

Music, Humans & Machines

22–23 May 2019

Orpheus Institute (Ghent, Belgium)

This conference explores the story of the musician's long relationship with their instruments and instrumentalities, questioning issues of autonomy and agency in the apparent dichotomy between tools and musical expression. From the "machene" of Greek theatres from which gods were suspended, to Mozart's description of the Stein fortepiano's knee-lever as "Die Maschine", to the epoch-defining technologies of recording, sound synthesis, and algorithmic composition of more recent times, performers and composers have relied on mechanical means to create magic in their art.

Convenors:

docARTES students started in 2017: Prach Boondiskulchok, Daniela Fantechi, Marco Fusi, Marie Guilleray, Goran Krivokapic & João Rival

DAY 1

Wednesday 22 May

18:00 - 19:00

Keynote: **Fari Bradley + Nicolas Collins**

The Democracy of Noise – Calling for a Resistance to the Present

19:00 - 20:30

Break

20:30

Evening Concert

- **Fari Bradley** — *The Democracy of Noise*
- **Johan Svensson, Karin Hellqvist** — *Marionette*
- **Bjarni Gunnarsson** — *Translation, traces and intervention*

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- **Viola Yip** — *Lazy Studies*
 - **Aart Strootman** — *two pages*
 - **Liz Allbee, Hannes Hoelzl, Alberto de Campo** — *Aether Ore*

DAY 2

Thursday 23 May

- 10:00 - 11:30** Paper Session
- **Yuet Ka Hui**, *Clavichord: Haydn's Thinking-Fantasy-Machine*
 - **Matteo Gemolo**, *'Affects' & 'effects' in the post-modernist repertoire for period instruments: the case of the Traverso*
 - **Chiara Percivati**, *Different Tubes: The Prepared Clarinet Project*
- 11:30 - 12:00** Coffee Break
- 12:00 - 13:00** Paper Session
- **Elizabeth Dobbin**, *The mechanics of the voice: ornamentation as a tool for affective performance Jean-Antoine Bérard's instruction-manual for the larynx*
 - **Heppy Longworth**, *(Dis)embodied Voices: Ontologies of Voice in the Age of Sound Recording*
- 13:00 - 14:00** Lunch
- 14:00 - 15:30** Paper Session
- **Kristine Healy**, *Overcoming the instrument: Vocality in the discourse of instrumental music performance*
 - **Dana Papachristou**, *Soundscapes and soundscape compositions according to Gilles Deleuze et Félix Guattari*
 - **Michael Boyle**, *Touching the Score at the End of the Pen. On the Responsibility of the Tools of Composition for Musical Works*
- 15:30 - 16:00** Coffee Break
- 16:00 - 17:00** Keynote **Nicholas Cook**
Materiality, cognitive extension and the virtual in musical creation
- 17:00 - 18:00** Wrap-up

Keynotes

Fari Bradley + Nicolas Collins

The Democracy of Noise – Calling for a Resistance to the Present

A two-part look at the improv and avant garde music scenes as seen through the eyes of two practitioners, Fari Bradley and Nic Collins. While both have travelled extensively, the roots of their practice developed in the US (Collins) and the UK (Bradley).

In London as a practice-based researcher and sound artist, Bradley began improvising with the London's Musician's Collective (founders of arts-radio station Resonance104.4FM), both improvising and composing with graphic scores. From her own perspective, improvising on the fringes with both new and traditional instruments, the talk examines the shifting modes of production and reception for sound in the first decades of this century, and the mostly post-internet, transdisciplinary world in which Bradley now operates. As noise has moved from the fringes to the white cube, and production from the plurality of auto-didacticism to the safe space of tutelage, what has become of its politics? And with the historical lineage of improv and its new horizons and challenges today, what does it offer to different kinds of composers and performers?

Collins' music is rooted in the homemade circuitry movement that developed in the USA in the early 1970s under the influence of pioneering composer/luthiers such as David Tudor, David Behrman and Gordon Mumma. His book, *Handmade Electronic Music – The Art of Hardware Hacking* (Routledge 2006), helped launch the "post-digital" DIY circuit movement, and has influenced emerging electronic music worldwide. Collins was also an early adopter of microcomputers for live performance and of alternative musical controllers. He will respond to Fari Bradley's keynote, and add observations on the influence of the choice of technology (circuits, software, acoustic instruments) on compositional process and performance practice.

Nicholas Cook

Materiality, cognitive extension and the virtual in musical creation

There is a long tradition of conceiving the creation of music as a passive, purely mental process in which musical ideas reveal themselves in visions or dreams—intuitive expressions of what, through analysis, are revealed to be highly rational constructions. Nowadays such conceptions are no longer credible, yet more realistic accounts of musical creativity are elusive. In this talk I try to point a possible way forward through discussing four topics, each based on a different technology. The first two topics are instruments and notations, and I approach each in terms of Andy Clark's extended mind theory: rather than being media for the communication of musical ideas, instruments and notations are basic dimensions of classical musical thinking, with music emerging from the interaction between musician and technology. The third is recording, less a trace of real-world musicking than the creation of a virtual world that is more vivid, more real, than the 'real' world it purports to represent. The last is the internet, through which old models of musical participation have been reinvented for the digital age: collaborative and distributed creativity transform the interactive dimensions of traditional music making into a domain of technologically mediated sociality, and have given rise to what might be called a digital 'style' characterised by collage and emergent meaning. Cultural pessimists might see in this an abandonment of the rationalist principles upheld by classical music. But perhaps classical music was equally characterised by collage and emergent meaning, and simply misrepresented by unrealistic accounts of its creation.

Papers

Yuet Ka Hui

King's College London and Hong Kong University

Clavichord: Haydn's Thinking-Fantasy-Machine

In 1752, a so-called fantasy machine was invented to record keyboard improvisation mechanically on a paper roll. Composers, however, condemned its stiffness of action and failure to capture expressions. As Davis Yearsley writes, a “thinking machine” that could match the “elasticity of the human faculties” was desired but deemed impossible. Following this paradigm, this research argues that Haydn turned the clavichord into a combination of both the fantasy and the thinking machines. While Haydn improvised everyday on the clavichord, he also stated that “his musical imagination played on him” as if he was “a living clavier”. In this sense, he and the clavichord became one. The clavichord’s body became his body; his mind became the clavichord’s mind. Furthermore, Haydn called the clavichord his “refuge”, a haven that helped combat his loneliness while fostering his cultivation of sensibility. In light of this, this research examines the mechanics of the clavichord and the expressive content of his Keyboard Sonata Hob:XVI 46 — a sonata that Haydn wrote for himself on the clavichord — in order to study how Haydn entered into a shared experience with the clavichord and thus transformed the clavichord into a thinking-fantasy-machine that responded to his sensibility.

Matteo Gemolo

Ph. D Cardiff University (Wales – U.K.)

'Affects' & 'effects' in the post-modernist repertoire for period instruments: the case of the Traverso

As the early-music movement gathered pace during the 1960s, the preeminence of ‘modern’ instruments became subject to reassessment and from the late 1980s, an increasing number of period instruments became of interest not only to performers, but to composers as well. The traverso has particularly benefited from this new trend of post-modernist music, due to its rich palette of different timbres, variable types of vibrato and extreme flexibility in embracing all sorts of extended techniques. What is more, the baroque artistic milieu from which the instrument stems has represented a vivid source of inspiration, through the employment of music quotations, re-appropriation of baroque genres and instrumental combinations. Composers such as H.M. Linde, J. Tiensuu, J. Fontyn, J. Morlock, R. Sharman have proved how their deep and genuine enthusiasm for the baroque era’s instrumentation, form, and rhetoric can be set into dialogue with a contemporary language, reconnecting the latest avant-gardist ‘effects’ with the perennial ‘affects’ that the traverso is able to evoke.

Chiara Percivati

Different Tubes: The Prepared Clarinet Project

Abandoning the ideal, yet atrophied image of the acoustic instrument, this collaborative project wants to stimulate personal, work-specific approaches to the clarinet as a sound-machine. Through the physical preparation of the instrument and of the same performer, composers and sound artists can literally forge their tools according to their aesthetic vision. This instrumental transformation requires in turn work-specific techniques, pushing the performer towards an ever-changing approach and role.

In my presentation, I will perform excerpts from two of the resulting works: *Poética del mecanismo* by Diego Ramos Rodriguez and *Ayre* by Maria Teresa Treccozi.

Elizabeth Dobbin

PhD candidate – Orpheus Instituut/Leiden University

The mechanics of the voice: ornamentation as a tool for affective performance
Jean-Antoine Bérard's instruction-manual for the larynx

In 1755, the Parisian pedagogue, opera singer, and composer, Jean-Antoine Bérard, published his famous vocal treatise, *L'Art du Chant*. Since its publication, the work has been surrounded by controversy as to its authorship. However, in its scientific approach to the mechanics of voice production, the treatise is nonetheless ground-breaking and constitutes a veritable instruction-manual for singers of the time. In its minutely-detailed physiological directions as to how ornaments should be produced, the voice is treated as an apparatus which is almost external to the singer, and which can be manipulated and worked on. Despite the emphasis on mechanics, ornamentation in French vocal and oratorical theory of the time was considered essential equipment in the expressive tool-kit of the singer, mimetic of the passions, and a skill which was vital to move the souls of the listener. In this presentation, I describe and demonstrate Bérard's vocal ornaments and contextualise Bérard's writings within the theories of the time. In exploring and seeking to reconcile the apparent incongruence between emotions and mechanics, the presentation will open a window onto a sound-world that does not necessarily find a comfortable place within modern expectations of historically-informed performance-practice of French vocal music.

Heppy Longworth

(Dis)embodied Voices: Ontologies of Voice in the Age of Sound Recording

The invention of the phonograph in 1878 represents a decisive shift in the history of sound. With its ability to record and reproduce the previously unrepeatable human voice – displacing the sound of the human voice from its origin in the body in the process – recording has raised a host of philosophical questions regarding embodiment, notions of 'authenticity' and 'artifice,' and even the conception of voice itself. Given the increasingly complicated technological landscape in which technology can now reproduce, manipulate and even synthesise voices, a reappraisal of the complex relationship between human and technological voices is both necessary and timely.

This paper will examine current philosophical, psychoanalytical, and posthuman ontologies of voice through critical readings of Adriana Cavarero's *For More than One Voice* (2005), Mladen Dolar's *A Voice and Nothing More* (2006), and Katherine Hayles's *How We Became Posthuman* (1991). Arguing that these theories do not adequately account for the wide range of current voices, this paper will suggest that a more fitting conception of voice has emerged within musicology: one that can explain the multiple ways in which contemporary musicians perform varied representations of personhood and self through physical and technological manipulation of vocal timbre.

Kristine Healy

Overcoming the instrument: Vocality in the discourse of instrumental music performance

To play an instrument in a way that is considered 'vocal' has been an emblem of artistry for instrumental musicians in the Western classical tradition for centuries. Frequently, when vocality enters the conversation amongst instrumentalists, it is produced as a bodily antidote to the perceived machinic nature of instrumentality: Leopold Auer sought "a tone which is singing to a degree that leads the hearer to forget the physical process of its development" on the violin, and Håkan Hardenberger has described the trumpet as "not a living material", adding "to make this metal sing and make it part of your body... is the interesting conquest". In this presentation, a critical examination of excerpts from interviews and masterclasses illustrates how voice is constructed by instrumental musicians as a mediational tool that dictates the rules of the relationship between a human musician and their mechanical instrument. Ultimately, it is proposed that stories of vocality support the naturalisation of normative Western classical music practices.

Dana Papachristou

Paris 8 Vincennes - St. Denis, and Ionian University

Soundscapes and soundscape compositions according to Gilles Deleuze et Félix Guattari

In this paper I demonstrate the connection between soundscape compositions as a machinic tool of representation and the qualitative parameters of what such tools attempt to represent in contemporary aural reality. Why do contemporary artists mediate an actual real-time soundscape with the use of computer software, sound recorders and geo-composed audio tracks accessible via headphones? Why do we need a machine between an actual soundscape and our hearing instruments?

While examining the notion of the machine, Deleuze and Guattari suggest that every system is a machine. As people are machines made out of organs [D&G, *Anti-Œdipe*, p. 13], art is a desiring machine [D&G, *Anti-Œdipe*, p. 40] and society is a machine whose organs are human beings [D&G, *Anti-Œdipe*, p. 163]. In this sense, the technical machine is, like all machines, based on the dualism of open-closed [D&G, *Anti-Œdipe*, p. 26] without having the means to procreate [D&G, *Anti-Œdipe*, p. 163]. Machines are created in order to complete humans, whether this completion aims to function as a semi-autonomous production and technique [D&G, *Anti-Œdipe*, p. 163], or as a tool of desire [D&G, *Anti-Œdipe*, p. 326], or, lastly, as an instrument of expression and artistic imagination [D&G, *Anti-Œdipe*, p. 441]. Starting from the hypothesis that a human creation is capable of having all the possible human -thus natural- characteristics as well, I will link soundscape compositions with actual soundscapes, both as artistic outcomes and products, using Deleuze and Guattari's notions of technical, desiring and capitalistic machine. As people are desiring machines of all kinds, with interconnected organs and systems, they also share a binary flow of unity and rupture. The ethical issues arisen in a world created in such a way is a pseudo-question: as "there is no purely actual reality, all that is actual is surrounded by a fog of virtual images" [Deleuze, *Dialogues II*, p. 148], then whatever can be conceived by the senses can be as real as the receiver will experience it.

Michael Boyle

Royal Birmingham Conservatoire

Touching the Score at the End of the Pen. On the Responsibility of the Tools of Composition for Musical Works

The productive power - and therefore the responsibility (or even culpability?) - of the tools of composition for the resulting works can be explored through the theoretical lenses of extended cognition, actor network theory, and object-oriented philosophy. This engages with and extends the turn towards embodiment and the material in Musicology.

This paper argues that tools are responsible: firstly, as 'prostheses', tools which have become transparent technology (Clark 2003); secondly, as part of the extended cognitive environment; thirdly, as actors in the composers network, and the assemblage which is 'the-composer-at-work'; lastly, as objects with their own being, discovered through being part of the compositional process. These arguments are made with explicit reference to pen-and-paper in order that the final section of the paper can explore other tools of composition with the theoretical lens already established. By showing the productive power of the traditional tools of composition, a framework is created for exploring the importance of other compositional tools (such as the ubiquitous piano). Perhaps most importantly a framework is created for understanding the theoretical and practical impact of computer-aided composition - in terms of both the creation and manipulation of scores and the creation and manipulation of sound.