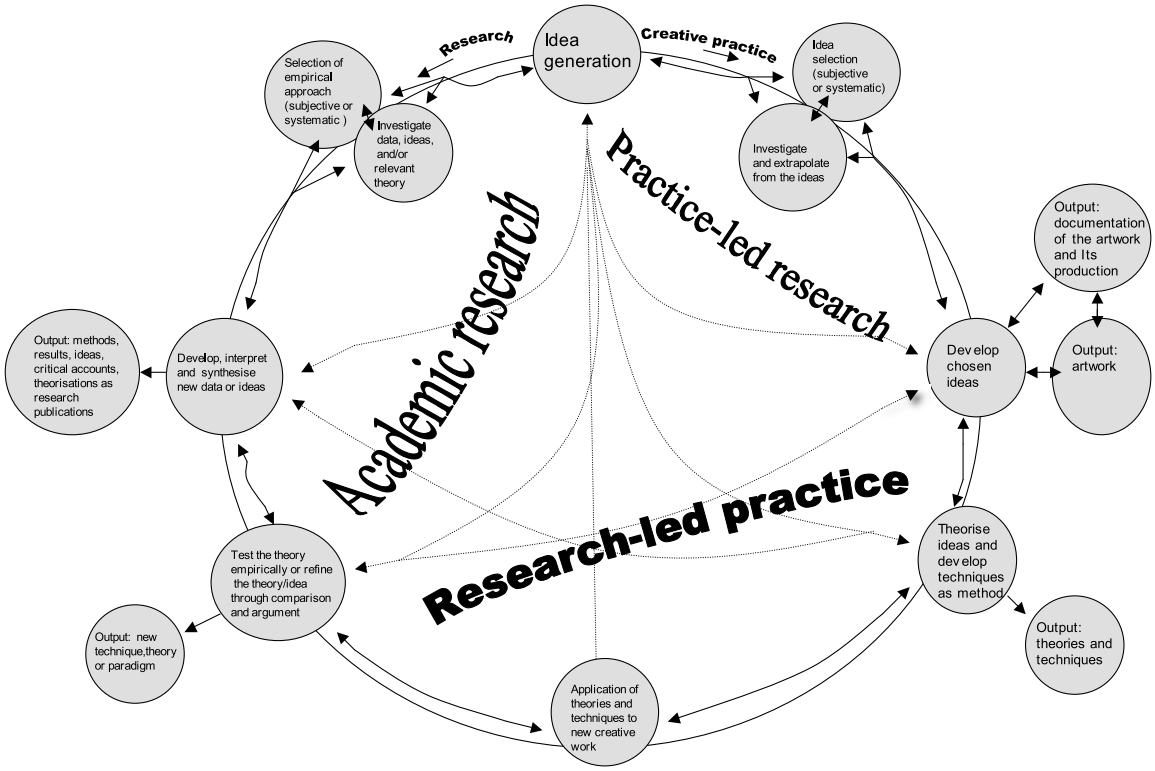

Figure 2: A model of creative arts and research processes: the iterative cyclic web of practice-led research and research-led practice (reproduced from: Smith and Dean, 2009: 20).

1.5 – Commentary Structure

This commentary is organised into six chapters. Chapter One (this chapter) introduces the research project. Chapter Two is a literature review. Beginning with Arnold Dolmetsch and concluding with a discussion of the twenty-first century, post-HIP scene, it aims to provide an overview of existing practice in the field, and to establish something of the ethos and methodology that underpins this project. Importantly, Chapter Two also

introduces ideas from other fields in order to better analyse existing practice and as the basis for an understanding of this project's relation to issues in the broader culture. Chapters Three, Four, and Five are commentary chapters. These consist of a discussion of research practice undertaken, followed by critical reflection in which I refer back to, and expand upon, the ideas introduced in Chapter Two. Finally, Chapter Six reflects on the findings generated by the project and outlines its original contribution to knowledge as I understand it.

1.6 – Key Terms

DAW	'Digital Audio Workstation' – a software application used to record, edit, and produce audio. Examples include Ableton Live and Logic Pro.
Early Music	Although precise historical periods included in the definition vary, I use 'early music' to refer to the instruments, repertoire, and performance practices of the Medieval, Renaissance, and Baroque periods. My particular focus are the sixteenth, seventeenth, and eighteenth centuries.
HIP	'Historically Informed Performance' – an approach to musical performance that pays particular attention to the instruments and performance conventions that were present when a piece of music was composed. Chapter Two explores this approach in detail.
Historic	When referring to instruments: an original, period instrument. In general usage: historically significant.
Historical	When referring to instruments: a modern copy of a period instrument. In general usage: from or relating to the past.
Long durée	An approach to the study of history that gives priority to longer-term historical structures, in contrast to "the conventional time-scales used in narrative history and by social and economic historians: spans of ten, twenty, fifty years at most". The term also

	implies an emphasis on "the distinctive contribution of history" in forming an understanding of the present (Guldi and Armitage, 2014: 16).
LFO	'Low Frequency Oscillator' – an oscillator generating a low frequency, usually below 20hz, which is used to modulate a parameter in electronic music equipment or software devices in order to create effects such as vibrato.
Modernity	While the exact dates used to denote the modern period differ, I use the term 'modernity' to refer to a period beginning with the European enlightenment at the end of the seventeenth century and continuing until the second half of the twentieth century. In particular, however, it is the focus on scientific positivism and industrialisation, and the rejection of mysticism, to which I refer. In this sense, 'modernity' and 'postmodernity' are not distinct historical phases, but overlap.
Post-HIP	A term I discuss in detail in Chapter Two (2.3), 'post-HIP' refers to an approach related to HIP (using the instruments, repertoire, and performance practices of the past) but with a focus on making and performing new music.
Post-internet	A term originating in the mid-2000s to refer to art and theory that engages with the ubiquity of the internet. 'Post-internet' art may engage with the aesthetics of the online space, or it may engage more obliquely with ideas of the network. (See: McHugh, 2011 or Archey and Peckham, 2014).
Postmodern	Referring to both an historical period and cultural aesthetic, postmodernity denotes a turn away from the progressive linearity of modernism toward a character of detached irony and what Arthur Danto called an 'historical sensibility' (Danto, 1997). I use the term less to denote a particular period (although the 'postmodern' is generally described as originating in the 1980s and 1990s) and more in reference to these qualities. Fredric Jameson and others have also noted the connection between postmodernism and late-stage capitalism (Jameson, 1998).
Post-postmodern	Drawing on thinking from Steven Shaviro, Jeffrey Nealon, Alan Kirby, and others, I use 'post-postmodernism' to draw a distinction between our current moment and the

	postmodern late-twentieth century. In particular, post-postmodernism is characterised by a deepening of referentiality, a more profound isolation from history, and an increase in digital interactivity. (See: Chapter Two, 2.3)
Practice Research	Involving research undertaken through creative practice, "Practice research is usually characterised by the production of outputs in non-text-based forms including artefacts, performances, and exhibitions" (McCallum and Duffy, 2023).
VST	'Virtual Studio Technology' – the term used for an audio plugin interface that integrates software synthesisers and effects into a DAW.
Whig	Whig historiography or a Whiggish approach to history denotes a teleological view of historical progress; one in which the past is understood as primitive, and the present a more perfect refinement. The term was coined by Herbert Butterfield in his book *The Whig Interpretation of History* (Butterfield, 1931; 1963).
Xenharmonic	Denoting a musical scale with more or fewer notes per octave than the standard, Western twelve-tone tuning system. (See: Walker, 2017).

CHAPTER TWO: RESEARCH CONTEXT

Abstract

This chapter aims to provide an overview of existing practice and debates within the 'Historically Informed Performance' movement. I begin by briefly discussing the work of Arnold Dolmetsch (1858-1940) insofar as his practice could be said to have established many of the concerns and approaches that would characterise the later, 1960s Early Music revival. Next, I use Nick Wilson's 'seven rhetorics' of Early Music as a structure for discussing twentieth-century HIP, drawing on ideas from historiography, sociology, and philosophy in order to better analyse and contextualise that practice. In particular, I apply Max Weber's concept of 're-enchantment' and related thinking around modernity and postmodernity. I then discuss new music composed for Early Music instruments in the twentieth century. Focussing on a select group of pieces composed between 1969 and 1991, I draw on ideas from Bruno Latour (Actor Network Theory), Alfred Gell and Georgina Born (the 'social agency' of art objects), and Roland Barthes and Deniz Peters (the 'materiality' of instruments and sound). Finally, I discuss practice with Early Music instruments in the twenty-first century, which I call 'post-HIP'. I analyse the work of key practitioners – Liam Byrne, Jozef van Wissem, Halla Steinunn Stefánsdóttir, and others – relating that practice to broader cultural phenomenon (post-internet art, the 'retromania' turn, post-postmodernism, and so on) in order both to provide an overview of the scene and to establish the context of my own practice.

2.1 – The Early Music Revival

2.1.1 – Arnold Dolmetsch

Arnold Dolmetsch is an intriguing figure, described by Harry Haskell as a "mercurial, quick tempered man standing barely five feet tall… a resident foreigner who never lost his French accent… [and who] remained something of an outsider in London's tightly knit musical community" (Haskell, 1988: 29). Rather than with musicians, Dolmetsch's closest ties were with the poets, artists, and craftspeople of the *fin de siècle*, most notably the Bloomsbury set and William Morris. Indeed, Andrew Heywood suggests that Morris' views were influential in shaping the nascent Early Music revival:

> For Morris, Victorian society was not the culmination of thousands of years of 'progress'. The past could not be seen simply as an imperfect preparation for the present… In the Victorian age, music of the past was treated, in the main, as of merely antiquarian interest… Old instruments were seen as inferior precursors of their more 'efficient' and powerful modern counterparts, while the performance-practice of the past was dismissed as primitive. Morris had already applied his alternative approach to the past in politics, design and in his attitude to the restoration of old buildings; his connection with, and influence on, George Bernard Shaw and Arnold Dolmetsch was to provide a catalyst for a fresh examination of the music of the past and its performance. (Heywood 1994: 15-16)

This anti-Whig view challenges 'chronocentrism'.[7] It also suggests a dissatisfaction with the (musical) culture of the present.[8] Indeed, as Margaret Campbell notes, Dolmetsch's aim was to "share his discoveries with a

[7] Coined by the sociologist Jib Fowles in 1974, 'chronocentrism' is "the belief that one's times are paramount, that other periods pale in comparison. It is a faith in the historical importance of the present. As such, it suggests a slighting of the past and future" (Fowles, 1974: 65).

[8] As David Irving notes, Dolmetsch's association with Morris also suggests a sympathy with left-wing politics. He writes, "Arnold Dolmetsch clearly fitted Morris's Arts and Crafts ethos like a glove. The Arts and Crafts movement railed against industrial production and called for a return to smaller workshop-based processes; its core was tied up strongly with left-wing politics but it later attracted people from the far-right who twisted its principles and adapted them into their own ideologies" (Irving, 2023: 6). As I discuss below (2.1.2), the association between HIP and left-wing politics continued into the 1960s. The movement's ties to nationalism are discussed in section 2.1.8.

public too long saturated with music that was large and loud… by resuscitating the past he began to initiate his audiences into appreciating music that was exactly the reverse of that composed in their own time" (Campbell, 1975: 69). This oppositionality extended to Dolmetsch's performance practice. Largely eschewing 'establishment' concert halls, for example, Dolmetsch instead achieved notoriety giving regular lecture-concerts at his home in West Dulwich and, later, Haslemere.[9] These performances were characterised by their informality. Haskell writes, "the concerts were relaxed affairs, with the performers dressed in period costumes and Dolmetsch bantering amiably with the audience between selections. If a performance displeased him, he thought nothing of stopping in the middle of a piece and starting afresh, in defiance of conventional concert etiquette" (Haskell 1988: 31-32). Dolmetsch intended "the performances to be homely and amateurish – a word without reproach at Haslemere" (McN, 1940: 155).

By the late-1890s, Dolmetsch had begun to produce his own Early Music instruments with the aim of facilitating wider participation in historical performance. Campbell writes, "Dolmetsch knew that he could not expect to arouse a desire in his audiences to play themselves unless the instruments were available" (Campbell, 1975: 67).[10] Dolmetsch's approach, however, was creative. As Laurence Dreyfus notes, "despite his enormous pretentions to historical accuracy and empirical method, one sometimes gets the impression that [Dolmetsch] not only wished to revive the past, but actually to improve on it" (Dreyfus, 1983: 305). Dolmetsch's pupil Richard Donington recalls, for example, that when building a copy of a harpsichord, Dolmetsch remedied what he saw as "historical oversights" to produce an instrument "both purer and more sustained than any previous harpsichord" (quoted in Dreyfus, 1983: 306).

Dolmetsch was also a committed scholar. However, here too he placed "more faith in intuition and less in solid historical evidence" (Haskell, 1988: 41). Thurston Dart writes, for example, that Dolmetsch "did

[9] Dolmetsch had first given concerts at the Fitzroy Street studio of Herbert Horne and Arthur Mackmurdo, and at Barnard's Inn in Holborn. Campbell evocatively describes a lecture-concert given in December, 1891. She writes, "the best-known progressives in London had turned out for the occasion – artists, poets, writers: they were fascinated by this little Frenchman whose very appearance was more pre-Raphaelite than the pre-Raphaelites themselves with velvet suit, lace ruffles and silver buckles on his shoes. His music recaptured for them the delights of a lost enchantment: the embodiment of all their aspirations" (Campbell 1975: 41).

[10] The author Marco Pallis recalls his involvement in facilitating Dolmetsch's instrument workshop: "A larger workshop was needed, with more trained personnel, but how could this be brought about? As it happened, my father's generosity had provided the means in the form of a sum of money he bestowed on me after my discharge from the forces at the end of 1918, which was more than enough to cover the purpose in view. With quiet satisfaction, Arnold Dolmetsch welcomed my offer; soon the walls of the new workshop were rising next to his house" (Pallis, 1978: 41).

not always critically assess or correctly use the information [he] derived from… sources" (Dart, 1954; 1963: 79). Instead, Dolmetsch seemed to prioritise the contemporary experience over historical verisimilitude, once, for example, adapting "some fragments of fourteenth-century polyphony for a mellifluous but historically implausible ensemble of voice, recorders and viols" (Haskell, 1988: 41).[11]

I outline, briefly, Dolmetsch's practice insofar as we can recognise in it much of the approach and ethos that would characterise the later, twentieth-century revival. Those characteristics are:

1. an 'outsider' status, in opposition to the classical music mainstream,
2. an anti-Whig view of history, using the past to critique and improve upon the present,
3. an informal performance-practice, embracing 'amateurism',
4. a focus on participation,
5. a creative approach to history, and
6. an interdisciplinary approach, combining scholarship and practice.

Discussing the later revival, Nick Wilson uses as taxonomy seven 'rhetorics' (that is, narratives or areas of discourse):[12]

1. Revolutionary (culture vs. counterculture)
2. Amateur (amateur vs. professional)
3. Commercial (master vs. slave)

[11] Dolmetsch's scholarly work included arrangements of historical repertoire as well as a book on historical performance-practice, *The Interpretation of the Music of the 17th and 18th Centuries* (Dolmetsch, 1915; 2005). He also taught extensively and composed his own music which, as Campbell notes, was "curiously enough, 19th century in style" (Campbell, 1975: 19). This generalist approach is another way in which Dolmetsch was non-conformist; working across disciplines, sometimes at the expense of technical refinement. Haskell notes that "Listening to the recordings that Dolmetsch made in the twenties and thirties, one can easily understand why he elicited such strong… reactions. The quality of his performances is maddeningly erratic… he could… be just plain sloppy. Technique was never his strong suit" (Haskell, 1988: 40).

[12] Wilson (here quoting Brian Sutton-Smith) chooses the term 'rhetoric' for its denoting "a persuasive discourse, or an implicit narrative, wittingly or unwittingly adopted by members of a particular affiliation to persuade others of the veracity, and worthwhileness of their beliefs" (Wilson 2014: 7).

4. Dogmatic (text vs. act)
5. Creative (work vs. play)
6. Modernist (disenchanted vs. enchanted)
7. Authentic (authentic vs. inauthentic) (Wilson, 2014: 8)

In discussing the 1960s revival, I use these rhetorics as a structure. Whereas Wilson's interest is primarily in how "Early Music has been repackaged, marketed, and commodified" (Wilson, 2014: 4), this project's concerns are the creative and theoretical aspects of that practice. Nonetheless, Wilson's work is helpful in two ways: first, he foregrounds Early Music's embeddedness in capitalist modernity, and second, he proposes 're-enchantment' (after Max Weber) as a centrally important feature of the revival. For clarity, I reorder Wilson's rhetorics.

2.1.2 – Revolutionary: Culture vs. Counterculture

The Early Music revival has widely been described as countercultural. Bruce Haynes writes, for example, that:

> In the 1960s, it is doubtful whether a movement could have had credibility if it did not have an element of protest and revolution about it. A mainspring of HIP in the 1960s was a rejection of the status quo. Musicians like me, just getting started then, defined our movement in opposition to the Classical establishment (Haynes 2007: 41).[13]

Elsewhere, Lawrence Dreyfus charts the differences between the twentieth-century Early Music scene and the classical music mainstream (Dreyfus, 1983: 317):[14]

[13] Nicholas Kenyon likewise describes Early Music as "genuinely revolutionary, in the sense that it caused a radical step change" (quoted in Wilson 2014: 8).

[14] Of course, Dreyfus was writing in the early-1980s. Much of what he describes – the 'mediocre' technical proficiency of HIP instrumentalists, for example – could no longer reasonably be asserted as true. I therefore cite Dreyfus' article as an historical document (describing practice in the 1960s and 1970s) rather than meaning to apply Dreyfus' critique to HIP practice after 1983.

Early Music	Mainstream Musical
1. The Conductor is banished.	1. The conductor is the symbol of authority, stature, and social difference.
2. All members of the ensemble are equal.	2. The orchestra is organized in a hierarchy.
3. Ensemble members play a number of instruments, sometimes sing, and commonly exchange roles.	3. The 'division of labor' is strictly defined, with one player per part.
4. Symptomatic grouping: the consort – like-minded members of a harmonious family.	4. Symptomatic grouping: the concerto – opposing forces struggling for control; later, the one against the many.
5. Virtuosity is not a set goal and is implicitly discouraged.	5. Virtuosity defines the professional.
6. Technical level of professionals is commonly mediocre.	6. Technical standards are high and competitive.
7. The audience (often amateurs) may play the repertory at home.	7. The audience marvels at the technical demands of the repertory.
8. The audience identifies with the performers.	8. The audience idealizes the performers.

Dreyfus' description of Early Music as concerning 'equality', 'harmoniousness', 'inclusivity', and so on, points to an engagement with a progressive, egalitarian politics. Indeed, John Butt notes that the stereotypical HIP practitioner of the 1960s tended "to use an imagined utopian past as a way of criticising and 'improving' the present… [presenting] the past as a potent social practice with a political relevance in reforming the present condition" (Butt 2002: 9-10).[15] This has led to comparisons with broader countercultural movements. Wilson writes, for example, that "In line with other new social movements (NSMs) of the time, such as the feminist and gay rights movements, Early Music provided a voice for the identity-less… and sought to counter the alienation of the market" (Wilson, 2014: 8). I argue that Wilson goes too far in equating the Early Music revival with the civil-rights struggles of the 1960s.[16] However, as we have seen, there are certainly parallels between the practice and ethos of the revival and those of the broader counterculture. A more nuanced analysis might therefore ask: what were the conditions that gave rise to the countercultural movements of the 1960s, and how might the Early Music revival be understood in relation to those conditions?

[15] Butt is drawing on Dreyfus's essay, cited above.

[16] The revival's concerns, after all, were primarily musical. For some, HIP was not at all political. Kailan Rubinoff has shown, for example, that the harpsichordist Gustav Leonhardt "eschewed any connection between HIP and the social unrest of the late 1960s" (Rubinoff, 2014: 32).

Salar Mohandesi, Bjarke Skærlund Risager, and Laurence Cox describe the 1960s as a time of growing dissatisfaction with "an over-industrialized, consumer-saturated economy, a world of abundance, but also one of emptiness and alienation" (Mohandesi, Risager, and Cox, 2018: 4). Pre-war social hierarchies persisted and "While there were more commodities on the shelves for those who could afford them, the economic boom did not give way to personal liberation: its rewards were narrowly redistributive… but excluded questions of power and culture. Thus many people who lived through the 1960s recall everyday life… as constricting, repetitive, and conformist" (Mohandesi, Risager, and Cox, 2018: 9-10).

We can understand the Early Music revival as oppositional to these conditions. Industrialisation, for example, was countered in HIP by a focus on the hand-made and analogue. As Jessica Wood describes, the 'DIY' harpsichord kits that were popular, particularly in America, from 1960, "provided a pre-Industrial crafting experience… [and] offered an esoteric, anticommercial escape" (Wood, 2012: 241). Likewise, the social hierarchies and power-inequalities that remained, post-war, and that, as Dreyfus notes, were widespread in the classical music mainstream, can be understood as being countered by HIP's more democratic approach. Frans Brüggen's management of the *Orkest van de Achttiende Eeuw* is a good example of this: "all musicians [shared] equally in the proceeds of their concertizing regardless of their rank or role within the ensemble" and the "emphasis on egalitarianism… extended to artistic, administrative and gender equity matters as well". Brüggen is said to have quipped in an interview, in fact, that "this isn't democracy, but Communism" (Rubinoff, 2013: 175).[17] Finally, where cultural conformism engendered feelings of constriction, the revival can be seen as an attempt to invigorate the (musical) culture, puncturing something of the staid, post-war stuffiness. This nonconformism was perhaps best embodied by the multi-instrumentalist and broadcaster, David Munrow. Haskell writes, for example, that "Everything [Munrow] turned his hand to, be it a medieval *basse danse* or a Baroque recorder concerto, bore the stamp of his exuberant, extraverted personality" (Haskell, 1988: 163). Elsewhere, Meirion Bowen recalls, "for [Munrow], pre-classical concerts meant more than a tour

[17] Likewise, Wilson describes the founding of the Orchestra of the Age of Enlightenment as, at least initially, aiming for greater equality: "On the surface, the new orchestra fully embraced a democratic approach… A democratically elected board… decided on key programming and management decisions on the orchestra's behalf. The theory was that any professional early musicians who wanted could join this new 'society'" (Wilson, 2018: 90).

around an antique shop… his creative approach entailed breaking through conventional barriers, thereby bringing fresh insights and keeping the art alive" (in Lewis *et al.*, 1976: 380).

These examples evidence something of Early Music's alternative (or 'countercultural') quality: as anticommercial, democratic, and nonconformist. They also, I hope, demonstrate the revival's relation to the broader cultural turmoil of the long-1960s. This aspect of HIP is present in each of the rhetorics that follows. For example, the sociologist Daniel Bell notes a change in ideas of 'authenticity' taking place in the 1960s, an idea, as I will now discuss, central to the revival.

2.1.3 – Authentic vs. Inauthentic

Bell writes that whereas 'authenticity' used to mean "true and therefore valid for all men… [a] new sensibility that emerged in the 1960s scorned such definitions completely. Authenticity in a work of art was defined almost exclusively in terms of the quality of immediacy, both the immediacy of the artist's intention and the immediacy of his effect upon the viewer" (Bell, 1976: 133). In Early Music, we find a number of 'authenticities' situated around these two, broad poles (objective and personal). For example, Stephen Davies describes 'authenticity' in terms of fidelity to the composer's intentions. He writes:

> A performance of *X* is more rather than less authentic the more faithful it is to the intentions publicly expressed in the score by the composer… a highly authentic performance is likely to be one in which the instruments contemporary to the period of composition… are used in its performance, in which the score is interpreted in the light of stylistic practices and performance conventions of the time when the work was composed… and so forth (Davies, 1987: 39-40).

Peter Kivy's idea of 'personal authenticity', by contrast, is closer to the new authenticity described by Bell: "the sense of [a performance being] authentically one's own, emanating from one's own person – authentic, in other

words, as opposed to derivative or imitative" (Kivy, 1995: 108).[18] Richard Taruskin offers yet another 'authenticity', one concerning the performance's contemporary relevance. He writes, "what we call historical performance is the sound of now, not then. It derives its authenticity not from its historical verisimilitude, but from its being for better or worse a true mirror of late-twentieth-century taste" (Taruskin, 1995: 166).

Below (2.1.7), I explore thinking that questions the possibility of a truly 'historically authentic' performance. Presently, it is interesting to note the shifting focus from the collective to the individual in Bell's description of the new authenticity of the 1960s. HIP's approach, as I will now discuss, could be understood as countering something of that individualism, offering, instead, a means of collective, participatory music-making.

2.1.4 – Amateur vs. Professional

Haskell wrote that "The true magnitude of the early music 'boom' becomes still more apparent when one considers that professional music-making is only the tip of the iceberg… the recent groundswell of interest in early music is largely the result of amateur activity" (Haskell, 1988: 166).

As well as involving non-professional players, the revivalists also somewhat eschewed the 'professionalisation' of performance. Butt describes, for example, "the 'traditional' HIP view that virtuosity is not the prime aim of musical performance and that, indeed, a more amateur or 'routine' approach may not be without its advantages" (Butt, 2002: 132). For Haynes, this approach is reminiscent of Christopher Small's model of 'musicking' (Haynes, 2007: 12). Reformulating 'music' (noun) as 'musicking' (verb), Small argues that music's meaning resides in its social dimension; that it "establishes in the place that it is happening a set of relationships, and it is in those relationships that the meaning of the act lies" (Small, 1998: 13). To 'music' means "to take part, in any capacity, in a musical performance, whether by performing, by listening, by rehearsing or practising, by providing material for performance (what is called composing) or by dancing"

[18] Kivy's book *Authenticities* describes a number of 'authenticities': authenticity as intention, authenticity as sound, authenticity as practice, and the 'other' authenticity (or 'personal authenticity').

(Small, 1998: 9).[19] 'Musicking' could therefore be understood as challenging the specialisms and hierarchies of the mainstream classical model, returning instead to a more collectivised music-making paradigm.

It is perhaps helpful to add to this established connection (between HIP and 'musicking') Chris Cutler's idea of the 'commodity form'. Cutler relates the advent of musical notation to both the loss of 'musicking' (he uses the terminology, the 'folk form') and a broader cultural fragmentation under capitalism.[20] He writes:

> Internal or biological memory has given way to external, notated memory, the primacy of the ear to the primacy of the eye, a sense of the whole to a concentration on the particular, the unity of composer and performer to an almost complete functional separation of the two roles. Improvisation is replaced by calculation or following a score, collective cultural expression by commodity: music is no longer something produced organically by a community of people, but rather speculatively, for a market. (Cutler, 1984: 285)

Early Music's 'amateurism' can be understood, in this context, as an attempt to negate something of the 'commodity form'. Returning to 'musicking' therefore implies a radical shift: re-establishing something of communality, participation, inclusivity, and liveness, and (implicitly, at least) rejecting commercialism.

2.1.5 – Commercial: Master vs. Slave

[19] Historically, of course, these roles were not as distinct. Haynes notes, "In a time when new pieces were in constant demand, being a composer was nothing special, just part of the process of producing music. But even if a musician didn't always write their improvisations down, they had to know how to make up music on the spot" (Haynes, 2007: 4). Friedemann Sallis describes 1600-1789 as "the era of the composer/performer… This was the time when the distinction we draw between the composer and the performer was not nearly as sharp as it is today… Composers were seen as assemblers of this acoustic material and composition was understood as comparable to the general use of language that does not presuppose self-sufficiency, uniqueness or ownership of any given expression" (Sallis, 2015: 2-11). Of course, these specialisms and hierarchies, and the attendant focus on the score, can be recognised as characteristics of the *Werktreue* framework which favoured "the self-expression of the individual composer-genius… finished and 'untouchable' [musical works]…the vesting of unprecedented authority in the score… [and] hierarchical relations between composer and interpreters" (Born, 2005: 8-9). I expand on this, below (2.1.6).

[20] Timothy D. Taylor explores the relationship between music and capitalism in detail in his book, *Music and Capitalism: A History of the Present*. He notes, "The commodification of music as a published good began at the end of the fifteenth century with the invention of movable type for music by the Italian printer Ottaviano Petrucci" (Taylor, 2016: 22).

Here, I disagree with Wilson who argues that the Early Music pioneers of the twentieth century should be recast as 'cultural entrepreneurs'; that their engagement with (and ultimate success within) the marketplace should be foregrounded in any reading of the scene. Certainly, Early Music found commercial success – Haynes writes "There was a time when 'AUTHENTIC' sold records like 'ORGANIC' sells tomatoes" (Haynes, 2007: 10). There is, however, a friction implicit in that commercialisation. As Wilson notes, music is typically a "form of cultural production in which the economy is ostensibly disavowed" (Wilson, 2014: 10). I argue that this is particularly true of Early Music. The characteristics I have begun to outline – the movement's countercultural alignment, its amateur component, emphasis on 'musicking', and negation of the 'commodity form' – position HIP (at least initially) beyond a reductive commercialism. Of course, Early Music does not exist outside capitalism. As Caroline Bithell and Juniper Hill observe in all musical revivals, what "may have started out as grassroots initiatives… often become part of an established industry now firmly embedded in a capitalist economy and driven by other agendas (financial, regulatory, etc.)" (Hill and Bithell, 2014: 26).

2.1.6 – Dogmatic: Text vs. Act

'Musicking' (or the 'folk form') implies a rejection of the score. However, Early Music's basis is, of course, in historical documents (scores, treatise, and so on). There has therefore long been debate as to if HIP's value resides in scholarship (text) or performance (act).[21] Richard Taruskin argues, for example, that text-fetishism stultifies musicality:

[21] Haynes argues, "At first glance, a movement like HIP… which actively tries to join historical awareness to historical music, seems like the perfect example of Canonism: honoring dead composers. But it is the paradox of HIP that it uses the past as inspiration but does not, like Canonism, pretend to be a continuation of it. HIP starts in the present and ends in the present." (Haynes, 2007: 10). Haynes identifies a paradoxical presentism in HIP; the historical is a starting point for a living practice, not a museum object to be preserved. Elsewhere, Butt argues that "the very concern with history destabilises the notion of consistent essences… [consequently, HIP has] actually served to loosen the hold of the work concept" (Butt, 2002: 54). Lydia Goehr likewise argues, "More than any other movement currently existing within the European tradition of classical music, the early music movement is perfectly positioned to present itself not only as a 'different way of thinking about music' but also as an alternative to a performance practice governed by the work-concept. By positioning itself as a viable and dynamic alternative… it is able to serve as a constant and living reminder to all musicians that the *Werktreue* ideal can be delimited in scope" (Goehr, 1992: 284).

> Those whose scholarly superego insists that everything they do must survive a trial-by-document are doomed to a marginal existence as performers… for the performer can exercise no control over the state of evidence. If you construe your fragmentary evidence the way religious fundamentalists construe scripture… then you will find yourself in the position of the Early Music performer who happily averred that, when making records… "I think it's best to be minimal about your additions," lest the recording "embarrass us for another twenty years." There is logic in this position, but it is the logic of certain death. (Taruskin, 1995: 94-95)

In contrast, Dreyfus observes that musicologists have reprimanded "Early Music for its inadequate scholarship" (Dreyfus, 1983: 311). He points to Frederick Neumann as the key proponent of this view. Neumann wrote, "the most serious disease with which [HIP] is afflicted is caused by a somewhat naïve trust in the infallibility of historical treatises, and the symptoms of it are manifested in a faulty interpretation of these documents" (Neumann, 1977; 310).

In navigating the 'text/act' debate, Butt draws on David Lowenthal's dichotomy of 'History' and 'Heritage' (Butt, 2002: 15). For Lowenthal, "History remains remote; personal immediacy is a heritage hallmark… many see history as inaccessibly alien… Active involvement distinguishes heritage from history… heritage privileges action over books… heritage is sanctioned not by proof of origins but by present exploits… The worth of heritage is likewise gauged not by critical tests but by current potency" (Lowenthal, 1998: 122-127).[22] While Butt ultimately refutes the distinction between 'History' and 'Heritage', maintaining it is "fallacious, given all forms of historical representation rely on fabrication and an inescapable presentism perspective" (Butt, 2002:15), Lowenthal provides a useful conceptual framework. I argue that HIP is a 'Heritage' artform; as I will now discuss, its practitioners engage *creatively* with historical texts, largely privileging active involvement and 'current potency' over Taruskin's 'logic of certain death'.

[22] Lowenthal's position is, of course, more nuanced (and more sympathetic to 'History') than this abridged quotation perhaps implies.

2.1.7 – Creative[23]

Creativity was something of a necessity for the 1960's revivalists for whom institutional training was not yet widely available. The tenor John Potter recalls, for example, that "everyone before early music entered the mainstream… managed to do what they did without benefit [*sic*] of institutional instruction. The fact is, we made it all up" (Potter, n.d.). Haynes goes further, suggesting that mainstream pedagogical establishments are ill-suited to fostering the creativity and nonconformism central to Early Music; he writes, "Conservatoires rarely encourage the kind of independent thinking that originally inspired HIP" (Haynes, 2007: 76).[24]

Creativity is also necessitated by lacunae within historical texts.[25] Daniel Leech-Wilkinson gives the example of the performance of Medieval music, writing:

> We don't have nearly enough context to answer even simple questions definitively… We have to use what little information there is if we want to arrive at an answer, but we cannot possibly know that it is correct… along the way we inevitably start to invent, and what we invent reflects our own personal beliefs about the Middle Ages, our preferences for particular kinds of stories, our background and our tastes…. over a long time-span [musicology] is extremely creative, building up pictures that look plausible but that could be wildly wrong. All we can know for sure is that these pictures have become complex and interesting in themselves and have led to a wonderfully rich tradition of music-making. (Leech-Wilkinson: 2002: 3)

[23] I have removed Wilson's sub-heading for this rhetoric which is "work vs. play". Wilson writes "where there is the goal of earning a living (making early music *pay*), it is helpful… to highlight the dualistic opposition between work and play" (Wilson, 2014: 13). As discussed, this aspect of the Early Music revival is not of interest to the current project except in its negation.

[24] The rejection of institutional training suggests an approach akin to that of what Taruskin calls the 'crooked player'. Taruskin writes, "The crooked players… do not get their phrasings and tempos off the rack. Their responses are conditioned not by generic demands that can be easily classified, filed away, and retrieved, but by highly specific, unclassifiable, personal and intensely subjective imaginings… Every musical event ideally possesses a unique, never-to-be-repeated shape" (Taruskin, 1995: 317).

[25] Lowenthal notes that this is true for historiography more broadly. He writes, "The most detailed historical narrative incorporates only a minute fraction of even the relevant past; the sheer pastness of the past precludes its total reconstruction. Most information about the past was never recorded at all, and most of the rest was evanescent. The historian must accept Herbert Butterfield's 'tremendous truth – the impossibility of history'" (Lowenthal, 1985: 215).

In Leech-Wilkinson's account, a paucity of historical evidence leads to a creative practice that reflects back to us our contemporary concerns, beliefs, and preoccupations. The historian Carl Becker suggested that history functions in this way for most people, most of the time; that it is creatively constituted in order to refine and reinforce our understanding of ourselves and our place in the world. He called this 'Everyman History':

> Mr. Everyman has woven, he could not tell you how, out of the most diverse threads of information, picked up in the most casual way, from the most unrelated sources… a history… It is not possible, it is not essential, that this picture should be complete or completely true: it is essential that it should be useful to Mr. Everyman… [that it should relate] with some reasonable degree of relevance and harmony to his idea of himself and what he is doing in the world and what he hopes to do. In constructing this [history]… Mr. Everyman works with something of the freedom of a creative artist (Becker, 1935: 229).

For Becker, the utility of 'Everyman History' lies in the reassurances offered by its sense-making; in what it can tell us about ourselves, our rootedness, and where we are going. I argue that 'Everyman History' is a useful framework for understanding the Early Music revival. It foregrounds Early Music's creativity and suggests two things. First, that HIP relates as much to our contemporary experiences as to the historical (Leech-Wilkinson's position).[26] Second, that HIP's (creative and popular) success came from its speaking to the needs of the modern subject' that is, that HIP resonated with the ideas that the Early Music practitioner and listener had "of himself and what he is doing in the world and what he hopes to do". Bernard Sherman observed this, particularly insofar as Early Music could be said to have met the needs instigated by modernity's shortcomings.[27] He wrote, "Perhaps; regardless of whether eighteenth-century yearning really was more naïve

[26] As Taruskin famously argued, "'historical' performance today is not really historical… a specious veneer of historicism clothes a performance style that is completely of our own time" (Taruskin 1995: 102).

[27] Dreyfus, likewise, characterises HIP as a response to the crises of modernity, although he sees the revival as *retreating* from that discontent. He writes, "[Early Music] made sure to brush away the problems of tortured humanity, like all forms of antiquarianism, into the recesses of the unconscious. What it promised was a sense of stability, an illusion of serenity, a 'haven in a heartless world'" (Dreyfus, 1983: 305). Rather than taking flight from modernity, however, I argue that Early Music sought to countervail modernity's shortcomings and that it did so by confronting modernity with the very qualities of the past that it sought to eradicate. I discuss this in more detail, below (2.1.8).

and trusting than ours, many of us yearn for a more naïve and trusting world. Some listeners and players *want* music to take them out of our world and into Bach's or Hildegard's" (Sherman, 1997: 15).[28] Identifying this need more broadly, Lowenthal writes "In reaction to the dislocations of the 1960s and 1970s we became obsessed with bygone times… insisting that life was once liveable and yes, yes, if we looked long and hard enough at some right thing in our past, it would be right again" (Lowenthal, 1985: 13).

2.1.8 – Modernity: Disenchanted vs. Enchanted[29]

To understand the Early Music revival in relation to the 'dislocations' of modernity, the German sociologist Max Weber's concept of 'dis-enchantment' is helpful. I take this idea from Wilson who describes HIP as 'enchanting' in three senses: methodological, phenomenological, and sociological.[30]

Methodological: Wilson writes, "re-enchantment is fundamentally about absenting some current situation or bringing about some desired-for alternative" (Wilson, 2014: 215). We have already seen that HIP was a tool for 're-enchanting' the mainstream classical methodology.[31] The revival could also be understood as a response to the aesthetic of musical modernism. Wilson notes, "the classical music avant-garde of the late 1960s had become a deeply challenging performance terrain, for performers and audiences alike. The highly dissonant, atonal musical language of the modern serialists was just too unfamiliar (and too difficult) for many of classical music's audience to engage with" (Wilson, 2014: 219). This 'difficulty', we might argue, was a result of the serialists' *rationalism* (a key tenet of Weberian modernity) which seized "all that sounds in a regulatory grasp and [dissolved] the magic of music in human reason" (Adorno, 2006: 52-53). Early Music, by contrast,

[28] Sherman continues: "A sense that our culture has taken a wrong turn (or even that it is 'disintegrating') is no longer the preserve of fundamentalists, fascists, and reactionaries; as a college professor [Joseph Epstein] wrote in 1994, 'Nearly everyone I know lives with the sense of serious decline if not impending fall'" (Sherman, 1997: 15-16).

[29] Wilson uses the title "Modernism" for this rhetoric. To avoid confusion with modernist aesthetics (and Taruskin's arguments around the 'geometric'), I have changed this heading to 'Modernity'.

[30] I am here synthesising Wilson's thinking; he does not use these categories.

[31] The democratic, anti-hierarchical, and inclusive methodology of the revival (outlined, above) can, I argue, be clearly understood as "a contextualized response to the *situational restrictions* of classical music" (Wilson, 2014: 218).

offered music of a more familiar aesthetic. As Dreyfus notes, it did, however, also sate something of the culture's need for novelty:[32]

> it was of course early twentieth-century modernism which wreaked such havoc with the aesthetic of novelty, confronting it with its own undesirable consequences – innovative artworks which conflicted directly with an opposed aesthetic of gratification. Thus… the European middle classes took the path of least resistance and dedicated themselves to a predictable standard repertory… it becomes clear that… Early Music kills two birds with one stone. First, it promises progress by producing an ever-'new' source of musical rarities for the future. And second, it promises to be diverting and pleasurable (Dreyfus, 1983: 314).

What Dreyfus misses in this analysis, I argue, is the significance of Early Music's reconnection to 'tradition'. Bell argues that "At the heart of the problem [of modernity] is the relationship of culture to tradition… By its very nature, modernity breaks with the past, *as* past, and erases it in favor of the present or the future. Men are enjoined to make themselves anew rather than extend the great chain of being" (Bell, 1976: 131-132). Weber argued that this severance with history engenders a feeling of meaninglessness. He wrote that whereas "some peasant of the past, died old and satiated with life because he stood in the organic cycle of life… [modern] man… may become 'tired of life' but not 'satiated with life'" (Weber, 1946: 140). In this context, Early Music should be understood not as 'taking the path of least resistance' but as *re-enchanting* the culture through a reconnection to tradition (to the past *as past*). By 'extending the great chain of being', it offered the modern subject something of the 'meaningfulness' that Weber identifies as diminished under disenchantment.

[32] There is a duality here. Certainly, Early Music's methodological and aesthetic 'novelty' answered something of modernity's demand for innovation. However, in a more profound way, the revival could be understood as a disavowal of the modernist 'cult of novelty' in which 'novelty' was elevated to become the defining measure of an artwork's value. As Michael North writes, "Sometime in the nineteenth century… novelty was promoted from its old status as an attribute that an artistic work or style may have in some measure and became a style in its own right. To be 'absolutely modern,' it is necessary to create a work that conforms only to its own rules… novelty comes to be the defining characteristic of aesthetic modernism" (North, 2013: 147-148). By contrast, as Butt notes, Early Music offered a "slice of the past in which familiar gestures and parameters are heard in a slightly different balance" (Butt, 2002: 145).

Phenomenological: There is also a sense in which Early Music, like all art, offers an enchanting *experience*. Wilson describes this phenomenon:

> Enchantment is associated with… [a] sense of immersion in a feeling of energized focus… it involves a heightened awareness of meaning and value, and the self's relational nature… enchantment is not the same as remembering something wonderful or desiring something wonderful to happen in the future… This is effectively a form of daydreaming, and it is like entertainment – a form of distraction from the present… We can think of 'art' as escaping *into* the present… as an inherently meaningful and valuable (enchanted) presence. (Wilson, 2014: 200)

The art experience, in engendering this feeling of 'focus', is anathema to modernity which cultivates *distraction*. As Siegfried Kracauer wrote, capitalist modernity left the worker "*addicted to distraction*" as a consequence of "an essentially formal tension which fills their day fully without making it fulfilling. Such a lack demands to be compensated, but this need can only be articulated in terms of the same surface sphere which imposed the lack in the first place" (Kracauer, 1987: 93). Theodor Adorno and Max Horkheimer likewise describe the passivity aroused by the modern entertainment commodity which engenders, they write, a "stunting of the mass-media consumer's powers of imagination and spontaneity" (Adorno and Horkheimer, 1973: 126).[33]

By contrast, Early Music's quietude and the contemplative aesthetic of (some) earlier repertoire suggests a predisposition to focus and presence. Sherman notes, for example, that recordings of Medieval chant are often used to invoke "a vague feeling of timeless, otherworldly purity and calm – which we hope will give temporary relief from the pressures of time and the world" (Sherman, 1997: 24). What is more, while modernity cultivated passive consumption (as individuals), involvement in Early Music tended to be active and social. Indeed, Tamara Livingston defines revivals as 'social movements' in which "revivalists meet each other face-to-face to share repertoire and playing techniques, to discuss… to actively learn and experience the revivalist ethos and aesthetic code at work, and to socialize" (Livingston, 1999: 73). Early Music, then, can be

[33] Adorno and Horkheimer describe mass media as "occupying men's senses from the time they leave the factory in the evening to the time they clock in again the next morning with matter that bears the impress of the labor process they themselves have to sustain throughout the day" (Adorno and Horkheimer, 1973: 131).

said to offer a meaningfully enchanting *experience*, one outside modernity's consumerist model of mass-produced entertainment and distraction.[34]

Sociological: It is worthwhile exploring in more detail the relationship between Early Music, modernity, and communality. Weber argues that capitalist modernity disavows community; that "The more the world of the modern capitalist economy follows its own immanent laws, the less accessible it is to any imaginable relationship with a religious ethic of brotherliness" (Weber, 1946: 331). As Eric Hobsbawm notes, however, it is precisely modernity's social turbulences that cause a deepening of the need for community. Hobsbawm writes, "Men and women look for groups to which they can belong, certainly and forever, in a world in which all else is moving and shifting, in which nothing else is certain" (Hobsbawm, 1996: 40). I argue that we could understand the Early Music revival as offering precisely such certitude and a connection to the more-than-individual. Certainly, although profoundly critical of HIP, Adorno seemed to recognise something of this quality in the revival when he wrote:

> In [Bach], it is said, there is once again the revelation… of the time-honoured bounds of tradition… His music is said to be elevated above the subject and its contingency; in it is expressed not so much the man and his inner life as the order of Being as such… The structure of this Being [is] understood to be immutable and inexorable… This conception of Bach draws all those who, having lost either the ability to believe or the desire for self-determination, go in search of authority, obsessed by the notion of how nice it would be to be secure. (Adorno, 1981: 135)[35]

For Adorno, Early Music answered the need (instigated by modernity) for security. Hobsbawn and others have argued that this need was otherwise met by a new preoccupation, in the twentieth century, with

[34] There is also a sense in which the Early Music experience counters modernity in its *irrationality*. As Richard Jenkins notes, Weber draws "our attention to the decline of magic *per se*, to the presumption that, in principle at least, the world is embarked on a path at the end of which there will be no more mysteries. All things are taken to be potentially capable of explanation in terms that are acceptable to the rationality of science" (Jenkins, 2001: 15). Art's domain, by contrast, is the ineffable and the transcendent. Art speaks not to rationality but to the irreducible, the mysterious, and the unknowable – or, to 'magic'.
[35] The religious dimension that Adorno identifies (and that is central to Weber's work) is significant and is discussed in detail in Chapter Five (5.3).

'identity', 'identity groups', and 'identity politics'. Indeed, Jock Young notes that "Just as community collapses, identity is invented" (Young, 1999: 164). Likewise, Zygmunt Bauman understands the loss of collective securities as giving rise to 'communitarianism' (that is, of exclusionary identity groups constituted on narrowly ethnic or nationalistic grounds). He writes:

> communitarianism is an all-too-expectable reaction to the accelerating 'liquefaction' of modern life, a reaction first and foremost to… the deepening imbalance between individual freedom and security. Supplies of security provisions shrink fast, while the volume of individual responsibilities (assigned if not exercised in practice) grows on a scale unprecedented for the post-war generations… A most salient aspect of the vanishing act performed by old securities is the new fragility of human bonds… What born-again communitarianism responds to is a most genuine and poignant issue of the pendulum shifting radically – perhaps too far away – from the security pole in the dyad of *sine qua non* human values. (Bauman, 2000: 170-171)

There is a sense in which the Early Music revival might be understood as in some part 'communitarian'. Bithell and Hill write, for example, that foremost among "revival motivations is the bolstering of the identity of an ethnic group, minority group, or nation" (Bithell and Hill, 2014: 11). Elsewhere, Lynne Wlahout Hinojosa has shown that, in England, the Early Music revival originated in attempts to affirm the English national identity. She writes that in the 1900s and 1910s:

> there was wide interest in establishing the English Renaissance as the historical period in which modern England and English culture were rooted. Such recovery movements often had nationalistic goals of inspiring certain feelings in the present social world, whether a taste for high culture or a patriotic loyalty to England and her long-standing Empire (Hinojosa, 2009: 10).

Of course, there is a certain discomfort in this suggestion; that the historical might be co-opted for its nationalistic or imperialistic connotations. However, as Butt argues, engagement with the historical need not mean importing, wholesale, the exclusionary politics of the past. He writes:

> To support movements such as HIP is ultimately to believe… that values – however intensely they may be held – cannot automatically be applied outside one's local context… that there is a world of difference between a thing's origins and its eventual uses, [and] that everything is constantly reinterpreted by those with the power to do so, with fresh intentions (Butt, 2002: 215).

HIP, instead, "may well be able to turn the autonomous musical work into an 'ensemble' of historical elements without the original system of values *necessarily* emerging" (Butt, 2002: 211).

The reuse of an 'ensemble' of historical elements suggests, of course, that the Early Music revival was 'postmodern'. This is Butt's view. He writes, "Taruskin's modernist definition of HIP is misplaced. He may be quite correct in perceiving modernist elements, but these are reused and realigned in a way that is typical of… postmodernism" (Butt, 2002: 129). In this sense, the revival can be understood as part of a profound cultural shift that took place in the second half of the twentieth century. Arthur Danto describes this new 'historical sensibility':

> It is in part the sense of no longer belonging to a great narrative… that marks the historical sensibility of the present… Contemporary art… has no brief against the art of the past, no sense that the past is something from which liberation must be won… It is part of what defines contemporary art that the art of the past is available for such use as artists care to give it… Artists today treat museums as filled not with dead art, but with living artistic options. The museum is a field available for constant rearrangement (Danto, 1997: 5-6).[36]

[36] Danto's description resonates with the post-revival turn that I discuss, below (2.3).

HIP typifies the disavowal of modernist ideas of 'progress' and novelty that Danto describes. Instead, it returns to history. In this sense, Early Music challenged what Zygmunt Bauman described as modernity's "overwhelming and ineradicable, unquenchable thirst for creative destruction… of 'clearing the site' in the name of the 'new and improved'" (Bauman, 2000: 28). However, as I argued above, HIP *does not* straightforwardly negate history's 'narrative'; rather, it offers a reconnection to tradition (to the past *as past*). Thus, the scene could be understood as both within and outside the postmodern paradigm.[37]

Of course, this 'reuse' or 'recycling' could also be said to situate the revival within the broader conservationist turn of the twentieth century. As Butt writes, "It was precisely this newly charged culture of heritage and preservation that provided a wide public support and thus economic basis for the successful foundation and early flourishing of many London-based early music groups during the 1970s" (Butt, 2002: 179). In this way, Early Music can be understood as intersecting with issues of ecological conservation.[38] Butt continues, "just as we realise that technological and industrial expansion and progress cannot any longer go unchecked, culture and the arts in their historicised modes actually reflect this change of perspective in a way that is simply ignored by modernism" (Butt, 2002: 188).[39] Thus, Early Music rejects modernity's "unquenchable thirst for creative destruction" in a double sense: both as concerns the aesthetic of the artwork, and in relation to a broader cultural mode.

Finally, it has also been suggested that the new 'historical sensibility' of the twentieth century was a symptom of a cultural identity crisis the main symptom of which was 'nostalgia'. Lowenthal writes that "no term better expresses modern malaise" (Lowenthal, 1985: 4). He continues, "Mistrust of the future… fuels today's nostalgia… Modernity has since lost its charm… [the predominance of nostalgia suggests] not merely a

[37] I develop this thinking in Chapter Four (4.4), drawing on Bruno Latour's idea of the 'nonmodern'.

[38] In another sense, conservationism and Early Music could also be considered a reaction against modernity's homogeneity. Robert Hewison notes, for example, that "The effect of modernisation was not just that everything had changed, but that everything had become more and more the same, as architectural and scenic differences were ironed out under the weight of mediocrity and uniformity" (Hewison, 1987: 39). Both the Early Music revival and (architectural and cultural) heritage movements could therefore be understood as returning to something of plurality and historical *difference*.

[39] By contrast, of course, capitalist modernity's model is one of unending growth and consumption. While Weber writes very little about ecology *per se*, it is argued that he certainly "grasped the tension between capitalist growth and the environment" (Antonio, 2009: 4). In one of the few references to such issues, Weber wrote: "[in the] modern economic order… [the] economy is bound to the technical and economic conditions of mechanized, machine based production. This cosmos today determines the style of life *not* only of those directly engaged in economically productive activity, but of all born into this grinding mechanism. It does so with overwhelming force, and perhaps it will continue to do so until the last ton of fossil fuel has burnt to ashes" (Weber, 1920; 2011: 177).

sense of loss and a time in trouble, but a general abdication, an actual desertion from the present" (Lowenthal, 1985: 11-12).[40] I argue, however, that the revival was *not* nostalgic. Fredric Jameson writes that nostalgia deals only in the surface images of a stereotyped history. His examples are 'nostalgia films'[41] which he understands in relation to postmodernity's consumerism: "[our] relationship to the past is that of a consumer adding another rare object to the collection… the postmodern nostalgia film is then very precisely such a consumable set of images" (Jameson, 1998: 129). By contrast, the revival sought to go beyond superficiality, as I have outlined, to the active, the engaging, and the historically 'true' (insofar as that is possible). It did not, as in the nostalgia mode, 'desert' the present, but rather sought out the past precisely for its contemporary resonance; for its ability to re-enchant modernity.[42]

2.2 – New Music for Old Instruments in the Twentieth Century (1966-1991)

Of course, Early Music instruments were soon adopted by composers in the twentieth century. Haskell cites several key works (Haskell, 1988; 170-174) while catalogues compiled by societies and instrumentalists survey the field more granularly (O'kelly, 1990; Bedford, 1993; Sayce, King, and Kuprij, 2016; VdGSA, 2023). Rather than providing an overview of all practice, I have chosen a handful of compositions that demonstrate: first, what I describe as an 'object-oriented' approach to Early Music instruments; second, the 'social agency' of Early Music instruments; and third, the material presence of Early Music instruments. I discuss works composed between 1969 and 1991; as Livingston notes, the 1990s then saw "the end of the revival as an

[40] Nikolaus Harnoncourt suggests, for example, that "undertaking to return oneself to the past is a symptom of the loss of a truly living contemporary music" (Harnoncourt, 1988: 14-15). Robert Morgan, likewise, wrote (in the 1980s), "we have no well-defined sense of the musical present" (Morgan, 1988: 66). Franco Berardi describes "the slow cancellation of the future [that] got underway in the 1970s and 1980s" (Berardi, 2011: 18). He relates this to the failure of progressive political and social models; "the Hegelo-Marxist mythology of *Aufhebung* and founding of the new totality of Communism; the bourgeois mythology of a linear development of welfare and democracy; the technocratic mythology of the all-encompassing power of scientific knowledge; and so on" (Berardi, 2011: 18-19).

[41] Jameson does not only mean films with an historical subject. For example, he describes *Star Wars* (1977) as a 'nostalgia film' because it gratifies "a deeper and more properly nostalgic desire to return to that older period [American hero narratives from the 1930s] and to live its strange old aesthetic artefacts through once again" (Jameson, 1998: 8).

[42] The issues discussed in this section (2.1.8) resonate with those given by Ronström in his essay 'Revival Reconsidered'. He describes, in particular, revival as relating to "Fight against modernity… Resistance against commercialisation, the market economy and capitalism… Fight for play and against dull rationality" (Ronström, 1996: 8-9).

oppositional, anti-establishment 'movement' and its transformation into an accepted current in the musical mainstream" (Livingston, 1999: 77).

2.2.1 – Object-Instruments: Ligeti, Berio, Andriessen, and Benjamin

Gyorgy Ligeti described the compositional approach to his 1970 solo harpsichord piece, *Continuum*, saying:

> it suddenly came to me that a harpsichord was really like some strange machine… a harpsichord was most typically an instrument with a non-continuous sound, the twang of the strings is of a short duration, followed by silence. I thought to myself, what about composing a piece of music that would be a paradoxically continuous sound… but that would have to consist of innumerable thin slices of salami? A harpsichord has an easy touch; it can be played very fast, almost fast enough to reach the level of continuum… I knew what kind of music I would write, it all arose from the sound quality of the harpsichord. (Ligeti *et al.*, 1983: 22-23)

The harpsichord, in Ligeti's account, is an 'actor' in the sense of Bruno Latour's 'actor-network theory' (ANT).[43] For Latour,

> *any thing* that does modify a state of affairs by making a difference is an actor… This, of course, does not mean that these participants 'determine' the action, that baskets 'cause' the fetching of provisions or that hammers 'impose' the hitting of the nail… Rather, it means that there might exist many metaphysical shades between full causality and sheer existence. In addition to 'determining' and

[43] It is worth noting, as Ove Nordwall does, that the instrument for which Ligeti was composing – "a Neupert double with 16', 2x8', 4', buff stop, coupler, and shift pedals" belonging to *Continuum*'s commissioner, Antoinette Vischer (Nordwall, 2001: 71) – was a 'modern' instrument rather than a more faithful historical reconstruction. This harpsichord, paradoxically, made the desired 'continuous sound' much harder: "[Vischer] never dared to play *Continuum* in public. She also did not by herself reach the 'four minutes or less' in her only recording of the piece… On a heavy, modern harpsichord this tempo is very difficult to obtain without sacrificing accuracy" (Nordwall, 2001: 72-73).

> serving as a 'backdrop for human action', things might authorize, allow, afford, encourage, permit, suggest, influence, block, render possible, forbid, and so on (Latour, 2005: 71-72).[44]

The ANT framework is helpful, I argue, in refining an understanding of what Early Music instruments offered contemporary composers in the twentieth century. It suggests that they were not merely tools for realising abstract musical ideas, but that they were more *active*: 'suggesting, influencing, rendering possible', and so on. The harpsichord's materiality (it's 'light touch') and its unfamiliarity (as a 'strange machine') together afforded this reconfiguration for Ligeti.

In *Overture to Orpheus* (1982), Louis Andriessen's approach is similar. The solo harpsichord piece consists of a unison canon: "The second manual is in tandem with the first throughout at the same pitch, mostly an eighth-note apart, so that the slightly lighter tone-colour of the upper 8ft register produces a delay echo of the single lower 8ft voice". Like *Continuum*, *Overture to Orpheus* is "derived from the harpsichord itself" (Nash, 2001: 108). As Andriessen recalled, "To write a very simple two-part canon for two equal voices is something you can do easier for the harpsichord than anything else" (Nash, 2001: 109). However, the music that the harpsichord 'suggested' to Andriessen is outside its traditional performance-practice. Nash notes, "For the player, [*Overture to Orpheus*] feels almost 'unkeyboardistic' under the fingers" (Nash, 2001: 108). In this sense, *Overture to Orpheus* is similar to Luciano Berio's *Gesti* (1966), for solo recorder.

In the work, Berio notates 'mouth' and 'fingers' separately. Musical material arises, therefore, from a fundamentally reconfigured relationship between recorder and performer. Eve O'Kelly describes the piece as "an exploration of what happens when the normally inseparable functions in wind-playing of breathing, tonguing and fingering are forced to act independently of one another so that the perfect co-ordination between faculties that the player has acquired through many years of training is deliberately destroyed" (O'Kelly, 1990: 55).[45] Traditional performance-practice thus disrupted, the recorder's 'objecthood' is

[44] In affording objects a comparable status to subjects, ANT occupies a 'flat ontology' position similar to that of the related philosophical movement, object-oriented ontology (OOO). As Graham Harman writes, "[OOO] treats all objects in the same way, rather than assuming in advance that different types of objects require completely different ontologies" (Harman, 2018: 54); the human and non-human are considered "as standing initially on the same footing… both humans and non-human things are treated not as correlates of each other, but as having equally rich independent lives" (Harman, 2018: 66-67).

[45] Frans Brüggen recalled, "when I started trying to play *Gesti*… [I] wished I had never practised the recorder in the ordinary way for some twenty years, as I strove to let fingers and mouth become a perfect closed unit" (Brüggen, 1966: 66).

foregrounded. However, Berio does not wholly banish the recorder's playing tradition; the fingering of the first section is to be taken from "a baroque work (the *Giga* of Telemann's *Sonata in D minor* for recorder and basso continuo is suggested)" (O'Kelly, 1990: 56). We might say, therefore, that Berio includes in the network of object-instrument and performer something of the embodied 'object' of historical repertoire, and that it is within this network that new music arises.

A final example is George Benjamin's *Upon Silence* (1991), composed for the viol consort Fretwork. The gambist Richard Boothby recalls, "[Benjamin] produced charts taking the open strings and working out what chords were possible on the instrument. There were some passages where we would be struggling to play it and he would say, 'oh no, I was imagining you would do it like this' and he would be teaching us, in a way, how to play the viol… he had a conception of how the particular figures would be managed" (*Future Renaissance*, 2020d). In Boothby's account, the viol is an *actor*. Its material construction 'suggested' musical material to Benjamin. Again, we might say that the instrument's relative unfamiliarity – the dearth of contemporary repertoire for the consort – was central in permitting this reconfiguration.

2.2.2 – The 'Social Agency' of Early Music Instruments: Cage and Hiller

Early Music instruments are not only actors in the sense of Latour's 'shades of causality', but also insofar as they mediate historical social relations. Alfred Gell has shown that artworks instigate in viewers 'abductions' (that is, inferences) about the 'social agency' of their makers and owners, and that "*persons* or 'social agents' are, in certain contexts, substituted for by *art objects*" (Gell, 1998: 5). Condensed, the artwork then affords geographic and temporal distribution of those meanings. Georgina Born writes, "the objects that result from creative agency condense or embody social relations… spinning forms of connectedness across time and space" (Born, 2005: 16). Musical instruments are particularly resonant in this regard. As Eliot Bates notes, "they are intertwined in myriad forms of social relations, and instrumentalists and audiences often have distinctively intimate affective relations with them" (Bates, 2012: 374). The historical musical instrument, then, not only 'allows, affords, or suggests' musical material, but also instigates in its listener (or viewer) certain ideas and understandings about historical social relations.

John Cage and Lejaren Hiller's 1969 work *HPSCHD* utilises, I argue, such meanings. Described as "an atonal and structural chaos" (Kostelanetz, 1970: 23), the four-hour performance required seven harpsichords and fifty-one tape machines as well as "7 pre-amplifiers, 208 computer-generated tapes, 52 projectors, 64 slide projectors with 6400 slides, 8 movie projectors with 40 movies, a 340 foot circular screen and several 11x40 foot rectangular screens" (Houghtaling, 1969). In such a technologically-saturated environment, the harpsichord was anachronous; its musical function, disrupted. None of *HPSCHD*'s music was written *for* the harpsichord. Instead, it consisted of fragmented quotations from the musical canon.[46] What is more, the harpsichords had to be "amplified to be equal volume with the tapes" (Austin, Cage, and Hiller, 1992: 17) and augmented, technologically. David Tudor, for example, had to "modify the sound quality called for in the score with a device… permitting many amplitude changes per second" (Husarik, 1983: 17). By some accounts, the harpsichords were not even audible (Heimbecker, 2008: 477).[47] Instead, as Charles Kronengold notes, "*HPSCHD* compels the harpsichord to float free, largely disconnected from its histories, cultural meanings, mechanisms, and the genres and practices it's associated with" (Kronengold, 2018: 590).

Untethered, the harpsichord's meanings and associations were not, however, wholly negated. Foreclosed from its 'correct' musical-historical function, we could argue that the harpsichord mediated its social relations *as contingent*. That is, 'floating free' the 'condensed social relations' of the harpsichord were themselves imbued with a sense of anachronism and, therefore, of contingency and contestability. This was certainly Cage's aim. He saw *HPSCHD* as the enactment of an alternative social order, describing the piece as "political art which is not about politics but political itself… each man determines what he hears… attention isn't focussed in one direction… With all those parts and no conductor, you can see that even this populous a

[46] The "*Musikalisches Wurfelspiel* KV 294d attributed to Mozart" (Heimbecker, 2008: 476) formed the basis of the piece, with music from the canon also fragmented and rearranged. Cage recalled, "we divided history from Mozart to the present time – that is, to Hiller's work and my own work – into roughly 25 year periods, making an historical shift from the *Dice Game* through Beethoven, Chopin, Schumann, Gottschalk, Ives, Schönberg, and ending with a binary choice between a piano sonata by Jerry Hiller and my *Winter Music*" (Austin, Cage, and Hiller, 1992: 18). Cage saw music history as "'moving-away-from-unity' and 'moving-toward-multiplicity'" (Austin, Cage, and Hiller, 1992: 16). In this context, *HPSCHD*'s tape parts can be understood as the 'most-multiple' end point of that musical evolution; computer generated and microtonal, they "consist of various sawtooth waveforms… rendered in a gamut of from 5 to 56 pitches [to the octave]" (Husarik, 1983: 10).

[47] Nicholas Temperley recalls his experience of the premiere: "Several keyboard musicians were playing on raised podiums dotted around the space. I went as near as I could get to one of these podiums, perhaps six feet away. On it a slight, somewhat elderly lady was playing harpsichord music with great concentration. Although I could see her fingers moving rapidly over the keys, I could not hear her music at all; it was completely masked by the web of indeterminate sounds that were filling the air" (quoted in Heimbecker, 2008: 477)

society can function without a conductor" (quoted in Kostelanetz, 1970: 23).[48] Returning to Gell, we might say that Cage and Hiller's harpsichord 'stands in for' persons or social agents; that it *abducts* historical social relations. *HPSCHD*'s postmodern assemblage then reappropriates and recontextualises these meanings, announcing the contestability of the historically-constituted social order in its free-floating simultaneity.

2.2.3 – Early Music Instruments and Electronics: Ferrari and Saariaho

In the programme note to his 1972 composition for harpsichord and electronics, *Programme Commun: Musique Socialiste?,* Luc Ferrari asks "within artistic activities, how can we work towards a new society?" (Ferrari, 1972; 2019: 6). Kronengold suggests that it is "The (amplified) harpsichord's history, sonic materiality, and physical presence [that] raise the questions Ferrari was asking: who are we, what do we convene around, what are we opening ourselves up to?" (Kronengold, 2018: 594). In this sense, Ferrari's harpsichord is like Cage and Hiller's; its anachronism speaks to the contingency of the present social order. My interest, however, is in the 'sonic materiality' that Kronengold identifies.

Programme Commun's music arises in confrontation with the harpsichord. Christoph Wagner writes, "Starting with shimmering cascades of notes and violent chord clusters, the composition leads to a veritable karate fight with the instrument, carried out with targeted hand smacks on the keyboard and against the wooden body" (Wagner, 2020: 68).[49] As with the examples above, Ferrari's harpsichord is reconfigured as an *object*. Foremost among what it offers, however, is a sense of its own corporeality. The harpsichord's materials – its plectra, wood, and strings – are mediated sonically. *Programme Commun*'s musical material (its low repeated fifths, chord clusters, and so on) reinforces this materiality which, amplified, is heightened further. As Mike Vaughan notes, "the richness of the mechanical sound of the harpsichord can often only be fully

[48] In this sense, *HPSCHD* was part of the 1960's tradition of the 'happening'. Indeed, this is how Cage saw the work. He recalled, "When I produce a happening… I try my best to remove intention in order that what is done will not oblige the listener in any one way. I don't think we're really interested in the validity of compositions any more. We're interested in the experiences of things" (quoted in *TIME*, 1969).

[49] Translated from the original German: "*Von flirrenden Tonkaskaden und heftigen Akkordclustern ausgehend, mündet die Komposition in einen wahren Karatekampf mit dem Instrument, der mit gezielten Handkantenschlägen in die Tastatur und gegen den hölzernen Korpus geführt wird*".

appreciated… when it is placed under the sonic microscope of an amplification system" (Vaughan, 2009: 20).[50] Our experience, therefore, is of 'feeling into' the harpsichord. I borrow this idea from Deniz Peters' work on electronic music. He argues that our perception of musical sound has a bodily, or felt, component; that "Upon hearing sounds alone, unthinkingly, our lived body suggests potential feelings, *as if* we made those sounds ourselves. Auditory perception invites us to extend and *feel into* the heard, in a sort of haptic completion" (Peters, 2012: 22).[51] Early Music instruments, I argue, are particularly rich in offering this 'haptic completion'. Their materials are especially audible and they therefore invite an experience of tactility. After Roland Barthes (Barthes, 1977), we might name this quality, the 'grain' of the instrument.[52]

Kaija Saariaho's *Jardin Secret II* (1984-86), also for harpsichord and tape, likewise explores the harpsichord's 'grain'. Saariaho's electronics consist of "concrete sounds, the harpsichord and [her] own voice that were fed into the computer and processed at the digital studio of GRM [*Groupe de Recherches Musicales*]" (Saariaho, 1986). The composer's body and harpsichord-as-body therefore meet in the piece; "whispered or murmured 'breathy' sounds" (Emmerson, 2009: 41) emanate from the 'noise' of the harpsichord's opening trill, staccato instrumental chords are echoed by spliced vocal stutters, and so on.[53] For Saariaho, the studio offered a 'sonic microscope' (returning to Vaughan), affording manipulation of "microsonic variables" (Morrison, 2021: 4.9) that heightened a sense of the granular materiality of the harpsichord and voice.

What is foregrounded in *Programme Commun* and *Jardin Secret II*, then, is a sense of the tactility, or 'grain', of the harpsichord's sound. As I will now discuss, the 'grain' has been of central interest to composers working with Early Music instruments in the twenty-first century, also.

2.3 – 'Post-HIP': New Music for Old Instruments in the Twenty-first Century[54]

[50] Here, Vaughan is writing about Ligeti's *Continuum*.
[51] Peters is here building on the work of the French phenomenological philosopher Maurice Merleau-Ponty who suggested that the sensing-body extends *into* the environment *through* and including objects that are thus 'embodied' (Merleau-Ponty, 1945).
[52] Barthes wrote, "The 'grain' is the body in the voice as it sings, the hand as it writes, the limb as it performs" (Barthes, 1977: 188).
[53] There is also a sense in which the body-harpsichord and the performer's body meet in *Programme Commun*. Elizabeth Chojnacka, who commissioned the work, recalled that the piece "'needs total engagement, mental and physical', from 'my whole body'" (quoted in Kronengold, 2018: 593).
[54] The following draws heavily on my article "Post-HIP': New Music for Old Instruments in the Twenty-First Century' published in *Tempo* 75(297) (Tassie, 2021). For reference, that article is included in this thesis' appendix.

I argue that more recent practice with Early Music instruments evidences a qualitative change. For the performers and composers I will now discuss, history is no longer the primary instigator of practice; the focus, instead, is on new music. Reflecting and engaging with broader twenty-first-century concerns and approaches, we can understand this new scene as an example of 'post-revival' practice in which, as Hill and Bithell note, "spin-off traditions… break free from the restrictions imposed by the purist arm of the revival and develop practices more apropos to their own contemporary reality" (Hill and Bithell, 2014: 28-29). Reflecting this transformation, I call this scene 'post-HIP'.[55] Below, I draw on first-hand interviews with key post-HIP practitioners which I completed during 2020 as part of my radio series 'Future Renaissance' on Resonance FM.[56]

Early Music instruments' sonic materiality, or 'grain', is of central interest to many post-HIP composers and performers. The Icelandic Baroque violinist Halla Steinunn Stefánsdóttir, for example, describes her instrument as having "a certain graininess to it" (*Future Renaissance*, 2020c). Likewise, the composer Stevie Wishart says, of the Medieval violin, "the gut strings have this hidden timbral quality" (*Future Renaissance*, 2020e). The Canadian composer Sarah Davachi calls it "this sort of instability" (*Future Renaissance*, 2020b). Implicit, perhaps, in this focus on the 'grain' is a negation of harmonic drive. Certainly, harmonic stasis is common to the post-HIP aesthetic. Anna Thorvaldsdóttir's *Shades of Silence*, for example, (written for the ensemble Nordic Affect in 2012)[57] "begins with droning strings and with barely audible sounds produced by plucking, brushing, and rubbing the strings of a harpsichord. Eventually, chiming figures emerge from the cloud of timbre" (Ross, 2017). Wishart's *Out of the Mists* (for harpsichord and piano) similarly explores "timbre in its own right". She explains, "so often, I'll really simplify music… because then you can just hear timbre" (*Future Renaissance*, 2020e).

[55] The term 'post-HIP' is used elsewhere by the conductor Andrew Manze. In the booklet text to his recording of the complete Brahms Symphonies, he writes: "The present version might be described as post-h.i.p., in that many of the performance decisions have been taken with a background awareness of appropriate historical evidence and practice but the instruments used are conventional (i.e. 'modern' rather than 'period')" (Manze, 2012).

[56] The series is available to stream online: https://benjamintassie.com/future-renaissance-on-resonance-fm (Accessed 14 October 2023).

[57] Nordic Affect consist of Baroque violin, Baroque viola, Baroque cello, and harpsichord. Stefánsdóttir is the ensemble's violinist.

Advances in recording and electronic-music technologies aid the magnification of this 'grain'. Stefánsdóttir's collaboration with the composer Mirjam Tally, *In the Bottomless Hollow of the Winter Sky*, was, for example, "a process of field recording the [Baroque] violin", approaching it as one might a landscape in order to capture the idiosyncrasies of its sound. In making their album *Raindamage* ("an exploration of the studio environment and the collaborative possibilities" therein), Nordic Affect were careful to ensure that the "graininess [was] let through" (*Future Renaissance*, 2020c). The composer Valgeir Sigurðsson likewise used studio technologies to "explore the extremes of [gambist, Liam Byrne's] instrument's tonal palette" when making *Dissonance* (Sigurðsson, 2017).[58] Byrne's sounds were "sculpted… and curated" (*Future Renaissance*, 2020a), "routing the signals back out to amps, speakers and effects before recording the entire thing back to tape" (Jónsson, 2017). For post-HIP artists, then, the proliferation, improvement, and increased accessibility of studio technologies affords a particular flexibility and experimentation. As we see with Sigurðsson's use of analogue tape, however, older – or 'retro' – technologies are also used. In this sense, post-HIP reflects a broader 'retro' turn in which plural historical genres, styles, and approaches are available and freely utilised.

The Dutch lutenist Jozef van Wissem's practice is a good example of this approach which we might call 'post-genre'. His use of drone, distortion, and the lute's association with the guitar (no matter how spurious), situate his music in the realm of 'rock' (as does his appearance – the journalist Steve Dollar notes, he "could easily pass for a Nordic metal overlord, with thigh-high black leather boots and long, dirty-blond hair": Dollar, 2014). The focussed, sparing repetition of his material, however, is perhaps closer to the minimalism of his fellow Hollanders, Louis Andriessen or Simeon ten Holt. Van Wissem also draws on the Renaissance repertoire of the lute. All in all, an eclectic, pluralistic style emerges.

Indeed, Van Wissem composes uses an approach he calls 'Medieval sampling'. New music emerges from, and in dialogue with, the lute's historical repertoire – he notes, "I just play music for a while and listen to classical pieces, and then there's a theme that sort of stands out for me" (*Future Renaissance*, 2020f). An example of Lowenthal's Heritage (discussed, above: 2.1.6), van Wissem's 'Medieval sampling' blurs the boundary between interpretation and composition, transforming the historical in service of its 'current

[58] *Dissonance* slows the Mozart *Dissonance Quartet* to create new music based on its harmonic progression.

potency'.[59] Citing his interpretation of the Renaissance song *You Know I Love You and Adore You*,[60] for example, van Wissem notes, "they asked me to perform it in just a standard classical way, but sometimes it doesn't really come across very good if you do that to an audience, if there's a big audience, so I sort of make a drone out of it – put an open string under it, under the melody, so it becomes a bit more stronger [sic] and a bit more – I would say – more of a live experience" (*Future Renaissance*, 2020f).

This, I argue, is a defining characteristic of post-HIP: a deconstruction and re-assemblage of the historical within the generative space of 'Heritage'. Applied to instrumentation as well as repertoire, this approach is more broadly freeing; van Wissem is "not only liberating the lute… but also asking his audience to liberate themselves from accustomed approaches to music" (Dollar, 2014). Elsewhere, Davachi notes, "I think there's this taboo of 'oh, you can't record a harpsichord and then cut it up and do things with it'; of course, you can. You can do whatever you want. If it sounds good, why wouldn't you do it?" (*Future Renaissance*, 2020b). I argue that it is Early Music instruments' discontinuity of practice that facilitates this creative freedom. Wishart notes, for example, "[the] word 'baggage' is a word that I use a lot… I love it. The hurdy-gurdy is a social and historical nomad. It's just wandered around history, it's never been able to be pinned down whereas with the piano, or when I play the violin, people think they know what you're going to play… they come with baggage" (*Future Renaissance*, 2020e). Thought of within the ANT framework, we might say that historical instruments *afford* certain freedoms to the post-HIP artist.

In drawing on plural historical styles and approaches, post-HIP aligns with a broader cultural trend that Simon Reynolds calls 'retromania'. Broadly, Reynolds sees the ubiquity of the internet after 2000, and in particular what he calls the "crisis of overdocumentation triggered by digital technology" (YouTube, he says,

[59] Van Wissem's approach is similar to what Haynes called 'style-copying in composing' (Haynes, 2007: 209-210). However, whereas van Wissem uses the technique to create music of a distinctly contemporary aesthetic, Haynes calls for "newly composed Period music" in which "the particular work is quite original, but the vessel in which it is contained, that is, both the genre and the style, is fixed and constant [in the baroque style]" (Haynes, 2007: 210). This approach risks, I argue, what the anthropologist Barbara Kirshenblatt-Gimblett calls 'folkloric performance'; historical re-enactments in which "performances can become like artefacts. They freeze. They become canonical. They take forms that are alien, if not antithetical, to how they are produced and experienced in their local settings" (Kirschenblatt-Gimblett, 1998).

[60] Composed by Jacques Arcadelt (c.1507-1568), a fragment of the song (in French: *'Vous savez que je vous aime et vous adore'*) is depicted in Caravaggio's painting, *The Lute Player* (1596). Van Wissem was commissioned by the Hermitage Museum, St. Petersburg, to perform the piece for an event celebrating the painting's restoration in 2018. A recording was released on the album: Jozef van Wissem, *We Adore You, You Have No Name* (Consouling Sounds SOULCXIX, 2018).

"serves as both major player and potent symbol"), as engendering a saturated state of referentiality and, consequently, a dearth of originality in pop music (Reynolds, 2011: 56). While Reynolds undoubtedly identifies a profound cultural shift, I am inclined to agree with Michael Waugh who suggests that what Reynolds laments is the destabilisation of hegemonic systems (including the role of the critic) associated with "the progressive linearity of the canonical historiography of popular music" (Waugh, 2015: 37).[61] Rather, for a great deal of art, 'post-internet', the concern is less with modernism's novelty and more with the reconfiguration of references within the network.[62] This has been called 'post-postmodernism'. Whereas postmodernism facilitated a levelling of the cultural landscape, negating modernism's hierarchies, post-postmodernism utilises diverse reference points both as resource (anything, still, is available) and *as signifiers* of their referentiality. Steven Shaviro explains, "citations and remediations and so on and so forth are themselves altogether real, part of The Real. The exacerbated irony of the 'postmodern' 1990s eventually imploded into what we can see today as a multifaceted immanence… all the hierarchies of reflection have collapsed. Today, there can be no ontological privileging of referentiality and self-referentiality" (Shaviro, 2013).

I argue that post-HIP engages with this 'multifaceted immanence' in a number of ways. Van Wissem's stylistic plurality, for example, engages a listener attuned both to the signifiers of the genres from which he samples, and the *mode of sampling* itself. When the vocalist and composer Marianne Schuppe resonates her lute using an electric guitar 'EBow', she treats the instrument ahistorically (outside its playing tradition, already re-constructed) and, in doing so, signposts the historicity she negates.[63] By 'hacking' a harpsichord for her Orpheus Machines project, Patricia Alessandrini reconfigures manifold associations and expectations around both the harpsichord (in particular) and the category of 'instrument' (more broadly) in the digital age.[64] In *Dual Synthesis*, Tristan Perich melds the harpsichord's timbral 'flatness' with '1-bit electronics' – "every value is either zero or one. There is no volume control, there's no timbral adjustment" (Gottschalk, 2008: 18).

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[61] Returning to an idea discussed early (2.1.8), we might describe Reynolds' position as a perpetuation of modernity's 'cult of novelty' in which, as Michael North wrote, "novelty was promoted from its old status as an attribute that an artistic work or style may have in some measure and became a style in its own right" (North, 2013: 147-148).

[62] We could think of this as a deepening of Danto's 'historical sensibility of the present', discussed above (2.1.8)

[63] See, for example: Marianne Schuppe, *Nosongs* (Edition Wandelweiser Records EWR 1802, 2018); Marianne Schuppe, *Slow Songs* (Edition Wandelweiser Records EWR 1509, 2015).

[64] Briefly, the visual of the harpsichord's mechanism is captured and translated into an audio signal which is then diffused through the body of the instrument. The harpsichord, reconfigured, becomes "a unique artefact which both contains the potential of a given musical utterance and physically renders it itself" (Alessandrini, 2016: 5).

Consequently, the homogeneity of harpsichord-computer sound contains the collapsed totality of *Dual Synthesis*' reference points – eighteenth-century repertoire, American minimalism, consumer electronics, and so on.

I argue that post-HIP's use of non-traditional performance spaces is best understood in this context. Thought of within the post-postmodernist framework, alternative performance spaces mediate their meanings within broader referential networks, including in relation to that which they negate; a carpark-within-which-an-orchestra-plays is now not only a carpark but also *not*-a-concert-hall.[65] Byrne's 2015 performance series for the V&A, *Inside Voices*, is a good example of this, particularly as concerns the importance of the viol's historicalness in activating these meanings. Consisting of more than three hundred one-to-one performances inside a Victorian plaster-cast column, Byrne described the series as a "kind of Marina Abramovich knock-off viola da gamba installation" (*Future Renaissance*, 2020a). For Byrne, the column's interior was the nexus for plural meanings, not only in relation to performance-art traditions, but also the viol's historical contexts, and the live musical experience more broadly. Byrne explains, "in the Baroque period, live music happened in a varied assortment of domestic, institutional, public and private spaces. Nowadays, Baroque music is performed almost exclusively in concert halls, which creates a rather one-way relationship between musicians and their audiences" (*Future Renaissance*, 2020a). *Inside Voices* therefore sought to appropriate and reconfigure something of these references points. The viol is crucial in this regard, activating a kind of criticality in its unbelonging; it is an outsider, and therefore apt to facilitate interrogation of both the performance space and its related traditions. Byrne notes, "for me, it's not a narrative of contrast, it's not a narrative of taking something out of one environment and inserting it into another… It's not kind of like I'm trying to displace a practice into a different structure. It's more that I'm wandering around and enjoying the freedom and flexibility that the instrument has" (*Future Renaissance*, 2020a).[66]

Elsewhere, Stefánsdóttir explores space through her 'ecological sound art' pieces in which the listening experience of one space is activated within another. Again, plural reference points (ecological art and

[65] Slavoj Žižek explores this idea in his reading of a joke in Ernst Lubitsch's *Ninotchka*: a character asking for 'coffee without cream' is told that the café has run out of cream; only having milk, he is instead offered 'coffee without milk'. Žižek maintains, "what you don't get is part of the identity of what you do get. In what sense? Because if you bring this logic to its extreme you can also see how with a double negation… the result is not zero" (Intelligence Squared, 2011).

[66] Byrne's doctoral research project, *Playing With the Viola da Gamba*, explores these ideas in more detail (Byrne, 2022).

the classical concert tradition) are utilised. Stefánsdóttir notes, "we are wired to listen in a very different way to the world, and it's about bringing those abilities into different environments and seeing what that will reveal" (*Future Renaissance*, 2020c). Her 2017 installation at the Harpa concert hall in Reykjavic, *I Play Northern Lights*, for example, formed "a critique of classical concert hall culture… [and] the emergence of a concert tradition that diminishes the possibilities for participation" (Stefánsdóttir and Östersjö, 2019: 377). Stefánsdóttir, like Byrne, challenges the one-way relationship between listener and musician in the concert hall, using installation to "reveal the elephant in the room which is the space itself" (*Future Renaissance*, 2020c).

Of course, since the mid-2000s performance of classical music outside the concert hall has become increasingly commonplace. Thom Andrewes notes that non-classical performance methodologies "[unsettle] both the music and the space" (Andrewes and Djuric, 2014: 51). The institutionalised performance space, by contrast, stifles its repertoire: "closeted away in a university or recital room, there can be a sense that this music is neutralised, always already included in a discourse of sounds and pitches, rather than fore-grounding its challenge to the world" (Andrewes and Djuric, 2014: 54). Here, non-classical and post-internet practices align, post-internet art also emphasising a "shift against the hermeticism of the art world" (Archey and Peckham, 2014: 9). In engaging with these trends, post-HIP artists are, I argue, not only engaged with a wider cultural shift, but are responding to something fundamental about their instruments which are inexorably bound up with institutions of history (museums, conservatoires, and so on). Post-HIP artists *must*, therefore, challenge the institutional space in order to resonate meaningfully in the contemporary world – as van Wissem notes, "you want to remove the dust!" (*Future Renaissance*, 2020f).

I have outlined something of post-postmodernism's poietic and esthesic affordances. However, it is important to recognise a shift under post-postmodernism: from substance (depth, or meaning) to signifier (or surface). In this sense, post-postmodernism represents a deepening of postmodernism's preoccupation with representation and its (ironic) assertion of the elusiveness of meaning. The surface is interrogated, certainly, (as in Byrne's column-interior, van Wissem's distorted lute, or Perich's 1-bit harpsichord) however only *as surface*. Perhaps this is inescapable in the post-postmodern cultural landscape; the contemporary subject cannot, after all, unlearn their engagement with the network of signifiers that now constitute the terms with which the artwork must be engaged. However, the surface mode disavows a connection to *long durée* history.

By constituting the cultural only in terms of the signifier-network, post-postmodernism necessarily eschews engagement with meaning beyond that surface sphere. Here, we return to Jameson's 'nostalgia mode' in which everything is rendered as image. As Jameson writes elsewhere, ours is "a society that has become incapable of dealing with time and history" (Jameson, 1998: 9-10). We can think of the post-postmodernist artwork as nostalgic insofar as the reduction to image both severs the present from the historical arc and engenders a *longing for* that (disavowed) history. Mark Fisher discusses this 'longing' in terms of Jacques Derrida's concept of 'hauntology'. His example is recent electronic music, identifying in its reappropriation of historical signifiers an attendant disconnection from *long durée* time. He writes, "In hauntological music there is an implicit acknowledgement that the hopes created by postwar electronica or by the euphoric dance music of the 1990s have evaporated – not only has the future not arrived, it no longer seems possible" (Fisher, 2014: 21). To be clear, I deploy Fisher's 'hauntology' not in the sense of Reynold's 'retromania' (that is, to lament the deprioritising of novelty under post-postmodernism) but to highlight the connection between the hauntological turn and a broader cultural apathy which Fisher calls 'hauntological melancholia'. Whereas (returning to Butt) the twentieth-century revivalist used "an imagined utopian past as a way of criticising and 'improving' the present", twenty-first-century post-postmodernism disavows the very project of 'criticising' and 'improving'; "What is being longed for in hauntology is not a particular period, but the resumption of the *processes* of democratisation and pluralism" (Fisher, 2014: 27).[67]

This shift from substance to signifier also profoundly reconfigures the relationship between the artwork and the individual. As Alan Kirby has argued, "Postmodernism conceived of contemporary culture as a spectacle before which the individual sat powerless… Its successor, which I will call *pseudo-modernism*, makes the individual's action the necessary condition of the cultural product". The internet is the primary example of this, in which one "clicks, presses, surfs, chooses, moves, downloads". We could broaden this diagnosis: the post-postmodern engagement within the signifier-network is similarly *active*; the work only constituted in terms of that active engagement. However, this individuated, 'interactive' mode forecloses any interrogation of meaning. Kirby continues: "Whereas postmodernism called 'reality' into question, pseudo-modernism

[67] The relationship between the post-postmodern artwork and the broader culture is, in this sense, self-perpetuating: post-postmodernism's reduction to surface forecloses the historical arc which, in turn, engenders a deepening of Jamesonian nostalgia and a worsening of hauntological melancholia, which further distances the present from history, and so on.

defines the real implicitly as myself, now, 'interacting' with its texts". The cultural sphere is thus impoverished; the subject, *occupied* in a deepening of modernity's distractedness: "You click, you punch the keys, you are 'involved', engulfed, deciding". In this sense, the culture has become a closed system; "You are the text, there is no-one else" (Kirby, 2006). It is therefore impossible to interrogate either the culture-system itself or the conditions that sustain it. Capitalist post-postmodernity has, in this way, succeeded in mitigating the culture's challenges to it. As Jeffrey Nealon wrote, "the cultural rebellion narratives of the '60s… can now officially be pronounced dead" (Nealon, 2012: 21).

In this context, I argue that post-HIP is essential. While (inevitably) implicated in post-postmodernism, it has the potential, I argue, to countervail its failings just as the earlier revival met the shortcomings of modernity. The very historicalness of Early Music instruments suggests, for example, the possibility of a re-connection to *long durée* time, engaging meaningfully with the past beyond its constitution as image. Deployed as Lowenthalian 'Heritage', the historical might then meaningfully speak to our current moment, countervailing something of the cultural apathy that is predominant under post-postmodernity. The individuated interactivity and distractedness of pseudo-modernism might also be countervailed by post-HIP. Early Music instruments speak, through their 'grain', to corporeality, sensuality, and to presence. More broadly, Early Music instruments function as *connective*; fostering connections to tradition, to one another, to place, and to issues of conservation. As 'historical nomads', or 'outsiders', Early Music instruments are well placed to interrogate the culture, penetrating something of post-postmodernism's 'closed system'. Post-HIP might, therefore, offer a means of reviving not only the processes of history but also something of the attendant narratives of cultural rebellion. That is not to say that the digital should be wholly rejected in returning to history. Indeed, it is in many ways our technological culture, what Nick Prior calls our 'hypermodern moment', that has helped "loosen, soften and make malleable contemporary social, cultural and economic forms… [changing] our expectations about what belongs in music, what music consists of, who is making music and how" (Prior, 2009: 95). Post-postmodernity has provided, in this sense, precisely the means of its own transformation. Post-HIP is uniquely placed to co-opt those means, I argue, returning to the past in order to interrogate, enliven, and transform the post-postmodern present.

In the following chapters I describe my own post-HIP practice insofar as it relates to these issues. In Chapter Three, I discuss a number of smaller-scale works exploring, among other things, ideas of hauntology, pseudo-modernism, and 'enchantment'. Chapter Four explores the relationship between Early Music instruments and ecology. Finally, in Chapter Five I discuss a large-scale concert work in relation to ideas of communality, religion, and the 'end of history'.

CHAPTER THREE: SMALLER-SCALE EXPERIMENTATION

Abstract

This, the first of three commentary chapters, describes practice research completed toward the creation of three, smaller-scale works: *Solo for Computer and Tape*, *Bad Death Ghosts*, and *Glass Coloured*. For each, I describe the work's methodology before then reflecting on that practice, situating the piece in relation to wider theory. I begin by discussing *Solo for Computer and Tape*, a filmed installation created for The National Gallery in London. Having outlined my use of historical recordings of Baroque music in the work, I explore its relationship to ambient and hauntological musics. Technologies of 'materialised memory' are discussed, as is Mark Fisher's concept of 'agitated interpassivity'. Next, I discuss *Bad Death Ghosts*, a concert work for microtonally-tuned spinet and lap steel guitar that explored the novel, microtonal sonorities arising from the use of the historical tuning-system of Nicola Vicentino. Reflecting on this practice, I discuss microtonality as 'enchanted', exploring my practice in relation to Max Weber's thinking on the rationality of Western music. Finally, I describe practice research completed towards *Glass Coloured*, a concert work for 3D-printed Renaissance cornett and Ableton Live 11. Here, I expand my discussion of microtonality's enchantment to include thinking around the Ancient idea of the 'music of the spheres'.

3.1 – *Solo for Computer and Tape*

Solo for Computer and Tape was a sound-installation commissioned by The National Gallery, London, in 2020. The piece used reel-to-reel tape machines, analogue synthesisers, guitar pedals, and the DAW Ableton Live 10 to 'recompose' Baroque music by Johann Sebastian Bach, Henry Purcell, and Domenico Scarlatti. Created for the gallery's 'Myra Hess Day', the piece responded to the legacy of the English pianist Myra Hess whose arrangement of the cantata 'Jesu, Joy of Man's Desiring' helped bring Bach's music to a wider audience in the twentieth century. In particular, *Solo for Computer and Tape* made connections between Hess' performances at The National Gallery during the Second World War and the particular circumstances of my commission: the Covid-19 pandemic and 'lockdown'. Thus, *Solo for Computer and Tape* used digital and analogue technologies to transform Early Music in order to speak to current issues in the broader culture.[68]

3.1.1 – Methodology

Myra Hess organised and performed in a series of extremely popular concerts at The National Gallery throughout the Second World War. Running from 1939 to 1946, these concerts aimed "to make classical music available to all" at a time when concert venues were otherwise closed (The National Gallery, n.d.). Of course, the circumstances of my commission could be said to echo those of Hess' concerts insofar as music venues in England were also closed for much of 2020.[69] However, whereas Hess was able to bring live music to her audiences by making use of The National Gallery's closed exhibition spaces, Covid-19 restrictions made live, in-person performance impossible in my work. I wanted to reflect something of this absence, and so created a filmed musical installation in which the live performer would be almost entirely negated. To begin, I selected recordings from Hess' catalogue:

[68] Collaborating in-person with HIP instrumentalists at this time was, of course, not possible because of restrictions around the Covid-19 pandemic. Thus, *Solo for Computer and Tape* offered a valuable opportunity to refine my ideas and practice in their nascency. As I discuss below (3.1.2), the work offered a number of insights about Early Music, recorded media, and post-postmodernity's 'agitated interpassivity', as well as related concepts including 'hauntology' and nostalgia. I therefore include the work in this thesis as, although it does not use an 'Early Music instrument', it approached the project's second research question regarding Early Music and 'broader cultural frameworks'.

[69] See: https://www.instituteforgovernment.org.uk/sites/default/files/timeline-lockdown-web.pdf (Accessed 1 November 2023).

1. *Toccata, Adagio, and Fugue in C Major* (BWV 564) – Bach
2. 'Sarabande' – Purcell
3. *Keyboard Sonata in C Minor* (Kk.11) – Scarlatti
4. '*Jesus bleibet meine Freude*' from the cantata *Herz und Mund und Tat und Leben* (BWV 147) – Bach (arr. Hess).[70]

These recordings – made between 1928 and 1957 – have the characteristic high noise floor of early tape recordings. In this regard, they could be said to relate to recent ambient music which explores what Monty Adkins calls 'material fragility' (Adkins, 2019), an idea I develop below (3.1.2). I therefore processed the recordings using a number of digital techniques from ambient and other electronic music.[71] I vastly slowed the recording of Bach's *Toccata, Adagio, and Fugue in C Major*, for example, using the opensource software Paulstretch.[72] This transformed Bach's music into a slowly-evolving, ambient texture. Next, I processed Purcell's 'Sarabande' by splicing together all the ornaments in Hess' performance, creating a new melody. Likewise, I took fragments of Scarlatti's *Keyboard Sonata in C Minor* (often individual notes), slowed, and re-pitched them. I also transformed these fragments using digital tape-effects including Ableton's 'Echo' plugin. Finally, I looped small, three- or four-note fragments of Bach's 'Jesu, Joy of Man's Desiring' to create a repetitive, quasi-minimalist texture. Transformed, these works form the basis of *Solo for Computer and Tape*'s four movements: 'Toccata', 'Saraband', 'Sonata', and 'Cantata'.

I then recorded this processed material onto two reel-to-reel tape machines. These ran simultaneously in the installation, with their audio sent through three guitar pedals (reverb, delay, and distortion) to further process the Baroque music. Finally, I used two synthesisers – the Arturia Minibrute and Novation Peak – to contribute melodic lines, bass notes, and 'pad' textures to the tape machines' material.

[70] These recordings are all taken from *Myra Hess: The Complete Solo & Concerto Studio Recordings (Recorded 1928-1957)* (APR7504)
[71] 'Ambient Music' was, of course, a term coined by Brian Eno in the liner notes to his 1978 album *Music for Airports: Ambient 1* in which he wrote, "Ambient Music is intended to induce calm and a space to think. Ambient music must be able to accommodate many levels of listening attention without enforcing one in particular; it must be as ignorable as it is interesting" (Eno, 1978).
[72] Created by Paul Nasca, this algorithm stretches sound by a very large amount while preserving its subjective quality. Music Radar described the software: "Capable of stretching audio files to 10,000 times their original size, it can make a piece of music that lasts a few minutes go on for several days!" (Music Radar, 2014).

Both the synthesisers and guitar pedals were controlled using MIDI data sent from a laptop running Ableton Live 10. In the installation, I set the tape machines and laptop running; there is no further human intervention – the machines interact, reproducing and transforming the Baroque music once performed by Hess.

3.1.2 – Exegesis

In Chapter Two (2.1.7), I argued that HIP was fundamentally creative. As Daniel Leech-Wilkinson noted, this creativity means that Early Music not only engages with history but also reflects back to us something of our contemporary beliefs, preferences, and preoccupations. *Solo for Computer and Tape* is best understood, I argue, in this context. Working 'post-HIP', the work creatively repurposed the music of Bach, Purcell, and Scarlatti to speak to the contemporary experience of the Covid-19 pandemic and 'lockdown'. In this sense, *Solo for Computer and Tape* could be said to extend the process already begun with Hess in her arrangement of Bach's 'Jesu, Joy of Man's Desiring' for the piano. Just as Hess creatively retooled Bach for her audiences, so I repurposed Hess' performances in my own work. There is therefore a multiplicity of histories in *Solo for Computer and Tape*. The music of the seventeenth and eighteenth centuries is filtered through twentieth-century recordings, which are, in turn, transformed and mediated by twentieth- and twenty-first-century technologies. In this sense, the past is both abundant and distant in the work; *Solo for Computer and Tape*'s various histories are multi-layered but they are also filtered and placed at a remove.

We might say that the work's high noise floor communicates something of this sense of distance. As Monty Adkins notes in his discussion of ambient music, "this noise floor provides a faux patina of age – a distancing of the sound from the listener… it not only contributes to the creation of atmosphere but also of temporal distance" (Adkins, 2019: 130).[73] The aesthetic of *Solo for Computer and Tape* could therefore be said to engage poetically with ideas of memory and loss through this 'material fragility'. Adkins continues: "It is the transience of the sound to which attention is drawn… We listen to a composed impermanence, as if to half-remembered memories or some brittle exhumed sonic artefact… to crafted 'atmospheres' that suggest decay and aging" (Adkins, 2019: 131). In this way, I argue that *Solo for Computer and Tape* speaks to something of the

[73] Of course, in *Solo for Computer and Tape* the 'patina of age' is not *faux* but a fact of the source-recordings' oldness.

unreachability of history; as David Lowenthal wrote, "the sheer pastness of the past precludes its total reconstruction" (Lowenthal, 1985: 215).

Relatedly, *Solo for Computer and Tape* could be said to engage with 'hauntology' (an idea introduced in Chapter Two: 2.3) insofar as the work's aesthetic evokes a *longing for* the past. Mark Fisher notes that analogue recording technologies (such as those featured in *Solo for Computer and Tape*) are often used in hauntological music to express something of this longing, infusing the work with what he calls an "overwhelming melancholy". Fisher writes,

> [Hauntological artists][74] were preoccupied with the way in which technology materialised memory – hence a fascination with television, vinyl records, audiotape, and with the sounds of these technologies breaking down. This fixation on materialised memory led to what is perhaps the principle sonic signature of hauntology: the use of crackle, the surface noise made by vinyl. Crackle makes us aware that we are listening to a time that is out of joint (Fisher, 2014; 2022: 21).

Hauntological music thus involves a "yearning for [an] older regime of materiality" (Fisher, 2014; 2022: 21). However, Fisher argues that it is not a particular time that is being yearned for. Rather, hauntology longs for a resumption of the *process* of history. Fisher writes, "What's at stake in 21st century hauntology is not the disappearance of a particular object. What has vanished is a tendency, a virtual trajectory" (Fisher, 2014; 2022: 22). Hauntology, like nostalgia, thus originates in the feeling that better futures are no longer possible. As David Lowenthal wrote, "What pleases the nostalgist is… not so much the past itself as its supposed aspirations, less the memory of what actually was than of what was once thought possible" (Lowenthal, 1985: 8).

We might say, then, that *Solo for Computer and Tape*'s use of Baroque music speaks to something of this nostalgia; to a longing for the distant past.[75] In another sense, *Solo for Computer and Tape* is 'haunted' by

[74] Here, Fisher is discussing ambient (and ambient-adjacent) artists including William Basinski, Burial, and Philip Jeck.
[75] As discussed in Chapter Two (2.1.7), Bernard Sherman wrote, "Perhaps; regardless of whether eighteenth-century yearning really was more naïve and trusting than ours, many of us yearn for a more naïve and trusting world. Some listeners and players *want* music to take them out of our world and into Bach's or Hildegard's" (Sherman, 1997: 15).

Hess and the particular kinds of sociality that her concerts engendered, a sociality that is, from the hauntological perspective, keenly absent in what David Toop calls our "era of ubiquitous remote, disembodied connection via digital networks" (Toop, 2019: 1). Thus, *Solo for Computer and Tape* is hauntological in that "What is being longed for… [is] the resumption of the *processes* of democratisation and pluralism" (Fisher, 2014: 27). Whereas the hauntological work yearns to reconnect to such processes through the free-floating technologies of 'materialised memory', however, the post-HIP work mediates something of 'really existing' historical social alternatives.[76] That is, *Solo for Computer and Tape* reifies something of the twentieth-century's alternative social models in their concreteness and specificity. We might say that Fredric Jameson's 'nostalgia mode' (introduced in Chapter Two: 2.1.8) is therefore punctured. The past is mediated not only as an 'image' – vague and disconnected – but as something that once *was real* and that might, through the post-HIP work, speak again.

Solo for Computer and Tape is therefore 'haunted'. Indeed, we might say that all recorded music is infused with something of this quality. As Chris Cutler wrote, "A concert was a living thing. A recording [is] unequivocally a dead one – at best a poor reflection or a degraded impression of something that had once been alive" (Cutler, 2020: 35). The 'distance' that I above described as temporal is thus also a distance from other people. Indeed, Cutler argues that engagement with the recording is fundamentally isolating and solitary. He writes:

> [the recording is] always at once both deeply personal and profoundly alienated, since only one ear in one place could ever hear what that originating ear [the microphone] hears – and now every listener has to share that single ear. This may be a dictatorship or it may be a liberation, but it surely speaks eloquently of the condition of recorded music in its – mostly unremarked – elision of the One and the Many (Cutler, 2020: 64).

[76] In *Capitalist Realism: Is There no Alternative?*, Fisher describes the disappearance of these 'really existing' alternatives. He writes, "For most people under twenty in Europe and North America, the lack of alternatives to capitalism is no longer even an issue. Capitalism seamlessly occupies the horizons of the thinkable… capitalism has colonized the dreaming life of the population… It would be dangerous and misleading to imagine that the near past was some prelapsarian state rife with political potentials… Yet the old struggle between *detournement* and recuperation, between subversion and incorporation, seems to have been played out" (Fisher, 2009: 8-9).

In this sense, recorded music (or 'materialised memory') is doubly melancholic: speaking both to a sense of history 'as loss' and to the listening subject as alone.[77] This, of course, was precisely the quality I was aiming for in making *Solo for Computer and Tape* in response to the isolation engendered by the Covid-19 pandemic.

But what does post-postmodernity offer in place of the connection to one another and the flow of time? We might argue that intimacy is replaced by digital hyper-connectivity; *long durée* time, by an abundance of information that engenders distractedness and dislocation. Ambrose Field writes, "Today, information provision has… [created] a feeling of the 'perpetual present'. Updates roll in and news feeds proliferate as live video media from the world arrive at our personal devices" (Field, 2019: 22). Likewise, Fisher observes, "The consequence of being hooked into the entertainment matrix is twitchy, agitated interpassivity, an inability to concentrate or focus… to synthesize time into any coherent narrative" (Fisher, 2009; 24).[78] Ambient music, however, has the potential puncture something of this 'agitated interpassivity'. Field writes, "In ambient time, seconds merge into perceivable moments and boundaries between the past and the future dissolve" (Field, 2019: 22). It also offers intimacy. As David Toop argues, "Listening is intimacy…. But to listen quietly in relation to the harshness, ugliness, and injustice of the fragmented world is the real test" (Toop, 2019: 16). *Solo for Computer and Tape*'s ambient aesthetic could therefore be understood not only as an *expression of* 'hauntological melancholia', but also as a *reaction against* the conditions of post-postmodernity that gave rise to such melancholia. That is, the work is quietly resistant; meeting the noise and fragmentation of the world not with more noise and fragmentation, but with a

[77] In *Solo for Computer and Tape* the 'performing body' (be it Hess' or my own) is likewise negated. Returning to Deniz Peters (2.2.3), we might note the impossibility – or at least the difficulty – of any 'haptic completion' in the experience of the work. Machines produce the music of *Solo for Computer and Tape*. When some trace of the human performer remains – as in the musical ornaments of 'Saraband' – it is fragmented, discontinuous and 'disembodied'.

[78] 'Interpassivity' is discussed by Slavoj Žižek. He writes, "It is commonplace to emphasize how, with new electronic media, the passive consumption of a text or a work of art is over: I no longer merely stare at the screen, I increasingly interact with it… Those who praise the democratic potential of the new media generally focus on precisely these features: on how cyberspace opens up the chance for a large majority of people to break out of the role of the passive observer following a spectacle staged by others… the other side of this interactivity is interpassivity… In the case of interpassivity… *I am passive through the Other*. I concede to the Other the passive aspect (enjoying) of my experience while I remain actively engaged (I can continue to work in the evening, while the VCR passively enjoys for me…)… Even in much of today's progressive politics, the danger is not passivity but pseudo-activity… Against such an interpassive mode, in which we are active all the time to make sure nothing will really change, the first truly critical step is to *withdraw into passivity*" (Žižek, 2006: 23-27).

quietude and stillness. I develop these ideas – of 'agitated interpassivity', ambient, minimal, or drone musics, and *long durée* time – in Chapters Four (4.4) and Five (5.3.4).

3.2 – *Bad Death Ghosts*

Bad Death Ghosts (2022) is a concert work for microtonally-tuned spinet and lap steel guitar. The piece explores both what new music arises from the use of historical xenharmonic tuning systems in a contemporary context, and the extraordinary (if somewhat overlooked) resonance of the spinet. Research refined an interest in microtonality, musical stasis, and a 'vertical' experience of sound (ideas I explore in the exegesis, below).

3.2.1 – Methodology

Composing *Bad Death Ghosts* involved hands-on experimentation with the spinet.[79] Returning to Barbara Bolt, we could therefore understand the work as originating in a process of 'material thinking' whereby "the new can be seen to emerge in the involvement with materials, methods, tools and ideas of practice" (Bolt, 2007: 30). First, I retuned the spinet microtonally. To do this, I used the tuning system developed by Nicola Vicentino for the archicembalo, a microtonal harpsicord described in his 1555 treatise, *L'antica musica ridotta alla moderna prattica* (Ancient music adapted to modern practice) (Vicentino, 1555). As Henry Kaufmann notes, "Vicentino's instrument is provided with two keyboards, each containing three ranks or orders of keys" (Kaufmann, 1970: 84). In my work, I used only the pitches of the lower keyboard (Figure 3). These are described by Maria Rika Maniates:

> the first three orders in the first keyboard are tuned by the accepted meantone temperament of the sixteenth-century: that is, the one-quarter comma system of Pietro Aaron. This keyboard comprises a nineteen-note octave with split keys for all chromatic pitches as well as extra keys inserted between the diatonic semitones *b*-*c* and *e*-*f* (Maniates, 1975: 337).[80]

[79] The particular instrument used was my own: a spinet by Kurt Wittmayer dating from the 1960s.

[80] Maniates continues, "The fourth and fifth orders in the second keyboard reproduce, respectively, the white keys of the first order and the flat keys of the second and third orders, but tuned one minor enharmonic diesis higher than the original pitches. The sixth and last order includes only five keys (*g*, *a*, *b*, *d*, and *e*), and we assume they are tuned one comma above their diatonic counterparts in the first order" (Maniates, 1975: 337).

Of course, in order to tune my twelve-key per octave spinet in this way, I had to stretch Vicentino's nineteen-note octave over a compound perfect fifth. Thus, A2 is tuned with a deviation of 0-cents from equal temperament, returning again to A3 on the keyboard's E4. Figure 5 shows the transposition of Vicentino's scale onto a twelve-note per octave keyboard with tuning and the deviation from equal temperament shown in cents. To be clear, I derive this tuning from Lemme Rossi's *Sistema musico* (1666) which distils and clarifies Vicentino's work. The relevant table from Rossi's treatise (Figure 4) is reproduced by Kaufmann (Kaufmann, 1970: 88).

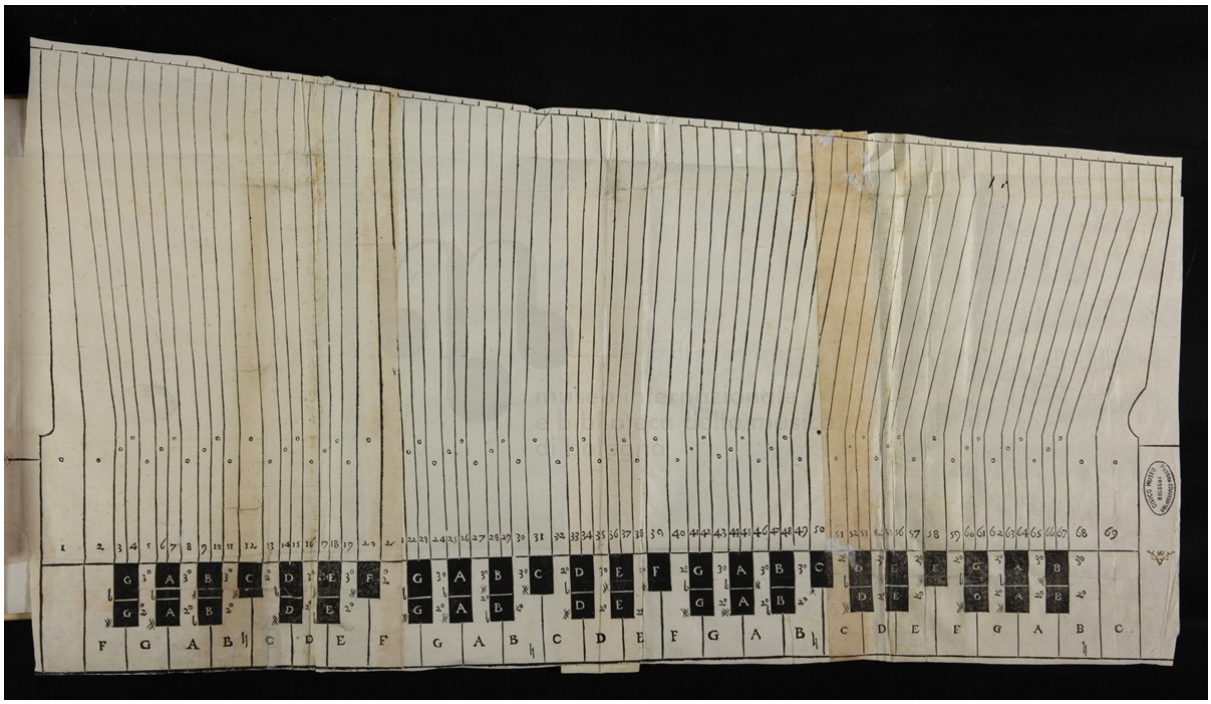

Figure 3: The lower keyboard of the archicembalo containing the first, second, and third ranks (reproduced from: Vicentino, 1555)

Lemme Rossi, *Sistema musico* (1666), pp. 83, 86

	Sistema participato		Vicentino	
Note name	String length =	Cents	String length =	Cents
A	20736	1200	20736	1200
A♭	21667	1124	21684	1122.6
G♯	22187	1083	22174	1083.9
G	23184	1007	23188	1006.5
G♭	24225	930.7	24249	929
F♯	24806	890	24797	890.4
F	25920	813	25931	813
E♯	26542	773	26517	774.2
E	27734	697	27730	696.8
E♭	28980	620.5	28999	619.3
D♯	29676	579	29655	580.6
D	31008	503	31011	503.2
D♭	32400	427.3	32429	425.8
C♯	33178	386	33162	387.1
C	34668	310	34679	309.7
B♯	35499	269.2	35463	270.9
B	37095	193	37084	193.6
B♭	38760	117	38781	116.1
A♯	39690	76	39657	77.5
A	41472	0	41472	0

Figure 4: Lemme Rossi's table showing the pitches, in cents, of the lower keyboard of Vicentino's archicembalo (reproduced from: Kaufmann, 1970: 88)

Key	Sounding Note	Tuning in Cents	Deviation from 12-ET in Cents
A2	A2	0.00	0
B♭2	A♯2	77.5	-22.5
B2	B♭2	116.1	+16.1
C3	B2	193.6	-6.4
C♯3	B♯2	270.9	-29.1
D3	C3	309.7	+9.7
E♭3	C♯3	387.1	-12.9
E3	D♭3	425.8	+25.8
F3	D3	503.2	+3.2
F♯3	D♯3	580.6	-19.4
G3	E♭3	619.3	+19.3
A♭3	E3	696.8	-3.2
A3	E♯3	774.2	-25.8
B♭3	F3	813	+13
B3	F♯3	890.4	-9.6
C4	G♭3	929	+29
C♯4	G3	1006.5	+6.5
D4	G♯3	1083.9	-16.1
E♭4	A♭3	1122.6	+22.6
E4	A3	1200	0

Figure 5: Table showing the transposition of Vicentino's nineteen-note archicembalo scale onto a twelve-note keyboard, with deviation from equal temperament shown in cents.

Having tuned the spinet, I developed *Bad Death Ghosts*' harmony. Again working through a process of 'material thinking', I explored the particular consonances of Vicentino's tuning system. This inevitably led me to make use of the very pure thirds available in the temperament as well as the slightly narrow, 'beating' fifths. For example, the major third D-to-F-sharp is almost exactly equivalent (at 387.2 cents) to a just intonation major third at the ratio 5:4 (which is 386.3 cents).[81] Out of these pure thirds, I developed a quasi-spectral sonority, the spinet's harmony consisting of the first twelve harmonics of the natural overtone series over D♮. These, of course, are predominantly the pitches of the major triad. Additionally, Vicentino's B♯ (-29.1 cents from an equally tempered C♮) closely approximates the seventh partial of the harmonic series (which is -31 cents from equal temperament). The nineth and eleventh harmonics are slightly less closely matched although I argue that the effect is broadly maintained.[82]

[81] A major third in equal temperament is, of course, 400 cents.

[82] Vicentino's E♮ is -3.2 cents from equal temperament whereas the ninth harmonic is +5 cents from equal temperament; the G♯ in Vicentino's system is -49 cents from equal temperament while the eleventh harmonic is -16.1 cents from equal temperament.

I then paired the spinet with a lap steel guitar. This uses scordatura based on the spinet's harmony: Ds, As, an E, and a B♯. Again, the precise tuning of these pitches is taken from Vicentino. My interest in using the lap steel guitar was to expand a sense of the spinet's extraordinary resonance in this tuning; the way in which its harmony beats and shimmers, changing in quality as it decays in time. Altogether, the sound is of a multiplicity of partials, dying away (see the spectrogram, Figure 6). Of course, the guitar's sustain is longer than that of the spinet. As such, a dialogue is created between the instruments; as one fades, the other is revealed. Throughout, the guitar plays only its open strings and natural harmonics, emphasising this resonant quality.

Bad Death Ghosts consists, then, of a repeated chord. Whereas the spinet's sound is perhaps most commonly thought of in terms of its attack, the work is written towards its decay; the movement and changing colours of its 'afterglow'.[83] Repeated, we come to notice, I hope, the subtle qualities of the quasi-spectral harmony. Its interiority is revealed to us. The formal unfolding of the work then consists of the removal, addition, and revoicing of pitches to and within this chord. As these changes are made, the interaction between tones is altered. It is not so much that the chord itself changes (although of course the pitches within the chord do change), but rather that different aspects of its colour are revealed. Here, I was aiming for what the American microtonal composer Catherine Lamb describes in terms of a "feeling of something rotating. Something that is not quite linear. Something more total. You could be looking around it" (Lane, 2018: 7-8).

Finally, *Bad Death Ghosts*' spinet is to be amplified. The reasons for this are twofold: to best capture the instrument's harmonics (which of course sound quite different at various distances from the instrument) and because, returning to Mike Vaughan, "the richness of the mechanical sound of the harpsichord can often only be fully appreciated… when it is placed under the sonic microscope of an amplification system" (Vaughan, 2009: 20).

[83] The work's title obliquely references this idea of an after-image. It engages with the idea of 'ghosts' described by Elaine Gan *et al.*: "Bad deaths generate their own variety of ghosts. Across mainland Southeast Asia, 'green' ghosts arise from deaths in war and in child-birth; these deaths occur before their proper time… [they are] ghosts of bad death" (Gan *et al*: 2017: G7).

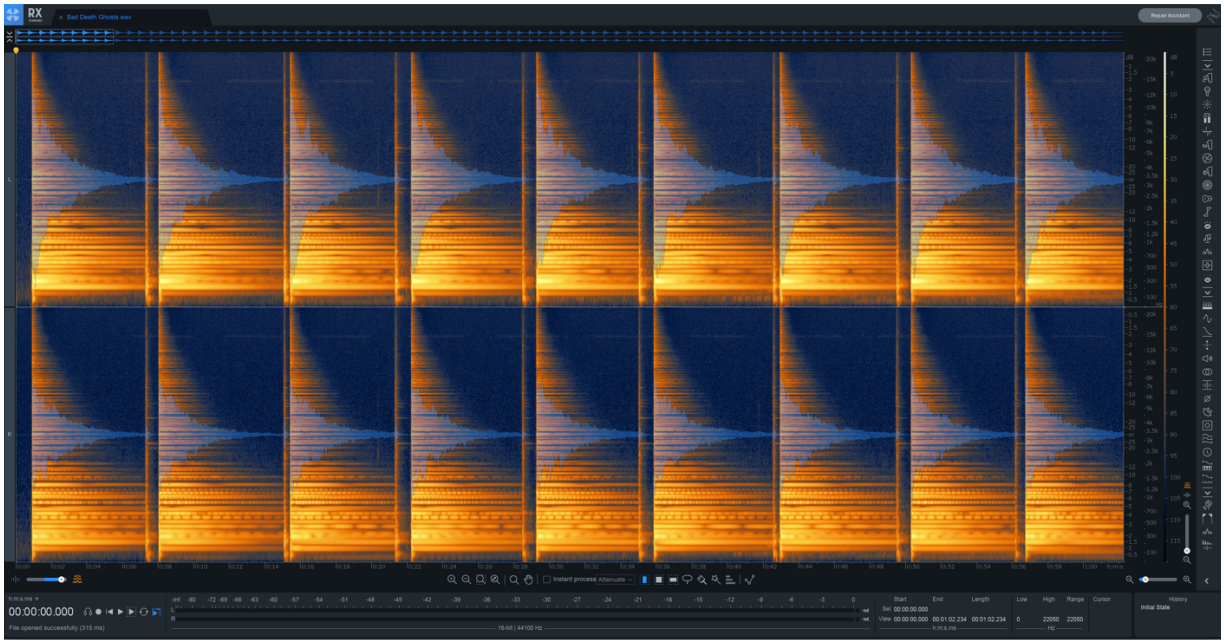

Figure 6: Screenshot of a spectrogram of the spinet's opening chords in *Bad Death Ghosts* produced using the iZotope RX 8 Audio Editor.

3.2.2 – Exegesis

Maniates writes that Vicentino was "motivated neither by antiquarian scholarship nor by a desire to establish the genera as norms for ordinary music. Vicentino invented a radical system [of tuning] for his own brand of new and extraordinary composition. Like mannerist thinkers in literature and the visual arts, he exploited classical authority to justify stylistic extravagance" (Maniates, 1975: 336). This creative use of the past continues in *Bad Death Ghosts*. Just as the Ancient Greeks inspired Vicentino, so his tuning system afforded the development of new compositional vocabularies in my own work. Of course, whereas Vicentino sought out chromatic complexity, I returned to something of the purity of Pythagorean ratios. In this sense, I argue that *Bad Death Ghosts* could be understood in terms of 're-enchantment'. The work rejects the rationality of equal temperament and functional, diatonic harmony, favouring, instead, something more sensuous. In *The Rational and Social Foundations of Music*, Max Weber describes Western music's basis in rationality:

> All rationalized harmonic music rests upon the octave (vibration ratio of 1:2) and its division into the fifth (2:3) and fourth (3:4)... If one ascends or descends by fifths, fourths, or other successively

> determined relations, the powers of these divisions can never meet on one and the same tone no matter how long the procedure be continued. The twelfth perfect fifth $(2/3)^{12}$ is larger by the Pythagorean comma than the seventh octave equalling $(1/2)^7$. This unalterable state of affairs together with the further fact that the octave is successively divisible only into two unequal intervals, forms the fundamental core of facts for all musical rationalizations (Weber, 1958: 3).

By contrast, music based in pure ratio relationships can be understood as in some sense *irrational* and therefore aligned with 'enchantment'.[84] Rather than 'solving' the problem of the Pythagorean comma, such music retains something of the essential, unconfinable quality of consonances in their rawness. I develop this thinking in my discussion of *Glass Coloured*, below (3.3.2), particularly as concerns the Ancient idea of the 'music of the spheres'. Presently, it is worthwhile noting that while such 'irrationality' forecloses certain kinds of musical material, it affords and suggests others.

As I outlined above, *Bad Death Ghosts*' tuning suggested to me, among other things, stasis. The work's chord is repeated such that we come to experience, I hope, something of the harmony's interior. Thus, the tuning could be said to 'verticalize' our sense of the music. I take this term from Jonathan Kramer who wrote:

> some new works show that phrase structure is not a necessary component of music. The result is a single present stretched out into an enormous duration, a potentially infinite 'now'[85] that nonetheless feels like an instant. In music without phrases, without temporal articulation, with total consistence, whatever structure is in the music exists between simultaneous layers of sound not between successive gestures. Thus, I call the time sense invoked by such music 'vertical' (Kramer, 1988: 55).[86]

[84] I mean here, 'irrational' in the sense that they are antithetical to the kind of rationalisation that Weber describes. Of course, Pythagorean harmonies are no less 'rational' in the sense of being based in logic. As Robert Reilly notes, the "Greek word for ratio is *logos*, which also means *reason*" (Reilly, 2001: 13).

[85] To be clear: this 'infinite now' is quite different to Field's 'perpetual present', described above. While 'vertical music' focusses our attention in the moment, the 'information provision' of post-postmodernity serves to sever us from the flow of time.

[86] I disagree with Kramer's conclusion about 'vertical music' that, "The context of vertical music allows a listener to make contact with his or her own subjective temporality. It is music of subjectivity and individuality. It reflects a thoroughly modernistic time sense" (Kramer, 1988: 57). In Chapter Five (5.3.2), I discuss the power of drone music (the experience of which is undoubtedly 'vertical') in "dissolving the trappings of ego" (Sword, 2021: 420).

Likewise, La Monte Young said of drone music:

> I think that this kind of sense of time has to do with getting away from the earthly sense of direction which goes from birth to death, in other words, like developmental form, and has to do with static form and moving up into, by up I mean like vertically, as in Vertical Hearing, moving, then, up through the sound of a chord… or the sound of an interval that's sustained (Young, Zazeela, and Nagoski, 1996).[87]

An 'enchanted' tuning thus negated, for me, something of the linear conception of musical time, allowing an experience of sound in its moment-ness. It offered an experience, as Wilson wrote, of "escaping into the present" (Wilson, 2014: 200). As such, the musical work is no longer what Cage called a 'time-object'; that is, "the presentation of a whole as an object in time having a beginning, a middle, and an ending, progressive rather than static in character" (Cage, 1961: 36).[88] Rather, sound becomes something inhabitable; as Jeremy Grimshaw says of Young, such music invites "our ears to explore the harmonic space his tones circumscribe" (Grimshaw, 2011: 138). Indeed, Young's interest was also my own in *Bad Death Ghosts*: "not in the temporal (horizontal) consideration of what sounds *do* but the ontological (vertical) consideration of what they *are*" (Grimshaw, 2011: 70). Thus, Vicentino's tuning system offered me a means of escaping functional, developmental conceptualisations of music, to return, instead, to something of sound's essential magic: as tones interacting in air.

We might say, also, that Vicentino's tuning system liberated the spinet. That is, the temperament disrupted something of the instrument's traditional performance practice and the familiarity of its sound. Returning to an idea introduced in Chapter Two (2.2.1), I argue that the spinet became an 'object-instrument'; defamiliarized and reconstituted as a 'sounding-object', it was emancipated from traditional ideas of how it

[87] Young continues, "By using this to create a drone state of mind, it provides a means toward achieving a state of meditation or an altered state of consciousness that can allow you to be more directly in touch with universal structure and a higher sense of order" (Young, Zazeela, Nagoski, 1996). This quasi-meditative state was also an aspiration in *Bad Death Ghosts*.

[88] Returning to Kramer: "A vertically conceived piece, then, does not exhibit large-scale closure. It does not begin by merely starts. It does not build to a climax, does not purposefully set up internal expectations… does not build or release tension, and does not end but simply ceases" (Kramer, 1988: 55).

might be played and what music it might make. In particular, Vicentino's tuning system highlighted the extraordinary resonance of the spinet; the harmonic-rich quality of its sound. Of course, John Cage famously said of the harpsichord, "I've never particularly liked the instrument. It sounded to me like a sewing machine. The fact that it had so little change in dynamics, and the quality of the sound seemed to obscure the – I don't know – the life of the sound" (Austin, Cage, and Hiller, 1992: 16). Retuned, however, the 'life' of the spinet's sound was reanimated. Rather than Cage's 'sewing machine', the instrument was sensuous, the beauty of its tone arising precisely out of its evanescence; transient, yet richly vibrational.

3.3 – *Glass Coloured*

Glass Coloured (2023) is a concert work for 3D-printed Renaissance cornett and live electronic processing. Composed for the cornettist Jamie Savan (my secondary doctoral supervisor), the piece explores the cornett's unique tuning possibilities and makes use of the latest spectral processing capabilities in Ableton Live 11. *Glass Coloured* is in three movements, each exploring a different tuning system and each with its own electronic-processing 'environment'. All sounds are produced live; no 'tape part' or synchronisation is required. The piece aims, in this way, at a hybridisation of the cornett and laptop in which the historical and contemporary are brought together, at times synthesised and at others in dialogue.

3.3.1 – Methodology

Historically, the cornett was highly valued for its intonation. Writing in 1584, for example, Girolamo Dalla Casa praised the instrument for its ability to play "in every sort of key [*tuono*], just as the voice" (quoted in Savan, 2018: 565). Likewise, Luigi Zenobi wrote in c.1600 that cornettists were to be judged "by their ability to play semitones and in transposition when necessary" (quoted in Blackburn and Lowinsky, 1993: 103). Navigating different keys while playing in unequally tempered scales (and at different pitches) required, of course, a flexibility of tuning. Thus, the instrument has a great many quartertones. For *Glass Coloured*, I utilised this facet of the cornett's historical performance-practice in order to generate new music. It is important to note that the piece was composed for a 3D-printed cornett developed by Savan in earlier research projects (Savan and Simian, 2014; Savan, 2016). Based on one of the 1605 'Christ Church cornetts',[89] this 3D-printed instrument offered both particular musical possibilities (discussed below) and the incorporation of a 'PiezoBarrel' piezo pick-up in the instrument's neckpiece which allowed for reliable live electronic-processing.

[89] The Christ Church Cornetts are two treble cornetts held in the library of Christ Church, Oxford. Julian Drake quotes the inscription on the case that now houses them: "This pair of treble cornetts was bought for the choir of Christ Church Cathedral in preparation for the visit of James I and his Queen to the House on 27 August 1605. The King and Queen heard *excellent voices mixt with instruments* at a service in the Cathedral. The cornetts cost £2-13s" (Drake, 1981: 44).

Part One

'Part One' of *Glass Coloured* explores simple spectral harmonies. The cornett's music consists of the natural overtone series above the pitch C♮ (132hz) up to the sixteenth harmonic. The movement begins with various iterations of the major triad before expanding outward to incorporate the higher partials. Some of these microtonally-tuned[90] pitches (the third harmonic, +2 cents from equal temperament, and fifth harmonic, -14 cents) are achieved in the usual performance practice of the instrument. Others (the seventh harmonic, -31 cents, and eleventh harmonic, -49 cents) required a combination of 'forked fingerings', identified by Savan, and pitch alterations using the lips.[91]

The electronic processing in 'Part One' uses the latest spectral capabilities in Ableton Live 11 to augment the cornett's music (Figure 7).[92] First, the audio from the Cornett is split into left and right channels, with pitch-shifting at a delay used to create a kind of antiphonal canon. In the left channel (-12 semitones), a very slow pitch bend is used (±50 cents at 0.08hz). As such, the delay is somewhat tonally decentred. I then use Ableton's 'Spectral Time' plugin to 'freeze' a moment of the cornett's sound. The 'Spectral Resonator' then emphasises the partials over 132hz (again, up to sixteen harmonics). Finally, this spectral sound is further enriched using Ableton Live's 'Corpus' plugin, a physical modelling resonator which I use to model the resonance of a 'pipe' with a fundamental pitch of 66hz (a C♮ one octave below the spectral harmony's fundamental). Altogether, this processing creates both a sense of 'call and response' between the cornett and the laptop, and a richly resonant, spectral sound world.

[90] I use 'microtonally-tuned' here to mean deviating from equal temperament.

[91] Savan wrote, "Mostly I'm achieving the exact pitches required for your piece through an extension of [the cornett's] enharmonic principle, finding new fingerings that work based on experimentation where required (e.g. whereas F natural would be fingered T13, and F sharp is T1; F quarter-sharp seems to slot in between the two with T15). But there are some notes in your piece that I still need to adjust with the lip: B-flat in the first movement is a case in point, where there are no fingering options between the all-closed note at the bottom of one harmonic and the all-open note at the top of the harmonic below" (Savan, 2023).

[92] Ableton Live 11's new spectral plugins "break sound up into partials and process it… [using] the fast Fourier transform (FFT)". Natalye Childress explains, "The Fourier transform is a mathematical algorithm with applications across engineering, image processing, optics and more. Within a musical context, it's used in signal processing to break signals down into their various parts, or frequencies. It's named after French mathematician Joseph Fourier who, in 1822, laid the groundwork for what later became known as the Fourier series… When a Spectral device is used in Live 11, it performs an FFT on the audio it's given, transforms it into spectral information, tweaks that information in the form of effects, and converts it back to audio with an inverse fast Fourier transform (IFFT)" (Childress, 2020).

Figure 7: The electronic processing in 'Part One' of *Glass Coloured*. Screenshot from Ableton Live 11.

Part Two

Glass Coloured's short second movement likewise explores a simple tuning conceit, consisting only of a circle of pure fourths in just intonation. In this sense, the movement is composed toward the 'problem' of the Pythagorean comma (discussed above). The notated B♮ at the end of this short movement would, if all the intervals were tuned at the ratio 4:3, be very close to a C♮ in equal temperament one semitone above.[93] For practicality, however, Savan treats each phrase separately. Intervals within a phrase are to be played as pure fourths, with the tuning 'reset' when a new phrase begins. Again, alternate fingerings and pitch alterations using the lip are required in order to achieve this tuning.

The processing in 'Part Two' is more pared back than that of the first movement, allowing for more of the cornett's unprocessed sound to be heard (Figure 8). The signal is, again, split into left and right channels with pitch-shift at the delay once more creating the sense of an antiphonal canon. 'Spectral Freeze' then creates a subtle 'after glow', 'freezing' two seconds of the cornett's sound.

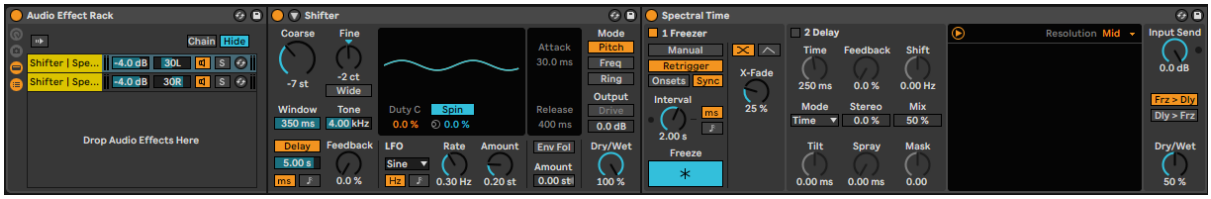

Figure 8: The electronic processing in 'Part Two' of *Glass Coloured*. Screenshot from Ableton Live 11.

Part Three

[93] If the G♮ at the beginning of the movement is equal to 784 hertz then the notated B♮ natural at the end should be 258.36 hertz; C♮4 is 261.6 hertz.

'Part Three' explores the microtonal pitches that result from the cornett's enharmonic fingerings. Whereas movements one and two exploited the instrument's microtonal potential to produce somewhat anachronous spectral and just intonation musics, 'Part Three' makes use of an inherent aspect of the cornett's historical performance-practice. Playing in different keys in the meantone temperament required, of course, the production of different pitches for enharmonic notes (A♯ and B♭, for example).[94] The Christ Church Cornetts, on which Savan's 3D-printed instrument is based, were particularly rich in this regard. Savan writes, they "seem to have been built with transposition in mind, because the fingering system is such that there are many more possibilities for enharmonic distinction between sharps and flats than we tend to find with generic modern system instruments" (Savan, 2016: 47).[95]

The music of 'Part Three' is based in these enharmonic pitches. Consisting only of the notes B♮, G♯, A♭, E♭, and E♮, the movement explores an ambiguous sonority around E-major. Out of these pitches, I composed a simple melody for the cornett; freer than the first two movements, although still somewhat restrained.

Exploiting the tonal ambiguity of the cornett's music, the electronic processing for 'Part Three' (Figure 9) is based in the natural overtone series above a low E♮ (82hz). 'Spectral Delay' first 'freezes' two seconds of the cornett's sound, with the 'Spectral Resonator' plugin then emphasising the partials over 82hz up to the thirty-second harmonic. The signal is then split, left, right, and centre. The left and right channels have a delay at the unison and at one octave lower, respectively, while the centre channel remains unprocessed. Finally, I use the 'Corpus' plugin to model a 'pipe' with a fundamental pitch of 41hz.

Altogether, this creates an environment in which the cornett's enharmonic pitches more or less align with the laptop's spectral resonance. For example, the cornett's B♮ and G♯ are very close (depending on the intonation in performance) to the third and fifth harmonics over 82hz. The cornett's A♭, meanwhile, is around a quartertone higher than its G♯. Consequently, its E♭ (tuned a perfect fifth above) is very close to the

[94] In this regard, the Cornett solved the same 'problem' as the archicembalo.

[95] Savan recalls that when first playing the 3D-printed model, "the internal tuning seemed highly idiosyncratic – at least using the fingering system familiar from the generic modern cornetts that most of us use in performance" (Savan, 2016: 43). The instrument's B♭, for example, was "far too low in quarter-comma meantone, by up to 50 cents". Savan's conclusion was that the forked fingerings given by Aurelio Virgiliano in his 1600 treatise should be used so that "the Christ Church model begins to sound much more in tune with itself" (Savan, 2016: 44).

thirty-first harmonic over 82hz; an E♭ around a quartertone sharp (+45 cents in equal temperament). Thus, the Cornett's prominent E♭ in this movement is ambiguous; both very close to the laptop's fundamental, E♮, and to its thirty-first harmonic. The effect of these tunings, I argue, is to create an unstable, deeply vibrational sound world as the laptop 'strains', more or less, to resonate in E-major. There is, consequently, something of a cadential feeling to this final movement, one of the music moving very slightly away from, and then settling back into, the lower, more consonant, pitches of the natural overtone series.

Figure 9: The electronic processing in 'Part Three' of *Glass Coloured*. Screenshot from Ableton Live 11.

3.3.2 – Exegesis

In Chapter Two (2.2.1), I argued that Bruno Latour's Actor Network Theory (ANT) was a useful framework for describing what historical instruments offer contemporary composers. Applying ANT to *Glass Coloured*, we might say that the cornett *afforded* particular microtonal sonorities not only through its material construction (that is, what is technically possible on the instrument) but also by virtue of its historical performance-practice. The fingerings that historically allowed for playing in transposition gave rise – 'post-HIP' – to new musical vocabularies. Of course, in applying Latour's framework we should also think of Ableton Live 11 as an 'actor'. The latest developments in the DAW afforded particular spectral sonorities while in performance the laptop 'acts on' the performer, offering intonation, suggesting pacing, matching dynamics, and so on.

Returning to Weber's ideas on musical rationality, we might say that *Glass Coloured* - like *Bad Death Ghosts* – 're-enchants' insofar as it rejects something of disenchanted modernity's rationalisation as manifested in equal temperament. The work's second movement, for example, is written precisely toward the 'problem' of

the Pythagorean comma; that "the powers of these divisions can never meet on one and the same tone". Likewise, 'Part Three' explores differences in the meantone temperament's enharmonic pitches not for their function within a 'rationalised' musical system, but for their ambiguity and colour.

The use of pure-ratio intervals, as in 'Part One', could be said to relate to 're-enchantment' in another sense. Such music, I argue, engages with the Ancient idea of the 'music of the spheres'; that, as Robert Reilly writes, "the harmonious sounds that men make, either with their instruments or in their singing, were an approximation of a larger harmony that existed in the universe… [and that] Music was man's participation in the harmony of the universe" (Reilly, 2001: 13). We could think of this concept as an example of what Weber called 'concrete magic'; the unifying, enchanted worldview lost under modernity's disenchantment. Weber writes, "The unity of the primitive image of the world, in which everything was concrete magic, has tended to split into rational cognition and mastery of nature on the one hand, and into 'mystic' experiences, on the other" (Weber, 1946: 282).[96] Such unity is expressed not only through the 'music of the spheres' as a belief system, but in something of Pythagorean tuning itself. As Daniel Chua writes, "The difference between modern and ancient rationality can be stated as a difference of tuning: Pythagorean tuning harmonises the octave, while equal temperament partitions it equally. Ancient rationality unifies; modernity divides" (Chua, 1999: 20). Indeed, Chua notes that attempts at re-enchantment in the late-eighteenth century failed precisely because the prevailing aesthetic and ideological system could not encompass the unity that Pythagorean tuning embodies. He writes:

> the early Romantics revitalised the music of the spheres in the hope of reconciling the world to itself… But this reharmonization of the cosmos was merely a speculative abstraction in a world without the monochord; stars no longer sang, and scales no longer laddered the sky. To re-enchant a rationalised world, the Romantics could not reconstruct a system of resemblances that would validate celestial truths that are eternal and external to their subjectivity; they only had an aesthetic system which searches for truths from the *particularity* of their own ego… This is why absolute music for the Romantics is posited as a *work* and not a system of tuning; it starts from the particular

[96] I return to this idea in more detail in Chapter Five (5.3.1)

> because the modern subject, in its delusion of genius, tries to create a universe out of itself (Chua, 1999: 21-22).

Chua here links tuning, disenchantment, and individualism. Whereas the Romantics "had an aesthetic system which searches for truths from the *particularity* of their own ego", *Glass Coloured* negates something of the idea of individual expression and the work-concept. It is not quite correct, for example, to think of the overtone series, major triad, or circle of fourths as expressions of an 'individual' creative voice. Rather, as instantiations of 'natural', vibrational phenomena they are imbued, I suggest, with something of universality; with an idea of harmoniousness, balance, and order that historically was called the 'music of the spheres'.[97] 'New materialist' thinkers Heidi Fast, Taru Leppänen, and Milla Tiainen describe the 'universalising' experience of sound, writing: "vibrations focus our attention to the interconnectedness and co-occurring of human and more-than-human materialities, bodies and entities. When conceived of as vibrations, sound and music, even if they may be initiated by human actors, are always also non-human or more-than-human material events" (Fast, Leppänen, and Tiainen, 2018). This was my aim, certainly: to approach, through *Glass Coloured*'s resonant, vibrational music, something of the idea of "man's participation in the harmony of the universe". As La Monte Young said, "Sound is God. The universe began with a vibration" (Battaglia, 2015).[98]

[97] We might think here, also, of what Theodore Adorno recognised in twentieth-century attitudes to Bach; that "His music is said to be elevated above the subject and its contingency; in it is expressed not so much the man and his inner life as the order of Being as such" (Adorno, 1981: 135).

[98] Of course, the cornett itself could be said to relate to something of this idea insofar as, historically, its role was predominantly liturgical. Indeed, this aspect of the instrument inspired *Glass Coloured*'s title which is intended to evoke the stained glass of cathedrals or churches. In particular, I was drawn to Marin Mersenne's description of the cornett's sound, in 1636, as, "similar to the brilliance of a sun's ray, which appears in the shadows or the darkness, when one hears it among the voices in the cathedrals or chapels" (Mersenne, 1636; 1957: 345).

3.4 – Conclusion

In each of the three works discussed in this chapter, some component of the past (be it a recording of historical repertoire, a tuning system, or performance practice) afforded the development of new musical and performance vocabularies. New technologies worked in concert with historical instruments, approaches, and ideas. This practice reached beyond HIP to engage with the aesthetics and methodologies of other musics: ambient, hauntological, just intonation, and spectral. In turn, the works discussed engaged with, and contributed to, broader cultural frameworks: *Solo for Computer and Tape* with the 'agitated interpassivity' of post-postmodernist digital media, for example, or *Bad Death Ghosts* and *Glass Coloured* with 'enchantment' and related reconceptualizations of music. In the next two chapters I describe practice research completed toward the creation of larger-scale works: *A Ladder is Not the Only Kind of Time* and *Earth of the Slumbering and Liquid Trees*.

CHAPTER FOUR: *A LADDER IS NOT THE ONLY KIND OF TIME*

Abstract

This chapter presents research and findings related to a large-scale research strand, *A Ladder is Not the Only Kind of Time*. I begin by outlining two smaller-scale, preparatory compositions that explored ideas of place, heritage, and nature: *Accrete* and *Quartet for a Landscape*. Reflecting on the findings that came from this practice, I then discuss research completed towards *A Ladder is Not the Only Kind of Time*. Consisting of new music for water-powered historical instruments and live HIP instrumentalists, the work was recorded in Sheffield's historic Rivelin Valley, engaging both with the rich industrial heritage of the valley and its ecology. It is presented as an album of recordings, a film, and as geolocated audio accessible through a smartphone app. Next, given this work's engagement with the tradition and methodologies of ecological sound-art, I briefly discuss key practice in the field. Jonathan Gilmurray's five characteristics of ecological sound-art serve as a structure. An exegesis then situates my own work in relation to the field, drawing, in particular, on ideas from the philosophers Timothy Morton and Bruno Latour to suggest the contribution that the 'historically-informed ecological artwork' might make. Exploring ideas of time, I use both Morton's concept of multiple, more-than-human temporalities and Latour's idea of the 'nonmodern' to argue for the importance of challenging modern conceptualisations of time and progress.

4.1 – Preliminary Research: *Accrete* and *Quartet for a Landscape*

The research strand *A Ladder is Not the Only Kind of Time* originated in two smaller-scale compositions: *Accrete* and *Quartet for a Landscape*. Before outlining *A Ladder is Not the Only Kind of Time* in more detail, I will briefly discuss these works insofar as they relate to ideas of heritage, architecture, and conservation (*Accrete*) and ecology, place, and digital media (*Quartet for a Landscape*). In engaging with these ideas, both works can be understood to develop a profound (although perhaps underexplored) quality of HIP that I briefly introduced in Chapter Two (2.1.8), namely, the movement's relationship to the conservationist turn of the 1970s – the "newly charged culture of heritage and preservation" (Butt, 2002: 179) – and to more recent reactions against capitalist models of growth; the idea that "just as we realise that technological and industrial expansion and progress cannot any longer go unchecked, culture and the arts in their historicised modes actually reflect this change of perspective in a way that is simply ignored by modernism" (Butt, 2002: 188).

4.1.1 - *Accrete*

From 2020 to 2021, I was artist in residence with the architecture practice Mary Duggan Architects.[99] This residency culminated in the creation of *Accrete*, a new work for multitracked Medieval rebec and two sopranos that responded to the history and architecture of The Old Rectory, a nineteenth-century building in the City of London that the practice had renovated. In particular, I was interested in how the post-HIP artwork might engage with, and activate something of, the building's rich heritage.

The Old Rectory's site, on Martin Lane, has been in continuous, documented use for more than seven centuries. The Medieval church of St Martin Orgar was established there around 1250. Although largely destroyed in the Great Fire of London in 1666, its tower survived and was incorporated into a French Huguenot Chapel built on the site from 1697. By 1820, that chapel was in poor condition and was demolished, to be replaced by the current building which was built between 1851 and 1853 (Barber and Harley, 2019: 18-28). This history is still 'present' in The Old Rectory. For example, "the 1853 tower may rest on the foundations of

[99] See: https://www.marydugganarchitects.com/ (Accessed 19 November 2023).

the older towers or may incorporate older fabric" (Barber and Harley, 2019: 21). Although built for domestic use, The Old Rectory's form (a tower and nave) echoes that of the churches that preceded it. Archaeological excavations have revealed "Roman and Medieval remains, as well as brick burial vaults… [and] the foundations of the Medieval church" (Barber and Harley, 2019: 48).

Focussing on The Old Rectory's bell tower (the most 'church like' of the building's features and, acoustically, the most interesting), I first measured the interior space's 'frequency response'; that is, the pitches that resonated most strongly in the tower's interior, and those that were dampened by its acoustic.[100] I did this using the room acoustics software REW. Briefly, a logarithmic sweep signal played through a loudspeaker is picked up by a microphone which senses "the sound that travels directly from the source and all the sound that first bounces off the room surfaces" (REW, n.d.). Analysis is completed to translate this into a frequency response graph (Figure 10). This graph then formed the basis of *Accrete*'s harmony.

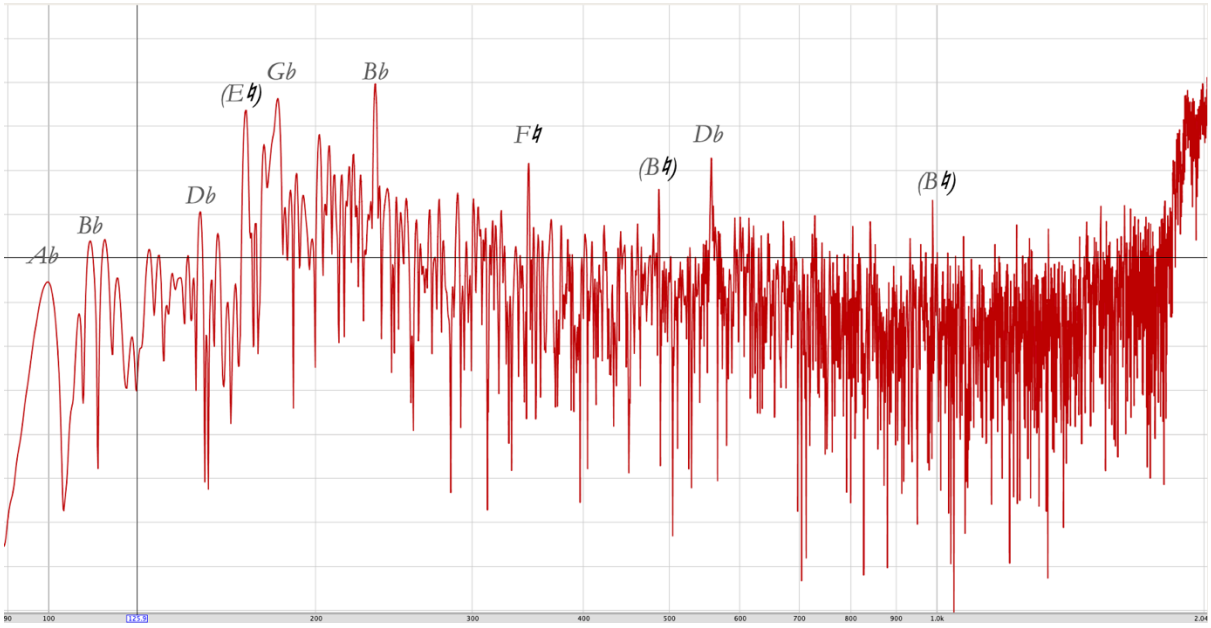

Figure 10: Frequency response graph of The Old Rectory's bell tower with approximate musical pitches marked. Screenshot from REW; frequency in hertz is shown on the x-axis, amplitude in decibels on the y-axis.

[100] This approach was inspired by works including Alvin Lucier's *I am Sitting in a Room* and Paul Norman's *Adrian Boult Concert Hall Ist Kaputt*.

Accrete's form was taken from Mary Duggan Architects' 'schedule of works'; a Gannt chart showing the sequence of tradesmen working on the site (Figure 11). One week on the schedule became fifteen seconds of music, with each 'trade' translated into a pedal tone (figure 12).[101] I then composed the music by layering dozens of recordings of the Medieval rebec (performed myself and recorded in my studio). This instrument would, of course, have been popular when the church of St Martin Orgar was established in 1250. A field recording made in the empty bell tower forms another layer in the composition's texture. Finally, towards the end of the piece, I include a moment for two sopranos who incant a tenth-century poem, *The Ruin*.[102] In this way, I hoped to include various aspects of the site's past and present in the work, each layered (or accreted) just as The Old Rectory's history is layered.

In June 2021, we presented *Accrete* as a reel-to-reel tape installation in The Old Rectory's bell tower for the London Festival of Architecture. A short film documenting that installation is included in this thesis' appendix.

[101] This approach was borrowed from Seán Clancy's *Forty-Five Minutes of Music on the Subject of Football*.
[102] This poem is taken from in the Exeter Book (MS 3501)

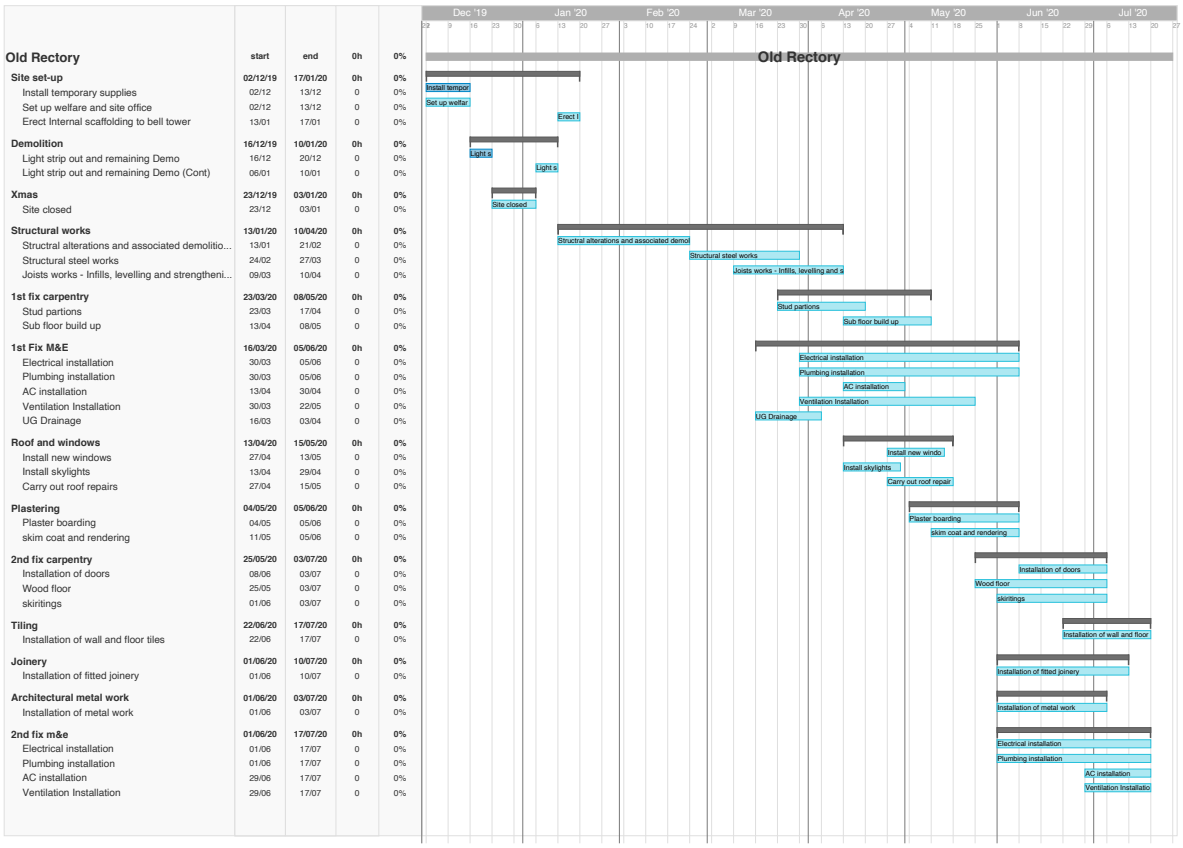

Figure 11: Mary Duggan Architect's Schedule of Works for The Old Rectory.

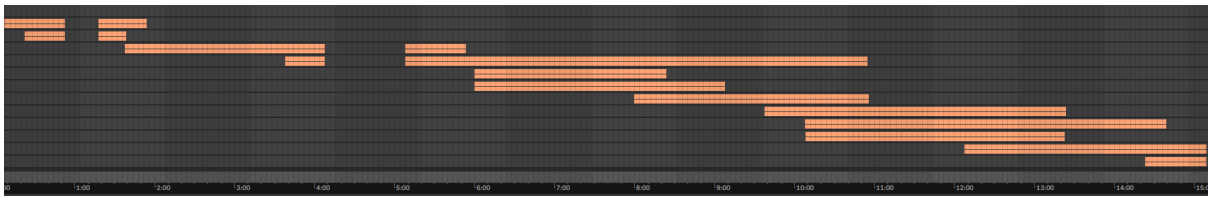

Figure 12: Pedal tones in *Accrete*. Screenshot from Ableton Live 10.[103]

4.1.2 – *Quartet for a Landscape*

Also in 2021, I worked with the Icelandic Baroque ensemble Nordic Affect to create a new multi-media work, *Quartet for a Landscape*. The piece was created in two stages: first, I composed new concert music which was premiered by the ensemble at the venue Mengi in Reykjavik, Iceland, on 16 October 2021. Second, I played the recording of that performance, at dawn, through a single speaker installed at the rock formation Stanage Edge

[103] The gaps at c.1 minute and c.4 minutes reflect when the site was closed: first, for the Christmas holiday and second, when work was paused because of restrictions around the Covid-19 pandemic.

on the border of Derbyshire and South Yorkshire in England. The film of that installation constitutes the final work and is included in this thesis' appendix. Whereas *Accrete* explored the connection between historically-informed music and place in the specific, *Quartet for a Landscape* broadened this exploration to engage with ideas of landscape, or 'nature', more broadly.

Compositionally, I was interested in exploring the 'grain' of the historical instruments (a quality I discussed in Chapter Two: 2.2.3). The music therefore consists of sustained, quiet, and slow-moving lines on the Baroque strings, punctuated sparsely by single notes played on the harpsichord. The harmony is likewise pared back, consisting only of the pitches of the open strings and natural harmonics of the violin, viola, and cello.[104] In this way, the music aims to create a space in which the materiality of the instruments can be heard. I also hoped that this music would engage (albeit obliquely) with ideas of nature, both by foregrounding the natural materials of the instruments (the gut of the strings, for example) and insofar as the harmony was based in a natural phenomenon (the harmonic series).[105] Structurally, the piece moves from the lowest notes of the Baroque strings (where they are most resonant) to their higher partials.

The film is also minimal. Nothing happens. Rather, the speaker sits static in the landscape, reproducing the frozen moment of the live musical performance (Figure 13).[106] My aims, in doing this, were twofold: to heighten the perception of the 'grain' of the instruments (both through their disembodiment and in their relation to the materiality of the landscape), and, relatedly, to highlight in some way the 'naturalness' of those instrumental timbres. The film thus explores points of contrast and connection: the instruments' sonic materiality is juxtaposed with the landscape's materiality, the 'cultural' is placed against the 'natural', the technological sits within the ecological, and the modern (and disposable; plastic) is contrasted with the ancient. The film was recorded in one take and is presented unedited. The audio is a mix of both the

[104] This harmony aims to maximise the resonance of the instruments' gut strings. The composer Scott Godin notes, for example, "the amazing resonance of the [Baroque cello] in D-G tuning" (Frey, 2018: 20).

[105] Godin describes the "'Earthiness' of the lowest string" of the Baroque cello (Frey, 2018: 20). Returning to an idea introduced in Chapter Three (3.3.2), we might say that music based in the natural overtone series also embodies something of the Pythagorean conceptualisation in which "music was the ordering principle of the world… [and] Music was man's participation in the harmony of the universe" (Reilly, 2001: 13).

[106] We might here again think of Chris Cutler's observation of the uncanniness of recordings: "A concert was a living thing. A recording was unequivocally a dead one" (Cutler, 2020: 35).

recording made 'on site' (a Zoom H4N microphone, just out of shot, captures both the loudspeaker and the environment) and the original concert performance recording; these are edited together for reasons of clarity.

Figure 13: Screenshot from the film, *Quartet for a Landscape*.

4.1.3. – Interim Conclusions and Further Developments

These works generated a number of insights, answering questions and raising others. Reflecting on *Quartet for a Landscape*, for example, I felt that although the work aimed at a quality of embeddedness in the landscape (exploring the meanings that arose from placing Early Music instruments in dialogue with nature), it in fact sustained something of the separation between Man and the environment; what Bruno Latour called the "two sorts of domains, that of nature and that of culture" (Latour, 2017: 15).[107] Instead, I wondered if there was a way in which the post-HIP artwork might better approach Latour's thinking around the entanglement of nature and culture; that "we are not dealing with *domains* but rather with one and the same *concept* divided into two parts" (Latour, 2017: 15).[108]

[107] The plastic loudspeaker, for example, is notably distinct from the environment.

[108] Returning to Weber, we might understand this division (of Man from nature) as a product of modernity's disenchantment. As Heather Swanson *et al.* write: "Enlightenment Europe… tried to banish monsters [that is, entanglements of nature and culture]. Monsters were identified with the irrational and archaic. Category-crossing beings were abhorrent to Enlightenment ways of

In order to approach these ideas, I felt that it might be useful to draw on Donna Haraway's concept of 'sympoiesis'. Haraway writes:

> *Sympoiesis* is a simple word; it means 'making with.' Nothing makes itself; nothing is really autopoietic or self-organizing… earthlings are *never alone*. That is the radical implication of sympoiesis. *Sympoiesis* is a word proper to complex, dynamic, responsive, situated, historical systems. It is a word for worlding-with, in company (Haraway, 2016: 58).

Haraway's concept suggests both an *activity* ('making with') and a state or essential truth (that 'nothing is really autopoietic'). I therefore felt that it might be both a useful creative impetus and conceptual device. Further, 'time' is important in Haraway's thinking. She writes that our task is not one "of clearing away the present and the past in order to make futures for coming generations" but rather of "learning to be truly present… as mortal critters entwined in myriad unfinished configurations of places, times, matters, meanings"; "The task is to make kin" (Haraway, 2016: 1). This inclusion of time and history suggested to me that the historically-informed artwork might meaningfully contribute to Haraway's ideas. Indeed, Heather Swanson *et al.* likewise reject modernity's orientation to the future, emphasising instead the importance of reattuning ourselves to the present. They write, "Somehow, in the midst of ruins, we must maintain enough curiosity to notice the strange and wonderful as well as the terrible and terrifying… Living in a time of planetary catastrophe thus begins with a practice at once humble and difficult: noticing the world around us" (Swanson *et al.*, 2017: M7).

I felt that *Quartet for a Landscape* achieved something of this 'presence', and that the work sought to facilitate a state of 'noticing'. My aim, therefore, was to build on these qualities. Likewise, I felt *Accrete* responded creatively to the specific heritage of The Old Rectory. I wanted to broaden this dimension of the work and to engage with ideas of history, place, and nature more interconnectedly. As such, I chose to create a new site-specific work in Sheffield's Rivelin Valley, a place both steeped in history and ecologically rich.

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ordering the world… rationalization meant individualization, the creation of distinct and alienated individuals, human and nonhuman" (Swanson *et al* 2017: M5-M6).

4.2 – Methodology

The historic Rivelin Valley in the West of Sheffield was once a thriving a hub of water-powered industry. For more than three centuries, the river powered a range of trades from "grinding and finishing blades of various types, optical glass grinding, paper making (from rags), corn milling, lead smelting, [and] forging metalwork… [to] wire drawing" (Shaw and Kendall, 1998: 8). The oldest recorded watermill in the valley, Hind Wheel, was established around 1581. By the early-twentieth century, however, most of the mills had been abandoned, with Walkley Bank Tilt "the last in the valley to close, in the early 1950s" (Shaw and Kendall, 1998: 30). Today, the ruins of twenty watermills and twenty-one mill dams can be found along the river's length. The Rivelin is now a haven for wildlife. However, the weirs, dams, and goits that once channelled the water still remain; the valley's past is still legible, the river having been indelibly shaped by centuries of industry.[109]

Responding to the Rivelin Valley's rich industrial and ecological heritage, *A Ladder is Not the Only Kind of Time* combines water-powered musical instruments, field recording, and live performance (on both historical and modern instruments) to approach ideas of place, history, and our changing relationship with the landscape. The work features three new water-powered historical instruments that I designed and built together with the instrument maker Sam Underwood: a harpsichord, hurdy gurdy, and hydraulis (or water organ). 'Played' by the river, these instruments produce sound mechanically.[110] Water-wheels turn to operate the mechanisms within the harpsichord and hurdy gurdy; plucking strings or rotating a rosined wheel. The hydraulis, meanwhile, uses water to displace air in its chamber, sounding organ pipes when the instrument is partially submerged (a system loosely inspired by an Ancient Greek design).[111]

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[109] Interestingly, almost as soon as the mills were abandoned, the Rivelin inspired artists. In the early 1920s, an artists' colony was established at Rivelin Corn Mill for both amateur and professional painters returning from World War 1 including Robert Scott-Temple, Ben Baines, and W R E Goodrich. The environmentalist Chris Baines notes, "Nature had begun to take over the industrial heritage and the Rivelin Valley Artists captured that mixture of the natural and industrial landscape brilliantly" (Baines, 2017).

[110] The instruments are 'fixed' (playing a set drone or sequence of pitches) however it is possible to change various parameters between installations: the sequence in which the harpsichord's strings are plucked, the tuning or strings of the hurdy gurdy, and the organ pipes used for the hydraulis.

[111] Invented by the engineer Ctesibius in the third century BCE, the hydraulus used a water-filled tank to maintain a constancy of air pressure (see: Apel, 1948; Williams, 1924).

To make the instruments, Sam and I collaborated closely. We tested and adapted a number of prototypes (Figures 14-16) being careful, throughout, to emulate the idiosyncrasies of the historical instruments on which ours were modelled. For example, the harpsichord's plucking mechanism – in our instrument, reconfigured onto a wheel (Figure 17) – features a dampener and second plectrum to replicate the harpsichord's distinctive sound profile. Likewise, the position, shape, and gearing of the hurdy gurdy's wheel was configured to achieve both the historical instrument's distinctive rhythmic quality and its timbre (sounding the strings' partials as well as their fundamentals).

Figure 14: Prototype hydraulis. Photograph by Benjamin Tassie.

Figure 15: Prototype harpsichord mechanism. Photograph by Benjamin Tassie.

Figure 16: Prototype hurdy gurdy with water-wheel. Photograph by Sam Underwood, reproduced with permission of the photographer.

Figure 17: The water-powered harpsichord's circular plectra mechanism. Photograph by Benjamin Tassie.

Over a week in late-July 2023, we installed the instruments in the river. Working at dawn or dusk, each track was recorded as a single take at the site of a former watermill (Figure 18). I worked with the sound recordist Ross Davidson to record the album. He used a pair of LOM Uši Pro omni-directional microphones to capture the ambient environment of the river as well as several Sennheiser MKH 416-P48U3 shotgun microphones to record the instruments (Figure 19). An additional Sennheiser MKH 416-P48U3 microphone was focussed on the river itself, capturing a 'close up' of the water's sound. The Sheffield-based filmmakers OPUS filmed three of the recording sessions: at Swallow Wheel, Hind Wheel, and Second Coppice Wheel.

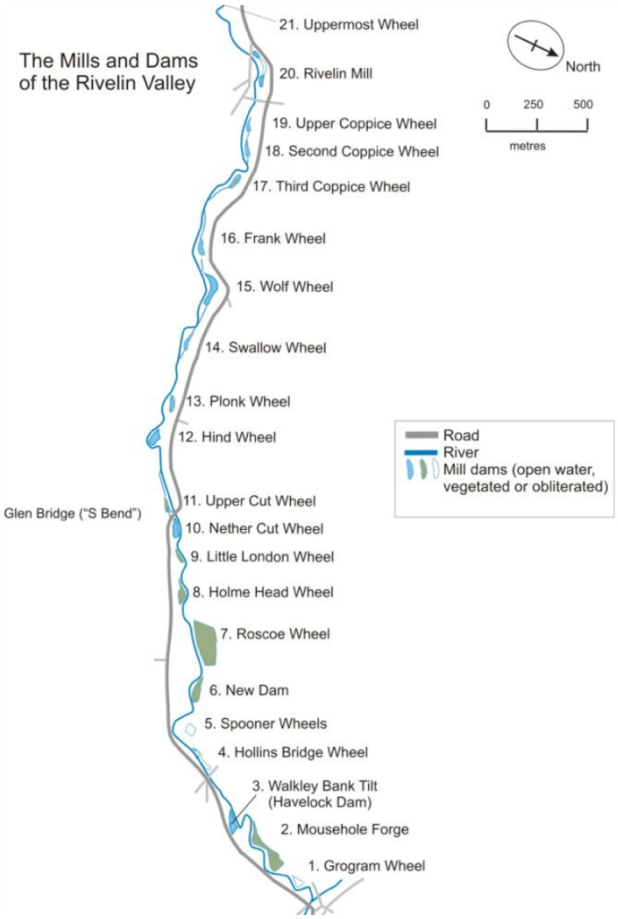

Figure 18: A map showing the sites of former watermills in the Rivelin Valley (reproduced from: Shaw and Kendall, 1998: 21)

Figure 19: The water-powered instruments at Swallow Wheel. Screenshot from the film *A Ladder is Not the Only Kind of Time* showing the approach to recording.

On some tracks – 'Little London Wheel', 'Hind Wheel', 'Second Coppice Wheel', and 'Wolf Wheel' – HIP instrumentalists performed alongside the river instruments. Rebecca Lee played bass viol and Rob Bental played the nyckelharpa, while I played the Medieval rebec (and lap steel guitar). Our music was improvised. I chose a small set of pitches, asked the musicians to listen to the water-powered instruments and to the environment, and to play intuitively.[112] Chance events – the engines of passing motorbikes on 'Plonk Wheel' or the call of a buzzard on 'Wolf Wheel', for example – also became a part of the music.

I then edited the recordings with minimal intervention. I selected a take from the two or three recorded at a location, and mixed the recordings from the different microphones together. Of course, in the mix the recording becomes something quite false; the river detail is brought up in volume and positioned within the stereo field, the environment's prominent 'white noise' is reduced, the detail of the 'close-miked' instruments is made audible where the river had overpowered them, and so on. I also edited the film. Embracing something of this artificiality, I interspliced footage from 'recording takes' (in which the microphones are visible) with 'behind the scenes' footage and shots of the instruments and instrumentalists on their own.

A Ladder is Not the Only Kind of Time was released in three formats: as an album of recordings (available both digitally and as a CD),[113] as a film (exhibited online and, from November 2023 until November 2024, in Sheffield's Western Park Museum),[114] and as geolocated audio accessible on a smartphone using the Echoes app.[115] The last of these – which we might describe as a digitally mediated 'sound walk' – returns the recordings to the environment in which they were made. When a user walks into one of a number of geolocated trigger points in the Rivelin Valley (Figure 20) the recording corresponding to that location is played.[116]

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[112] For example, on the track 'Second Coppice Wheel' we used the pitches of the open strings of the viol (tuned using the Pythagorean temperament). My instruction was to play from the lowest string to the highest, gradually incorporating other consonant pitches as we went on.

[113] The album is released on the Birmingham Record Company Label (BRC021), an imprint of NMC Recordings (Tassie, 2023).

[114] The film was shown as part of the museum's *City of Rivers* exhibition: https://www.sheffieldmuseums.org.uk/whats-on/city-of-rivers/ (Accessed 16 October 2023).

[115] See https://echoes.xyz/ for more information (Accessed 19 November 2023).

[116] The Rivelin Valley Conservation Group (RVCG), established in 1991, now maintain the footpaths, woodlands, and architectural heritage of the valley. Between 2014 and 2015, the RVCG installed 'marker posts' at the twenty mill sites with "a QR code and NFC tag that can be used from a smart phone to access videos, images and further information about the history of the

Figure 20: The geolocated trigger points for *A Ladder is Not the Only Kind of Time*. Screenshot from the Echoes creator web app.

4.3 – Influences

Of course, *A Ladder is Not the Only Kind of Time* engages with approaches from the tradition of 'ecological sound-art'. In order to better reflect on the practice completed during this strand of research, and to develop an understanding of the work's contribution to the field, it is therefore worthwhile briefly discussing the work of some key practitioners. As a structure, I will use the five characteristics of ecological sound-art proposed by Jonathan Gilmurray in his foundational essay on the topic:

> [1.] the enactment of artistic metaphors which facilitate a heightened awareness, deeper understanding and, most importantly, a personal connection with contemporary environmental issues… [2. the use of] sound as a medium for the investigation and articulation of the ways in which human beings and our technologies can coexist harmoniously with the rest of the natural world… [3.

site and nature in that area" (Shaw and Kendall, 1998; 2022: 88). There is therefore an interesting precedent for smartphone based interventions along the river.

> enabling] audiences to experience aspects of the environment they would not normally have access to… [4. utilising] sonification as a means to achieve an experiential understanding of ecological dynamics and processes… [and 5. moving] beyond the one-way 'artist-to-audience' dynamic to engage communities as active participants and collaborators (Gilmurray, 2017: 34-37).

My discussion will necessarily be inexhaustive. Rather than attempting a comprehensive overview of the scene, I have selected artists who have been personally influential or who I feel typify an approach.

4.3.1 – Enacting Metaphors Which Facilitate a Personal Connection With Environmental Issues

The composer John Luther Adams describes the power of sound in facilitating a personal connection with the environment. He writes:

> Whenever we listen carefully, we come to hear that music is around us all the time. Noise is no longer unwanted sound. It is the breath of the world… Noise takes us out of ourselves. It invites communion, leading us to embrace the patterns that connect us to everything around us. As we listen carefully to noise, the whole world becomes music. Rather than a vehicle for self-expression, music becomes a mode of awareness. (Adams, 2009: 4)

Reformulated as this 'mode of awareness', music is a tool for Swanson *et al.*'s "practice at once humble and difficult: noticing the worlds around us". In turn, listening serves to close something of the division between Man and nature (what Latour called the 'two sorts of domains'). Instead, we come to recognise (through listening) our state of interconnectedness with the world. Indeed, we might describe the 'mode of awareness' as antithetical to what David Toop calls digital modernity's "human centred ecologies" with their "unbalanced politics of listening and… imperatives of hyper-productivity and self-realisation" (Toop, 2019: 1). Understood in this way, music and listening are essential tools for acting and thinking ecologically.

Elsewhere, Annea Lockwood likewise recognises sound's connective power. Describing her *River Portraits* series,[117] for example, she notes that the river is usually:

> almost entirely a visual entity. When you're looking at that river you have no real sense of its power so most people have no intimate, tactile contact with the river… Listening to the river and re-experiencing the river's flow can bring it into your being and remind you of its nature and its being. So next time you hear about a river in trouble you might want to help out (Lane and Lockwood, 2013: 32-36).

For Lockwood, sound mediates a sense of the nonhuman-Other's 'being-ness'. That is, sound has an intersubjective quality; we come into 'intimate contact' with the natural *through sound* and are therefore unable to sustain to the same degree nature's objecthood (its status as a resource, for example). A personal connection is thus established, one that might, Lockwood hopes, exhort the listener to action.

4.3.2 – Articulating the Harmonious Coexistence of Humans, Technology and the Natural World

Of course, the division between culture and nature can also be challenged through the medium of the artwork itself. The British artist Max Eastley's 'landscape instruments' exemplify this. Writing in the 1990s, for example, Eastley proposed "closer collaboration… between musicians, artists, composers, architects and engineers with the objective of creating a synthesised organic art form that interacts with the environment and merges the distinctions between the natural and artificial" (Eastley, 1996: 143). Eastley's practice, thus viewed, could be understood as an example of Haraway's 'sympoiesis'; that is, of *making with* the environment. Or, we might say that his 'landscape instruments' *reveal* the fact of sympoiesis – that "nothing is really

[117] The *River Portraits* are field-recording surveys of the rivers Hudson, Danube, and Housatonic. Tim Rutherford-Johnson describes Lockwood's approach: "To create [*A Sound Map of the Hudson River*] Lockwood recorded the river in stages, moving downstream. She took recordings from the bank, at points that she deemed sonically interesting and that fit an overall sequence of contrasts and movements. The piece was thus recorded compositionally, with a final sound and structure in mind, rather than objectively; Lockwood rejected locations, for example, if they were too close to roads or presented too little of sonic interest. Once the recordings were completed, Lockwood compiled them into a montage sequence, stitched together with slow fade-ins and fade-outs" (Rutherford-Johnson, 2018).

autopoeietic or self-organizing" (Haraway, 2016: 58). Eastley's instruments articulate, in other words, something of the interconnectedness of humans, our technologies, and the natural world.[118]

Elsewhere, Newcastle University's collaborative research project The Landscape Quartet explored a process of 'performing with' the environment. For the project, the artists Bennett Hogg, Sabine Vogel, Stefan Östersjö, and Mathew Sansom undertook a series of 'performative interventions' within nature. In *Devil's Water* (2020), for example, Östersjö and Hogg "use conventional guitars and violins unconventionally in order to 'play' and 'play with' the river, the trees, air and fire" (Snell Hogg, 2020). Whereas Eastley's instruments (or my own *Quartet for a Landscape*) somewhat efface the human, The Landscape Quartet were "less concerned with setting up structures to be left in place, responding sonically to environment without ongoing human agency, than with being embedded performers, actively feeling and sounding their way, getting to know a place" (Norman, 2015: 262). Music, for the quartet, was thus both a means of 'meeting' nature and a model for the more egalitarian terms of that meeting.

The artist Kathy Hinde's multimedia works likewise create what Matthew Sergeant calls "non-hierarchical meeting points between herself, the nonhuman world, and her audience" (Sergeant, 2021: 170). However, Hinde questions the 'making with' label. Recalling her experience creating the audio-visual work, *River Traces 1* (2020), for example, she said:

> I spent a lot of time recording and listening to the river – running my hands in the water, exploring the textures of the plant life, mosses, and rocks through touch… [the] film-making process felt like a very intimate encounter with both the material qualities of the river and with the process of making an analogue film in this way… [however] I'm not sure that 'collaboration' is the right word… how can

[118] Eastley's practice is, in this sense, related to the Land Art movement that arose in the 1960s. Udo Weilacher writes that, in Land Art "Sculptures are not placed in the landscape, rather the landscape is the very means of their creation. Interventions by the artist, which use earth, stone, water and other natural materials mark, shape and build, change and restructure landscape space; they do so with sensitivity and care arising from an awareness of ecological responsibility" (Weildacher, 1996: 11). I argue, however, that there is an important distinction between Eastley's work and that of the Land Art movement more broadly. Eastley's instruments (like my own in *A Ladder is Not the Only Kind of Time*) are distinctly not *of* the earth. While the landscape is a co-conspirator in their making and sounding, and while they undoubtedly arise "from an awareness of ecological responsibility", their *difference from* the landscape is fundamental to the meanings that they offer. Their unique effect arises, I argue, precisely because of their strangeness and unbelonging; of their bridging of Latour's 'two sorts of domains'.

the river actively take part? And how can this be an equitable collaboration? (Sergeant, 2021: 168-169).[119]

Recognising the differing degrees of agency afforded to the human and nonhuman actor, Hinde questions the reality (or perhaps the ethics) of sympoiesis. Acknowledging this imbalance, perhaps it would be truer to say that – rather than being literally co-authored – the artwork models a kind of 'ideal coexistence' with nature, one otherwise unimaginable under (capitalist) modernity.[120]

4.3.3 – Allowing us to Experience Normally Inaccessible Aspects of the Environment

Lockwood's 2014 work *Wild Energy* (a multi-channel outdoor installation made with the sound designer Bob Bielecki) transposes "sound from the infra and ultra sound worlds: geophysical, biophysical, magnetosphere etc." (Lockwood, n.d.) into the range of human hearing. Hidden aspects of the natural world are thus revealed through the work. Kate Molleson describes the experience: "Sound bounces all around the trees and dangles from the branches. Sub-woofers boost the lowest frequencies. We hear bats, tiger moths, earthquakes, hydrothermal vents, the sun, but it isn't obvious which source is making which sound" (Molleson, 2022: 275). *Wild Energy* puts the listener into contact with nature in its abundance. Returning to Weber, we might say that nature is *reenchanted* through the work, that, in giving voice to its hidden qualities, something of nature's essential mystery – its magic – is restored.

4.3.4 – Communicating Environmental Data Through Sound

[119] She continues: "I think the term 'collaboration' was a useful conceptual tool when approaching my creative processes with the river. I enjoy thinking about it as a collaboration, which gave rise to subtle shifts in my approach and perception. But my reservations are to do with the fact that the river does not actively give me permission. My premeditated approach – that I intend to consciously leave space for the river to 'do its own thing' – gives some agency to the river, but I am not able to sense the 'intention' of the river or find a way to hand the same amount of agency that I have over to the river (Sergeant, 2021: 169).

[120] For Hinde, it is very often recording (or other) technologies that facilitate this connection with nature. She notes, "I want to take people into a space where they might notice; it's always connected to our relationship with the environment and with other species… I don't always use field recording in the final work… but that way of listening for long durations maybe through directional microphones that really enhance your listening, and then needing to be really still as you're doing that and getting really immersed, I find it a really incredible way to be in a location" (Future Classical, 2022a).

Some ecological sound-artists use sonification as a means of translating climate data into an artwork.[121] However, this approach risks, in my view, reducing the artwork to what Timothy Morton calls "just a huge data dump". He continues: "Art is important to understanding our relationship to nonhumans… Art fails in this regard when it tries to mimic the transmission of sheer quantities of data; it's not artful enough" (Morton, 2021: 57). My interest, instead, is in when the artwork reveals something of what Gilmurray calls "ecological dynamics and process" (Gilmurray, 2017: 36); that is, of nature's patterns, rhythms, and cycles. Adams' *The Place Where You Go to Listen* (2006) is a good example of this.[122] Adams writes "The music of *The Place* is produced by natural phenomena. But this is not a scientific demonstration of natural phenomena. It is a work of art" (Adams, 2009: 8).[123] Reconstituted as 'an artwork' visitors "'hear' the dynamics of the Alaskan ecosystem as a constantly unfolding composition" (Gilmurray, 2017: 37). This change in framing thus reconfigures something of our relationship to the natural world. Adams writes, "We enter with our everyday perceptions of the world around us. Inside *The Place* we hear and see things differently. When we leave, perhaps we carry some of these new perceptions with us" (Adams, 2009: 8).

Elsewhere, Lockwood's 1969-1972 series *Piano Transplants* – in which she burned, buried, and 'drowned' pianos – likewise explored nature's 'dynamics and processes'. She recalls, "It was not the destruction that fascinated me. I am interested in something less predictable, arising from the gradual action of natural forces – fire, water, wind, plants, earth – on an instrument designed for maximum control. I am interested in process" (Lockwood, 2005: 20-21). The *Piano Transplants* thus reveal something of the hidden, essential qualities of nature. In *Piano Garden*, for example, Lockwood buries a piano, leaving it to become slowly overgrown. She

[121] Gilmurray writes, for example, that the "Artist Andrea Polli collaborates with climate scientists and meteorologists to produce sonification-based sound works which comment on climate issues… Sonification is also at the heart of the compositional approach which Matthew Burtner has named 'ecoacoustic'" (Gilmurray, 2017: 36).

[122] *The Place Where You Go to Listen* is "a unique sound and light environment… [a] constantly changing, never repeating ecosystem of sound and light, tuned to the geophysical forces of Interior Alaska. The composition is guided by the seasons, the time of day, changes in the phases of the moon, and moment to moment fluctuations in atmospheric haze, wind, aurora activity, and Alaska's earthquakes" (Museum of the North, n.d.).

[123] Adams continues: "reductionism in scientific thought has led us to regard ourselves as apart from the world, rather than a part *of* the world. This fallacy has led us to dominate life on earth to the extent that our own survival is now threatened… art grounded exclusively in self-expression can indulge our conceit that we somehow stand above and beyond the rest of life. This pretension only exacerbates our sense of alienation from the earth and other species… The overindulgences of artistic romanticism and the mechanistic worldview of Newtonian science were two sides of the same mind that led us to our present predicament" (Adams, 2009: 9).

writes, “A plant appears pliable and fragile, and a piano, inflexible and strong, but neither is as it seems.” (Lockwood, 2005: 21). It is not that Lockwood somehow sonifies these qualities or processes (dealing with their data), but rather that the art-framework offers a means of experiencing – and therefore of coming to know more deeply – those dynamics.

Of course, both Adams’ and Lockwood’s work engages with the ‘more-than-human’ timeframes of nature. I develop this idea in relation to my own work, below (4.4).

4.3.5 - Facilitating Community Engagement with Ecological Issues

In some works of ecological sound-art, audiences are actively engaged in the sense that they contribute material or take part as participants.[124] However, there is another, more nuanced, sense in which audiences are ‘actively engaged’; that is, through the action of sound on them as listeners. As outlined above, Lockwood’s hope is that a connection with nature, *through sound*, might exhort the listener to action. Molleson describes Lockwood’s interest as being in “how sound is formed by nature and by our own bodies, and what sound can do to nature and our bodies in return… It can carry us, imprint upon us, awaken, attune and attend us. Sound can make us feel. Sound can make us care” (Molleson, 2022: 275). In this context, we might challenge the very notion of the ‘passive’ listener. As John Cage said, “Most people think that when they hear a piece of music, that they’re not *doing* anything, but that something is being done *to* them. Now this is not true… people [should] realize that they themselves are doing it” (Cage and Reynolds, 1998: 398). Instead, the experience of listening might better be thought of as *intersubjective*, “in which ‘I’, the listener, am inhabited, and temporarily imagined, by the subjectivity of the music” (Hodgkinson, 2010: 220).[125] In the context of ecological sound-art, the ‘subjectivity of the music’ is bound up, of course, with the subjectivity of the nonhuman-Other. This

[124] Gilmurray gives as an example the work of Leah Barclay. He writes, “Her projects have included *Sonic Explorers*, which engages young people in ecological sound art; *The Dam(n) Project*, which has seen Barclay working with communities in India’s Narmada valley, using sound art as an activist tool to respond to the destructive damming projects which threaten their water supplies; and *Biosphere Soundscapes*, an ongoing series of networked projects in which artists and communities are working together to use sound as a means of understanding the environmental health of UNESCO biosphere reserves” (Gilmurray, 2017: 37).

[125] The full context of Hodgkinson’s quotation is: “at the core of every truly engaged listening experience, something is retained from the transcendental religious experience: not the giving up of the self for the journey into the sacred imaginary, but a special condition in which ‘I’, the listener, am inhabited, and temporarily imagined, by the subjectivity of the music” (Hodgkinson, 2010: 220).

makes sound a powerful medium for approaching issues of ecology. As the philosopher Salomé Voegelin notes, whereas "Vision, by its very nature assumes a distance from the object… Hearing does not offer a meta-position; there is no place where I am not simultaneous with the heard. However far from its source, the sound sits in my ear… This is a continual production that involves the listener as intersubjectively constituted in perception" (Voegelin, 2010: xii).

4.4 – Exegesis

A Ladder is Not the Only Kind of Time engages with many of these ideas and approaches. The work seeks, for example, to engender something akin to Adams' 'mode of awareness'. In doing so, its hopes to reveal the under-experienced, subtle qualities of the natural world; "that music is around us all the time". After Haraway, we might say that the work modelled something of 'sympoiesis' insofar as the river 'played' the instruments, the environment 'acted on' the human performers, and the environmental sounds formed an important part of the final recordings. Finally, it is my hope that the work offers an experience of the river's 'subjectivity' or 'being-ness'. As Lockwood said, "Listening to the river and re-experiencing the river's flow can bring it into your being and remind you of its nature and its being. So next time you hear about a river in trouble you might want to help out". In what follows, I expand on these ideas, drawing, in particular, on the work of the philosophers Timothy Morton and Bruno Latour.

For Morton, the ability to engender an intersubjective connection is central among the contributions that the artwork can make to ecological thinking. He writes, "art provides a model for the kind of coexistence ecological ethics and politics wants to achieve between humans and nonhumans… because beauty gives you a fantastic, 'impossible' access to the inaccessible, to the withdrawn, open qualities of things, their mysterious reality" (Morton, 2021: 3). He describes that experience:

> It's disturbing how the experience of relating to art… makes it difficult – sometimes impossible – to sustain the valley across which we see other entities as 'other'… When I love an artwork, it is as if I am in some strange kind of mind meld with it, something like telepathy, even though I 'know very well'

> (or do I?) that this thing I'm appreciating isn't conscious, isn't sentient, isn't even alive. I am experiencing unknown effects on me coming from something that I am caught up with in such a way that I can't tell who 'started it' – am I just imposing my concepts of beauty on to any old thing, or is this thing totally overpowering me? (Morton, 2021: 94-95)

By reframing the river as 'an artwork', *A Ladder is Not the Only Kind of Time* hopes to co-opt something of this 'mind meld'. That is, mediated 'as art' (through recordings and on film), it is hoped that the river acts on the audience in the way that Morton describes; through "something like telepathy", closing the "valley across which we see other entities as 'other'".

Morton goes on to argue that this intersubjective connection should be constituted in terms of 'nonviolence' or 'indifference' toward nature, rather than action. He writes, "Your indifference to ecological things is exactly the sort of place where you will find the right kind of ecological feeling" (Morton, 2021: 96). And later: "Perhaps indifference itself is pointing to a way to care for humans and nonhumans in a less violent way – simply allowing them to exist" (Morton, 2021: 103). Rather than constituting our response to ecological breakdown in terms of radical change, Morton argues for "being a little bit hesitant and thoughtful and reflective" (Morton, 2021: 41). As Swanson *et al* write, "Perhaps counterintuitively, slowing down to listen to the world – empirically and imaginatively at the same time – seems our only hope in a moment of crisis and urgency" (Swanson *et al.*, 2017: M8). I argue that "slowing down to listen to the world" is exactly what *A Ladder is Not the Only Kind of Time* aims to achieve. The recordings are still and quiet. A drone lasts for several minutes. Only a few pitches sound, played in a loop. In the film, there is the sense of stopping to look at some strange, mechanical objects in the water; of pausing within nature to pay attention.

This is one sense in which *A Ladder is Not the Only Kind of Time* engages with time: by promoting hesitancy and reflectiveness. Returning to an idea introduced in Chapter Two (2.3), we might describe this position (of "slowing down to listen to the world") as 'anti-pseudo-modernist'; that is, as antithetical to Alan Kirby's 'pseudo-modernism' in which engagement with the world is constituted in terms of distracted interaction – "You click, you punch the keys, you are 'involved', engulfed, deciding" (Kirby, 2006). Morton writes:

> I meant it when I said you didn't need to delete your indifference. You are quite right. You work so hard and you get so little in return, you have to smile relentlessly at work, you have to be your own paparazzo and upload a selfie to Facebook every five minutes, you have to 'Like' (that button) the right sorts of things… And now I'm asking you to get all frantic about polar bears too? On top of everything else? So much frantic clicking. (Morton, 2021: 102)

A Ladder is Not the Only Kind of Time invites extrication from such hyper-interactivity. The work is slow. It is, in one sense, analogue and handmade. The water-powered instruments are acoustic; their sound, 'material'. However, the piece is also digital. The recordings and film are made possible only through digital technologies while in its geolocated form, the work relies on the use of a smartphone. Engagement is not, however, constituted in terms of 'frantic clicking'. Even when using the Echoes app, the listener is, I hope, not hurrying (technofix to technofix)[126] but is instead encouraged to linger, to make connections with the landscape, and to imagine the layers of history present where they walk. The tools of digital modernity are thus repurposed in the work. The audience is not 'engulfed, deciding', but is instead asked to pause and reflect; to engage with that "practice at once humble and difficult: noticing the world around us" (Swanson *et al.*, 2017: M7).

There is another sense in which *A Ladder is Not the Only Kind of Time* engages with time: in its relation to the more-than-human timescales of nature. Above (4.3.4), I described Adams' *The Place Where You Go to Listen* and Lockwood's *Piano Transplant* series in these terms. By engaging with the 'dynamics and processes' of nature, those works offer the listener access to something of ecological-time. Indeed, Joep Christenhusz describes sound's unique ability to mediate these timescales. He writes, "sound, as a temporal flux of frequencies and intensities, can foster a sensibility to timescales that otherwise would remain beyond our human timeframe" (Christenhusz, 2021: 148). Morton argues that engaging with these timescales is essential. He writes, "ecological awareness means thinking and acting ethically and politically on a lot of scales, not just one… [recognising] that from grasses to gorillas to gargantuan black holes, *everything has its own time*, its own

[126] Ursula K. Le Guin writes that "here, in the midst of our orgy of being lords of creation, texting as we drive, it's hard to put down the smartphone and stop looking for the next technofix" (Le Guin, 2017: M17).

temporality" (Morton, 2021: 32-33).[127] And later: "Realizing that there are lots of different temporality formats is basically what ecological awareness is. It's equivalent to acknowledging in a deep way the existence of beings that aren't you, with whom you coexist" (Morton, 2021: 66). *A Ladder is Not the Only Kind of Time* offers, I argue, access to such multiple temporalities. By engaging with the sites of historical watermills, for example, the work places the phases of human history in dialogue with ecological-time; the river outlasts, and yet is indelibly shaped by, human industry – the two timescales are entangled.

Insofar as the human (capitalist, industrial) is decentred in this way, we might say that the work challenges ideas of time in another sense: in modernity's orientation to the future, what Bruno Latour described as the modern formulation of time "as an irreversible arrow, as capitalization, as progress" (Latour, 1993: 69). As Gan *et al.* note, this model of time is not particularly ecological. Modernity's orientation to the future invariably involves violence against nature insofar as it is bound up with capitalist fantasies of endless growth and the attendant realities of resource depletion and ecological destruction. They write, "This *future* is a characteristic feature of commitments to modernity, that complex of symbolic and material projects for separating 'nature' and 'culture'. Moving toward this *future* requires ruthless ambition – and the willingness to participate in great projects of destruction while ignoring extinction as collateral damage" (Gan *et al.*, 2017: G7). Acting ecologically, then, requires challenging modernity's temporality; its understanding of time as an 'irreversible arrow'. Likewise, the effective ecological artwork must, I argue, engage with ideas of time not only in the sense of the multiple more-than-human timescales of nature, but also by challenging the very conceptualisation of time and progress that modernity advances. I argue that this is central among the contributions that *A Ladder is Not the Only Kind of Time* makes to the field. The work engages not only with ecological-time, but also with *history*. Consequently (as an 'historically-informed artwork'), the piece challenges something of the linearity of modern-time.[128] Such disruption, I hope, offers a sense of the mutability of that framework. To refine this thinking, I borrow Bruno Latour's idea of the 'nonmodern'.

[127] Elsewhere, Morton develops the idea of 'hyperobjects', that is entities so large and dispersed (in time and space) as to defy understanding within traditional, human timescales (Morton, 2013).

[128] Returning to the Butt quotation cited at the start of this chapter, we can understand this as an integral component of the historically-informed artwork. He writes, "just as we realise that technological and industrial expansion and progress cannot any longer go unchecked, culture and the arts in their historicised modes actually reflect this change of perspective in a way that is simply ignored by modernism" (Butt, 2002: 188).

In *We Have Never Been Modern* (1993), Latour argues that the existence of 'hybrids' – that is, of objects, ideas, or issues that defy neat taxonomic classification as belonging to either 'nature' or 'culture' – undermines modernity's very foundation (its 'Constitution').[129] As such, he concludes that "we have never been modern in the sense of the Constitution… No one has ever been modern. Modernity has never begun. There has never been a modern world" (Latour, 1993: 47). This realisation, argues Latour, liberates us from modernity's formulation of time. He writes, "Fortunately, nothing obliges us to maintain modern temporality with its succession of radical revolutions… We are not attached for ever to this temporality that allows us to understand neither our past nor our future, and that forces us to shelve the totality of the human and nonhuman third worlds" (Latour, 1993: 74). Instead, Latour proposes a 'nonmodern' framework.[130] His metaphor is of time as an expanding circle, rather than an arrow:

> We do have a future and a past, but the future takes the form of a circle expanding in all directions, and the past is not surpassed but revisited, repeated, surrounded, protected, recombined, reinterpreted and reshuffled. Elements that appear remote if we follow the spiral may turn out to be quite nearby if we compare loops… Such a temporality does not oblige us to use the labels 'archaic' or 'advanced'… In such a framework, our actions are recognized at last as polytemporal (Latour, 1993: 75).

This, I argue, echoes the characterisation of HIP that I outlined in Chapter Two (2.1). HIP reconstitutes the past within the present, not as 'archaic' – nor, even, as 'antimodern' – but as *polytemporal*. HIP's methodology

[129] Latour asks, for example, "where are we to classify the ozone hole story, or global warming or deforestation? Where are we to put these hybrids? Are they human? Human because they are our work. Are they natural? Natural because they are not our doing" (Latour, 1993: 50).

[130] Latour dismisses the position of both the 'postmodern' and the 'antimodern'. Postmodernism, he writes, "is a symptom, not a fresh solution" insofar as the postmodernist, like the modernist, "can divide up eras only in terms of successive revolutions. They feel they come 'after' the moderns, but with the disagreeable sentiment that there is no more 'after'" (Latour, 1993: 46). He continues: the postmodernists "are wrong to retain the framework and to keep on believing in the requirement of continual novelty that modernism demanded" (Latour, 1993: 74). The 'anitmoderns', he writes, "accept modern temporality but reverse its direction. In order to wipe out progress or degeneracy, they want to return toward the past – as if there were a past!" (Latour, 1993: 72). The antimodern position reflects Dreyfus' (in my view, incorrect) characterisation of HIP as fleeing from the present: "One might say that both Early Music and early modernism occupy nearly analogous positions with regard to the Mainstream. Whereas the avant-garde strode forward in advancing the cause of historical time, Early Music took an equidistant leap in the opposite direction" (Dreyfus, 1983: 305). As I argue below, my view is that HIP is 'nonmoden'.

concerns points of connection 'across loops', not 'around the spiral'. John Butt describes this in terms of 'contiguity'; that is, of the state of bordering or being in contact with. He writes that HIP's is:

> a metonymical rather than a metaphorical connection between past and present, one concerned with contiguity and difference rather than similarity… This acts as corrective to conceptions such as the triumphalist Whiggish history that sees the great events of the past leading up (by resemblance) to a more perfect present… [HIP] offers us a new sense of the *contiguous* connection with our past (Butt, 2002: 144-145).[131]

HIP's approach might therefore be usefully described as 'nonmodern'. Indeed, I argue that *A Ladder is Not the Only Kind of Time* is 'nonmodern' or 'polytemporal' in its approach. Elements from different times – the nyckelharpa, hurdy gurdy, microphones, digital cameras, editing software, and so on – are mixed together in the work. Historical periods (the Medieval, the nineteenth century, and so on) are rings in an expanding circle which the artwork intersects. The connection with the past is therefore contiguous rather than Whiggish. It is not that the water-powered hurdy gurdy is somehow a refinement of the Medieval instrument, or that the video camera is superior to the viol, but rather that these elements are "revisited, repeated, surrounded, protected, recombined, reinterpreted and reshuffled".[132]

A Ladder is Not the Only Kind of Time thus not only deploys the tools of ecological sound-art (engendering a 'mode of awareness', mediating more-than-human timeframes, modelling 'sympoiesis' or 'worlding with', and so on), but it also integrates something of HIP's nonmodern dimension. Given that, as

[131] Butt is drawing on Beverly Haviland's analysis of the last, unfinished, novel by Henry James *The Sense of the Past* (1917) (Haviland, 1997)

[132] The form of the album's recordings might also be thought of as 'nonmodern'. The tracks begin and end somewhat arbitrarily, pitches loop, chance events are embraced, and musical development is rejected. In this sense, the recordings are antithetical to the European tradition of what Cage called 'time-objects' (discussed in Chapter Three: 3.2.2). As Christenhusz argues, the 'time-object' structure is bound up with modernity's temporality. He writes: "It is, in other words, the temporal concept that underlies the ideal autonomous musical work of European modernity, which attempts to master time's elusive flow by making it a measured, closed entity or time-object that usually follows a climax-driven narrative… this musical temporality is a thoroughly anthropocentric conception of time: one that accords with the metaphysical and scientific traditions of the West that conceive of time as linear, progressive and aimed at continual growth" (Christenhusz, 2021: 148). Returning to Weber, the nonmodern musical work could therefore be thought of as 're-enchanting' in the sense of its rejection of the positivistic underpinnings of form and development.

Christenhusz notes, “Our western notion of linear, ever-progressive time has turned out to be a dangerous, dead-end illusion that provisionally may lead to greater yields and greater profits, but simultaneously comes at an ecological price that, in the end, leaves us empty handed” (Christenhusz, 2021: 151) such re-formulations of time are essential. Christenhusz continues: “To turn the tide, to imagine more sustainable futures, we urgently need to attune to other, more ecological temporalities” (Christenhusz, 2021: 151). The historically-informed ecological artwork offers, I argue, an important avenue for such imagining. Its polytemporality and overtly historical turn challenge modern-time in its futurity; its ongoing project of separating culture from nature. What is more, such a nonmodern artwork offers, in Butt’s words, “an invaluable insight into the way our present is constructed and how it is linked to the past” (Butt, 2002: 145), an understanding that is surely essential in identifying the causes of, and therefore the possible solutions to, our current crisis. As Gan *et al* write, “Our era of human destruction has trained our eyes only on the immediate promises of power and profits. This refusal of the past… will condemn us to continue fouling our own nests. How can we get back to the pasts we need to see the present more clearly?” (Gan *et al.*, 2017: G2). Post-HIP practice, I argue, is one such means.

CHAPTER FIVE: *EARTH OF THE SLUMBERING AND LIQUID TREES*

Abstract

This chapter describes practice research completed toward *Earth of the Slumbering and Liquid Trees* – a large-scale concert work that augments the compositional and performance possibilities of notable historic and historical organs. Created for the pianist Zubin Kanga, the work was commissioned as part of Royal Holloway's UKRI-funded research project, Cyborg Soloists. I begin the chapter by outlining preliminary research undertaken with a bureau organ at the museum Handel and Hendrix in London. Next, I describe the instruments used for *Earth of the Slumbering and Liquid Trees*. These include the Van Straten Organ (a reconstruction of a late-Medieval Dutch organ held in the collection at *Het Orgelpark*, Amsterdam), seventeenth- and eighteenth-century organs in the collection at St. Cecilia's Hall, University of Edinburgh, and the Wingfield Organ (a reconstructed English Tudor organ by the makers Goetze and Gwynn). I then describe my studio and compositional practice using recordings of these organs. In particular, I outline my use of new technologies including Ableton Live 11's 'microtuner' plugin and the ROLI Seaboard Rise 2 MPE keyboard. Finally, an exegesis discusses this practice in relation to ideas of religious ritual, communality, and capitalist (post-) postmodernity. I draw on Harry Sword's writing on drone music, Max Weber's idea of 'brotherliness', writing on capitalism from Mark Fisher and Zygmunt Bauman, among others, and Fredric Jameson's concept of 'historicity'. Finally, I borrow the theatre scholar Jill Dolan's idea of the 'utopian performative' to argue for the particular power of what I call the 'quasi-religious historically-informed artwork'.

5.1 – Preliminary Research

Earth of the Slumbering and Liquid Trees originated in smaller-scale experimentation with a bureau organ made by John Snetzler in 1752 which is held in the collection at the museum Handel and Hendrix in London.[133] The methodology developed for that research was the template for much of the work completed towards *Earth of the Slumbering and Liquid Trees*. First, I improvised with the organ, coming to know its character and idiosyncrasies, before then 'sampling' the instrument (that is, individually recording every note in its range). Second, I experimented with these recordings in the studio, building a digital sampler-instrument recreation of the organ and transforming its sound through various digital processing techniques.[134] Finally, this studio experimentation led to the creation of a small-scale, experimental work in which musical material was derived from the organ's sound and the possibilities afforded by technological intervention.

The Snetzler organ is a characterful instrument. Its bellows are operated using a foot pedal meaning that there is a great deal of extramusical 'noise' in its sound, as well as an interesting relationship between airflow, tone, and pitch. The instrument's tuning had not been very well maintained, however, although I felt that this offered the potential for creative digital intervention. I experimented, for example, with retuning the digital sampler-instrument to the quarter-comma meantone temperament.[135] Although likely anachronistic, this tuning felt compositionally more creative and suggested musical material based around the 'wolf fifth'.[136] Indeed, unequal temperaments would prove to be an important component of my later work for *Earth of the Slumbering and Liquid Trees* (discussed below). I also combined the sampler-instrument Snetzler organ with a VST *Ondes Martenot*.[137] My interest here was both organological (making connections to other historic keyboard instruments) and compositional. The *Ondes Martenot*'s low frequency oscillators, for example,

[133] Handel and Hendrix in London is a museum at 25 Brook Street, Mayfair, which was once the home of the composer George Frederic Handel. The museum also celebrates the life and work of the guitarist Jimi Hendrix who lived at the neighbouring 23 Brook Street in the twentieth century.

[134] At this stage, my interests were primarily in time-stretching, re-pitching, layering, and combining samples.

[135] In Ableton 10, re-tuning had to be done manually, adjusting the pitch of each sample within the digital sampler-instrument. As I describe below, Ableton 11's new microtuner plugin made re-tuning to unequally tempered and xenharmonic scales much easier.

[136] See, for example, Williams: 1968.

[137] See: https://www.soniccouture.com/en/products/35-rare-and-unique/g27-ondes/ (accessed 16 January 2023)

allowed me to programme slow pitch-fluctuations that matched something of the Snetzler organ's sonic instability.

While experimentation with this organ offered a number of insights, suggesting the direction of future research and practice, I felt that this initial work had its limitations. Much of the Snetzler organ's character, for example, came from its foot-operated bellows. This was, of course, diminished in the digital sampler-instrument. A great deal of the organ's 'liveness' was lost. Likewise, performance with MIDI keyboards had limited expressive potential. Finally, whereas the Snetzler organ's scale was domestic, I was interested in exploring what music larger organs might afford, and what meanings they might mediate (for instance, around religious ritual). This led me to work with a number of other historic and historical organs, both in the UK and in the Netherlands, and to incorporate new technologies in my studio practice.

5.2 – Methodology

Unveiled at *Het Orgelpark* in Amsterdam in 2012, the Van Straten Organ (Figure 21) is a reconstruction of an organ built in 1479 by Peter Gerritsz for the Nicolaï Church in Utrecht.[138] A fascinating instrument, the Van Straten Organ offers unique, hands-on experience with a meticulously reconstructed late-Medieval Dutch organ. However, as Koos van de Linde has noted, a degree of creativity is required in the process of reconstruction. He writes:

> the process obliges the maker to make choices in areas where not all details are clear and where the interpretation of surviving fragments is far from self explanatory. This leads in some cases to highly plausible and scientifically justifiable solutions… and in other cases to choices which can be tested out

[138] The story of the Gerritsz organ is fascinating. In 1886, when the instrument was no longer playable, it was bought by the Dutch state and transferred to the recently opened Rijksmuseum. In the 1950s, the organ's case was taken to the *Koorkerk van Middelburg* and displayed. Then, in the 1980s, an initiative was begun (part of a wider Early Music revival) to return the organ to its original home, the Nicolaï Church in Utrecht. Eventually, in 2009, the Dutch Department of Cultural Heritage decided to build a replica. The Van Straten Organ (then built with funds from *Het Orgelpark*) is named after Rudi van Straten from the Department of Sounding Monuments who led the initiative to build the instrument (Peters and Cressman, 2016).

> in practice and which consequently provide the points of departure for further discussion (Linde, 2017: 173).

Van de Linde gives as an example the Van Straten Organ's tuning. The instrument is tuned in the quarter-comma meantone temperament, however this was unlikely to have been the tuning system used for the original Gerritsz organ. Van de Linde writes:

> No Northern source before Schlick (1511) gives any indication of a third oriented temperament. The first source for pure meantone tuning dates from 1571 (Zarlino, *Dimostrationi harmoniche*) and the earliest indication north of the Alps is found in an undated letter from Abraham Verheyen to Simon Stevin from the early 17th century. This is almost 130 years after the construction of the Nicolaï organ (Linde, 2017: 203).

Van de Linde argues, therefore, that "the most probable tuning for the Nicolaï organ in 1479 is the Pythagorean system with the 'wolf' between B and F♯" (Linde, 2017: 204). This anachronism highlights something of the creativity that is inherent to Early Music scholarship and practice, which I discussed in Chapter Two (2.1.7). Indeed, Peter Peters and Darryl Cressman foreground this creative, generative aspect of the Van Straten Organ, arguing that the instrument is "not simply a replica of the Gerritsz organ, but rather an object through which knowledge about fifteenth-century musical culture is produced for twenty-first-century musicians, composers, researchers and listeners" (Peters and Cressman, 2016: 23). Kimberley Marshall likewise writes, "Rather than hoping to reproduce exactly the way an organ sounded in Utrecht's Nicolaïkerk in 1479, the Van Straten organ is a stimulus for us to continue the long tradition of creativity that has characterized organ builders and organists for centuries" (Marshall, 2017: 32).[139]

[139] Returning to Bruno Latour's ANT, we might highlight the way in which the instrument 'acts' on the organists, composers, and scholars who interact with it (affording compositional material, offering insight, and so on). Detailed information about the Van Straten Organ's construction is available in the research report, *Medieval Organ Art: The Van Straten Organ at the Orgelpark as a Historical Document* (Fidom, 2017).

I also undertook research with organs in the collection at St. Cecilia's Hall, University of Edinburgh. These included a chamber organ thought to date from 1680 (maker unknown; Figure 22) and an enharmonic organ made by Thomas Parker in c.1765 (Figure 23). Limited information is available for both organs although it is known that considerable alterations were made to the 1680 chamber organ in the twentieth century. Electric bellows were added in 1915 (although the original, foot-pumped bellows still work) and a second four-foot rank of metal pipes was added to the original wooden pipes in 1965 (St. Cecilia's Hall, n.d.-a). The Thomas Parker enharmonic organ's defining characteristic is, of course, the four extra pipes present in each octave that provide enharmonic tuning for A♭, A♯, D♭, and D♯.[140]

Finally, I also worked with the Wingfield Organ, a reconstruction of an early-sixteenth-century English organ by the makers Goetze & Gwynn (Figure 24). The instrument is based on a soundboard found at Wingfield church in Suffolk which is thought to date from the 1530s. However, nothing else of the original organ remains. This dearth of evidence necessitated a great many creative choices in the reconstruction. The Wingfield Organ's pitch, for example, (one and a half semitones above A440) is based on the earliest known unaltered English pipes, those of the 1630 Dallam Organ. Similarly, the organ's range is derived from historical repertoire rather than surviving material evidence relating to the organ itself. Like the other organs recorded during this strand of research, the Wingfield Organ's tuning is particularly interesting. The instrument uses a modified 'Erlangen' Pythagorean temperament dating from the second half of the fifteenth century.[141]

As in my preliminary research, I 'sampled' each of these organs, recording every pitch in their ranges, individually, and on every available 'stop'. Having sampled the organs, my first task in the studio was to create digital sampler-instruments for each. I did this in the DAW, Ableton Live 11.

In performance, *Earth of the Slumbering and Liquid Trees* uses three keyboards performed by one player (Figure 25). An additional MIDI controller allows the performer to select 'patches'; that is, to change the sampler-instruments assigned to each keyboard. Two of the keyboards used are standard MIDI keyboards, the

[140] The pipes of the Thomas Parker enharmonic organ consist of "Stopped diapason (wood) 8-ft. Open diapason (metal above C_3) 8-ft. Principal (metal) 4-ft. Fifteenth (metal) 2-ft" (St. Cecilia's Hall, n.d.-b).
[141] See: Pollard, 1985: 46. More information about the organ itself can be found at: https://www.goetzegwynn.co.uk/organ/the-wingfield-organ/ (Accessed 18 November 2023).

third is the ROLI Seaboard Rise 2 MPE keyboard. This utilises 'MPE' or 'MIDI Polyphonic Expression'. A new protocol adopted in 2018, MPE instruments send data (on a note-by-note basis) for several parameters:

1) strike velocity,
2) pressure changes,
3) left/right movement (which is usually mapped to pitch bend),
4) up/down movement, and
5) note-end velocity.

Intended to facilitate more expressive performance with MIDI instruments, each MPE parameter can be mapped within Ableton Live (or any other DAW) to control one of several aspects of a digital instrument (pitch, timbre, volume, and so on). Below, I outline my use of the ROLI Seaboard Rise 2 keyboard in more detail.

Finally, *Earth of the Slumbering and Liquid Trees* is to be performed in the round. The intention is to create a more immersive and communal listening experience, using technology to engage creatively with both the organ's scale and its historical role in religious ritual (an idea I explore in more detail, below). The work is in three sections (played *attacca*): 'Earth', 'Air', and 'Ocean'. Its title is taken from Walt Whitman's *Song of Myself*, a poem imbued with something of the scale and sense of enchantment I aimed for in *Earth of the Slumbering and Liquid Trees* as well as of the sensual qualities of the natural world that were – albeit obliquely – programmatic stimulus for each of the work's three parts. I will now describe the compositional and technological practice undertaken for each of the work's movements. I include an epigraph from Whitman's poem.

Figure 21: The Van Straten Organ at *Het Orgelpark*, Amsterdam. Photograph by Benjamin Tassie.

Figure 22: The 1680 chamber organ at St. Cecilia's Hall, University of Edinburgh. Photograph by Benjamin Tassie.

Figure 23: The 1756 Thomas Parker enharmonic organ at St Cecilia's Hall, University of Edinburgh. Photograph by Benjamin Tassie.

Figure 24: The Wingfield Organ at Bradford Cathedral. Photograph by Benjamin Tassie.

Figure 25: Zubin Kanga playing *Earth of the Slumbering and Liquid Trees*. Screenshot from rehearsal video showing the three-keyboard set-up.

Part One: Earth

> *Smile O voluptuous cool-breath'd earth!*
>
> *Earth of the slumbering and liquid trees!*
>
> *Earth of departed sunset—earth of the mountains misty-topt!*
>
> *Earth of the vitreous pour of the full moon just tinged with blue!*
>
> *Earth of shine and dark mottling the tide of the river!*
>
> *Earth of the limpid gray of clouds brighter and clearer for my sake!*
>
> *Far-swooping elbow'd earth—rich apple-blossom'd earth!*
>
> *Smile, for your lover comes.* (Whitman, 1855: 27-28)

The opening of *Earth of the Slumbering and Liquid Trees* explores the scale and density of the organ's sound in monolithic and slow-changing chords. I layer three sampler-instrument organs: the 1756 Thomas Parker enharmonic organ, the Van Straten Organ (using the instrument's *Hoofdwerk* stop), and the 1680 chamber organ which is paired with a sampled analogue synthesiser (the Novation Peak), programmed to produce a full, organ-like sound.

The compositional material of 'Part One' explores the creative possibilities opened up by layering these organs' different meantone temperaments. This created a great deal of microtonal colour, particularly around the interaction of each organ's 'wolf fifth'. Indeed, on the Thomas Parker enharmonic organ, I was able to generate more 'wolves' by pairing the 'wrong' enharmonic pitches (E♭/A♯, G♭/C♯). My interest, then, was in the sensation of being 'inside' a slow-moving harmony built around these tunings; in the feeling of the changing density, intensity, and luminosity of chords as they are re-voiced or inverted and as we move, slowly, from one tonal centre to another. As with *Bad Death Ghosts* (discussed in Chapter Three: 3.2.2), this approached what Jonathan Kramer called 'vertical music'. 'Beating' effects are generated by the microtonal differences between the organs' pitches. As the organs' overtones interact they create the sensation of shimmering and movement. The interest is less in where the music is 'going' (although it is always moving) and more in the experience of the sound in its moment-ness.

Broadly, I intended *Earth of the Slumbering and Liquid Trees* to follow a ritual structure. Arnold van Gennep describes rituals or rites of passage as having three parts: 'separation', 'transition', and 'reincorporation' (Gennep, 1960). We could therefore understand 'Part One' of *Earth of the Slumbering and Liquid Trees* as a 'separation'; a blocking out and dissolving of the world before and outside the concert ritual (an idea I explore in more detail, below). Finally, engaging (obliquely) with something of nature and Whitman's text, we could understand 'Part One's densely-layered sound as being 'Earth-like' – solid and monumental.

Part Two: Air

> *I depart as air… I shake my white locks at the runaway sun,*
> *I effuse my flesh in eddies and drift it in lacy jags.*
> *I bequeath myself to the dirt to grow from the grass I love,*
> *If you want me again look for me under your bootsoles.* (Whitman, 1885: 80-81)

My technological interventions in 'Part Two' are more audible. Both the Van Straten Organ (now using the *Doof* stop) and the Thomas Parker enharmonic organ are digitally retuned to Nicola Vicentino's nineteen-

note/octave archicembalo scale (described in Chapter Three: 3.2.1). This retuning was made possible by Ableton Live 11's new 'microtuner' plugin which, for the first time, easily allows for the performance of xenharmonic and unequally-tempered scales in the DAW (Figure 26).[142] Of course, given that the sampled organs were each in a different meantone temperament (and that each organ was at a different pitch), the resulting music is not 'in' Vicentino's temperament (as *Bad Death Ghosts* was). Rather, the tuning-system is an historical conceit; a starting point for new microtonal music. I also filter the organs' sound using an extreme high-frequency EQ cut-off to generate a soft, brass-like timbre. Finally, the sampler-instruments' LFOs are used to affect both a very slow pitch-bend (±50ct at 0.03hz) and fluctuations in dynamics. These occur on a note-by-note basis. Altogether, this processing creates a sensuous and mellifluous texture as pitches within the microtonal harmony come in and out of focus.

'Part Two' consists, essentially, of an exploration of Vicentino's temperament. The various harmonic colours made possible by the nineteen-note/octave scale are explored in slowly shifting chords.[143] As in 'Part One', it is the experience of being 'within' the tensions and releases of these harmonies that interested me. In this sense, 'Part Two' develops the compositional material of 'Part One'. Where 'Part One' explored the microtonal differences between the organs' different meantone temperaments, 'Part Two' utilises the latest digital technology to augment this characteristic; where the layering of the organs in 'Part One' generated beating and phasing effects, in 'Part Two' the sampler instruments' LFOs exaggerate this quality.

Returning to the work's ritual structure, 'Part Two' could be understood as exploring a state of 'transition'. That is, I wanted to imbue the music with a free-floating, disembodied quality. Returning to Whitman and nature, we could think of 'Part Two' as exploring something of the quality of 'air' – of ephemerality or immateriality.

[142] Ableton 11's microtuner plugin is "a MIDI device that lets you import, edit, and generate microtonal scales" (Ableton, n.d.).
[143] Here, as in *Bad Death Ghosts*, the nineteen-note octave is stretched over a compound perfect fifth in order to be playable on a regular, twelve-key per octave keyboard. Thus, the notated music in this middle section is transposing.

Figure 26: The microtuner plugin and digital sampler-instrument used in 'Part Two' of *Earth of the Slumbering and Liquid Trees*. Screenshot from Ableton Live 11.

Part Three: Ocean

> *Sea of stretch'd ground-swells,*
>
> *Sea breathing broad and convulsive breaths,*
>
> *Sea of the brine of life and of unshovell'd yet always-ready graves,*
>
> *Howler and scooper of storms, capricious and dainty sea,*
>
> *I am integral with you, I too am of one phase and of all phases.* (Whitman, 1885: 28-29)

'Part Three' makes use of the ROLI keyboard's MPE functionality for the first time in the work. The keyboard controls a digital sampler-instrument recreation of the Wingfield Organ. I map 'press' data to the sampler-instrument's LFO rate (which is in turn mapped to the instrument's volume, on a note-by-note basis: Figure 27). Pressing into the Seaboard's keys therefore changes the speed with which an individual note pulses on and off. 'Slide' data (that is, the position of the finger 'up and down' the key) is mapped to the instrument's filter's cut-off frequency. Changing the finger's position on the key therefore affects a note's timbral brightness. Altogether, the effect of this programming is to create a pulsing, undulating texture which the performer is able to control expressively.

I pair the Wingfield Organ in 'Part Three' with the 1680 chamber organ and the Van Straten Organ (again, using the *Doof* stop). The very slow LFOs (0.05hz and 0.06hz, respectively) of these sampler-instruments are once again mapped to the note's volume (on a note-by-note basis) so that individual pitches come in and out of focus and it is possible to build up a wave-like texture. All the instruments in 'Part Three' are now back in their original temperaments.

Conceptually, the final stage of a ritual is 'reincorporation'; we return to the world, transformed. 'Part Three' therefore revisits something of the work's opening, however its character is quite different. The

harmony of 'Part Three' is once again diatonic (eventually settling back in the opening's Eb-minor), although the timbres and textures used are much softer than those of 'Part One'. The un-processed sound of the organs returns however, as I described, they are now sculpted using the sampler instruments' LFOs and the ROLI Keyboard's MPE functionality. Returning to Whitman and nature, the textures of 'Part Three' aim at something of the quality of an 'ocean' – undulating, eddying, and wave-like.

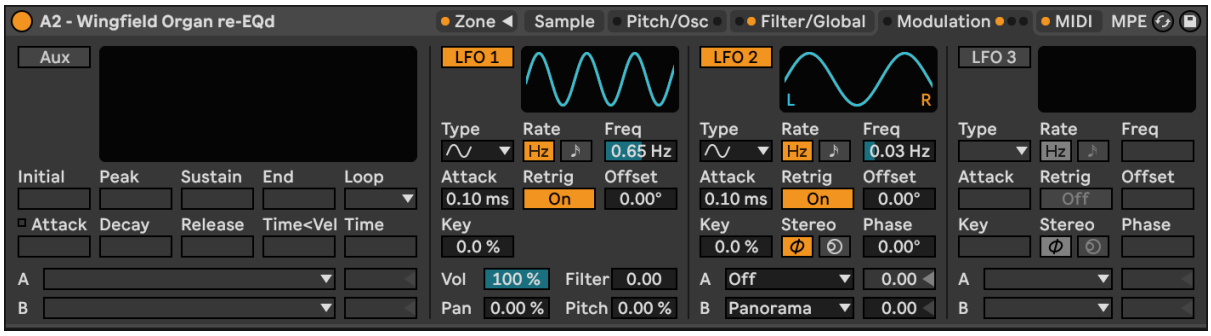

Figure 27: The Wingfield Organ sampler-instrument's LFOs, controlled using MPE data from the ROLI Seaboard Rise 2. Screenshot from Ableton Live 11.

5.3 – Exegesis

The findings offered by *Earth of the Slumbering and Liquid Trees* were, on the one hand, musical. The work made use of the latest studio and performance technologies to augment and transform the sound of several significant historic and historical organs, generating new compositional and performance vocabularies that drew not only on aspects of HIP, but also on microtonal and drone-music aesthetics. Outlined above, these vocabularies are evidenced in the recording of the work in this thesis' portfolio and the short rehearsal videos included in the appendix.

I will now reflect on *Earth of the Slumbering and Liquid Trees* insofar as it relates to broader cultural frameworks. In particular, I will explore ideas of religious ritual, communality, and modernity (or post-postmodernity). In doing so, I hope to build on some of the ideas introduced in Chapter Two, exploring, in particular, the relationship between the post-HIP work and prevailing cultural and social paradigms with their basis in individualism. Ultimately, I will argue that the quasi-religious, historically-informed artwork offers a means of engagement outside these models.

5.3.1 – The Organ, Drone, and Brotherliness

Of course, both the organ and drone music have long been associated with religious ritual. Harry Sword notes the liturgical function of both. He writes:

> In devotional music, the drone is – time and time again – cast as the foundation stone on which melody is layered, and on which musical structure begins to takes shape [sic]. Certain instruments – the organ, sitar and tanpura for example – produce a drone for this purpose. The drone carries a spiritual significance that goes beyond melodic aesthetics or musical structure, however. Fostering feelings of warmth and calm, the drone is a tonal swaddle that facilitates meditative contemplation and sonic awe. (Sword, 2021: 73)

> In Christianity, for example, the church organ provides a bombastic ceremonial experience that serves to emphasise the humbling magnitude of the cathedral space, its ethereal power and fundamental separation from the daily grind. In a stone cathedral, sound will be reflected against the walls and ceiling… The music becomes greater than the sum of its parts. It 'lives' in the space during the reverb, interacting with everything and everybody within that space, the air *ringing* with the vibration of belief. (Sword, 2021: 46)

The characteristics of the religious musical experience that Sword highlights – feelings of warmth, contemplativeness, awe, and transcendentality – were precisely what I aimed for in *Earth of the Slumbering and Liquid Trees*. In this sense, and in the use of the church organ, the work can be understood as relating to something of religious ritual. As such, we might say that it engages with some quality of pre-modernity's more enchanted worldview in which (as I discussed briefly in Chapter Three: 3.3.2) "everything was concrete magic" (Weber, 1946: 282). My interest was not in theism, however, but in something of 'concrete magic's' attendant

communality.[144] As Weber notes, the religious view of the world was not wholly banished through modernity's disenchantment, but what remained of magic was no longer corporeal (earthly) and was therefore no longer communal. Spirituality was, he argues, privatised; its engagement constituted only in terms of the individual. Weber writes:

> The unity of the primitive image of the world, in which everything was concrete magic, has tended to split into rational cognition and mastery of nature on the one hand, and into 'mystic' experiences, on the other. The inexpressible contents of such experiences remain the only possible 'beyond' added to the mechanism of a world robbed of gods. In fact, the beyond remains an incorporeal and metaphysical realm in which individuals intimately possess the holy… the individual can pursue his quest for salvation *only as an individual* (Weber, 1946: 282, emphasis my own).

Before discussing *Earth of the Slumbering and Liquid Trees* in relation to this idea, it is perhaps worthwhile considering more recent entrenchments of disenchanted individualism. In particular, it is important to consider (Western, neoliberal) capitalism not only because, as Walter Benjamin wrote, "capitalism essentially serves to satisfy the same worries, anguish, and disquiet formerly answered by so-called religion" (Benjamin, 1921; 1996: 288) but because, as Weber argued, "The more the world of the modern capitalist economy follows its own immanent laws, the less accessible it is to any imaginable relationship with a religious ethic of brotherliness" (Weber, 1946: 331). In what follows, I borrow Weber's terminology 'brotherliness', which is helpful insofar as it denotes religious communality but is separable from theism.

5.3.2 – Capitalism and the Collective Subject

[144] Of course, the decline of religion under modernity could broadly be understood as positive. Charles Taylor notes, for example, the historical relationship between religion and unequal social structures. Taylor writes, "[the religious] hierarchical order in the universe was reflected in the hierarchies of human society. People were often locked into a given place, a role and situation that was properly theirs and from which it was almost unthinkable to deviate. Modern freedom came about through the discrediting of such orders" (Taylor, 1991: 3). Likewise, Karl Marx understood religion (which he called "the sigh of the oppressed creature") as obfuscating, and therefore inhibiting the eradication of, the true cause of suffering which he saw as the mechanisms of capital. Marx wrote, "The abolition of religion as the illusory happiness of the people is the demand for their real happiness. To call on them to give up their illusions about their condition is to call on them to give up a condition that requires illusions" (Marx, 2002: 171).

Karl Marx and Friedrich Engels describe capitalism's fracturing of 'brotherliness'. They write:

> [The bourgeoisie] has left remaining no other nexus between man and man than naked self-interest, than callous 'cash payment'. It has drowned the most heavenly ecstasies of religious fervour, of chivalrous enthusiasm, of philistine sentimentalism, in the icy water of egotistical calculation. It has resolved personal worth into exchange value, and in place of the numberless indefeasible chartered freedoms, has set up that single, unconscionable freedom – Free Trade (Marx and Engels, 2002: 222).

Zygmunt Bauman describes the deepening of this individualism under postmodernity, arguing (interestingly) that marketization has occupied something of the niche left by a more 'enchanted' worldview. He writes:

> Postmodernity has not allayed the fears which modernity injected in humanity once it left it to its own resources [through dis-enchantment]; postmodernity only *privatized* these fears… The privatization of fears means privatization of escape routes and escape vehicles. It means a DIY escape. The only thing collectivity is expected to offer is a set of self-assembly kits for the DIY work. As it stands, the social world appears to the individual as a pool of choices; a market, to be exact (Bauman, 1992: xviii).

We can observe in capitalist modernity (and postmodernity), then, a substitution: 'brotherliness' is exchanged for participation in the marketplace; collectivity, for individual consumption. As discussed in Chapter Two (2.1.8), in Bauman's later work on 'liquid modernity',[145] he describes the compounding nature of this individualization: "Supplies of security provisions shrink fast, while the volume of individual responsibilities

[145] Bauman understands our current moment in the history of modernity as 'liquid' both for the 'liquifying' of old certainties and for the fluidity of the new mechanisms of power. He writes, "The disintegration of the social network, the falling apart of effective agencies of collective action is often noted with a good deal of anxiety and bewailed as the unanticipated 'side effect' of the new lightness and fluidity of the increasingly mobile, slippery, shifty, evasive and fugitive power. But social disintegration is as much a condition as it is the outcome of the new technique of power, using disengagement and the art of escape as its major tools. For power to be free to flow, the world must be free of fences… Any dense and tight network of social bonds… is an obstacle to be cleared out of the way" (Bauman, 2000: 14).

(assigned if not exercised in practice) grows on a scale unprecedented for the post-war generations. A most salient aspect of the vanishing act performed by old securities is the new fragility of human bonds" (Bauman, 2000: 170).[146] Of course, we might understand these conditions as a deepening of those that led to the 1960s counterculture and that were the backdrop for the Early Music revival; the "world of abundance, but also… of emptiness and alienation" (Mohandesi, Risager, and Cox, 2018: 4).

Elsewhere, Mark Fisher likewise notes capitalist postmodernity's 'emptiness and alienation', writing, "Capitalism is what is left when beliefs have collapsed at the level of ritual or symbolic elaboration, and all that is left is the consumer-spectator, trudging through the ruins and the relics" (Fisher, 2009: 4). Fisher's particular insight is to make a connection between capitalism's desacralization of the culture and a broader apathy, which he describes in terms of a "turn from belief to aesthetics, from engagement to spectatorship… The attitude of ironic distance proper to postmodern capitalism" (Fisher, 2009: 5). For Fisher, as belief is withdrawn from the world, a culture of isolated detachment emerges; the transition is from a community of active participants to a collection of disconnected consumer-spectators.

However, the various crises of postmodernity require, of course, precisely the 'collective subject' that capitalism disavows. Fisher gives as an example the climate emergency, writing:

> Instead of saying that everyone – i.e. every *one* – is responsible for climate change, we all have to do our bit, it would be better to say that no-one is, and that's the very problem. The cause of eco-catastrophe is an impersonal structure which, even though it is capable of producing all manner of effects, is precisely not a subject capable of exercising responsibility. The required subject – a collective subject – does not exist, yet the crisis, like all other global crises we're now facing, demands that it be constructed (Fisher, 2009: 66).

How, then, are we to (re-)instate the collective subject? Jane Bennett notes enchantment's potential in this regard, writing:

[146] Judith Butler uses the term 'responsibilization' to describe this growth in the volume of 'individual responsibilities'; the idea, often expressed, "that individuals ought not to rely on the state but on themselves" (Butler, 2016: 35).

> Enchantment is a feeling of being connected in an affirmative way to existence; it is to be under the momentary impression that the natural and cultural worlds *offer gifts*… this sense of fullness… encourages the finite human animal, in turn, to give away some of its own time and effort on behalf of other creatures (Bennett, 2001: 156).

Returning to *Earth of the Slumbering and Liquid Trees*, we might understand the work's use of drone in this context. Sword describes, for example, "the potent ability of sound – in this case slow-moving sound – to help dissolve the fragile trappings of ego…. [allowing] us to step outside ourselves" (Sword, 2021: 420). The experience of drone thus punctures something of our individuated-selves, connecting us to others and the world. It is 'enchanting' in the sense discussed in Chapter Two (2.1.8), engendering "a heightened awareness of meaning and value, and the self's relational nature" (Wilson, 2014: 200). Performance in the round further aimed to facilitate this sense of connection. The experience of the work is, I hope, more communal when presented in this way – something akin to a shared, sonic ritual.[147] Indeed, if (as Fisher describes) "beliefs have collapsed at the level of ritual or symbolic elaboration" under postmodern capitalism, then the concert experience represents a vital remaining space for ritualism, belief-making, and for restructuring the terms of our sociality. In this regard, I suggest that the musical performance is an example of what the theatre scholar Jill Dolan calls the 'utopian performative'. Dolan writes that theatre – although I argue the same can be said of the musical concert – "can be a secular temple of social and spiritual union not with a mystified, mythologized higher power, but with the more prosaic, earthbound, yearning, ethical subjects who are citizens of the world community, who need places to connect with one another and the fragile, necessary wish for a better future" (Dolan, 2005: 137).

5.3.3 – The End of History

[147] Whereas in the church or cathedral context, the organ remains physically distant (beyond, and separate to, the congregation; reinforcing the hierarchies that Charles Taylor identifies in historical religious and social structures), performance in the round seeks to dismantle something of this hegemony. Raven Chacon's 2022 work, *Voiceless Mass*, likewise used spatialised performance (in a cathedral) to challenge historical religious hierarchies (see: Future Classical, 2022b).

One might argue, however, that our disconnection from history diminishes the efficacy of the 'utopian performative'. John Butt writes, for example, "With a world of completed modernity, capital seeping into all areas of culture, history has lost its active charge as something grounding present traditions or promising a better future" (Butt, 2002: 158). Fredric Jameson likewise argues that postmodernism's referentiality obscures our sense of connection to the past, inhibiting effective political action. He writes, "reduced to an experience of pure material Signifiers, or in other words of a series of pure and unrelated presents in time… the breakdown of temporality suddenly releases this present of time from all the activities and intentionalities that might focus it and make it a space of praxis" (Jameson, 1991: 72-73). Insofar as it can be recognised in sacralised pre-modernity, 'brotherliness' (or the 'collective subject') is thus foreclosed from us precisely because the postmodern mode disallows the historical perspective needed to engage meaningfully, and actively, with the past *as exhortative*.

Our current moment, therefore, could be thought of as 'the end of history', not in the spirit that Francis Fukuyama intended the term – that is, to celebrate "the end point of mankind's ideological evolution and the universalization of Western liberal democracy as the final form of human government" (Fukuyama, 1989: 4) – but rather to denote the isolation of the present from the past and, consequently, any ideological, cultural, or social alternatives to which history might speak. Fisher calls this 'capitalist realism'; "the widespread sense that not only is capitalism the only viable political and economic system, but also that it is now impossible even to imagine a coherent alternative to it" (Fisher, 2009: 2).[148] Instead, what remains is what Jean-Francois Lyotard famously described as postmodernism's "incredulity towards metanarratives" (Lyotard, 1979; 1984: xxiv); a sense that the grand projects of liberalisation and democratisation have now not only stalled, but are unimaginable.

5.3.4 – Post-HIP and 'Historicity'

[148] Fredric Jameson and Slavoj Žižek famously formulated this idea with the aphorism: "it is easier to imagine the end of the world than it is to imagine the end of capitalism" (quoted in Fisher, 2009: 2).

What is required, instead, is a resumption of the flow of history. To begin, we require what Jameson called 'historicity' – "a perception of the present *as history*; that is… a relationship to the present which somehow defamiliarizes it and allows us that distance from immediacy which is at length characterized as a historical perspective" (Jameson, 1991: 284, emphasis my own). Described as "essentially a process of reification whereby we draw back from our immersion in the here and now", 'historicity' thus affords an understanding of the present's relation to the past and offers a reconnection to 'metanarratives'; a resumption of 'mankind's ideological evolution'. The post-HIP work, I argue, is uniquely placed to engender 'historicity'. As discussed in Chapter Three (3.1.2), music – and in particular slow-moving, 'vertical', or ambient music – is able to puncture something of what Ambrose Field called the 'perpetual present' and what Jameson calls "our immersion in the here and now". Indeed, Sword describes drone music's power in extricating us from capitalist postmodernity's particular temporality, writing:

> Capitalism demands that you remain tethered with technology and keep stride with the shifting vagaries of the free market. It demands that you keep moving and strive for material gain, fetishizes change for change's sake… The language of capitalism decries stagnation as sin… The drone is fundamentally subversive when taken in relation to capitalist doctrine (Sword, 2021: 420-421).[149]

Earth of the Slumbering and Liquid Trees' use of drone thus hopes to afford "that distance from immediacy which is at length characterized as a historical perspective". That is, the work's relative stasis (its suspended musical temporality) aims to facilitate a drawing "back from our immersion in the here and now" such that the present might be defamiliarized. The experience is, I hope, of being 'within' the music's slowly changing harmonies and therefore of being lifted, temporarily, from the 'perpetual present'; from the state that Fisher calls 'agitated interpassivity'.

Of course, the post-HIP work also affords an understanding of the present's relation to the past in a more straightforward way: by offering an *experience* of the historical; a sense of contiguous connection between

[149] Drone also challenges notions of authorship (and therefore of ownership) central to the formulation of the musical work as a commodity. Sword asks, "Do you 'write' fifty minutes of feedback? Do you 'own' an A chord that reverberates for a full half-hour?" (Sword, 2021: 421).

past and present. We might say, in this context, that *Earth of the Slumbering and Liquid Trees*' use of historic and historical organs reifies something of the past, that (returning to Georgina Born) the organ "mediates and relays social relations across space and time" (Born, 2015: 368). The Van Straten Organ, considered using this framework, could be understood to mediate some trace of the Medieval social relations and 'enchanted' sensibilities of the Gerritsz Organ's historical context. As Peters and Cressman wrote, it is "an object through which knowledge about fifteenth-century musical culture is produced for twenty-first-century musicians, composers, researchers and listeners" (Peters and Cressman, 2016: 23). Certainly, this was my hope: that *Earth of the Slumbering and Liquid Trees*' organs might speak to something of their associated historical contexts – to Medieval religiosity, for example. Of course, these contexts are not imported wholesale into the experience of the work; nor, necessarily, with any degree of historical accuracy. Rather, a sense of the historical is constructed in terms of Becker's 'Everyman history' (an idea discussed in Chapter Two: 2.1.7) – that is, "with something of the freedom of a creative artist" (Becker, 1932: 229). Performance is central to the post-HIP work's power in this regard; history is not distant or theoretical but is delivered to us as present and animate (as Lowenthal's Heritage). We thus, I hope, come to *experience* something of those historical social relations.

5.3.5 – The Quasi-Religious Artwork

It is important to note, however, that *Earth of the Slumbering and Liquid Trees* is not a religious work. Rather, it draws on elements of both the religious and the artistic experience in the hope of transcending its constituent parts. Here, I borrow from Timothy Morton's analysis of The Rothko Chapel; a non-denominational sacred space (now in Houston, Texas) hung with several of Mark Rothko's large, abstract paintings. Morton describes the unique effect of the chapel:

> Because the Chapel is 'religious', you can't just put the paintings in a box with the label 'art'. Because the 'religious' quality is not specific, but more like a free-floating 'spirituality', you can't put that in a conceptual box either. Religion is turned into something like appreciating art; appreciating art is turned into something like spiritual contemplation. And those two transformations don't neatly map

> on to one another. So you can't dismiss what you're feeling as purely a social construct quite so easily (Morton, 2018: 83).

We can recognise in Morton's analysis, I argue, a negation of the 'ironic distance' that Fisher identifies as central to the culture of postmodern capitalism. Combined, neither the religious or the artistic experience is reducible to the level of the postmodern construction. Rather, the quasi-religious artwork offers a more direct and unselfconsciously immediate means of engagement. We might say, returning again to Weber, that it is able to 'enchant' even the ironically detached postmodern subject.

I argue that *Earth of the Slumbering and Liquid Trees* functions similarly to The Rothko Chapel. Components of the religious experience (drone and the organ, for example) are combined with those of the artistic experience (microtonal aesthetics, new performance technologies, and so on). The result, I hope, is not to create a concert work with something of the 'aesthetic' of the religious experience, but rather to animate something of the concert experience's latent religiosity; that is, to engage with the concert hall as Dolan's 'secular temple'. The concert, thus framed, could be understood as meeting something of the needs that were historically met by religion: reflection, contemplation, communality, transcendentality, and so on. To paraphrase Morton, appreciating music is turned into something like spiritual contemplation.

5.3.6 – The Utopian Performative

To refine this idea, I will conclude by returning to Dolan's 'utopian performative'. Dolan writes:

> Utopian performatives describe small but profound moments in which performance calls the attention of the audience in a way that lifts everyone slightly above the present, into a hopeful feeling of what the world might be like if every moment of our lives were as emotionally voluminous, generous, aesthetically striking, and intersubjectively intense… Utopian performatives persuade us that beyond this 'now' of material oppression and unequal power relations lives a future that might

> be different, one whose potential we can feel as we're seared by the promise of a present that gestures toward a better later (Dolan, 2005: 5-7).

We can recognise in Dolan's description many of the qualities that I have discussed above: the 'utopian performative' speaks to 'brotherliness', it lifts us above capitalist postmodernity's 'perpetual present', it reconnects us to 'historicity', and so on. Significantly, for Dolan, the power of the 'utopian performative' lies in its impermanence and its relationship to the reality of the world outside the theatre (or concert hall). She writes:

> At the base of the utopian performative's constitution is the inevitability of its disappearance; its efficacy is premised on its evanescence… The utopian performative's fleetingness leaves us melancholy yet cheered, because for however brief a moment, we felt something of what redemption might be like, of what humanism could really mean, of how powerful might be a world in which our commonalities would hail us over our differences (Dolan, 2005: 8).

The ritual structure of *Earth of the Slumbering and Liquid Trees* aims at something of this quality of the 'utopian performative'. While the work's opening shuts out the world, its ending approaches the idea of 'reincorporation'; of a return and re-emergence, transformed. In this final section, the Wingfield Organ's distinctive timbre (airy, with an 'overblown' attack on some pitches, its bellows audibly creaking), speaks to both the instrument's materiality and, I hope, our own corporeality. The organ's music is at last more intimate, human-scaled, such that we might become aware again of ourselves and of the community of listeners with whom we have shared the concert experience. Thus, *Earth of the Slumbering and Liquid Trees* efficacy, as Dolan says, is premised precisely on its evanescence; on the work's connection to the world beyond the 'utopian' concert experience.

In these ways, I argue that the 'utopian performative' is essential in disenchanted, capitalist post-postmodernity. It allows us to *experience* alternative ways of being, modelling a sociality that we might take with us into the world. As Ruth Levitas notes, art is "an arena in which an alternative world can be expressed

– not in a didactic, descriptive way as in traditional 'utopian' literature, but through the communication of an alternative experience. Art… acts as a catalyst in transformation… it does this through developing an alternative sensibility, an alternative structure of needing" (Levitas, 1990: 170).[150] Likewise, Morton describes the artwork as "a sort of gate through which you can glimpse the unconditioned futurality that is a possibility condition for predictable futures. Art is maybe one tiny corner of our highly (too highly) consciously designed – and way too utilitarian – social space where we allow things to do that to us" (Morton, 2018: 54).

Thus, the 'utopian performative' is one way in which we might puncture something of disenchantment and 'capitalist realism'; that we might 're-sacralise' modernity. The quasi-religious work foregrounds 'brotherliness' – an essential component in this struggle – and destabilises something of the ironic distance that underpins and sustains (post-) postmodern capitalism. Drone affords the negation of the 'perpetual present', whereas the post-HIP work returns us to something of 'historicity', to an understanding of the present not as rootless and free-floating but as connected to a past that might exhort and instruct us toward a more equitable future. *Earth of the Slumbering and Liquid Trees* navigates and draws on each of these paradigms, I argue. At its centre is the historical organ, a fundamentally enchanted (and enchanting) instrument whose sound speaks – even in our "world robbed of gods" – with a profound immediacy and power, "the air *ringing* with the vibration of belief" (Sword, 2021: 46).

[150] Levitas is here drawing on the ideas of Ernst Bloch and Herbert Marcuse.

CHAPTER SIX: CONCLUSIONS

Abstract

In this final chapter, I summarise the findings of this project's practice research as I understand them. Approaching each of the thesis' research question in turn, I first review the novel compositional and performance vocabularies generated through experimentation, before outlining that practice's relation to broader cultural frameworks.

6.1 – Conclusions

To review, this project's research questions were:

> What new compositional and performance vocabularies arise from experimentation with Early Music instruments, creative technologies, and mixed or digital media? How does this practice relate and contribute to broader cultural frameworks?

I will now approach each of these questions in turn, summarising my findings as I see them. To be clear: the thesis' portfolio and this commentary together constitute my attempt to answer the project's research questions. My aim, here, is to provide an overview of that research and practice, and to synthesise something of my thinking. While for clarity I separate the project's research questions, they are, of course, profoundly interconnected.

6.1.1 – New Compositional and Performance Vocabularies

My practice is situated within the emergent 'post-HIP' scene that I described in Chapter Two (2.3). We can recognise in this thesis' portfolio, I argue, many of the concerns and approaches that characterise that scene.[151] Throughout, I built on something of the inherent creativity of HIP (discussed in Chapter Two: 2.1.7), utilising what Liam Byrne called the "freedom and flexibility" (*Future Renaissance*: 2020a) of Early Music instruments. While the recordings, films, and scores in this project's portfolio represent the findings of research in their

[151] My interest, for example, was in the 'grain' of Early Music instruments. Consequently, my work tended toward stasis and the use of limited musical resources. I took a 'Heritage' approach to Early Music instruments and to the repertoire, tuning systems, and performance practices of the past. Technologies afforded the transformation and augmentation of historical instruments. As well as disseminating my practice in the concert hall or as recordings, I incorporated elements of film, installation, and interactive media. Finally, my practice drew on approaches and aesthetics from a number of musical styles, working in a way that might be called 'post-genre'.

own right, I will now offer an overview of those works' compositional and performance vocabularies. I suggest five areas of novel experimentation: haunting, tuning, stasis, augmentation, and interdisciplinarity.[152]

1. **Haunting.** In each of this thesis' works, there is the sense of 'haunting'; that is, of the presence of what Mark Fisher described as "that which acts without (physically) existing… that which is… *no longer*, but which *remains* effective as a virtuality" (Fisher, 2014: 18-19).[153] In *Solo for Computer and Tape*, for example, Myra Hess 'haunted' through her recordings, the 'material fragility' of which imbued the work with a feeling of 'temporal distance'.[154] *Bad Death Ghosts* was likewise 'haunted'. Here, the spectre was of Nicola Vicentino whose sixteenth-century tuning system afforded the creation of quasi-spectral sonorities. Likewise, *Glass Coloured* was haunted by the historical performance-practice of the cornett and, more abstractly, by the Ancient, enchanted concept of the 'music of the spheres'. In *A Ladder is Not the Only Kind of Time*, the ghosts were multiple: those of the Rivelin Valley's formerly-industrial landscape, for example, or of the Early Music instruments that informed my own, new, water-powered instruments.[155] Finally, *Earth of the Slumbering and Liquid Trees* drew on the ghost of the historical organ's religiosity which was mediated and relayed, returning to Georgina Born, "across space and time" (Born, 2015: 368). Throughout this project, I aimed to foreground this 'hauntological' quality. Spectres both *acted on* me as a composer ("effective as a virtuality") and, I hope, imbued the thesis' post-HIP artworks with a feeling of the past as present and animate.[156]
2. **Tuning.** Unequal temperaments and xenharmonic scales were a recurring preoccupation. Particular microtonal vocabularies arose from the exploration of historical tuning-systems. For example, Nicola Vicentino's archicembalo temperament afforded a quasi-spectral sonority in *Bad Death Ghosts*. In

[152] While I recognise that the term 'interdisciplinarity' might usually refer to the combination of more disparate areas of practice, I use the term here to denote that my work was not only 'cross-' or 'post-genre' but that it also drew on other media, and from other fields and disciplines.

[153] I am using 'haunted' here as I did in Chapter Three (3.1.2); as in 'hauntology' and 'hauntological music'. Fisher, of course, is drawing on the work of Jacques Derrida who coined the term 'hauntology' in his *Spectres of Marx: The State of the Debt, the Work of Mourning and the New International*.

[154] Or what Herbert Butterfield called "the impossibility of history" (quoted in Lowenthal, 1985: 215).

[155] The work's 'hauntings' were ecological, also. Gan *et al.* use the idea of 'ghosts' in thinking about our relationship to nature. They write, "Our ghosts are the traces of more-than-human histories through which ecologies are made and unmade" (Gan *et* al, 2017: G1).

[156] In using the phrase 'acting on' I return, again, to Bruno Latour's ANT framework (2.2.1).

Glass Coloured, microtonal tonalities were achieved out of the cornett's historical performance-practice. These extended the cornett's sound into spectral and just intonation sonorities, as well as generating new music out of the instrument's enharmonic pitches. Finally, by layering historic and historical organs in *Earth of the Slumbering and Liquid Trees*, a particular microtonal colour was achieved, while technological intervention afforded the novel retuning of those organs into a xenharmonic scale.

3. **Stasis.** In *Solo for Computer and Tape*, an ambient aesthetic was constructed out of the work's historical materials; its music was concerned with texture and atmosphere over development. Indeed, stasis and the use of limited musical resources was an interest throughout this project.[157] *Bad Death Ghosts*, for example, consisted of repeated iterations of a particular microtonal sonority. Thus, the work aligned with Jonathan Kramer's formulation of 'vertical music'.[158] In *A Ladder is Not the Only Kind of Time*, my interest in stasis originated in facilitating what John Luther Adams calls the 'mode of awareness'. The work's water-powered instruments therefore tended toward drone and repetition; live performance used only a small number of pitches; the album's tracks were non-developmental; the film consisted of long, lingering shots; and so on. Finally, *Earth of the Slumbering and Liquid Trees* made particular use of drone. Originating out of the organs' continuous sound, this aimed at a ritualistic aesthetic; using drone to achieve what Harry Sword called, "a tonal swaddle that facilitates meditative contemplation and sonic awe" (Sword, 2021: 73).
4. **Augmentation.** Throughout this project, Early Music instruments were augmented technologically, sonically, and in terms of their performance practice. In *Earth of the Slumbering and Liquid Trees*, for example, digital sampler-instrument technologies, Ableton Live 11's new 'microtuner' plugin, and the ROLI Seaboard Rise 2 MPE keyboard each facilitated augmentation of the historic and historical organs used in the work. In *Glass Coloured*, live electronic-processing likewise augmented the sound of the Renaissance cornett, generating what I called a 'laptop-cornett hybrid'. In *Bad Death Ghosts*,

[157] As I mentioned in Chapter Four (4.1.2), stasis also allowed for a focus on the 'grain' of historical instruments.
[158] To review, Kramer wrote that "whatever structure is in the music exists between simultaneous layers of sound not between successive gestures" (Kramer, 1988: 55). In this sense, 'vertical music' challenges the conception of the musical work as what Cage called a 'time-object'.

retuning 'augmented' the possibilities of the spinet, its reconfiguration as an 'object-instrument' (a term I introduced in Chapter Two: 2.2.1) affording the creation of novel music with the instrument. Likewise, the performance practice of the cornett was augmented in order to achieve the intonation called for in *Glass Coloured*.

5. **Interdisciplinarity.** I have mentioned that *Solo for Computer and Tape* drew on the methodologies and aesthetic of ambient and hauntological musics. Indeed, a cross- (or post-) genre approach was taken throughout this project. As well as co-opting stylistic affordances, I also made use of different media, in particular film and installation. *A Ladder is Not the Only Kind of Time*, for example, used field recording, film, and interactive smartphone technology. Further, the work engaged with the practices of both ecological sound-art and instrument design. *Solo for Computer and Tape* likewise bridged the analogue and digital, engaging with the museum and online spaces as the locus for practice and dissemination.

I argue that this project has contributed to existing post-HIP practice in several ways. Experimentation led to the creation of novel compositional and performance vocabularies: *Glass Coloured*'s laptop-cornett spectral hybrid, for example, *A Ladder is Not the Only Kind of Time*'s water-powered historical instruments, or *Earth of the Slumbering and Liquid Trees*' technologically-augmented historic and historical organs. Creative engagement with other scenes and approaches endeavoured to broaden the reach, uses, and vocabularies of Early Music instruments. I hope, also, that the insights and methodologies of post-HIP might have contributed in some small way to those scenes.[159]

6.1.2 – Relation and Contribution to Broader Cultural Frameworks

Beginning with Dolmetsch and continuing into the twentieth-century Early Music revival, HIP's concerns have not only been musical. Rather, the movement has extended outward to engage with, and respond to,

[159] My practice incorporated issues of history into ecological sound-art, for example, and attempted to imbue hauntological music with some trace of the past in its concreteness.

issues in the broader culture.[160] Accordingly, throughout this commentary I have drawn on ideas from musicology, historiography, sociology, and philosophy in order to try and describe the relationship, as I see it, between my post-HIP practice and our own, particular, 'post-postmodern' moment.[161]

In Chapter Two (2.1.2), I argued that the Early Music revival could be understood as a response to the same conditions that gave rise to the countercultural movements of the 1960s. In this sense, HIP reflected a broader disaffection with modernity. David Lowenthal described this disaffection in terms of 'nostalgia', the predominance of which he says indicated "not merely a sense of loss and a time in trouble, but a general abdication, an actual desertion from the present" (Lowenthal, 1985: 12). However, whereas Fredric Jameson argued that nostalgia deals only in the 'image' of the past, I suggested that Early Music engaged with history in its substance and actuality (2.1.8). I later argued that 'post-postmodernism' (including much existing post-HIP practice) represented a compounding of Jameson's 'nostalgia mode' (2.3). In Chapter Three (3.1.2), I suggested, however, that *Solo for Computer and Tape*'s use of Myra Hess' recordings might somewhat countervail nostalgia's superficiality by mediating something of the 'really existing' historical social alternatives of the twentieth century. Likewise, in Chapter Five (5.3.5) I borrowed Timothy Morton's analysis of The Rothko Chapel to argue that *Earth of the Slumbering and Liquid Trees* punctured something of post-postmodernism's referentiality.[162]

Another characteristic of Early Music that I discussed in Chapter Two (2.1.8) was its relation to distraction and modernity's 'mass-media'. Today's post-internet culture, however, is 'hyper digital' – engagement is constituted in terms of what Alan Kirby calls 'pseudo-modernism' (2.3). Ours is an "era of ubiquitous remote, disembodied connection via digital networks" (Toop, 2019: 1). In Chapter Three (3.1.2), I

[160] For Dolmetsch, this involved challenging the Victorians' Whiggish, 'chronocentric' attitudes. In the twentieth century, the stereotypical revivalist used "an imagined utopian past as a way of criticising and 'improving' the present… [presenting] the past as a potent social practice with a political relevance in reforming the present condition" (Butt 2002: 9-10). In my own work, this 'social and political relevance' was a primary concern. My guiding question throughout this project has been: what can the instruments, practices, and repertoire of the past offer us today? As Owe Ronström wrote, "revival is only partly about 'what once was'. More importantly, it is about 'what is' and 'what is to come'" (Ronström, 1996: 18).

[161] In Chapter Two (2.3) I attempted to delineate 'post-HIP' itself, drawing on my primary interviews with several of the scene's key practitioners.

[162] As Morton writes of the overlaying of the religious and art experiences: "Religion is turned into something like appreciating art; appreciating art is turned into something like spiritual contemplation. And those two transformations don't neatly map on to one another. So you can't dismiss what you're feeling as purely a social construct quite so easily" (Morton, 2018: 83).

borrowed Mark Fisher's concept of 'agitated interpassivity' to describe this phenomenon.[163] I suggested that by co-opting the qualities of ambient music, the post-HIP artwork might be able to negate something of pseudo-modernism's 'agitated interpassivity'. In Chapter Five (5.3.4), I drew on Jameson's idea of 'historicity' to expand this thinking, arguing that *Earth of the Slumbering and Liquid Trees*' use of drone could be thought of as countervailing "our immersion in the here and now" (Jameson, 1991: 284), returning us to the flow of history.[164] Finally, in Chapter Four (4.4) I considered the 'pseudo-modernist' paradigm from an ecological perspective. I argued that *A Ladder is Not the Only Kind of Time* offered extrication from such hyper-interactivity through its quietude and presence, and in its connection to *long durée* time.

The relationship between Early Music, 'nonmodern' temporalities, and conservation were a particular consideration in Chapter Four. Whereas modernity concerned what Zygmunt Bauman called an "overwhelming and ineradicable, unquenchable thirst for creative destruction" (Bauman, 2000: 28), I argued (in Chapter Two: 2.1.8) that the Early Music revival was aligned with reuse and recycling.[165] In particular, I suggested that post-HIP offers a means of challenging modern ideas of progress, and of engaging with more-than-human temporalities. Of especial significance was Bruno Latour's concept of the 'nonmodern' which I deployed to refine an understanding of the contribution of what I called 'historically-informed ecological sound-art' (4.4).[166] Indeed, to this end I also discussed trends in existing ecological sound-art (4.3) in order to better establish the context and contribution of my own work.

Finally, in Chapter Two (2.1.8) I discussed the twentieth-century Early Music revival in relation to ideas of individualism and communitarianism. In Chapter Five (5.3), I developed this thinking, considering the loss, under capitalist modernity, of what Max Weber called the "religious ethic of brotherliness" (Weber,

[163] "The consequence of being hooked into the entertainment matrix", wrote Fisher, "is twitchy, agitated interpassivity, an inability to concentrate or focus… to synthesize time into any coherent narrative" (Fisher, 2009; 24).
[164] 'Historicity' thus reconnects us to what Jean-Francois Lyotard called "metanarratives" (Lyotard, 1979: xxiv) and Francis Fukuyama called "mankind's ideological evolution" (Fukuyama, 1989: 4).
[165] As John Butt wrote, "just as we realise that technological and industrial expansion and progress cannot any longer go unchecked, culture and the arts in their historicised modes actually reflect this change of perspective in a way that is simply ignored by modernism" (Butt, 2002: 188).
[166] Considerations of temporality, I argued, were essential in ecological art. As Joep Christenhusz wrote, "To turn the tide, to imagine more sustainable futures, we urgently need to attune to other, more ecological temporalities" (Christenhusz, 2021). Or, as Gan *et al* note, "Our era of human destruction has trained our eyes only on the immediate promises of power and profits… How can we get back to the pasts we need to see the present more clearly?" (Gan *et al*, 2017: G2).

1946: 331).[167] Refining an understanding of the contribution of what I called the 'quasi-religious historically-informed artwork', I drew on Jill Dolan's concept of the 'utopian performative' to argue that the post-HIP artwork might offer a means of (re-) constituting what Fisher called the 'collective subject'. Indeed, the 'enchanting' (and connective) aspects of Early Music were a particular consideration throughout this commentary.[168] In Chapter Three (3.3.2), I suggested that *Glass Coloured*'s microtonal, vibrational music engaged with Ancient ideas of universality.[169] In Chapter Four (4.4), I explored the inter-subjective quality of the art experience from an ecological perspective.

Thus, while under post-postmodernity "the cultural rebellion narratives of the '60s… can now officially be pronounced dead" (Nealon, 2012: 21), post-HIP offers – I have argued – a means of re-enchantment, of reanimating the past, and of reconstituting 'historicity', projects that are a vital prerequisite for the reinstitution of such narratives. Indeed, John Butt wrote that "history has lost its active charge as something grounding present traditions or promising a better future" (Butt, 2002: 158). The post-HIP artwork offers such an 'active charge'. It reminds us, as Latour wrote, that "Fortunately, nothing obliges us to maintain modern temporality with its succession of radical revolutions… We are not attached for ever to this temporality that allows us to understand neither our past nor our future, and that forces us to shelve the totality of the human and nonhuman third worlds" (Latour, 1993: 74). Rather, we can turn to the past to shape a present that promises a better future – one that is more equitable, more grounded, more pluralistic, richer in its traditions, and more brotherly in its relations, that is more ecological, more harmonious, more generous; that is *re-enchanted*.

[167] As Fisher wrote, "Capitalism is what is left when beliefs have collapsed at the level of ritual or symbolic elaboration, and all that is left is the consumer-spectator, trudging through the ruins and the relics" (Fisher, 2009: 4). Likewise, Bauman argued, "A most salient aspect of the vanishing act performed by old securities is the new fragility of human bonds" (Bauman, 2000; 2012: 170).

[168] As Jane Bennet wrote, "Enchantment is a feeling of being connected in an affirmative way to existence" (Bennet, 2001: 156).

[169] I argued that engagement with the 'music of the spheres' approached what Theodore Adorno recognised in twentieth-century attitudes to Bach, that "His music is said to be elevated above the subject and its contingency; in it is expressed not so much the man and his inner life as the order of Being as such" (Adorno, 1981: 135).

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