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Mixing the Mixed: Representation, Agency and Staging in Commercial Audio Recordings of Works for Instruments with Tape.

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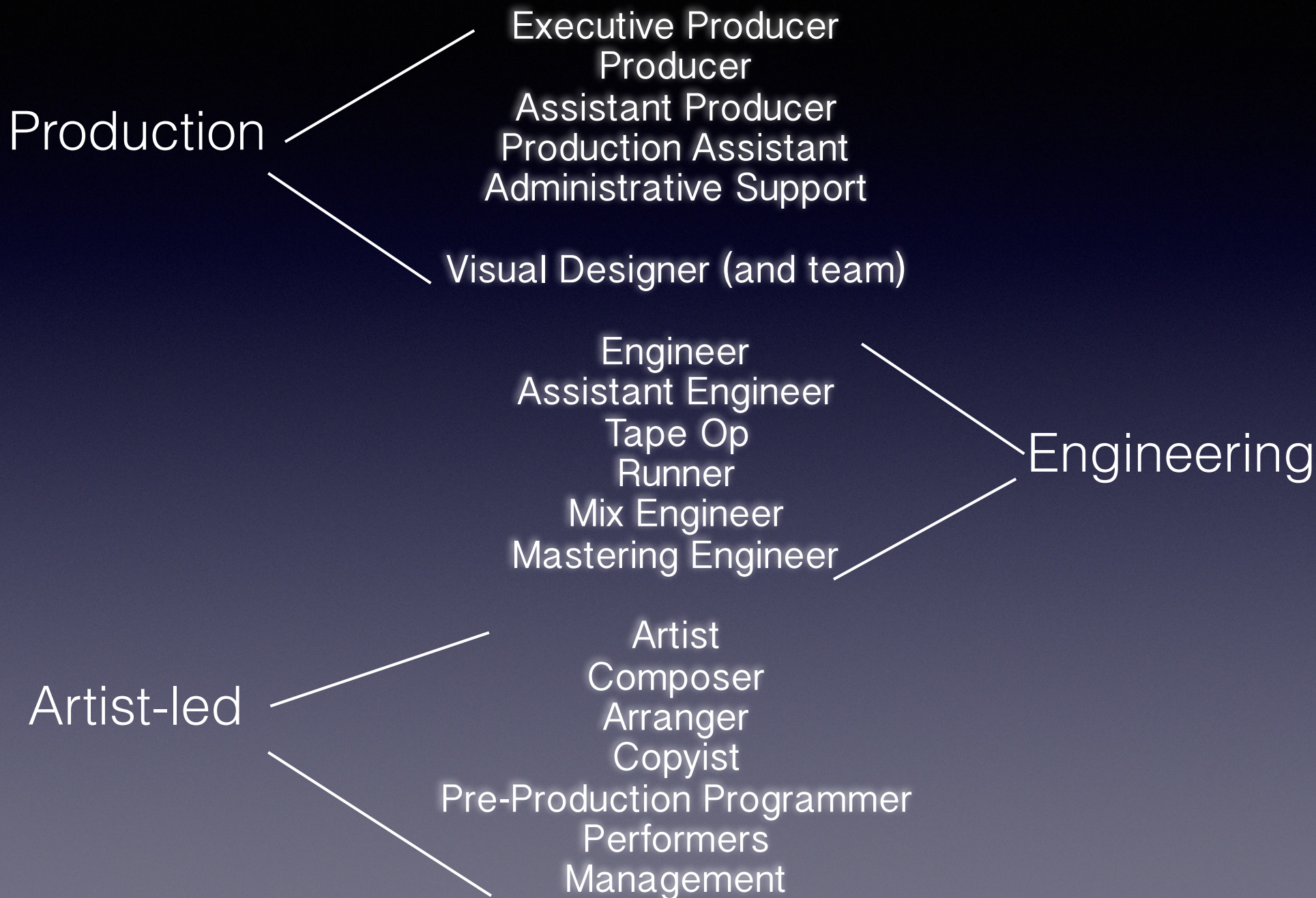
Issues of Translation

- Translation, and potential conflicts between composition and record production
 - Financial and Commercial
 - Technical and Practical
 - Aesthetic and Musical
 - Contextual and Cultural

Record labels for music within EA-related sub-genres

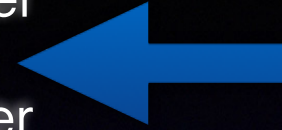
- Don't have high numbers in terms of revenue.
 - Don't have (need?) high up-front production budgets
- Global community and reach: Continental Europe, US and Canada are prominent - but often feature UK-based composers and productions (eg Wergo, EMF, GRM, GMEB, Cronica etc etc)
- UK-based labels (NMC, Sargasso, FMR, SAN/SAM, BRC, HCR etc)
 - Contemporary classical/Electronica/Noise/Free music crossovers
- Often *do* have support of arts funders and HE research
- Recent trends with online hosting, streaming and social media significantly reduce financial barriers to access:
 - Good financially? Good curatorially?
 - Where is the line between artistic integrity and vanity publishing?

Roles in Recording Projects



Roles in Recording Projects

Executive Producer
Producer
Assistant Producer
Production Assistant
Administrative Support



Visual Designer (and team)

Engineer
Assistant Engineer
Tape Op
Runner
Mix Engineer
Mastering Engineer

Artist
Composer
Arranger
Copyist
Pre-Production Programmer
Performers
Management



Technical and Practical Translation

- Multichannel electroacoustic parts folded to 2-channel stereo
- High dynamic range to controlled dynamic range in capture (if a mixed work), mix and mastering
- Concert hall to personal listening space

Multichannel fold-downs

- Tape parts, electroacoustics and live processing:
 - Multichannel is pervasive for composers of EA music (and has been for 25 years since DTRS, ADAT and the first wave of Digidesign interfaces)
- Representation of multichannel audio when reduced to 2-channel stereo playback
 - Maintaining spatial morphology (if this is a significant compositional driver) on fold-down
 - “spatial composition...may lose integrity when transferred to another audio technology” (Baalman, 2010)

- Solutions?:
 - Straight Mixdown/fold down
 - Auralisation
 - Application of Higher Order Ambisonics (HOA) intermediary software
 - Blue Ripple Third Order Ambisonic (TOA) Plugin sets; Ambisonic Tool Kit; Facebook 360 etc etc

Mastering considerations

- Media destination is for domestic individualised consumption.
- Going out into the wild.
 - does one reduce dynamic range?
 - Comparator with film mixer - differentiated requirements in dynamic range during rerecording process for Digital Cinema Package release and (non-DCP) consumer release/broadcast.
 - Balancing, compression of dynamic range, EQ.
- Antithesis of compositional intention in much EA music (and film sound) where the need is to maintain and enhance dynamic range for the controlled listening environment.
 - *Do you play this game?*

Expectations regarding loudness?

- Destinations: CD (SD), HD Audio, Vinyl (!), Cassette (!!), Streaming with low(er) bit rates?
- How “classical”? How “rock ’n’ roll”?
- AES Recommendations (Byers et al, 2015)
 - Target Loudness should not exceed -16 LUFS
 - Target Loudness should not be lower than -20 LUFS
 - Maximum peak level not exceed -1.0 dB TP

Expectations regarding loudness?

- Streaming Service level normalisation algorithms:
 - Apple Music (Soundcheck On) -16 LUFS
 - YouTube -13 LUFS
 - Spotify -14 LUFS
 - Tidal -14 LUFS

Aesthetic, Musical & Philosophical: Staging within a Mix

- Much of the above is quite generic to any electroacoustic, acousmatic, or indeed electronica-based music.
- Additional issues emerge when combining the electroacoustic with the live performer.
- Music that transcends the karaoke...?!
 - What is the mix approach?

Aesthetic, Musical & Philosophical Considerations: Acousmatically-led Music Creation vs. Record Production

- Management of the relationship between the electroacoustic sounds and recorded instrumentalist(s).
- Two mediatized layers of to be combined
- an acousmatically-led piece where *all* eventually becomes “acousmatic”.

Aesthetic, Musical & Philosophical Considerations: Acousmatically-led Music Creation vs. Record Production

- Management of the balance relationship between the tape part and the recorded soloist.
- Smalley (1997) *second order surrogate* gestures might well be integrated into the tape part
 - Differentiation between performed gestures and tape gestures.
 - But are they all just objets sonores...?

Aesthetic, Musical & Philosophical Considerations: Acousmatically-led Music Creation vs. Record Production

- Representation of the performer:
 - Eisenberg (2005) phonography - for the audience the performer is not there.
 - Murray Schaffer's (1977) *schizophonia*
- Zagorski-Thomas (2014) - consideration of both the application *Sonic cartoons* and notions of *Staging*

Aesthetic, Musical & Philosophical Considerations: Acousmatically-led Music Creation vs. Record Production

- Focussed listening (Zagorski-Thomas, 2014).
- Are we portraying chamber music?
Enhancement beyond this? Hyperproduction?
(Bourbon and Zagorski-Thomas, 2017)
- Acousmatic vs non-acousmatic in an emulated
chamber music environment transposed and
represented in an *enhanced* manner for the
domestic listener.

Aesthetic, Musical & Philosophical Considerations: Acousmatically-led Music Creation vs. Record Production

- Back to Schaeffer, in terms of content true *écoute réduite* (Schaeffer, 1966) is usually not going to be desirable (and probably not viable) for this type musical output.
- Does one acknowledge the “discourse of the concert hall” (Symes, 2004 and others) to acknowledge the mediated nature of the recording process?
- Should one simply aim to “create sonorous unity rather than a summation of instrumental and tape parts.” (Moncada, 2013/2016)

Conclusions

- “Producer’s task is to produce a satisfactory outcome” (Howlett, 2012).
- Though there is crossover, there are contrasting designations for the electroacoustic composer and the record producer.
- Virgil Moorefield (2005) talks of the “producer as composer”. For EA composers and composers of mixed music, this perhaps needs to also cut the other way!

References

Baalman, M. (2010) Spatial Composition Techniques and Sound Spatialisation Technologies in *Organised Sound* 15(3)

Bourbon, A and Zagorski-Thomas, S. (2017) 'The Ecological Approach To Mixing Audio: agency, activity and environment in the process of audio staging' in *JARP Issue11 ISSN: 1754-9892*

Byers et al. (2015) "Recommendation for Loudness of Audio Streaming and Network File Playback" in *AES TD1004.1.15-10* Accessed Jan 2019 from www.aes.org/technical/documents/AESTD1004_1_15_10.pdf

Eisenberg, E. (2005) *The Recording Angel* Newhaven: Yale University Press

Howlett, M. (2012) *The Record Producer as Nexus JARP2012* Available at <http://arpjournal.com/the-record-producer-as-nexus/>

Johnson, J. (2002) *Who Needs Classical Music: Cultural Choice and Musical Value* (OUP)

Moncada, J. (2013) *Ukhu Pacha & La Historia de Nosotros Electroacoustic Music Composition Portfolio*, University of Birmingham Available <http://etheses.bham.ac.uk/4867/>

Moncada, J. (2016) *La Historia de Nostros Sello Disquero Uniandes* Available at: <https://www.amazon.com/Historia-Nosotros-Gregorio-Garc%C3%ADa-Moncada/dp/B01M8F8NI7>

Moorefield, V (2005) *The Producer as Composer* (MIT Press: Cambridge MA)

Schaeffer, P. (1966) *Traité des Objets Musicaux*. Paris: Seuil

Murray Schaefer, R. (1994) *Our Sonic Environment and the Soundscape: The Tuning of the World* Rochester: Destiny

Symes, C (2004) *Setting the Record Straight* (WUP, Middletown, CT)

Wyatt (1999) Investigative Studies on Sound Diffusion and Projection in *cContact 2.4* http://econtact.ca/2_4/Investigative.htm