TEMPO REALE

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RESEARCH CENTRE

EMS18 - Florence - Villa Finaly

EMS18 Electroacoustic Music Studies Network - 14th Conference - Electroacoustic Music: Is it Still a Form of Experimental Music?

Villa Finaly
Florence
20-23 June 2018

EMS18

Villa Finaly
Florence
20-23 June 2018

Electroacoustic Music: Is it Still a Form of Experimental Music?

TEMPO REALE

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Contents

EMS Network

EMS Network is an international initiative which aims to encourage the better understanding of electroacoustic music in terms of its genesis, its evolution, its current manifestations and its impact.

EMS Network was initiated when Marc Battier (MINT/IREMUS/EMSAN - Institute of Research in Musicology and Sorbonne University) and Leigh Landy (MTI Research Centre - De Montfort University) both felt that a recognised platform for sharing scholarship in this field was missing. The creation of a bilingual conference platform specifically focused on relevant areas seemed to be the logical first step towards resolving this issue. They proposed a meeting that became part of IRCAM's Résonances activities in 2003 entitled "Electroacoustic Musics: A century of innovation involving sound and technology - resources, discourse, analytical tools" which was to become the first EMS Network event, be it prior to EMS being launched. Subsequent to this event, they were joined by Daniel Teruggi (INA/GRM) who was to become the third Executive Director of EMS.

This site has been created to share EMS Network activities and to act as an information hub in terms of activities related to its aims.

EMS Network has been organised to fill an important gap in terms of electroacoustic music, namely focusing on the better understanding of the various manifestations of electroacoustic music. Areas related to the study of electroacoustic music range from the musicological to more interdisciplinary approaches, from studies concerning the impact of technology on musical creativity to the investigation of the ubiquitous nature of electroacoustic sounds today. The choice of the word, 'network' is of fundamental importance as one of our goals is to make relevant initiatives more widely available.

Conference Presentation

In the early years of musique concrète Schaeffer proposed that this new approach was a form of experimental music. Of course, during this period and later, others were to use this term as well, meaning something slightly different. Still, the rationale that organising sounds was an innovative form of music making was clearly a logical and just thing to say.

How true is this today? Has experimentation and innovation been overtaken by skill and technique?

Today, the term electroacoustic music now encompasses a wide variety of practices and even genres. Seventy years after the birth of concrete music, it has now become very difficult to circumscribe what electroacoustic music is or can be, because it is so diversified and has so many different styles. Clearly electroacoustic music has come a long way over the last 70 years and many will clearly state that (aspects of) their work are indeed experimental.

On the other hand, there are many who have claimed, for example, that a good deal of acousmatic music has common tendencies and some even go so far to suggest that much of it sounds similar. In the field of musicology, new impulses to research are provided by various forms of technical experimentation. New musical interfaces, bio sensors, the return of hybrid synthesis and DIY devices exemplify challenges for performance studies or creative process analysis.

Committees

Conference Co-Chairs

Marc Battier
Institute for Research in Musicology - IReMus, Sorbonne University, Paris, and Aichi University of the Arts, Japan

Pierre Couprie
Institute for Research in Musicology - IReMus, Sorbonne University, Paris

Leigh Landy
Music, Technology and Innovation Research Centre - MTIRC, De Montfort University

Nicolas Marty
Institute for Research in Musicology - IReMus, Sorbonne University, Paris

Anne Sèdes
Centre de recherche en Informatique et Création Musicale - CICM/ MUSIDANSE, University Paris 8

Daniel Teruggi
Groupe de Recherches Musicales, Paris

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Martin Supper
Viviane Waschbüsch
Laura Zattra
Xiaofu Zhang

Keynote Speeches

Lelio Camilleri

Conservatorio di Musica G. B. Martini, Bologna / Tempo Reale, Florence

Friday, 22 June - 18:30 - Richelieu Hall

Exploration vs. experimentation: the relation between material and musical discourse

---

In regard to the term "experimental music", John Cage made two assertions. The first was that the real experimental music is the one whose results cannot be forecasted. In his second assertion he refused the term, saying: "My music is non-experimental. The experiments have been done before composing the music."

Furthermore, the term "experimental" may cause a negative interpretation: something experimental can be understood as something temporary, not definitive, transitional.

Starting from this affirmation, it could be very difficult to state that *Symhonie pour un Homme Seul*, *Gesang der Jünglinge* or *Visage* are pieces of an experimental nature, belonging to a transitional, not definitive period. They are masterworks which well express an important, not transitional, phase of the history of electroacoustic music.

Therefore, in my view, the term "experimental" carries a great degree of ambiguity. In order to better explain the innovative elements of electroacoustic music and the pivotal role of some pieces in the creation of new directions in this language framework, a different term has to be used.

Undoubtedly, electroacoustic music has meant a great impact in terms of expanding the concepts of sound world, structure and compositional organization. Even in its first historical experiences, the compositional output presented a series of important pieces whose traits were far from being experimental, in the sense of being unpredictable and transitional.

It follows that the long time period in which electroacoustic music developed could be better explained in terms of "exploration". With the term "exploration" I mean the research of a new relation between sound material and form, and a new development of one of the major basic aspects of electroacoustic musical language. Exploration can also be considered in relation to the form and the narrative possibilities of the new sounding world.

The long time period of the development of electroacoustic music can also be divided by taking into account some pieces whose sounding and structural explorations have given new directions and opened new paths.

In this paper, I will briefly analyze the features of these pieces, their exploration of peculiar aspects of electroacoustic music languages and their relevance in establishing new directions. These directions can be seen in terms of exploring new structures, new dramaturgies and in the extension of sound material. The development or the beginning of new genres in electroacoustic music can be seen as a result of a new extension of its basic features.

Biography

Lelio Camilleri (Rome 1957) is Professor of electroacoustic music composition at the Conservatory of Music G.B. Martini, Bologna. His compositional output is mainly electroacoustic. His works have been performed worldwide and received national and international commissions and awards. His research work concerns with the analysis of electroacoustic music, sonic communication and audiovision. On these subjects he had published articles in national and international academic journals. He has also realized sound installations some of them are permanently located in the historical building of Palazzo Medici Riccardi in Florence.

He published a book on sound communication, Il Peso del Suono (2005). He is currently publishing a book on sound and music on science fiction movies and one on King Crimson's masterwork album *Larks' Tongues in Aspic*.

Laura Zattra

Conservatory of Music, Parma

Wednesday, 20 June - 18:30 - Richelieu Hall

Is Originality Undetected Plagiarism?

And, after all, what is originality? It is merely undetected plagiarism. This quotation, which seems to have been uttered by English writer Herbert Paul in 1896, but was echoed well before and long after him by many others, may stress the point that there never is anything new under the sun. What is originality? What is experimentation? Is the invention in art «an opaque process, and the word 'experimentation' really does not help to get a clearer picture» [During et al. 2009, 13]? Do we live in a depressing world where creativity has been overtaken by skill and technique? And as the venerable Jorge says «there is no progress, no revolution of ages, in the history of knowledge, but at most a continuous and sublime recapitulation» [Umberto Eco 2014, 426]?

The special theme of the conference "Is Electroacoustic Music still a Form of Experimental Music?" drives me to discuss experimentation starting from traditional definitions of experimental, originality, and research. I will examine one of the main criteria used to evaluate scholarship in the humanities and the social sciences: originality [Guetzkow et al. 2014]. As a reviewer myself, I have been faced many times with this concept. The established sociological literature [Kuhn 1970, Latour 1987, Pinch & Bijker 1984] devoted to science and natural studies defines originality as the making of a new discovery that adds to scientific knowledge. These writings, although not intended for other disciplines, have been largely applied to social sciences and art, without defining the extent to which the

definition of originality characterizes them. Authors Guetzkow et al. [2014] define originality drawing on interviews with individuals who serve on funding panels. Originality of approach, method, data used, theory, topic, are the preferred categories: originality as a sign of the moral character of the researcher. In musicology, originality seems to be the relationship between courage, independence, and authenticity [ivi, 204].

But then, to what extent experimentation in art and music is linked with originality? And if originality has to be based on research (of method, data, theory, etc.), to what extent sound based art is to be considered research? In 2015, an article by John Croft entitled 'composition is not research' [Croft 2015], has generated a good deal of controversy on blogs and social media, including two responses by composer Camden Reeves and by Ian Pace, and a panel on November 25th, 2015 at City University of London. In my talk I will discuss a concept that opens possibilities of solution: no artistic practice can ever be experimental in itself, or from beginning to end [During et al. 2009, 15]. Experimentation has a local usage, it cannot hold a maximal opening to experimental. It could be recovered from the concept of *dispositif* (device, system, framework) where there is a 'game' at stake [ibidem; Martin 2014].

Electroacoustic music and sound based art can and should be research towards experimentation. Crucial preconditions are the interest for knowledge, transmission and representation of this knowledge, a deep awareness of the state of the art, and a re-opening to questions instead of answers at the end of the process [Dombois 2009]. These prerequisites also motivate me to introduce the last part of my talk: the concept of archive, an aspect inherent in the very notion of research. Archiving – by artists, composers, musicians, performers, and scholars – is crucial for several reasons. In my experience, I often hear students and artists say disconsolately that everything has already been done before, that it is too easy to make music nowadays, and the means of creation and production are far too accessible. I will propose that the answer is in archiving. I will discuss some of the most salient questions associated with the idea of the archive: not only the archive as a separate entity, but essentially the necessity for the artist/composer/researcher to maintain his/her own materials (that is knowledge, culture and practice) in order to become responsible for their own choices, to conduct themselves consciously as artists, to assess their understanding of their own practice, which is the real way to originality and individuality [Atkinson 2014]. I will have a look back at previous works

[*Computer Music Journal*. The Reconstruction of Stria, Fall 2007, Vol. 31, No. 3] and my collaborations with composers and computer music designers, to reflect on the idea of archive: knowing what preceded in order to mindfully address personal creativity. I intend archiving as a process of self-knowledge, of studying and revealing personal lacks and indicating new possibilities for innovation and experimentation; as an action to find the way through what has been already done.

Biographie

Laura Zattra holds PhDs in Musicology from the Sorbonne University and Trento University and is the author of *Live-Electronic Music. Composition, Performance and Study* (with F. Sallis, V. Bertolani and I. Burle, 2018), *Renata Zatti. Invenzione Musicale* (critical edition, 2012); *Studiare la Computer Music. Definizioni, analisi, fonti* (2011); *Presenza storica di Luigi Nono – Historical presence of Luigi Nono* (with A.I. De Benedictis, 2011); *Vent'anni di musica elettronica all'università di Padova. Il Centro di sonologia computazionale* (with S. Durante, 2002). She was Senior Researcher at the University of Padova from 2006 to 2012, and has been Research Associate at the *Analysis of Musical Practices* Research Group, IRCAM-CNRS (Paris) since 2012. She is Adjunct Professor at the Conservatory of Music in Parma, and in the Department of Film Music at the Music Conservatoire in Rovigo (Italy), and co-editor-in-chief of the journal *Musica/Tecnologia*, (Firenze University Press). || lazattra.wordpress.com

Conferences Programme

Wednesday, 20 June

Session 1A: Analysis
Chair: Leigh Landy - Richelieu Hall

9:00 **Filipa Magalhães**
A proposal of analysis for music-theatre works with electroacoustic. The case of *Double* by Constança Capdeville

9:30 **Marco Marinoni**
The cyclic conception of musical time in Luigi Nono's *Post-Prae-Ludium n. 1 "per Donau*: An aesthesic-cognitive-perceptive analysis

10:00 **Martha Brech**
Composed Space in Luigi Nono's live-electronic composition *Prometeo*

10:30 Coffee Break

Session 2A: Aesthetics - Pedagogy
Chair: Mikako Mizuno - Richelieu Hall

11:00 **Jean Penny, Andrew Blackburn**
Cultures, Chance, Electroacoustic Spaces: Exploring performance aspects of Cage's _____, _____ _____ CIRCUS ON _____.

11:30 **Joe Cantrell**
The Timbre of Trash: Anthropomorphic Strategies to Resist Technological Obsolescence

12:00 **Frédéric Dufeu, Michael Clarke, Peter Manning**
Integrating creative, technical, historical and analytical aspects of electroacoustic music in research and pedagogy:
a perspective from the TaCEM project

12:00 **Peter Falthin**
Is Graphical Interface a Facilitator for Creative Thinking? Semiotic Perspectives on Learning Max/MSP

13:00 Lunch

Session 3A: Aesthetics
Chair: Pierre Couprie - Richelieu Hall

14:00 **Felipe Ribeiro**
Resistance...The Democratic Potential of Fixed-Media Electroacoustic Music

14:30 **Per Anders Nilsson**
Notions of Experiment in Electroacoustic Music

15:00 **Simon Emmerson**
Electroacoustic Music before Language

15:30 Coffee Break

Session 4A: Theory
Chair: Per Anders Nilsson - Richelieu Hall

16:00 **Raúl Minsburg**
Music as sound: the quotation in acousmatic music

16:30 **Eric Maestri**
Four hypothesis about electroacoustic music as experimental: Evolution, interaction, morphology and form

Keynote 1
Richelieu Hall
18:30 **Laura Zattra**
Is Originality Undetected Plagiarism?

20:00 **Concert Tempo Reale**
Galleria Michelangelo

Thursday, 21 June

Session 5A: History
Chair: James Harley - Richelieu Hall

9:00 **Marcelo Carneiro De Lima**
What was Left From Experimentation?: A Discussion on the current role of Electroacoustic Music to the New Generation of Sonic Artists in Brazil

9:30 **Jaime Oliver La Rosa**
The Sounds of Instruments Never Built: New Concepts of Instrument in Early Tape Music Practices

10:00 **Satsuki Inoue**
The Development of Yamaha's First Electric Organ

10:30 Coffee Break

Session 6A: History
Chair: Anthony Paul De Ritis - Richelieu Hall

11:00 **Isabel Pires**
CESEM - Centre for the Study of the Sociology and Aesthetics of Music: NOVA - NOVA University

11:30 **Theodoros Lotis**
The Missing Link in the Experimentalism of Electroacoustic Music

12:00 **Luisa Santacesaria**
TRK. SOUND CLUB: a case of experimental music concert season

12:30 **Masayuki Yasuhara**
Thereminvox in Japan: A Historical Overview

13:00 Lunch

Session 7A: Emsan 1
Chair: Martha Brech - Richelieu Hall

14:00 **Yinuo Yang**
Reinventing Court Music in Ancient China: Form and Semiotics in Chen Yuanlin's *Flying Swan*

14:30 **Mikako Mizuno**
First Japanese reception of MAX, as a meta-language of symbolic logos ---------- Nobuyasu SAKONDA and the body of Fluxus

15:00 **Koichi Fujii**
Vocalism A•I by Toru Takemitsu – possible to analyze its narrativity?

15:30 Coffee Break

Session 8A: Emsan 2
Chair: Jaime Oliver La Rosa - Richelieu Hall

16:00 **Yuriko Hase Kojima**
Masahiro Miwa's "*Gesänge des Ostens*" : Intersection of Technology and Tradition

16:30 **Lin-Ni Liao**
Curiosity in Organizing Sound - Four Electroacoustic Works around Erhu

Friday, 22 June

Session 9A: Theory
Chair: Isabel Pires - Richelieu Hall

9:00 **Luc Döbereiner**
Towards a Materialist Conception of the Sound as *Thing*

9:30 **Olaf Hochherz**
Definitions of Experimental Music Revisited

10:00 **Ulf A. S. Holbrook**
The map(ping) as a morphological experiment

Session 9B: Aesthetics
Chair: Jean Penny - Stendhal Hall

9:00 **James Andean**
Questioning the 'Experimental': Electroacoustic Improvisation as 'Experimental' case study

9:30 **Manuella Blackburn**
Old music for new sounds: quoting and recycling compositions of the past

10:00 **Marij Van Gorkom**
Crafting the patch: Composer-performer collaboration at the interface between experimentation and skill

10:30 Coffee Break

Session 10A: Reception - Theory
Chair: James Andean - Richelieu Hall

11:00 **Simonetta Sargenti**
Listening and analyzing electroacoustic music: sound analysis, gesture and communication of emotions

11:30 **Anthony Paul De Ritis**
Arts-Based Learning for Innovation: How Electroacoustic Music Study Stimulates Creativity in the Marketplace

12:00 **Steven Naylor**
Sound Design and Electroacoustic Music: Practices or Perspectives?

12:30 **Martin Link**
IC-Analysis As A Future Model Of Electroacoustic Music-Theory

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Session 10B: Aesthetics
Chair: Andrew Blackburn - Stendhal Hall

11:00 **Martin Flašar**
Standing on the river bank: Electroacoustic music between tradition and innovation

11:30 **Owen Green, Pierre Alexandre Tremblay, Gerard Roma**
Interdisciplinary Research as Musical Experimentation
A case study in musicianly approaches to sound corpora

12:00 **Carl Faia**
Experimental Electroacoustic Music is Dead. Long Live Experimental Electroacoustic Music

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13:00 Lunch

Session 11A: Theory
Chair: Marc Battier - Richelieu Hall

14:00 **Florence Lethurgez**
What is communicating for an electroacoustic music composer?

14:30 **Sabine Feisst**
Electroacoustic Music as Creative Placemaking: The Listen(n) Project

15:00 **Garth Paine**
Interactive Time

Session 11B: Aesthetics - Analysis
Chair: Yuriko Kojima - Stendhal Hall

14:00 **Georgia Kalodikis**
Referential and non-referential perception of speech in electroacoustic music

14:30 **Mathieu Lacroix**
Deus Ex Machina: Methods, Processes and Analysis of Mixed Music

15:00 **Jan Urbiks, Anna-Lena Vogt, Martha Brech**
Analysing Experimental Techno

15:30 Coffee Break

Session 12A: Theory
Chair: Florence Lethurgez - Richelieu Hall

16:00 **Terri Hron**
Sticking to the unexpected: Experimentalism in the work of Ikue Mori, Zeena Parkins and Pamela Z

16:30 **Andrew Knight-Hill**
Between worlds: transmuting the diegetic
Film and television as a site of electroacoustic experimentation

Keynote 2
Richelieu Hall
18:30 **Lelio Camilleri**
Exploration vs. experimentation: the relation between material and musical discourse

Saturday, 23 June

Session 13A: Aesthetics
Chair: Patrick Valiquet - Richelieu Hall

9:00 **Tiernan Cross**
Approaches to Perceptual Phenomenology and Electroacoustic Music in Multi-Reality Sound Fields

9:30 **Clovis McEvoy**
Recomposed Relationships: Isomorphic Paradoxes and Media Pairings

10:00 **John Young**
Experiment/Expression

Session 13B: Aesthetics - Analysis
Chair: Nicolas Marty - Stendhal Hall

9:00 **Erika Matsunami**
Possibility of experimentation in/between electro-acoustic music and other arts, after the digital revolution

9:30 **Bai Zhao**
The influence of advanced technology and social policy change on the rise of electroacoustic music female composers in China

10:00 **Daniela Fantechi**
Systema Naturae By Andrea Valle And Mauro Lanza, Experimentation As Starting Point Of A Piece Of "Acoustic Computer Music"

10:30 Coffee Break

Session 14A: Intermedia - Aesthetics
Chair: Garth Paine - Richelieu Hall

11:00 **Hiromi Ishii**
"Visual Music" as Extended Composition of Electroacoustic Music

11:30 **Massimo Vito Avantaggiato**
The Visible and The Invisible

12:00 **Lula Romero**
Experiment and Experience. The Openness of a Space of Encounter

12:30 **Katt Hernandez**
Travels through the Electronic Music Timescape

Session 14B: Diffusion
Chair: Lin-Ni Liao - Stendhal Hall

11:00 **James Harley**
Soundscapes in 3D

11:30 **Nathanaëlle Raboisson**
Analysis of creative process in acousmatic interpretation on acousmonium

12:00 **Robert Normandeau**
Musical composition and measurement of sound space in 3D, a matter of scale

12:30 **Dante Tanzi, Eraldo Bocca**
Showing the acousmatic sounds through the mobile acousmonium AUDIOR

13:00 Lunch

Session 15A: Analysis - Preservation
Chair: Daniel Teruggi - Richelieu Hall

14:30 **Judith Romero Porras**
Two notions in electroacoustic music: process and interaction

15:00 **Pablo Cuevas**
Memory. An Approach for Decentering the Historiography of Electroacoustic Music

15:30 **Andreia Nogueira**
Examining the future of born-digital musical works.
A survey on the Portuguese composers' preservation practices

Session 15B: Aesthetics - Perception
Chair: Simon Emmerson - Stendhal Hall

14:00 **Danilo Rossetti, Jônatas Manzolli**
Convergences in Different Conceptions of the Granular Paradigm in Electroacoustic Music from the Notions of Sound Flux and Emergence

14:30 **Riccardo Wanke**
How do we listen at different genres of today's experimental music?

Paper Abstracts & Bios

James Andean

De Montfort University, Leicester

Friday, 22 June - 9:00 - Stendhal Hall

Questioning the 'Experimental': Electroacoustic Improvisation as 'Experimental' case study

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As pointed out in the conference call, the concept of 'experimentation' and the experimental in music was central in the development of the electroacoustic art form, as indeed it was for many areas of twentieth-century music, especially post-WWII. However, it is indeed timely to return to this notion of the 'experimental' in our art form, now that it is seventy years old and has survived into a new century. The conference call also focuses somewhat on the question of *musique concrète* as an experimental art form; this, I think, leads directly to several questions. The broadest would be:

- Can the electroacoustic endeavour still claim to be 'experimental'?
- Would acousmatic music (as the inheritor of the *musique concrète* tradition) be the likeliest site within the broader electroacoustic landscape for this 'experimentalism' to currently be located?
- Or, has the experimentalism once found in the glory days of *musique concrète* now migrated elsewhere within our broader field?

Perhaps unsurprisingly with such a leading question, I will argue that this is in fact exactly what has happened – i.e. that:

- The conference call is correct in asserting the experimental nature of the early days of *musique concrète*;
- The conference call is equally correct in being somewhat sceptical of any claimed 'experimentalism' in today's acousmatic music;

- However, rather than implying the extinction of this experimental spirit, it is rather that it has indeed migrated elsewhere – specifically, towards the area of Electroacoustic Improvisation.

This presentation will therefore consider:

- the nature of the 'experimental' in electroacoustic music, and its location;
- the possibly 'experimental' qualities of Electroacoustic Improvisation;
- comparison and contrasts with the *concrète*/acousmatic tradition.

This is *not*, it should immediately be stressed, a critical or negative assessment of current Acousmatic Music; nor is it, conversely, any automatic claim for the *de facto* significance of Electroacoustic Improvisation. Rather, it is intended as a reflection of the current state of the evolving and transforming characteristics and contrasting affordances of these two practices. For example, the conference call was again quite correct (if somewhat provocative) in suggesting a dichotomy between 'experimentalism' and 'craft', at least as reflected in the evolution of the *concrète*/acousmatic tradition – i.e. that the flourishing and honing of an immaculate 'acousmatic craft' has tended to reduce the sense of 'experimentalism'. On the other hand, Electroacoustic Improvisation often tends, deliberately or otherwise, to downplay or explicitly deny any emphasis on craft or virtuosity – a tendency that, I will argue, is at least potentially linked to its possible claims to the 'experimental' mantle. To stress once again, however, that this is not a judgement call, but simply contrasting opportunities, we might highlight the fact that some key practitioners – Lionel Marchetti being perhaps an ideal example – are active as both fixed-medium composers and as electroacoustic improvisors, equally at home in both worlds, but turning to one or the other at any given moment for its particular opportunities and context.

Biography

James Andean is a musician and sound artist. He is active as both a composer and a performer in a range of fields, including electroacoustic music, improvisation, sound art, and audiovisuals. He is a founding member of several groups and ensembles, including Rank Ensemble, LOS duo, and VCA. He has performed throughout Europe and North America, and his

works have been presented around the world. He is a lecturer at the Music, Technology and Innovation Research Centre of De Montfort University.

Massimo Vito Avantaggiato

Conservatorio Verdi, Milan

Saturday, 23 June - 11:30 - Richelieu Hall

The Visible and The Invisible

The article focuses on works from the past to nowadays, showing the rich development that «audiovisual acousmatic composition» or, more generally, «multimedia works» had in about half a century: to describe this evolution, various authors are quoted for analytical purposes, from the past to younger generations:

We tried to answer the question : "why shall we combine visual elements with the "invisible" language of acousmatic music?"

By referring to different themes:

- the metaphorical relationships between video and audio and the importance of gestural organization;
- the management of time;
- the themes addressed;
- the wide range and variety of (video) musical forms
- just to mention a few.

Several authors are mentioned: Adkins, Chion, Dhomont, Drese, Grossi, J.P. Oliveira , Menezes, Xenakis, and so on.

These excerpts allow us to show that various forms of time management coexist in a given work and allow us to discriminate factors that contribute to adding value to audiovisual compositions, by illuminating on the different ways to appreciate materials and techniques.

In the last paragraph we tried to summarize the impact that video has had from a cultural point of view.

In this paragraph we also remember the figure of Pietro Grossi who was a forerunner of generative art, creating works of interactive art generated through self-produced algorithms.

All the examples, indicated in the article, show that electronics – in the video as well as the composition – allow the increase in the possibilities of communication of the music as it is thought, thanks to the novelty of keeping the original message of the composer intact.

The video allows, in the words of Varèse, a process of greater "liberation" of sound, and adds the benefit of a new cognitive plan, which Nicholas Cook calls "a third rhetorical plane"; it can generate synesthetic associations and, sometimes, allow the liberation from reality.

Biography

His work is on research processes and combination of experimental video and experimental electronic music. He took a master degree in Electroacoustic Composition with full marks at "Giuseppe Verdi" Conservatoire in Milan and a master degree as a Sound Engineer.

His works have been performed in several countries worldwide and he has been finalist in many composition competitions.

Andrew Blackburn

Federation University, Victoria

Wednesday, 20 June - 11:00 - Richelieu Hall

Cultures, Chance, Electroacoustic Spaces: Exploring performance aspects of Cage's _____, _____ _____ CIRCUS ON _____.

→ See Jean Penny

Manuella Blackburn

Liverpool Hope University

Friday, 22 June - 9:30 - Stendhal Hall

Old music for new sounds: quoting and recycling compositions of the past

This paper specifically addresses electroacoustic music compositions that borrow from existing music. Investigating works that look back to earlier times and to unrelated musical genres presents an array of issues regarding terminology, originality, authenticity and experimentation. Embedding borrowed music into new electroacoustic music goes beyond the simplicity of 'cut and paste' as composers approach this practice with new and novel techniques.

Musical borrowings that take place within the field of electroacoustic music demand a close look. Because the components and building blocks of electroacoustic music are often recorded sound, the categories of borrowing become vast, thus incidences of borrowing, in some shape or form, can appear inevitable or unavoidable when composing. The paper takes on this issue and proposes a new framework for studying and categorising borrowing to confront differences in approach.

The paper questions what borrowed sounds and music may communicate beyond their original context, and whether the borrowing and sampling mechanism inherent in much electroacoustic music creation ultimately renders the practice void of originality, despite its 'experimental' and 'cutting edge' labels. Along side this idea, the author will discuss musical borrowings in electroacoustic music as a bridge or future strategy for audiences to see electroacoustic music in a less obscure light, through the many connections the genre has with external sources including traditional, mainstream and commercial music.

The paper also reports back on a larger, ongoing research project, in collaboration with Raul Minsburg, into sound borrowing activity, termed as 'sonic migration'. Conducting research into this area anticipates a vast array of borrowing activity to be uncovered, proving the assumption that much electroacoustic music relies and thrives on sound borrowing. Documenting

such findings may contribute to greater understanding of the electroacoustic music genre and also aid the formation of new compositional techniques and strategies for other composers, academics researching in the field.

Biography

Manuella Blackburn is an electroacoustic music composer who specializes in acousmatic music creation. She also has composed for instruments and electronics, laptop ensemble improvisations, and music for dance. She studied music at The University of Manchester (England, UK), followed by a Masters in Electroacoustic Composition with David Berezan. She became a member of Manchester Theatre in Sound (MANTIS) in 2006 and completed a PhD at The University of Manchester with Ricardo Climent in 2010. Manuella Blackburn has worked in residence in the studios of Miso Music (Lisbon, Portugal), EMS (Stockholm, Sweden), Atlantic Centre for the Arts (New Smyrna Beach, FL, USA), and Kunitachi College of Music (Tokyo, Japan). Her music has been performed at concerts, festivals, conferences and gallery exhibitions in Argentina, Belgium, Brazil, Canada, Chile, Costa Rica, Cuba, France, Germany, Italy, Japan, Korea, Mexico, Portugal, Spain, Sweden, and the USA. She is currently Senior Lecturer in Music at Liverpool Hope University (England, UK).

Eraldo Bocca and Dante Tanzi

AUDIOR association

Saturday, 23 June - 12:30 - Stendhal Hall

Showing the acousmatic sounds through the mobile acousmonium AUDIOR

Thanks to different sound projection systems, the characteristics of different acoustic environments can be channeled towards a single public listening space. Nevertheless, there is a great variety of systems and concepts related to "show" acousmatic sounds. While the ambisonic technique and the wavefield synthesis follow a scientific path that tries to create tools to arrive at a reproducible localization, the acousmonium employs a combination of

space, pitch and sound density able to reproduce effectively in a concert hall the internal space of a work. Entirely designed and built in 2012 by Eraldo Bocca, the mobile acousmonium AUDIOR combines the peculiarities of immersive listening (obtained with broadband speakers around the audience) with those of an orchestra of speakers (obtained with a subdivision of the frequency ranges: subwoofers / low-mid / mid / high). Its basic double-rings architecture derives from the acousmonium MOTUS, conceived and designed by Jonathan Prager. Thanks to these features, AUDIOR offers the possibility of dynamically combining volume, space, density and timbre. The presence of many narrow-band loudspeakers (arranged in front of and around the public) guarantees the possibility of intervening on the timbre while respecting a condition of immersive listening. The acousmonium AUDIOR currently consists of a total of 54 speakers (among full range and narrow band) and 44 amps. Since 2012 the AUDIOR acusmonium has enabled the realization of about forty concerts with the performance of works by a hundred composers from around the world, dozens of first performances, four monographic concerts, four sessions of dance and acusmatic music, a study meeting dedicated to Angelo Paccagnini and the participation in three festivals in Italy: the Festival 5 Giornate in Milan (editions 2014, 2017, 2018), the 'Contemporanea Acusmatica' Festival in Udine (2017) and the 'Musica e Suoni' Festival in Sarzana (2018). Since 2014, an educational activity (workshops and masterclass) has been held for students of electronic music courses in conservatories and music schools. The AUDIOR acusmonium sound spatialization workshops aim at a theoretical and practical training in the field of spatialization techniques of recorded music on support.

Biographies

Eraldo Bocca is a designer, builder and consultant in the field of electro-acoustic design environment. He designed and built the acousmonium AUDIOR dealing with the definition of the functional specifications, architecture, assembly the speakers, and the implementation of the multipliers of the signal. While taking inspiration from mobile devices in use in France and Belgium, Bocca introduced design criteria that that bind effectively diffusivity, modularity and the geographical distribution of speakers. Adviser to the Cultural Center San Fedele in Milan, he oversaw the preparation for its auditorium of the acousmonium SATOR, opened in January 2012 and since then used in the events organized as part of the

seasons 'San Fedele Musica'. Founding member and technical director of the association AUDIOR, he teaches electroacoustics in workshops and masterclasses.

Dante Tanzi is an acousmatic composer and interpreter. After attending the Futura Festival annual acousmatic interpretation course, since 2012 he has been performing works of the acousmatic repertory. In 2011, in 2014, in 2017 and 2018 he curated the program of acusmatic music concerts as part of the 'Festival 5 Giornate' in Milan. Since 2012 he has been organizing the concert programming of the AUDIOR acusmonium mobile, made by Eraldo Bocca. Starting from 2013 he held laboratories of sound spatialization for the Center for European Studies of Music and Acoustics of Lugano and master classes for the conservatories of Como and Turin. His compositions have been performed in Italy and abroad. He is a founding member and artistic director of the association AUDIOR.

Martha Brech

Technical University, Berlin

Wednesday, 20 June - 10:00 - Richelieu Hall

Composed Space in Luigi Nono's live-electronic composition *Prometeo*

Among the electroacoustical space compositions of the pre-digital era Luigi Nono's *Prometeo, tragedia dell' ascolto* is an extraordinary work of the mixed category, and it is still performed regularly today. Nono composed it as a texture of interwoven musical fragments, some of them on lyrics from Massimo Cacciari's multilingual libretto that is based on antique Greek mythologies, Ayschylos' Prometheus tragedy, and modern literature excerpts from Hölderlin, Walter Benjamin and others. For performances, four orchestra groups, solo wind and string groups, a glass soloist (used as percussion), a mixed choir, a group of six solo singers and two speakers, a huge amount of live-electronic equipment such as harmonizer, vocoder, reverb, delay, a sound motion device called *Halaphon* etc., and at least 12

loudspeakers are needed. Every group of musicians and every loudspeaker are placed on an individual position in a performance hall – and every performance of *Prometeo* has to be adapted to its specific architectural and acoustical properties. An analysis of the spatial aspects has to consider this fact.

Therefore, the premier series of the second version performed in Milano 1985 was chosen for the present analysis. Its spatial setting was restored graphically on basis of Nono's handwritten score and sketches, photographs of the Milano performance series, technical sketches and score-inscriptions of Hans Peter Haller, the head of the Experimental Studio in Freiburg and co-inventor of the *Halaphon*, and of Alvise Vidolin who performed and had partly programmed for the *4i-System* of University in Padua, the architectural plans of Renzo Piano, constructor of the huge wooden space-in-space performance hall called *Arca*.

In addition to the spatial graphic the live-performed acoustic music and its live-electronic modifications synchronized for every fragment. The result showed a constant change of sounding places throughout the composition and specific spatial 'pictures' in every of the 9 movements of the composition.

Analysis of spatial aspects was done for every movement separately on basis of the synchronized score for the length of about a fragment. The major results were:

- If movements have texts (only two does not) their levels and origins are marked by specific music, electronic modification and spatial display so that different text levels are separated clearly.
- The meaning of the words in some cases are illustrated, commented or reflected by spatial means, especially by *Halaphon*-paths through the *Arca*.
- Solo parts either accompany singer parts by similarity of sounds and thus broaden the space of both singers and their part – or due to no or only little similarities to the texture of the singers they form separated sound units with another spatial display apart from the singer's space.
- Similarities of sounds may occur between every musical group including the four orchestral groups.

- The four orchestral groups show specific spatial forms due to the fact that they have no microphones and therefore, cannot be displayed spatially on other positions in the *Arca* but their own. Here, several different spatial forms in time occur between them by means of very similar musical parts that seem to be moved in space and form sound circles, crosses etc.

In sum, it is obvious that Nono had composed space in the *Prometeo* virtuously and in many variations. Spatital sculptures, *Halaphon* paths, spatial forms etc. serve different functions and promote the content of the piece as a whole. Therefore, space is an integrated part of the composition and not just its decoration.

In the presentation of the papers the examples showing spatial sounds will be projected in 3-D-graphs, some of them animated.

Friday, 22 June - 15:00 - Stendhal Hall

Analysing experimental techno

→ See Jan Urbiks

Biography

Martha Brech, musicologist and sound engineer, research areas: electroacoustic music and its analysis, auditory spatial art; assistant professor TU Berlin.

Joe Cantrell

University of San Diego, USA

Wednesday, 20 June - 11:30 - Richelieu Hall

The Timbre of Trash: Anthropomorphic Strategies to Resist Technological Obsolescence

This text proceeds from an understanding of electroacoustic music as being inclusive of many permutations of form and aesthetic including, but not exclusive to: through-composed pieces, tape music and improvised performance work. The commonality these all share is a reliance on some form of electric or electronic component as being essential to the work. Considering this, electroacoustic music practices are inherently reliant on some type of mass-produced technological device.

The position of the electroacoustic composer or musician within this context offers up some important challenges regarding the consumption of these technological commodities in the service of the creative act. To utilize technical devices for expressive ends is also to contribute to the cycle of production and obsolescence involved with global capitalism. A serious consideration of the position of the digital artist within this framework necessitates an ethical examination of the merit of the work produced in relation to the overall waste and exploitation that the connection to technological commodification entails. At first glance, there seems to be little ethical space for the creative technological act. When confronted by the scope of the power structures involved, reactions range from ceding to the futility of the expressive effort and simply cease producing work, or to be overwhelmed by the enormity of the task, and cast aside responsibility as being beyond reach. How does an electroacoustic musician or composer acknowledge the results of their expressive efforts in relation to the actions of the beings who sacrificed to create the tools of the trade in a meaningful way? How does one begin to come to terms with the process of technological obsolescence that compels endless consumption and production?

In this way, conceptual ideas relating to ethical nuances of the physical relationship between the legacy of the electronic and other components

involved in electroacoustic music are brought to light, and provide concrete examples of how the seemingly overwhelming connection with larger ethical forces can be effectively addressed in electroacoustic practice.

Biography

Joe Cantrell is a digital artist and researcher specializing in sound art, installations, and performances inspired by the implications of technological objects and practices, investigating the incessant acceleration of technological production, ownership, and obsolescence. He has presented, performed, and installed his work in numerous venues in the US and abroad, as well as being honored with grants by New Music USA, the Creative Capital foundation, the University of California Institute for Research in the Arts, and the Qualcomm Institute Initiative for Digital Exploration of Arts and Sciences, among others.

Joe holds a BFA in music technology from Cal Arts, an MFA in digital arts and new media from UC Santa Cruz, and a PhD in music from UC San Diego.

Marcelo Carneiro de Lima

Rio de Janeiro State Federal University

Thursday, 21 June - 9:00 - Richelieu Hall

What was Left From Experimentation?: A Discussion on the current role of Electroacoustic Music to the New Generation of Sonic Artists in Brazil

This paper discusses if the *experimental* practices are still part of electroacoustic music methods of composition by approaching four albums from four new generation Brazilian composers in comparison with *"classical"* electroacoustic music productions. Those albums were released by the independent label *Seminal Records*. To reinforce the analysis, we will refer to the nowadays electroacoustic music courses in some of the Brazilian universities in the light of Bourdieu's *field of instances of reproduction and consecration*. The term *experimental* will be explored through three different

concepts: Jacques Atalli's *subversion*; Pierre Schaeffer's *experimental* as a method for "direct constructing"; and Tom Zé's *procurativídade* (a Portuguese portmanteau meaning something like *search-activity*).

Biography

Marcelo Carneiro is a professor of composition, composer, researcher and coordinator of the Post-Graduate Music Program at Rio de Janeiro State Federal University, Unirio. Some of his works have been played around the world. In 2015 he won the second prize at the Bourges Composition Contest, France. He is responsible for the electroacoustic diffusion for the *Jocy de Oliveira's Ensemble* and other Brazilian composers and artists.

Michael Clarke

University of Huddersfield

Wednesday, 20 June - 12:00 - Richelieu Hall

Integrating creative, technical, historical and analytical aspects of electroacoustic music in research and pedagogy: a perspective from the TaCEM project

→ See Frédéric Dufeu

Tiernan Cross

Sydney Conservatorium of Music, University of Sydney

Saturday, 23 June - 9:00 - Richelieu Hall

Approaches to Perceptual Phenomenology and Electroacoustic Music in Multi-Reality Sound Fields

In his 1966 work *Traité des objets musicaux*, Pierre Schaeffer argued that the technologies of the mid-20th century had conditioned new modes of

listening, but to what extent? Over half a century later, network-based realities and the sonic information filtered freely across their planes have consequently reconfigured our perceptual experiences of sonic matter. They have altered the way in which our minds creatively approach music and its internal structuring as sound, resulting in new narrative opportunities for compositional practice in electroacoustic music.

In the same way that Schaeffer, fixed in Husserlian phenomenology, validated the notion that reproduction technologies facilitated unanticipated expansions of sonic creativity in the composer's proximate sound fields, this paper will analyze the contemporary relationship between *sound object* and composer, aiming to articulate ways in which today's hybrid-reality sound fields can induce new listening processes and therefore new methodologies toward computer-based electroacoustic composition.

Looking back, it becomes clear that Schaeffer's early practice and phenomenology was shaped by severe limitations in technological medium. By cross-examining Schaeffer's ideology of the *sound object* with phenomenology relating to the conscious acuity of proximate realities, this paper will argue that the parameters of phenomenological context in which Schaeffer developed his practice has shifted dramatically through constant technological convergence. In doing so this research gives way to a more accurate representation of what constitutes a modern electroacoustic composer's immediate sonic environment amongst today's technologically inundated atmospheres.

This paper will draw detailed analysis of Schaeffer's practice in comparison to the author's recent research exploring multi-reality sound fields and ways in which new listening qualities can be developed through technologically enforced combinations of sound. Thereby it will be argued that the modern spate of sound materialised across hybrid physical, computerised and virtual-based realisms has fashioned a need for new approaches toward the creative reflection and technoetic use of sonic matter in electroacoustic music.

Biography

Tiernan Cross is a composer, sound artist and researcher based in Sydney, Australia. The current recipient of the University of Sydney's Eleanor Dunne Scholarship, Tiernan is completing postgraduate research through

the Sydney Conservatorium of Music, focusing on neurological conditioning, composition and post-biological sound aesthetics.

His research questions the relationships between the evolution of perceptual encounters and ways in which we as humans neurologically process complex combinations of sound in hybrid-reality environments. Classically trained through the Australian Film, Television & Radio School and the Sydney School of Architecture, Tiernan's works have been exhibited and performed in China, France, Belgium, Spain, Canada, USA, Australia, Germany and Japan.

Pablo Cuevas

University of Cologne

Saturday, 23 June - 15:00 - Richelieu Hall

Memory. An Approach for Decentering the Historiography of Electroacoustic Music

In this presentation, I propose a comparative approach to electroacoustic music based on a concept of cultural memory as a means for decentring historical narratives.

Most European and US-American historical narratives about electroacoustic music are instances of a technological and teleological discourse, showing national biases, and concentrating on European and North American centres and their associated composers. I believe in the necessity of decentring these discourses in order to take properly into account other historical experiences on this medium. In this sense, I will argue that a synchronic and diachronic study of music searching for representations of memory could enhance traditional historiographies.

The musical use of recorded sounds as exemplified by the praxis of *musique concrète* brought about the inclusion of references to reality which could never be underestimated from the side of the listener. This specificity of concrete music relied on the agency of composers as well as on the nature of the medium, that is, on the capacity of recorded sounds to carry space-time references which were used in diverse ways since the beginnings of

electroacoustic music. Using auditive analysis combined with compositional information, one can recognise representations of an individual and/or collective past among the references carried by sounds. Ranging from classical works like *Epitaph for Aikichi Kuboyama* (1960-62) by Herbert Eimert, to later experiences like *Extremités lointanes* (1998) by Hans Tutschku, this reconstruction of the past through the lens of individual creativity is a constant among different chronological periods, technological stages, and, most interesting, cultural milieus. What happens then if we focus on these references to the past systematically and in an intercultural perspective? Which works were to be included if traditional criteria like location, composer, nationality, and school had not the primacy for the construction of historical narratives? What type of memory content can be found in works like *Creación de la Tierra* (1972, Buenos Aires) by Jacqueline Nova? Could she find a place within mainstream historiographical narratives?

To draw an answer to these questions, I will, first, consider a concept of memory in its cultural level, that is, as a medialized element conforming the connective structure of a specific society. Second, I will concentrate on the above-mentioned space-time references carried by sounds, which are to be understood as medialized memory containing a social dimension which is subject of a compositional functionalization. In the presentation, I will briefly explore the memory dimensions of three compositions by Coriún Aharonián, Jacqueline Nova and José Vicente Ausar. Then, I will relate this analysis to the cultural memory content of Karlheinz Stockhausen´s *Telemusik* (1966) and show some coincidences and tensions that arise from this comparison. It is my intention to outline an alternative, intercultural historical narrative about electroacoustic music.

Biography

Born in 1984. Argentinean musicologist. Undergraduate studies in music composition, music analysis and musicology at the Instituto Superior de Música of the Universidad Nacional del Litoral (Argentina). Undergraduate teaching assistant between 2009-2012 and graduate assistant between 2012-2016 in Music History at the abovementioned institution, working primarily on academic music of the 19th and 20th centuries. PhD Student at the Musicological Institute of the University of Cologne (Germany) since 2015.

Teaching and research activities of international scope since 2009. Scholarship holder from Argentinean and German institutions. Scientific presentations in Argentina, Brazil, Spain, Germany, England, and Austria. Current research interest in contemporary music, intersections between music and technology, and postcolonial studies.

Anthony Paul De Ritis

Northeastern University, Boston

Friday, 22 June - 11:30 - Richelieu Hall

Arts-Based Learning for Innovation: How Electroacoustic Music Study Stimulates Creativity in the Marketplace

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At the 2011 Leadership Conference of the General Management Admission Council (GMAC) it was stated, "globally, leaders are calling on their people for more creativity and more innovation, and are calling upon the arts for inspiration." As a result, increasing numbers of corporate leaders are "bringing artists and artistic processes into their companies." This presentation shares how the study of electroacoustic music composition is not only a catalyst for arts-based creativity, but can also stimulate creativity towards new product and service innovation. Simply put, many of the processes that electroacoustic music composers embrace in their composition process closely resemble many of the creative processes embraced by designers, and users of the design thinking process of innovation. According to *Forbes*, "design thinking" (conceptually birthed by the design and innovation consultancy IDEO) should be considered a core competency that all members of the workforce should embrace, specifically because of its teachability. The design thinking process offers three overlapping phases: inspiration, ideation, and implementation. Inspiration identifies the problem or opportunity that motivates us to search for solutions; ideation is the process of generating, developing and testing ideas; and implementation is the path that leads from the project room to the marketplace. It's this middle phase − ideation − that resonates the most in my teaching, particularly because it inherently relies on arts-based methods and techniques − design (obviously), but really all artistic fields that experiment, improvise, collaborate, prototype, and iterate in order to

develop new ideas. I argue that, in fact, electroacoustic music study offers great training to organize and comprehend abstraction, a crucial skill at the core of high-tech innovation – whether intended for new modes of artistic expression, or new approaches towards innovating new products and services for the marketplace.

Biography

Described as a "genuinely American composer" by *Gramophone*, Anthony Paul De Ritis is Professor and former Chair of the Music Department at Northeastern University in Boston, with courtesy appointments in the Entrepreneurship and Innovation Group, and in Asian Studies. De Ritis' CD, *Devolution* (2012) described as a "tour de force" by *Gramophone*, was released by the 6-time Grammy nominated Boston Modern Orchestra Project (BMOP) under the baton of Gil Rose. *Pop Concerto* (2017), De Ritis' second CD with BMOP, was lauded by *Classical CD Review* as "a major issue of American music." *Pop Concerto* features world-renowned guitarist, Eliot Fisk, in four arrangements of popular songs by Seal, Alanis Morissette, U2, and Michael Jackson crafted as a Concerto for Guitar and Orchestra. In April 2018 Albany Records released eleven of De Ritis' electroacoustic works spanning a 25-year period, titled *Anthony Paul De Ritis: Electroacoustic Music – In Memoriam: David Wessel*, which was recently reviewed by *CD HotList* as "sometimes whimsical and sometimes stark, and always interesting." De Ritis was a Fulbright Senior Research Scholar at the Central Conservatory of Music (2011) in Beijing, who also published his *Selected Works for Pipa*; and in October 2016, was appointed as "Special Professor" of the China Conservatory of Music's new "Beijing Advanced Innovation Center for Chinese National School of Music." De Ritis holds a Ph.D. in Music Composition at the University of California, Berkeley; an M.M. in Electronic Music Composition from Ohio University; and a B.A. in Music with a concentration in Business Administration from Bucknell University. De Ritis also holds an MBA in high-tech from Northeastern University (2002). || www.deritis.com

Luc Döbereiner

Institute of Electronics Music and Acoustc, Graz

Friday, 22 June - 9:00 - Richelieu Hall

Towards a Materialist Conception of Sound as *Thing*

This paper proposes a materialist conception of sound as the object and material of artistic experimentation. It centers around an ontological perspective on sound and aims to contribute to a new understanding of the role of materiality in artistic practices. In doing so, I aim to challenge both the idealist Schaefferian notion of the object sonore as a purely perceptual phenomenon and the technological reduction of sound to a signal while rethinking experimentation as a practical form of thought that takes place by way of interacting with compositional material. In the light of recent object-oriented and materialist philosophical theories as well as by drawing on Lacanian and Heideggerian concepts of the *thing*, this paper strives to outline a conception of the sound as a non-symbolic otherness that determines musical practice.

In its Schaefferian guise the sound object is generally understood as a sensible object of subjective perception. According to this conception, its unity and persistence depend upon listening while its sonorous properties are the results of an "act of consciousness." The phenomenological perspective regards the sound object as an ideal unity constituted by a subject's intentionality can hardly grasp the physicality of sounds and their production as well as their reality beyond individual perception. It cannot conceive sound objects as active and human-independent entities but reduces them solely to phenomena in consciousness. On the other hand technological conceptions reduce sound objects purely to measurable signals in a medium such as air.

The composer Agostino Di Scipio criticizes the notion of the sound object as a form of reification, a way of turning sound into a commodity that effaces its spatial and temporal contextual relations and its origins and production. By drawing on the Heideggerian idea of *Bestand* (reservoir) and his critique of the object as being dominated by its associated purposes, Di Scipio argues instead for an understanding of sounds as relational events that "take place" and involve actual technologies, bodies and media. Sounds

cannot be abstracted from the forces that give rise to them, they are rather mediated traces that traverse bodies. Based on this critique, I aim to define the sound object as a connected acting entity that partly evades human grasp and is thus closer Heidegger's *thing*, the antonymous concept to the object.

This has consequences for the status of sound as material in experimental artistic practices including sound art, composition and musical performance. The sound object is thus neither the ideal object of perception nor the technically reproducible signal that is subtracted from its situatedness. The sound object as thing is the object of experimentation as far as experimentation is understood as a practice that deals with a partly autonomous entity that can only be grasped by manipulating it. Experimentation is thus characterized by an openness towards the contingency of the material, which neither the phenomenological nor the technical reduction can account for. The sound object emerges in the interactions of transformations (sound transformations, instrumental techniques, transformations of compositional material etc.), i.e. not as a representation but as a dynamic material entity.

Biography

Luc Döbereiner is a researcher and composer of instrumental and electronic music from Berlin. He studied at the Institute of Sonology in The Hague and holds a doctoral degree from the University of Music and Performing Arts Graz. His work is concerned with compositional models and explores the relation of materiality and ideality of sound in musical composition. He has been a guest lecturer at the Bern University of the Arts and a visiting researcher at the Centre for Research in New Music at the University of Huddersfield. He is currently working at the Institute of Electronics Music and Acoustic, Graz.

Frédéric Dufeu, Michael Clarke, Peter Manning

University of Huddersfield, Durham University

Wednesday, 20 June - 12:00 - Richelieu Hall

Integrating creative, technical, historical and analytical aspects of electroacoustic music in research and pedagogy: a perspective from the TaCEM project

The TaCEM project (Technology and Creativity in Electroacoustic music), begun in 2012 by the three authors of this presentation and funded by the United Kingdom's AHRC, has been investigating the interrelationship between compositional activities and technological innovations in electroacoustic music, on the basis of nine case studies from that repertoire. The main outcome of the project will be a book constituted with one chapter for each of the case studies. Every chapter is coupled with a freely downloadable software application, enabling the reader to engage interactively with the creative processes and the technologies used in the considered work. Such a software-based approach is situated within the conceptual framework of Interactive Aural Analysis, which assumes that the musicological analysis of the electroacoustic repertoire can usefully benefit from software to provide a multimodal and dynamic access to the investigated processes, as opposed to an exclusively text-based approach or static diagrams. After focusing on the analytical aspects of specific case studies at previous EMS conferences (Barry Truax's *Riverrun* in Berlin 2014, Francis Dhomont's *Phonurgie* in Sheffield 2015), this year's presentation reflects on the project as a whole, and on the potential opened by the TaCEM resources for coordinating the pedagogy of several dimensions of electroacoustic music in an integrated framework. If each case study is highly specific regarding compositional approaches, aesthetics, and technological developments, all nine chapters and software applications have a similar structure and articulation, integrating history and analysis, aesthetic and technical aspects, and providing textual, graphical, video, and interactive resources. Overall, the outcome of the TaCEM project can be considered beyond its initial context – that of musicological research in the

field of electroacoustic music studies – and used as a multifaceted pedagogic resource for this domain. Some of the software applications have already been used in Music and Music Technology undergraduate modules at the University of Huddersfield. The access they provide to fundamental and advanced techniques can be used in a compositional context, and reflexions undertaken on the extent to which a particular system leads to certain aesthetic directions. From its musicological grounding, the TaCEM project and the case studies it investigated can help foster the fully contextualised teaching of a range of creative steps within electroacoustic music, from the use of specific technologies to the constitution of large databases of sound materials and the musical shaping of a whole work.

Biographies

Frédéric Dufeu is post-doctoral Research Fellow in Music and Music Technology at the University of Huddersfield, where he worked as Research Assistant on the AHRC-funded TaCEM project initiated by Michael Clarke and Peter Manning. He is now working on Michael Clarke's ERC-funded IRiMaS project.

Michael Clarke is a Professor at the University of Huddersfield. Both as a composer and as a software developer for music he has won a number of prestigious international awards. He initiated a new approach to the analysis of electroacoustic music, Interactive Aural Analysis. He is the Principal Investigator of the TaCEM project (Technology and Creativity in Electroacoustic Music) and the director of the ERC-funded IRiMaS project (Interactive Research in Music as Sound).

Peter Manning is Emeritus Professor at Durham University. His primary area of research is the development of electroacoustic music from its birth to the present day, embracing the evolution of the associated technology, the ways in which composers and performers have embraced its possibilities, and the scope and nature of the resulting repertory. He is the Co-Investigator of the TaCEM project.

Simon Emmerson

De Montfort University, Leicester

Wednesday, 20 June - 15:00 - Richelieu Hall

Electroacoustic Music before Language

'The Language of Electroacoustic Music' (Emmerson, 1986) has remained in print continuously since its publication. This paper examines the questions: What has changed in this time? Why has electroacoustic music practice remained so separate from other forms of instrumental contemporary music and neglected by the musicology community? Electroacoustic music has (with some significant exceptions) developed a *practitioner-led* musicology. Why has this musicology failed to make much impact in more mainstream discourse?

This paper develops an argument that 'language' may not be the best word to describe relationships in this music. Almost from the inception of *musique concrète* Pierre Schaeffer declared the need to "Search for a language." (Schaeffer 1967) The *Traité des objets musicaux* (Schaeffer 1966, 2017) may be seen as a search to classify musical equivalents to *phonemes* – functional small units that could be chained meaningfully in sequence. In turn such functional units might be subdivided into equivalents to vowels and consonants.

Recent neural brain activity research using musical stimuli shows that there is some overlap of brain region activity between music and language. This is usually associated with the semantic areas of the brain. But these tests are overwhelmingly based on pitched and tonal music examples (both classical and popular). The paper examines scale (*échelle* in Schaeffer's terminology) with respect to pitch and timbre. While Schaeffer's *objet sonore* was a useful building block, we do not have an equivalent acuity to pitch tracking and ordering. But also no real parallels to the *phoneme* or the *word*.

I argue that electroacoustic music is concerned with another kind of semantic unit. Any search for 'phoneme, word, phrase, sentence …' ('linguistic') equivalents is misplaced – so what instead? Perhaps electroacoustic music addresses more primitive aspects of our evolutionary mind: pre-linguistic – possibly proto-linguistic – using sounds

that have very high perceptual (often emotional) power. These are 'readymades' so to speak – full of enormous expressive potential a priori.

So our building blocks have more in common with grunts, groans, moans, laughs, sighs, sound exclamations reflecting the whole gamut of emotions, also practical responses and signals, animal sounds, sounds of human and non-human agency. Such *protolanguage* is holistic – yet 'marked' by the physicality of the world around us. This relates to Schaeffer's notion of 'timbre' as something 'marked' by the world. I argue that our material (whatever its real origins) is first and foremost 'environmental' in sound, space, place and behaviour.

I shall conclude with a manifesto for future research - an open letter to colleagues in neuro-science. In these tests we need to use music that is timbral and textural, has little pitch content, maybe including recognisable, perhaps environmental sounds. More nuanced tests will be described as such a project evolves.

I shall argue that as pre-linguistic primitive sounds of our world are the building blocks, so maybe it should be 'The proto-language of electroacoustic music'. Perhaps this is one reason why mainstream musicology, to a large degree, continues to ignore our field. Neuro-science should not!

Biography

Simon Emmerson is Professor at De Montfort University, composer and writer on electronic music since the early 1970s. Commissions include: GRM (Paris), Inventionen (Berlin), Darragh Morgan (violin), Philip Mead (piano), Sond-Arte Ensemble (Lisbon). Recordings: Sargasso. Writings include: *The Language of Electroacoustic Music* (1986), *Music, Electronic Media and Culture* (2000), *Living Electronic Music* (2007), *Expanding the Horizon of Electroacoustic Music Analysis* (2016). Keynotes include: Australasian Computer Music Conference 2011 (Auckland), International Computer Music Conference 2011 (Huddersfield), Music Science Technology 2012 (São Paulo), WOCMAT 2012 (Taiwan), Audiomostly 2014 (Aalborg), Alternative Histories of Electronic Music 2016 (London). Edgard Varese Visiting Professor at TU, Berlin (2009-10).

Carl Faia

Brunel University, London

Friday, 22 June - 12:00 - Stendhal Hall

Experimental Electroacoustic Music is Dead. Long Live Experimental Electroacoustic Music

The history of Electroacoustic Music is still to be written, and while Pierre Schaeffer (and his school) remain the iconic creators of concrete and electroacoustic experimentation, the history of electronic music did not start with them nor did it end with the coming of the DX7. The experimental nature of electronics in music is alive and well as evidenced in the numerous 'techno' events, underground movements, genres and subgenre based on the use of particular elements emanating from electroacoustic techniques (grunge, garage, dub step, trap, etc.). The use of experimental electronics proliferate in the places we might not expect to hear them. The use of granular synthesis in a wide variety of dance music, the use of Max for algorithmic composition by Autechre and Aphex Twin, the experiments of the group Matmos, and the more recent developments based on field recordings tracing its origins to both Schaeffer and Foley, the growing interest in found sound, and the place of sound design in popular forms and film (Trent Reznor and Atticus Ross) all point to a continued interest, and development of our electroacoustic inheritance.

It can be argued that experimental electroacoustic music withered and died within the institutions once recognized as centres of experimentation and research. The traditional experimentation, explorations and scientific approach, in some ways, moved out of the institutions and into the bedrooms and commercial studios of creators unafraid and unhindered by tradition and flaky technology. Through my own experience at IRCAM in the 90s and my current work as a teacher and collaborator, a number of real-world problems and some interesting solutions will be presented. Current examples from various genres of electroacoustic experimentation will be presented and discussed.

Biography

Carl Faia (born 1962 at Tinker Air Force Base in Oklahoma) is an American composer and live electronics designer and performer.

He studied composition at the University of California at Santa Barbara, Florida State University, and the Royal Academy of Music in Denmark on a Fulbright grant while following courses with Edward Applebaum, Peter Racine Fricker, Per Norgard and Karl Aage Rasmussen and participating in masterclasses including Tristan Murail, Yoshihisa Taïra and Harrison Birtwistle.

Since 1995 he has been active as a live electronics designer working at IRCAM in Paris, at the CIRM in Nice where he was Studio Director and, since 2003, as freelance composer and live electronics designer. He has collaborated with numerous composers including James Dillon, Jonathan Harvey, Harrison Birtwistle, Fausto Romitelli, Luca Francesconi, Alejandro Viñao, Philippe Leroux, as well as, the National Jazz Orchestra of France. He has collaborated with artists to present new works with computer electronics in various festivals throughout Europe including Ars Musica in Brussels, Holland Festival in Amsterdam, Musica in Strasbourg, Agora in Paris, Gaida and ISCM in Vilnius, MaerzMusik in Berlin, Lille 2004, MITO in Milano, Arena in Riga, as well as the Casa da Musica in Porto or the Queen Elizabeth Hall in London.

As a performer, he has presented works with Theremins, electric guitars, prepared piano, and live electronics with Art Zoyd and with Thomas Köner. As a composer he has written works with and without electronics and is currently composing a cycle of pieces with ondes Martenot and live electronics for Nadia Ratsimandresy.

He has worked regularly with Art Zoyd Studios in France and the Forum Neues Musiktheater der Staatsoper Stuttgart in Germany both as composer and as a live electronics designer with invited composers for music theatre, opera, concert music, and multimedia projects. He has taught Sonic Arts at Brunel University London since 2009, and continues to collaborate in freelance projects throughout Europe.

Peter Falthin

Royal College of Music, Stockholm / Lund University

Wednesday, 20 June - 12:00 - Richelieu Hall

Is Graphical Interface a Facilitator for Creative Thinking? Semiotic Perspectives on Learning Max/MSP

This paper seeks to examine how relations between spatial and musical understanding play out in the process of learning electroacoustic composition, specifically in the context of learning graphical tools like Max/MSP with its flow-chart like design. The research question is: In what ways and to what extent is the logic of the graphical interface conducive to musical meaning making? Findings are expected to have import for the understanding of music composition and reception alike.

In investigating music composition as spatially embodied processes, Juha Ojala (2009) differs between two aspects of musical space: 1. The intramusical: concerning musical conceptions such as harmony and rhythm, and 2. The physical: sound as vibration. A consequence of this parsing is that one could be conceived without the other, implying that spatially embodied mental processes of ordering and structuring applied to any sound can evoke music. Tristan Murail argues that his musical material is not the musical note or even the sound, but the sensation it evokes and the possibility of transformation it contains (Murail, 2005). This coupling of the sensation and the possibility of transformation pinpoints a nexus of creative process in music composition, and as a consequence: "If the material is transformation, then the material is also form; the two notions unite" (Murail, 2005, p. 150). Form entails process, and process is already embedded in the material as a spatially embodied mental process.

Considering that compositional material embeds process and form implies that those dynamic concepts, by means of the inverted process, can be represented in the mind by a static sign, transducing the time domain into spatial dimensions (Charles, 2010). This transduction happens spontaneously in the mind as an act of creative imagination, but can also be systematically exploited to facilitate off-line analysis as in spectromorphology (Smalley, 1997). Blackburn's (2011) appropriation of

spectromorphology for teaching purposes, inspired me to consider aspects of musical meanings implicit in tools and work environments used for composition.

The empirical study took place in a conservatory level composition class, learning the basics of Max/MSP-programming for live electronics. Data collection included screen-tracking and audio-tapping the students' computers, video of the sessions, saved work-files and a focus-group interview.

The empirical data shows how the students develop increasingly advanced generalization processes, solving the course-tasks. Understanding of the graphical representation of dataflow and the nominal aspects of objects and data-types seem to evolve reciprocally. In the beginning though, the graphical form appears to be more abstract, but by and by it develops into functioning as a reference point for conceptual understanding. As the students become comfortable with the logic of the graphical interface and how it represents dataflow, they can rely on that knowledge to explore new objects and develop more complex algorithmic structuring. As an hypothesis, this may be seen as an intramusical (Ojala, 2009) counterpart to the spectromorphological conceptualization of physical sound.

Biography

Peter Falthin studied composition and music theory at the Royal College of Music in Stockholm and worked for several years as a teacher of aural training and music theory in higher education. In the early 2000s he taught music composition and sound-engineering for film and computer games at Gotland University. At present he teaches ensemble playing, computer music, improvisation and music theory, at an upper secondary school music education in Stockholm. Since 2009 this is combined with part time PhD studies in music education at the Royal College of Music in Stockholm/ Lund University. The article based dissertation focus composition learning and musical meaning making.

Daniela Fantechi

Orpheus Instituut, Gent

Saturday, 23 June - 10:00 - Stendhal Hall

Systema Naturae by Andrea Valle and Mauro Lanza, experimentation as starting point of a piece of "acoustic computer music"

This paper will present *Systema Naturae*, a cycle of four works co-composed by Mauro Lanza and Andrea Valle, as a case of electroacoustic music, in which experimentation plays a fundamental role in various moments of the conception and composition of the cycle. *Systema Naturae* is a cycle of four works written between 2013 and 2017. Starting from the eponymous work by botanist, physician and zoologist Carl Linnaeus, *Systema Naturae* is made up of four pieces, each one dedicated to a different natural kingdom: *Regnum Animale*, *Regnum Vegetabile*, *Regnum Lapideum* and *Fossilia*. Apart from Linnaeus' system, further references are the medieval catalogues of bestiaria, herbaria and lapidaria. Each *Regnum* is structured as a catalogue, consisting of a heterogeneous succession of small pieces. The peculiarity of the cycle is the use of an electro-mechanical orchestra made up of hacked objects, controlled by various Arduino microcontrollers, and programmed to play perfectly together with the real instruments of the ensemble, synchronized through a click track.

The building of the automated sound generators is the starting point of the whole cycle. DIY (do it yourself) practice is at the base of their construction. This paper will frame the use of electro-mechanical devices, in a trend that, in more recent years, has seen a re-discovery and a re-actualization of experimentation in electronic music, through *physical computing* hardware hacking practices, initially explored only in the analog domain. Beside the long phase of experimentation, involving the construction of the electro-mechanical devices, another fundamental part of the work has been the programming of the control layer of the hacked objects' behaviour. The latter is provided by an advanced computational technology, in a system where the microcontroller boards are the interfaces between the software and the physical environment. The contribution will then discuss how the two composers have looked for a sound integration between objects and

instruments. Lanza and Valle have searched for a middle ground, where mechanized objects could have been controlled in a standard, even if basic, musical way, while music instruments have come nearer to the sound of the objects, through a wide use of extended techniques. It will be discussed how innovative and complex technological environments are at stake to analyze, and then to organize, sound events, in the search for a balanced dialogue between different sound sources. Finally, the paper will address *Systema Naturae* as an example of a singular way to rethink the possibility of electroacoustic music making. A relevant point is the aim not to exclude traditional acoustic instruments, but to renew their potential through the combination with a particular sound world, made of specifically designed sound-generators, developed after an intense experimentation process.

Biography

Daniela Fantechi (1984) was born in Florence, Italy. She studied Composition in Florence (Italy) and in Graz (Austria). She also graduated with first-class honours in Master of Musicology at University of Florence in 2009. Since 2010, she is part of Blutwurst, a collective of musicians, focused on the electro-acoustic exploration of unisons and drones. (www.blutwurst.it, soundcloud.com/blutwurst).

Her compositions have been performed in Italy, Austria, Spain, England, Germany, Switzerland. She was in Vienna (January-March 2016) for the *Artist-in Residence* Programm, by Kultur Kontakt, Österreich, and in Graz (February- April 2017) for the St.A.I.R, Artist-in Residence Programm, by Steiermark, Österreich. She is

Jamie Fawcus

Biography

Jamie Fawcus is a composer, sound designer and performer based in Stockholm, Sweden. He studied philosophy and political theory at Keele University, England, electroacoustic composition at the electronic music studios in Stockholm (EMS), film music + musicology at Stockholm University and was awarded his PhD. in electroacoustic composition (Huddersfied University) in May 2013. His interests centre on the language

of physical space in acousmatic art, location-specific performances and sound assembly, and new forms of intellectual and emotional expression using sound.

Jamie is an active member of the intermedia arts organisation Fylkingen, the Swedish composers organisation FST (Föreningen Svenska Tonsättare), and the Society for electroacoustic music in Sweden (SEAMS). Jamie is a founding member of the electronic duo Spiral Cycle, and a member of the ISM and SFW ensembles, and also performs solo.

Sabine Feisst

Arizona State University, Tempe

Friday, 22 June - 14:30 - Richelieu Hall

Electroacoustic Music as Creative Placemaking: The Listen(n) Project

Sound gives life to our environment. Sound heightens our experience of place. Initiated in 2013 by composer Garth Paine, the Listen(n) project capitalizes on the power and appeal of environmental sound in the American Southwest. As indicated by its title and superscript n, the project explores multiple (including new) ways of listening (i.e. Somaphony). It promotes listening in a multiplicity of physical and virtual locations. It is collaborative and interdisciplinary, combining research, technological innovation, the creation of new music and – through the engagement of communities – community art and citizen science. It also involves the contextualization and conceptualization of the project's activities.

This paper provides insight into Listen(n)'s fieldwork undertaken since 2014 in Joshua Tree National Park, Organ Pipe Cactus National Monument and the McDowell-Sonoran Preserve among other sites to create, with ambisonic audio recording technology, the largest online database of geo-located and geo-tagged field recordings of Southwestern landscapes in the US. Light is shed on the compositions crafted from these environmental recordings, including *Becoming Desert* (2014) by Garth Paine. Attention is also drawn to listening and sound recording workshops for communities in the national parks and to how ambisonic environmental sound paired with 360-

degree photographic panoramas of the sounds' place displayed as virtual nature sojourns on Oculus Rift, Samsung Gear VR and Vive headsets (EcoRift) offer new opportunities to democratize access to spatial audio works and the potential for distant communities to be remotely present in these places. Here listening and viewing is no longer limited by the artist's single individually chosen aural and visual points of view, but, thanks to dynamic spatial cues, can be self-directed by the user who is fully immersed in sound and sight. Such extensions of the VR applications developed by Paine provide for unique, new acousmatic and electroacoustic performance environments that can be experienced on any smartphone at the viewers leisure. They are highlighted in Paine's *Future Perfect*, a work currently conceived with IRCAM and ZKM. Here high-order ambisonic playback is paired with VR film for an innovative immersive approach to acousmatic composition.

Biography

Sabine Feisst is Professor of Musicology and Senior Sustainability Scholar at Arizona State University's School of Music and Global Institute of Sustainability. Focusing on twentieth and twenty-first century music studies, she published the monographs *Der Begriff 'Improvisation' in der neuen Musik* (Studio Verlag, 1997) and *Schoenberg's New World: The American Years* (Oxford, 2011). With Ethan Haimo she edited *Schoenberg's Early Correspondence* (Oxford, 2016). Author of over 80 articles in anthologies, journals and reference works and US editor of *Contemporary Music Review*, she is currently writing a monograph on music inspired by the American Southwest, deserts and editing the *Oxford Handbook of Ecomusicology*. With Garth Paine, she co-directs ASU's Acoustic Ecology Lab which includes such research streams as the Listen(n) Project, EcoRift and EcoSonics.

Martin Flašar

Masaryk University, Brno

Friday, 22 June - 11:00 - Stendhal Hall

Standing on the river bank: Electroacoustic music between tradition and innovation

Past decades of electroacoustic music development have shown that a certain degree of 'liquidity' (using Zygmunt Bauman's concept) has been manifested in the technology underlying musical creativity. For the sake of its radical innovativeness, electroacoustic music initially attracted massive attention among both creators and listeners. This innovativeness remained for a few decades the crucial attribute of this musical genre. Gradually the sequence of innovations became fixed as a standard, or even a tradition – specifically, a tradition of innovations.

Returning to Bauman's concept, which is a topical update of Heraclitus's notion of universal flux, we find ourselves standing on a river bank, watching the flow of electroacoustic music history bearing along things of surprising value amongst the detritus. There are two main ways of approaching the river: either through jumping into the stream and becoming part of it, or through watching it as a relatively stable flow though with constantly changing content.

To become a part of the river means to swim either downstream or upstream. Swimming downstream, in interpreting the history of electroacoustic music, obliges one to follow innovations in technology and also shifts in aesthetics, and to suggest and work out individual lines of development. Swimming upstream brings many inconveniences. Such a swimmer is constantly confronted with the power of the current and those who are swimming downstream. This strategy can lead to increasing visibility for the individual in the stream, but at the cost of high losses of energy and shorter life. Standing on the river bank removes an individual from the direct action, enabling him to adopt the stance of an independent observer. In fact all theoretical and historical discourses emerge out of the time that is determinative for their subjects, including music theory, history and aesthetics. Here we are standing on the river bank seventy years after

Pierre Schaeffer's experimental challenge to the exhaustion of European post-war music. Although some of his achievements have been carried away by the river of time, many still remain: the will to carry out experiments, to play with sounds and not to be afraid of amateurism or even of failure. To experiment means to start always again *ex nihilo* despite the fact that these repetitions establish tradition.

The questions posed by my paper are as follows: how have creators/ composers perceived the constant changes in technology? Has there been any place for virtuosity in the perpetually changing range of musical instruments and creative means? What have been the values of electroacoustic music that disregards experiment and innovation? And what have been the needs that have led composers, musicians and designers to innovate?

Biography

Martin Flašar (b. 1979) is an Assistant professor at the Department of Musicology, Masaryk University in Brno. Among his specializations belong contemporary music and media, multimedia and electroacoustic music. In 2010 he reached the Ph.D. quaslification with the dissertation *Le Corbusier, E. Varese, I. Xenakis: Poème électronique (1958). Facts, contexts, interpretations* awarded by the First Prize in the Best Master and Doctoral Interdisciplinary Thesis Competition (Olomouc, 2011), later published by Masaryk University and nominated for *F. X. Šalda Prize*. As an co-author he published several monographies focused on the contemporary audio culture in the Central Europe and relations between art and science (for example *Sound Exchange : Experimentelle Musikkulturen in Mitteleuropa*. Saarbrücken: PFAU Verlag, 2012). He is an ex-member of the Grant commission for classical music of the Ministry of Culture of the Czech Republic and a long-term associate of the Czech Radio 3, Czech music journals and newspapers.

Koichi Fujii

Keio University, Tokyo

Thursday, 21 June - 15:00 - Richelieu Hall

Vocalism A•I by Toru Takemitsu – possible to analyze its narrativity?

Toru Takemitsu (1930-96) is the best received in the West among those of Japanese descent and one of those who experimented possibilities of music technology at the earliest stage of the reception of electro-acoustic music in Japan. Indeed, he composed tape music intensively particularly before *Requiem for strings* (1957) – his first domestically and internationally recognized and well-received piece. It is also said that he had developed his own idea of composing a piece of work with utilizing 'concrete' sounds, so-called 'oto no kawa (a stream of sounds or a river of sounds)', implying the archetype of his musical concepts. And he had practiced the use of the tape recorder before *musique concrète* was official introduced into Japan in 1953 by Toshiro Mayuzumi (1929–1997), and by broadcast of *Panorama de musique concrète* (Ducretet-Thomson, 1956), the first French recordings introduced into Japan in 1957.

There are some issues to be examined further and deeper. Firstly, at the earliest stage he used to mention the term *musique concrète*, however he preferred to use the term *tape music* later. Then the problem of *genre* will arise: his early electro-acoustic pieces could be categorized as *musique concrète*? Secondly, he tends to use the 'raw' sounds which are firmly tied with their original contexts and classified as the same morphological categories. Therefore, it is quite difficult to analyze his early tape pieces employing spectro-morphological methods. *Three Vocalisms* (1956–57), *Mizu no kyoku* (Water Music) (1960), *Kwaidan* (Ghost Stories) (1965) are good examples to be discussed. Particularly *Vocalism A•I*, which uses recorded sounds of a Japanese word 'a-i (love)' pronounced in various elocutions, may evoke a kind of 'story' or program to a listener who understands Japanese, particularly a native speaker. Indeed, Yōji Kuri (1928–), a Japanese cartoonist and independent filmmaker, produced an animation film with *Vocalism A•I* as its soundtrack in 1963. To investigate these issues

will help illustrating stylistic differences between French *musique concrète* and those of Takemitsu.

This paper discusses the early archetype of Takemitsu's musical concepts through examining his writings and interviews as well as *Vocalism A•I* itself employing aural analysis. Together with good amount of English translation from his writing and interviews, graphic transcriptions of his works including fully transcribed *Vocalism A•I* synchronized with its audio will be presented during this presentation, which have been produced and translated by the author of this paper. Also, a questionnaire has been conducted at a university class where almost all students are native Japanese speaker, asking what kind of feeling or situation (context) is evoked by listening to the sounds of the word 'a-i' used in this piece. The information presented in this paper will provide resources and idea for further investigation into this topic, particularly for concerned researchers in other language regions than Japanese.

Biography

Koichi Fujii studied musicology and aesthetics at Faculty of Letters, Keio University in Japan and its Graduates School of Letters, where he earned his BA and MA. His main research interest is the history and musicology of electro-acoustic music, modernism in music and so on.

After his working experience in the music industry, he resumed his research to pursue a PhD at Keele University in UK and later Keio University. He has also been active in the field of creativity and education in music technology and media art, collaborating with various artists, organizing workshops and presenting lectures. The projects he participated in include *Moppet* which was sponsored by NTT and received an honorable mention at Ars Electronica 97. Currently, he is teaching musicology and music history at Keio University in Japan.

Marij van Gorkom

De Montfort University, Leicester

Friday, 22 June - 10:00 - Stendhal Hall

Crafting the patch: Composer-performer collaboration at the interface between experimentation and skill

Drawing on my own experience in practice, this paper examines issues that performers encounter in rehearsing with a patch operated by the composer. Following the work of Emily Payne I characterise musical performance as a craft practice. From Tim Ingold's work on skilled practices I extract a number of key qualities that are essential to the performer's craft. I show that, typically, the composer's approach to the patch in rehearsal does not satisfy the qualities of a skilled practice. As a result the patch interferes with the skilled nature of the performer's approach, which explains the issues that performers experience when rehearsing with a patch.

I propose that, if we change the way we relate to the patch in rehearsal to fit a skilled practice, performers will be better enabled to practice their craft. I will argue that, generally, composed patches inhibit taking a skilled approach. Considering how to rehearse with a patch, I will discuss those features that enable the performer to develop a skilled relation to it.

The relation between the patch and skill formation is not a new topic in the study of electroacoustic music. But this relation presents particular challenges in composed electroinstrumental practices where performers do not engage directly with the inner workings of the patch. The rehearsal, which commonly functions as enskilment for performers, can provide an effective context within which to examine how skill development is helped or hindered by the patch.

Biography

Having studied with bass clarinet soloists Henri Bok and Harry Sparnaay, Marij van Gorkom (MVG) is an exponent of Dutch bass clarinet culture. In a process of continuous reflection and reinvention, MVG continues and expands on the pioneering work of her teachers, while searching for new

directions and sonic possibilities. Starting in 2012, MVG has committed herself to performance with live electronics, under project heading Sonic Spaces. She has created and toured five full concert programs since then, working in close collaboration with composers to create new works for bass clarinet and electronics. She has given workshops at various composition and electroacoustic music departments, working with young composers on progressing electroinstrumental music. MVG is undertaking a PhD, supervised by Simon Emmerson at De Montfort University in Leicester, on the musician's role in the creation and interpretation of works with live electronics.

Owen Green, Pierre Alexandre Tremblay, Gerard Roma

CeReNem, University of Huddersfield

Friday, 22 June - 11:30 - Stendhal Hall

Interdisciplinary Research as Musical Experimentation
A case study in musicianly approaches to sound corpora

We present the early stages of an ongoing five-year project into 'Fluid Corpus Manipulation' (*FluCoMa*), and frame our research as sharing Schaeffer's aspirations in the *Treatise on Musical Objects* (Schaeffer [1966] 2017) to develop productive exchange between artistic and scientific approaches to musical research, and to establish a wholeheartedly pluralistic basis for such research.

FluCoMa instigates new musical ways of exploiting ever-growing banks of sounds and gestures (corpora) within the digital composition process, by bringing breakthroughs in DSP and machine learning to the toolset of techno-fluent computer composers, creative coders and digital artists. As it stands, there is a widening gulf between what it is becoming technically possible to do with corpora, and what is *usefully available* to composers within their working environments.

A founding intuition of *FluCoMa* is that bridging this gulf requires more than simply supplying musicians with implementations of published

algorithms. Rather, tools need to be packaged and presented in ways that are musically fruitful; that support progressively more intense or divergent engagement; and that respect a broad diversity of musical practices and proclivities. On this basis, we aim to develop a modular suite of tools for working fluidly and imaginatively with corpora that is of lasting use to a broad constituency of musicians.

Consequently, our technical outcomes must form part of a broader assemblage, geared at nurturing an ongoing community of practice around *fluid corpus manipulation* as an evolving topic among electroacoustic musicians, beyond both the lifetime of the project and the membrane of the academy. Key to this is a focus on enabling composers to make links between their situated and embodied musical knowledge and the ideas underlying possibilities in, for instance, digital signal processing or machine learning. We envisage that our technical products and emerging community of practice will be bound together around a set of informational resources that offer participants multiple pathways into musicking with corpora and exchanging knowledge, pitched at various levels of technical detail, musical application, or playfulness.

We will present our perspective on experimentation in *FluCoMa*; some early fruits of the project; and a set of questions for the EMS community.

Biographies

I was awarded my PhD by City, University of London in 2013. I enjoy making soundful systems that breathe and try, playfully, to adapt to their surroundings. Much of what I do involves making such system-compositions as a territory / provocation / instrument for improvising players (usually me plus chums). As of 2017, I work at the University of Huddersfield as a creative coder on the ERC-funded FluCoMa project (www.flucoma.org), developing an ecosystem of tools and techniques for composers to work fluidly with large audio collections. Check out www.owengreen.net for a selection of noises and projects.

Pierre Alexandre Tremblay (Montréal, 1975) is a composer and an improviser on bass guitar and sound processing devices, in solo and within various ensembles. He is a member of the London-based collective Loop, and his music is also released on Empreintes DIGITALes and Ora.

He formally studied composition with Michel Tétreault, Marcelle Deschênes, and Jonty Harrison, bass guitar with Jean-Guy Larin, Sylvain Bolduc, and Michel Donato, analysis with Michel Longtin and Stéphane Roy, studio technique with Francis Dhomont, Robert Normandeau, and Jean Piché.

Pierre Alexandre is Professor in Composition and Improvisation at the University of Huddersfield (UK). He previously worked in popular music as producer and bassist, and has a keen interest for creative coding. He enjoys spending time with his family, drinking oolong tea, gazing at dictionaries, reading prose, and taking long walks. As a founding member of the no-tv collective, he does not own a working television set.

Gerard Roma received the degree in philosophy from Universitat Autonoma de Barcelona, Barcelona, Spain, in 1997, and the M.Sc. and Ph.D. degrees in information and communication technologies from Universitat Pompeu Fabra (UPF) in Barcelona, Spain, in 2008 and 2015, respectively. He is currently a Postdoctoral fellow in the Centre for Research into New Music (CeReNeM), Huddersfield (UK). Before this, he was a postdoctoral fellow at the School of Literature, Media and Communication, Georgia Institute of Technology, Atlanta, (USA), and at the Centre for Vision, Speech and Signal Processing, University of Surrey, Guildford (U.K). His research interests include sound analysis and retrieval, audio source separation, and interactive music systems.

James Harley

University of Guelph

Saturday, 23 June - 11:00 - Stendhal Hall

Soundscapes in 3D

If electroacoustic music and soundscape composition are now well established, then the exploration of three-dimensional sound might yet be considered vanguard research. Immersive 3D sound is a rapidly evolving field, supported by developments in Virtual Reality (VR) and cinema. The

relative affordability of multi-channel audio interfaces and loudspeaker systems puts 3D sound within economic reach for artists, and a number of research-creation centres around the world now support High-Density Loudspeaker Arrays (HDLA), with as many as hundreds of individual address speakers enveloping the listeners.

Murray Schafer's research on the World Soundscape Project provides a conceptual/theoretical link to soundscape composition, notably in the work of his associates Barry Truax and Hildegard Westerkamp. Their aesthetic orientation toward ecological concerns and the creative use of soundscape recordings has proven influential, and has inspired research in Ecomusicology and Sound Studies. Soundscape composition may draw attention to ecological concerns by highlighting sounds from nature that are threatened for various reasons.

There are many technical issues to address in HDLA environments, including: recording, producing, and encoding/decoding spatial audio information; and psychoacoustic perception. Pioneering work on computer modeling of sound in space was carried out by John Chowning from the late 1960s. Mathematical tools relating to granular synthesis have also been applied to sound spatialization.

Ambisonics has become the main approach to digitally encoding and decoding spatialized audio. The ability to capture precise locations and movements of sound has been further developed through higher-order Ambisonics. Special microphones, minimally based on four capsules, record 3D audio, stored in a four-channel format that enables left-right, front-back, high-low encoding and manipulation.

Spatialization is a musically rich parameter for electroacoustic composition. Composer-researchers have pursued conceptual strategies for working with the movement and location of sound in space. The perceptual focus on properties of sound by Pierre Schaeffer and his group in Paris has been extended to "spectromorphology" and "spatial orchestration." Left-right movement or placement has been utilized since the development of stereo technology, and surround-sound audio has enabled the addition of frontback movement/placement. The addition of the vertical axis has come into being relatively recently. Large sound systems provide the means to place and move sounds in space with great accuracy. The greater the number of loudspeakers, the more accurate the spatialization can be. Wave Field Synthesis is one approach to highly accurate placement of sound in

space, relying on sound systems with many loudspeakers placed very close together. While this method is very refined, it is impractical in any large presentation space. Ambisonics is built from signal processing algorithms that can achieve a high degree of accuracy without being tied to the number of loudspeakers.

Biography

James Harley is a Canadian composer at the University of Guelph. He obtained his doctorate at McGill University in 1994, after spending six years (1982-88) in Europe (London, Paris, Warsaw). His music has been awarded prizes in Canada, USA, UK, France, Poland, Japan, and has been performed and broadcast around the world. Some of Harley's compositions are available on disc and his scores are primarily available through the Canadian Music Centre. He composes music for acoustic forces as well as electroacoustic media. As a researcher, Harley has written extensively on contemporary music. As a performer, Harley has a background in jazz, and has most recently worked as an interactive computer musician.

Katt Hernandez

Lund University, Stockholm

Saturday, 23 June - 12:30 - Richelieu Hall

Travels through the Electronic Music Timescape

Walking into Ftarri Records, I was surprised to find myself not in the present, but the past. The owner opened a box of AMM CDs from 1997, exclaiming gleefully, "Wow, these are really old. No-one will buy these – *cool*!".Yet Toshimaru Nakamura played with an Eventide harmonizer pedal that evening – something unimaginable in the starkly minimalist days the shop strove to emulate.

In the 1990s, Boston Noise is forming. with it's mix of experimentalism and technical prowess, as self-taught iconoclasts coalesce around the Red Room in Baltimore. Across the ocean, Fylkingen and EMS orbit 'round the cusp of outsider experimentalists and institutional researchers. The circling

constellation of tradition and innovation is ever-unfolding. Did the musicians in these scenes fall to one side of the tilt-a-whirl, or ride it into new territory? And can broadening our map of musicians experimenting with sound lead us to a wider world of new territories?

Geographies of Experimentation

Experimental music communities are "localized" by geographies of place, or by geographies of aesthetics. At the same time Pierre Schaeffer was at work, the BBC Radiophonic Workshop was also running, where composers like Daphne Oram, Delia Derbyshire and Brian Hodgson also worked with tape and concrete sounds. Some of it was purely experimental, but they also refined techniques from those experiments to make work for broadcast soundtracks. The parallel tales of scenes in Boston, Baltimore and Stockholm illustrate the outward rings of activity that spanned from these early institutions to the rest of the world, carrying ever new definitions of experimentalism. The plethora of electronic music scenes in different cities form criss-crossing, aesthetic locale, while. virtual geographies take form online. There are geographies of method and practice, where sub-genres and movements are floating points on ephemeral maps of sonic pursuit.

Traditions and Trajectories

There is no maturation point for technique that can force experimentalism back. Modular synthesis displays this in the progression from high-end broadcast equipment to experimentally built synthesizers that again became high-end. In 2016, Morton Subotnick toured with a live performance of Silver Apples of the Moon, wondering to the audience at the sheer possibility of doing so within his lifetime. His live set-up was a fantastic conflagration of tools from every decade, dove-tailing with his remarks at the opening of Stockholm's Audiorama in 2010: "There is no longer any context in our time."

There is a limit to experimentation as a sole musical practice, because it is hrough technique that that something discovered can be torn apart, taken up as detritus and inquired of again. It is in the ever-spinning still-point in-between that sparks fly and wonders are forged.

Biography

Katt Hernandez moved to Stockholm in 2010. In addition to solo violin work, she co-founded The Schematics and Deuterium Quartet, and has

worked with a host of musicians in Sweden's burgeoning improvised and electronic music scenes. Katt earned a Masters degree in Electroacoustic Composition from the Royal Music Academy of Sweden in 2014. In 2015 she began a PhD program in Music at Lund university, and is also employed at the Royal Music Academy in a three year research project. Her work has been featured on the Swedish Radio, and on many festivals including Norberg, Stockholm Music and Arts, Svenskmusikvår and Intonal.

Before leaving the U.S., Katt was a veteran of experimental music scenes on the east coast, where she worked with a vast array of musicians, dancers, visual artists, puppeteers, film makers and performance artists, in venues ranging from underground urban art spaces to ivy league concert halls.

Olaf Hochherz

City University of Hong Kong

Friday, 22 June - 9:30 - Richelieu Hall

Definitions of Experimental Music Revisited

To discuss the question in how far electroacoustic music is “still” a form of experimental music it is helpful to recapitulate how experimental music had been discussed.

It is possible to describe two general ideas how to define experimental music within the discourse of experimental music. First, the idea that experimental music is defined by its relation to the development of a new, different, or progressive music. Second, the idea that experimental music can be characterized by referring to experimental practices. While the first idea is mostly discussed in music historical studies is the second idea primarily present in the writings of practitioners. The notion of experimental music often is associated with values, hopes and desires that seem to suggest that the notion “experimental” is not simply a name used to circumscribe a practice, but rather a notion used to propose that experimental music is a specifically innovative music and because of this a force for cultural change. (Cameron 1996)

In contrast to this idea stands the use of the notion musique expérimentale by Pierre Schaeffer, as a rather general term, which includes all kinds of attempts to innovate music (Palombini 1993a, 1993b; Schaeffer 2012). He argues on the basis of the idea that all innovations in music are based on techniques and technologies, which have to be experimentally tested until their expressive capacities are understood. For him, experimental music is a musical practice for the development of music, even he is skeptical to describe experimental music as music. In his understanding of music, music is conceptualized as expressive. Yet, experimental music is not always successful in creating expressive works. The value of experimentation in music is, for Schaeffer, its productivity in the development of means of expressions – a value that is outside of the realm of music appreciation. Understood in this way a music which is characterized as experimental is not primarily music but rather a practice for the development of music. This friction between the valorization of music and the valorization of experimentation can be traced in attempts to define experimental music and is central for the use of the notion experimental to describe a music.

We can take Schaeffer's position as one extreme where music is experimental only in service of a music to come, a music which is expressive by the use of newly accessed techniques. Experimentation is in this understanding excluded from the realm of good music. I suggest on the other hand that the notion of experimental music should be used as a notion to propose that a music has as its key characteristics to be experimental. That for the appreciation of experimental music the appreciation of change, openness, and risk is constitutive. In how far electroacoustic music is experimental depends in this case on both the musicians practice of experimentation and the audiences attention to the "unknown".

Biography

Olaf Hochherz is a sound artist and researcher, mostly performing with self-built electronic instruments and computer programs. He develops installations and performance installations. He is interested in the conjunction of the instability, self-generation, and associative capacity of sounds. He holds a PhD from City University of Hong Kong with the title "Conceptualizing Experimentation in Experimental Music in Light of Experimental System". His research interest centers on the impact of

technologies on artistic practices and the conceptions of music and art. Currently he is teaching at City University of Hong Kong.

Ulf A. S. Holbrook

University of Oslo

Friday, 22 June - 10:00 - Richelieu Hall

The map(ping) as a morphological experiment

A map is a representation of a space, which we use to navigate a terrain and to get from where we are to where we're going, or, at least to where we think we're going. This abstract discusses experimentation as mapping and how the process of composition can be understood as a "cascade of mappings." With references to both Bruno Latour and Martin Heidegger, the aim is to present a sonic ontology of composition with reference to the process of experimentation.

A map, or mapping, is well-known to anyone who works with electronic music, electroacoustic music, computer music and pretty much any other genre or form of music, be it the notated score or the assignment of data to one or more parameters. At the heart of any creative expression is a process of experimentation, either as a means to explore a medium, a material, a place, feeling, idea, structure. Yet the process of experimentation might not be manifested until the completion of several iterations of a process and the analysis of the outcome of the experimentations. Musical experimentation is the process of investigating, listening, understanding, reworking and challenging sounds.

In the process of investigating a sound object, we take a curiosity and inquisitive nature about the sounds we hear and turn the investigation towards the inner, innate properties of the sound as it manifests itself to us. Then, our focus will naturally turn from the inner workings and properties of this sound object back to an understanding of the sound as it is contextually experienced.

Bruno Latour talks of a "cascade of inscriptions" as a descriptor of objective scientific knowledge, meaning that there isn't an isolated mapping between a model and a representation. Instead there are multiple mappings

of correspondence between the different maps. A map (a scientific visualization) is only meaningful when presented in context to other mappings - theories, instruments, texts, charts, equations and citations etc. Each inscription is one step in a chain of reasoning to reach a conclusion. Remove any one element from this cascade of inscriptions and it looses its meaning because it looses its context. If you remove an inscription, the process becomes meaningless. Each of these inscriptions are one step in a chain of reasoning to reach a conclusion, which creates a cascade of meaningful mappings that as a whole presents, preserves and conveys a meaningful content. New mappings are based on previous mappings, which creates new forks and again creates new mappings.

The cascade inscriptions of Bruno Latour forms a good basis for understanding how we work to attain knowledge in (any) field. But further, to gain a deeper understanding of the ontological characteristics of these mappings we cannot ignore Heidegger's important contribution to ontology. Heidegger went contra Husserl, who insisted in his method of bracketing objects to such a degree that we can only focus on the phenomena which appears to us in consciousness. Heidegger realized that, in fact, almost all of our perception happens in the unconscious.

A map, with its mapping, is always belonging to other mappings. We can combine any number of mappings to create new mappings, as such, we create sounds consisting of a cascade of sounds, we can combine any number of sounds to create new sounds.

Biography

Ulf A. S. Holbrook is an artist, composer, sound artist and researcher who works at the intersection between compositon, sound art and sound design. A central aspect of his project is an investigation of the relationships between sound's time and space, and sound's morphology through time and space. Central to the artist expression is spatial sound and custom software.

He holds a BA(Hons) in sculpture from The Glasgow School of Art, an MA in music technology from the University of Limerick and is currently a Ph.D. researcher at the University of Oslo.

Terri Hron

CNMN-RCMN Canadian New Music Network

Friday, 22 June - 16:00 - Richelieu Hall

Sticking to the unexpected: Experimentalism in the work of Ikue Mori, Zeena Parkins and Pamela Z

This paper explores the notion of experimentalism through the electronic/electroacoustic work of three American women: Ikue Mori, Zeena Parkins and Pamela Z. Now accepted as electroacoustic composers, they spent the large majority of their careers known as experimental electronic performers and improvisers. This shift in perception and the language used to describe their work, as well as the nature of the commissions and opportunities open to them are a useful mirror to discuss the impact of gender and difference, of the ubiquity and specialization of technology, and of changes in notions of creativity itself on our definitions of experimentalism.

In a first step, the author will use biographical details to discuss the conventional connection between experimental practice and an exclusion from institutions and mainstream high-art circles, and how gender operates in these examples of the development of highly personal technologies through performance practice and, especially in the case of Mori and Parkins, collaboration. In *The Real World of Technology,* Ursula Franklin distinguishes between holistic technology, which "leaves the doer in total control of the process," and prescriptive technologies, which involve a division of labour that create "designs for compliance." Mori, Parkins and Z's holistic approach to technology, initially considered experimental and outside of the institutions and academia, has in the last decade become of increasing interest, as traditional, Western-European models of musical pedagogy and creative hierarchy are questioned and reimagined. This is underlined by increased invitations and positions at academic institutions and the number of commissions from established ensembles. In a second step, the author will discuss a shift in the changes in the definition of roles within music-making and creativity, where the prescriptive technology that divided the roles of instrument builder, performer and composer in non-experimental music practice, pedagogy and institutions is giving way towards more inclusive and more holistic means. Examples include the

adoption of artistic research or in academic institutions and national funding agencies, where the roles of researcher and creator, or performer and composer, sounder and listener are no longer distinct; the increasing acceptance and study of the creativity of performers with specialized journals and conferences; and even the breakdown of disciplines around the hub of digital tools and the multiplication of inter- (or integrated) arts practitioners, presenters and festivals. The last part of this paper considers what Mori, Parkins and Z–early adopters of artistic research, creation and technological development through (embodied) performance, and interdisciplinary work–consider to be experimental practice today, collected from discussions with the author.

Biography

Terri Hron performs and creates music and multimedia works for wide range of settings. She regularly works with other composers, performers and artists from other disciplines. *Bird on a Wire* is a solo performance and creation project where she explores live electronics (*absorb the current* 2008), immersive environments (*flocking patterns* 2011) and embodied practices (*NESTING* 2017). Terri studied musicology and art history at the University of Alberta, recorder performance and contemporary music at the Conservatorium van Amsterdam, and electroacoustic composition at the Université de Montréal. She investigates collective practices and expanded perception in electroacoustic music. She is grateful for the support of the Canada Council for the Arts, the Fonds de Recherche Société et Culture du Québec and the Conseil des Arts et des Lettres du Québec. She is Executive Director of the Canadian New Music Network and coordinator of the international Technologies for Music Notation and Representation Network. She lives in Montreal.

Satsuki Inoue

Aichi University of the Arts

Thursday, 21 June - 10:00 - Richelieu Hall

The Development of Yamaha's First Electric Organ

In Meiji Japan, Torakusu Yamaha (1851-1916), founder of the Nippon Gakki/Yamaha Corporation, built his first reed organ in 1887. He also built the first domestic upright piano in 1900 after conducting an inspection tour of the United States the previous year. The Yamaha Corporation had large, well-equipped factories by 1909. Since then, it has exported its pianos and reed organs widely across the world.

The company's third president, Kaichi Kawakami (1885-1964), a rationalist, successfully implemented a scientific approach to making instruments. Among his other achievements, he set up an acoustic laboratory equipped with an oscillograph, as early as 1930.

In 1931, Maurice Martenot, a pioneer in electronic instrument making, came to Japan during his world trip to demonstrate the Ondes Martenot. The Yamaha Corporation promptly signed a contract with him to manufacture and sell this instrument in the East. In the end, the company never produced it.

Instead, the firm released a new electric musical instrument in 1935—the Magna Organ—designed by a young engineer who had studied in Germany. It was, to be precise, an electroacoustic, multi-timbral instrument. Based on electrically blown free reeds, it contained pickups and was intended to imitate the sound of the pipe organ. Though the Magna Organ remained in the experimental stage, its development helped the Yamaha Corporation accumulate the necessary experience to build other electronic instruments later.

After the Japanese defeat in the Pacific War in 1945, the Yamaha Corporation was forced to start again from scratch. But during the American occupation under General Douglas MacArthur, Japanese music education evolved to emphasize the importance of instrumental music. The Ministry of Education and the makers of musical instruments cooperated to supply instruments to schools.

According to the ministry's National Educational Guidelines for Music in 1958, every Japanese child was required to begin learning to play the reed organ in the first grade. This decision contributed greatly to the rapid spread of the electric-powered reed organ throughout Japan. Annual production of reed organs exceeded 90,000 units in 1958 and reached its peak of 560,000 in 1969.

Meanwhile, the Yamaha Corporation, which had reconstructed its acoustic laboratory in 1948, began producing electronic organs under the name Electone, in 1959. The Electone quickly gained popularity in Japan. Soon, Electones and pianos replaced the simple reed organs. Around the same time, the company founded the first Yamaha Music School in Tokyo. The use of the keyboard as a learning tool is a key characteristic of the Yamaha Music Education System.

Thus, the Yamaha Corporation created strong domestic demand for keyboard instruments, both acoustic and electronic, in the second half of the twentieth century. This progress, backed by the government's new educational policy after the war, has its roots in the firm's prewar activity.

Biography

Satsuki Inoue, Ph.D., Professor of Musicology at Aichi University of the Arts, has focused her research on modern French music history and the history of the introduction and reception of Western musical instruments in Japan. She is now working on a research project on the relationship between domestic piano production and Japanese musical culture, sponsored by the Japan Society for the Promotion of Science's Grants-in-Aid for Scientific Research program. She has authored several books in Japanese, including: *To Exhibit Music: The Paris Universal Expositions of 1855–1900* (2009), *The History of French Music* (coauthored with Kazunori Imatani in 2010), and *The King of the Japanese Violin: Masakichi Suzuki and His Famed Instruments* (2014). She has also translated several books written in French and English into Japanese, including *Ravel: Man and Musician* (2006) by Arbie Orenstein.

Hiromi Ishii

Composer, Cologne

Saturday, 23 June - 11:00 - Richelieu Hall

"Visual Music" as Extended Composition of Electroacoustic Music

The term Visual Music was originally coined by R.E. Frey to express the characteristics of W. Kandinsky's work. It has further been borrowed by filmmakers of early 20th Century to call their abstract films in which they sought to create a close-relationship between music and film.

This experimental attitude and the argument "how to create a close-relationship between seeing and listening" has been succeeded throughout its history from film era, analog video era, early motion-graphics, till today's digital technology-based visual music. However, as an American critic William Moritz criticized in 1986, many pieces were not successfully structured in time, and as Cindy Keefer, the director of Visual Music Center Los Angeles commented in 2006, a lot of pieces were not really well related in both media. It seems that this problem still remains independent from technological methods and tools.

The author creates audiovisual pieces (electroacoustic music with motion-graphics) since 2007 and participated many festivals of visual music. On the other hand, she worked as co-curator together with Wilfried Jentzsch in past (VM concerts at Musica Viva Lisbon, CYNETart Dresden, SoundTrack Cologne, EMUfest Rome, ZKM, Folkwang Univ. Essen, and more).

Through these experiences she remarked that there are at least two types of works. The first type is suitable for exhibitions, and the second type appears more strongly in the form of concert. The former often has beautiful breath-taking moving-images accompanied by simply processed sounds or with sound-design and not strongly structured in time, whereas the latter is deliberately related in both media or positively structured in time. It was also remarked that the works of the latter type are often be created by composers of electroacoustic music.

This paper focuses on the latter, the works by composers of electroacoustic music, and examines the character of their visual music as an extended form of electroacoustic composition. It considers the potential of this field by taking examples from Wilfried Jentzsch, Bret Battey, and others.

Biography

Hiromi Ishii studied composition in Tokyo. Teaching experience at Institut of Sound Technique and musical experiences in various genres such as pops, ethno-music, and traditional Japanese music, led her to study electroacoustic composition at Musikhochschule in Dresden and later at City University London where she was conferred her PhD. Her research, 'Composing electroacoustic music relating to Japanese traditional music', was supported by an ORS Award Scheme scholarship of the UK. Her pieces have been presented at both music festivals and media art festivals worldwide. In 2006 and 2013 she was invited as Guest Composer at ZKM Karlsruhe. Her recent works focus on 3-D Multi-channel Acousmatic, and Visual Music for which she composes both music and motion-graphics in parallel. She has two CDs from Wergo (*Wind Way* ARTS 8112 2, *sai-ji-ku* ARTS 8121 2). Ishii is currently living in cologne. || www.hiromi-ishii.de

Paul Jackson

Anglia Ruskin University, Cambridge

Biography

Paul Jackson is a musicologist, pianist, conductor and academic, who currently holds the post of Director of Music and Performance at Anglia Ruskin University, Cambridge, UK. His research interests centre around musical modernism and, in particular, the work of the Australian composer, Percy Grainger, about whom he has published a number of articles and book chapters.

Georgia Kalodikis

Golsdmiths College, London; Ionian University, Corfu

Friday, 22 June - 14:00 - Stendhal Hall

Referential and non-referential perception of speech in electroacoustic music

Speech as a general term in electroacoustic music practice can have numerous functions depending on the way that the voice content is approached, always according to the intention of the composer. Needless to say that the process of using human voice in an electroacoustic piece can be perceived in a very personal way from every listener, according to his/her experiential and imaginary way of receiving phonemes, words, sounds or meanings.

So, here we have a two-parted relation between the initial intentions of the composer and the perceived speech from the listener, that can work either symbolically – referring to his/her experiences – or as a sonic object per se.

In this paper, there will be a thorough analysis of the fundamental basics, as for the way we perceive voice content in an electro-acoustic piece (re-organizing text, re-contextualizing or de-contextualizing text), in order to create new sound structures or fragments of varying referentiality always beginning from the primary sound source. The boundaries between clear speech, distorted voice and nonsense text will be examined by means of their expessive use as a typical sound material as well as a way of creating semantic/symbolic images bonded to linguistic references.

Biography

Born in Athens (1975) she has a Master and a PhD in composition from Goldsmiths College, University of London. She has also studied composition with Yannis Ioannidis, Joseph Papadatos and Alexandros Kalogeras, music for cinema and mixed media and classical guitar. She attended lectures and Master classes with well known composers such as Alvin Lucier, Christian Wolff, Rebecca Saunders, Bryan Ferneyhough and Theodoros Antoniou. She is currently a PhD candidate at Ionio University

of Corfu in Electroacoustic Composition with Theodor Lotis. Her works have been performed and received distinctions in Greece and abroad. She has received commissions from Boston University, University of Athens, Orchestra of colours, Acanthes 2007, Dissonart Ensemble etc. Her music has published from Subways Records. She has composed music for four silent movies in Kakogianni foundation. She's has also composed music for theater productions.

Andrew Knight-Hill

University of Greenwich

Friday, 22 June - 16:30 - Richelieu Hall

Between worlds: transmuting the diegetic. Film and television as a site of electroacoustic experimentation.

Novel sonic practices have always been present within the realms of experimental and auteur/independent film, but in more recent years these practices have appeared to expand almost exponentially into the mainstream. This awakening presents extensive opportunities for electroacoustic music practitioners and scholars to apply their ideas and approaches within new contexts. While previously divided by the formulaic studio system into various distinct sound departments, the explosion of new content providers and funders has supported an expansion of independent and more experimental working structures where those responsible for music are able to increasingly work more closely with those working on "real world" sounds.

New dimensions of contemporary film soundtrack are identified as including "the spatialisation of sound; "hyperdetail" in [recorded "real-world"] sound; and the use of nondiegetic sound effects as stylistic punctuation" (Smith 2013: 338), directly concordant with a vast range of study and expertise within EA music. Michel Chion's notable application of EA concepts to film has provided a rich impetus for film studies scholars to bring notions of the sonic into their analysis (e.g. Chion 1994, Chion 2010), but there has been far less discussion of compositional practices as applied

within film soundtracks, nor the discussion of how electroacoustic ideas and approaches might further enrich the sonic landscape of cinema.

This paper analyses a range of possible approaches towards exploring some of these possibilities, exploring the manipulation of increasingly blurred distinctions between diegetic and non-diegetic sound in contemporary mainstream cinema. With reference to contemporary film examples and sound design practice, this paper will explore compositional challenges and potentials available in challenging traditional notions of ocularcentric cinema with a cinema that is led and directed by the ears. Adapting practical approaches of 'Anecdotal' and 'context-based' music to film sound this paper suggests that film sound remains a rich world for electroacoustic music experimentation.

Biography

Andrew Hill (1986) is a composer of electroacoustic music, specialising in studio composed works both acousmatic (purely sound based) and audio-visual. His works have been performed extensively across the UK, in Europe and the US. Including performances at Fyklingen, Stockholm; GRM, Paris; ZKM, Karlsruhe; New York Public Library, New York; London Contemporary Music Festival, London; San Francisco Tape Music Festival, San Francisco; Cinesonika, Vancouver; Festival Punto de Encuentro, Valencia; and many more.

His works are composed with materials captured from the human and natural world, seeking to explore the beauty in everyday objects. He is particularly interested in how these materials are interpreted by audiences, and how these interpretations relate to our experience of the real and the virtual.

He is Lecturer in Sound Design and Music Technology at the University of Greenwich and programme leader of the Sound Design programme. || www.ahillav.co.uk

Yuriko Hase Kojima

Shobi University, Saitama

Thursday, 21 June - 16:00 - Richelieu Hall

Masahiro Miwa's "*Gesänge des Ostens*" : Intersection of Technology and Tradition

Masahiro Miwa was born in Tokyo in 1958. In 1978, he started his formal studies in composition at Universität der Künste Berlin followed by the studies at Robert-Schumann-Hochschule Düsseldorf after 1985. He started creating computer music works in Germany. Commissioned by a leading Japanese pianist Aki Takahashi, Miwa composeed "*Gesänge des Ostens*" in 1992 after moving back to Tokyo. It had been only ten years or so since the time the MIDI system was standardized world-wide and the artistic use of the MIDI was not so much introduced back then.

This piece is written for one pianist and two MIDI pianos: one for the pianist and the other for the MIDI signal to play music without a real pianist. The score is unusually written single staff and piano part itself is simplified to the limit. The piano part is written not only for the real piano phrases but also used for triggering the MIDI signals by pressing certain keys. What triggered through this system is mainly the audio files of Japanese traditional folk vocal singing. It is interesting to see that all the musical events happening during the performance are manipulated and merged musically in real-time. Miwa created the software to operate those events himself and what he intended to realize seems to be the same as what we do with technology regularly today except the pitch-to-midi conversion that was developed much after the period this piece was created. Here it is not a problem because the grand pianos are equipped with MIDI system to trigger events while playing real acoustic music.

Musically speaking, the Japanese pentatonic scales are mainly used for composing the piano part to match the traditional fork songs and the quotation of Ravel's "*Le Tombeau de Couperin*" which is obviously influenced by the Orientalism of his time. The sense of mismatch created by juxtaposition of old traditional musical elements and the forefront

technology gives this piece distinct characteristics that are different from any other pieces composed in Japan during the same period of time.

This paper especially focuses on the investigation of form and analysis of the piece in order to see how technology and tradition are intermingled to create a new vision of music at the dawn of digitized musical creation.

Biography

Born in Japan in 1962. Completing her studies in piano in Japan, Yuriko Hase Kojima studied composition in the United States for ten years obtaining MA (1996) and DMA (2000) from Columbia University. She studied composition, theory, aesthetics and philosophy, with Tristan Murail, Jonathan Kramer, Fred Lerdahl, Brad Garton, Betsy Jolas, and Philippe Leroux, among others. Her music and papers have been presented at the international festivals including the ISCM, the ICMC, the EMS, and the ICMPC, performed by the Ensemble Modern, the Pearls Before Swine Experience, the Azure Ensemble, and the New York New Music Ensemble, to name a few. Currently, Ms. Kojima serves as Professor of Composition at Shobi University, specializing in composition, music theory, and electroacoustic music. She is also active as the founder and the artistic director of a non-profit organization Glovill (www.glovill.jp) aiming to introduce and promote new music in Japan.

Jaime Oliver La Rosa

New York University

Thursday, 21 June - 9:30 - Richelieu Hall

The Sounds of Instruments Never Built: New Concepts of Instrument in Early Tape Music Practices

Early Tape Music composers and theorists conceived of studio composition as a new medium that overcame the limitations of the physical world, both in terms of the material construction of instruments and of the capabilities of human performers. Thus tape music was construed as a music without instruments and performers, and this was at the time thought to be an

evolutionary step for music. However, a deeper look into early tape music practices through the work and writings of some of its earlier and more prominent composers and theorists such as Pierre Schaeffer and Karlheinz Stockhausen reveals that far from being a music without instruments, tape music gave birth to new concepts of musical instrument. In this paper, I argue that while tape music rejected instruments it did not entirely reject instrumental behavior. Furthermore, I argue that tape music created a new instrumentality by sounding out the behavior of musical instruments that were never actually built as material devices. In this way, tape music has much to teach the current NIME community.

The idea of the pseudo-instrument is that acousmatic sounds are grouped perceptually so that they seem to come from a single imaginary source. Throughout a lifetime of cognitive experience of how musical instruments work we develop and apply models of the physical world to compose and to make sense out of a set or system of acousmatic sounds. For a listener however, pseudo-instruments are always a new imaginary instrument that challenge traditional conceptions of instrument emerge. The traditional media of acoustic/mechanical instruments are transversal to their repertoire (i.e. a violin is considered to be the same instrument in Andean or bluegrass music), but the new media of pseudo-instruments in tape music are generally specific to each piece. For example, Stockhausen considered that the sounds of one composition couldn't be used in another composition, and the same can be inferred from Schaeffer's Treatise. Pseudo-instruments are thus work-specific and more importantly, they serve compositional functions.

In the search for liveness and real-time performance, interface and instrument building has become an important part of electroacoustic and computer music practices. As techniques for sound generation and transformation have dramatically expanded composers' sonic palettes, we continue our search for better ways to control sounds, particularly live on stage with computer-based musical instruments. Instead of imitating the behaviors of acoustic or mechanical musical instruments, tape music provides contemporary computer musicians with instrumental models that can inform the design of new instrumental behaviors suited to the aesthetics of new media.

Biography

Is a computer music composer, performer, and researcher working at the intersection between musical instruments and open works. He is also Assistant Professor of Composition at NYU, obtained a PhD in Computer Music from the University of California, San Diego and was Mellon Post-Doctoral Fellow at Columbia University & the CMC in New York. His open source Silent

Drum and MANO controllers use computer vision techniques to continuously track and classify hand gestures. He also develops a computer assisted notation software for Pure Data and LilyPond called [notes] and composes works using the sounds of Pre-Columbian musical instruments called "silbadores". Some recognitions include scholarships and grants from the Fulbright Commission and the Mellon Foundation, composition and research residencies at ZKM and IRCAM, and prizes from FILE Prix Lux, a Giga-Hertz-Preis, and the Guthman Competition of Musical Instruments.

Mathieu Lacroix

Norwegian University of Science and Technology (NTNU), Tondheim

Friday, 22 June - 14:30 - Stendhal Hall

Deus Ex Machina: Methods, Processes and Analysis of Mixed Music

The presentation will go introduce the author's current doctoral project. The project started recently and can be summarized by the three following points. Firstly, to further develop a theoretical framework which allows people to discuss and analyse mixed music based on the current literature. Secondly, to understand how electronics play a part in the compositional process. Thirdly, to acquire qualitative data about how mixed music performers experience electronics.

This author proposes that to do a complete analytical framework of a mixed composition the following elements should be looked at in detail: the written score (pitch organization, etc), the electronics (how they relate to the performer, what are they doing?) and the performer (how is s/he synchronized with the electronics and score?).

Tiffon had already mentioned how it is undeniable that the use of electronics transform the compositional process which leads us to the second point of this research. This could be shown by examining the compositional process (and/or its clues) of several well-known pieces of the repertoire. Composers such as Manoury and Saariaho have discussed elements of their compositional processes when writing a mixed piece. Certain analyses have gone as well into establishing a link between the formal structure of the work and how it relates to the electronics which might also give the reader a clue into the composer's intention and work methods. Therefore, these first two points are inherently related. This author also plan to look at his own compositional process when writing mixed music to help to confirm or deny certain aspects of one's workflow and compare it to how some of the masterworks of the mixed repertoire have worked.

The relationships between the three elements of a mixed piece as mentioned in the first point are, I believe, needed for a complete analysis and understanding. Therefore, it seems primordial to examine this in practice with a string quartet as it is a large enough, yet small enough (logistically) ensemble to be feasible. There is already an established repertoire (110+ pieces) for this configuration. I plan to reprogram the electronics of a few known pieces to explore for example the effect of score following compared to the scene system that is often used by Saariaho for example. How do these two synchronization methods influence the quartet's playing? Working with a string quartet gives this author the opportunity to write specifically for them and enter a dialogue on the use of technology with their medium. The quartet has now been formed and has started to rehearse Pierre Jodlowski's 60 Loops. The presentation will present some early thoughts and finds about playing this piece, as well as a short discussion on strategies for synchronisation using different techniques.

Biography

Mathieu Lacroix is a Canadian-born composer, producer and sound programmer based in the medieval capital of Norway. Early on, he decided to pursue his interests in the field of contemporary composition with an emphasis on mixed music. This meant studying composition with some of Norway's leading composers such as Terje Bjørklund, Henning Sommerro and Ståle Kleiberg as well as studying electronics with the likes of Øyvind Brandtsegg, Trond Engum and Andreas Bergsland. He has also participated in workshops with several composers such as Natasha Barrett and Maja Ratkje as well as having taken formations at IRCAM. He is currently a Ph.D candidate focusing on the influence between compositional processes and electronics in mixed music. He also teaches at both the graduate and undergraduate level in classical music and music technology.

Florence Lethurgez

IMSIC, EA 42626, Aix-Marseille Université

Friday, 22 June - 14:00 - Richelieu Hall

What is communicating for an electroacoustic music composer?

What about the representation of communication and the resulting practices by composer of electroacoustic music?

He is today considered as a communicator, capable of making his works the objects of an increasingly informative discourse with the listener, by exposing and commenting on all the dimensions of his compositional practice.

The composition work is not a linguistic act. Thus, the discourse will focuse on music dimensions considered as less specific, which does not mean that they are insignificant.

The reflexive return on his own speech, during an interview with a researcher (n = 10), is an opportunity for the composer to establish or re-evaluate the links between the questions of composition, of musical

significance on the one hand, and those of communication with the listener – the process by which he establishes a relationship with him – on the other hand.

We hypothesize that these links are specific, in the case of electroacoustic music, and at some point in its history.

Biography

I am, since 1993, Senior Lecturer in Information and Communication Sciences at the University of Aix-Marseille, France. My research focuses on the sociology of cultural institutions and of audiences, the sociology of music and more specifically the evolution of its discursive forms of communication and mediation (reviews, programs, analyzes, etc.). My work is part of a broader research program on the development of discursive forms of contemporary music mediation, as well as music criticism, and its reception effects.

Lin-Ni Liao

TPMC, IREMUS, Paris

Thursday, 21 June - 16:30 - Richelieu Hall

Curiosity in Organizing Sound - Four Electroacoustic Works around Erhu

The Larousse Music Dictionary (2005) gives the following definition of *musique expérimentale*:

"An expression used in the 1950s and 1960s to designate *musique concrète*, electronic, and electroacoustic music, and more generally, all so-called « avant-garde » music that sought innovations in the use of traditional instruments or sound sources, such as in the manufacturing of new sound sources and in the design of previously unheard compositions process, etc. […]"

The Erhu project was for a new contemporary repertoire for this traditional Chinese two-stringed fiddle, which has been six years in the making by

TPMC, and which includes a total of twenty commissions - fifteen instrumental pieces and five electroacoustic works.

For today's presentation, I chose three electroacoustic works representative of three very different musical dimensions and aesthetics, in which the composer has been led by her own curiosity to take risks (in diverse aspects):

Fold-in for (2017) acousmatic music by Christian Eloy

Snapshot (2017) for erhu, piano and electronics in real time by Wang Ying

Etude@E (2017) for erhu, saxophone and electronic by Cheng Huihui

In this analysis, I will focus on the respective compositional approaches of each composer. How do they hear and produce sound organization? How did each approach their own method of working with the introduction of the erhu as a common point? With composers spanning three generations and two nationalities trained in French, German and Chinese schools, I will cross analyze the forms resulting from their trained ear, their thought, and the importance of timbre and spatialization in these works. We will also consider in what new forms these composers weave this creative thread through listening, technological tools, and a personal language.

Musical analysis offers different ways to approach a work. The role of a musicologist is to be an editor who sources, collects, gathers, reconstitutes, and digests various information to write a script that will be characteristically close to a technical, aesthetic, cultural, political, and sociological interpretation to facilitate and ease an audience's understanding of the work.

Today, we will take a visual and audio journey through the consciousness and unconsciousness of the sound organization over space, narrativity, dramaturgy, and texture and their emphasis on the reflection, the rejection, the ignorance, or the intersection of the observation of the regard and cultural identity. This is a personal itinerary, you have all registered in EMS18 for a short walk of 20 minutes. I am your audio guide for this visit. I wish you a pleasant visit, here we go!

Biography

Taiwanese-French composer, Lin-Ni Liao, PhD in musicology at Sorbonne University (Supervisor: Marc Battier) and Associated Researcher at the Institut de Recherche en Musicologie, is the artistic director of TPMC

(Toute Pour la Musique Contemporaine) in Paris. She questions interculturality in all fields of her work, composition, artistic production, and academic research, the latter of which focuses on musical analysis, artistic identity, cultural heritage, and the role of women in contemporary music from the Far East. - 3 books published on *La pensée musicale d'Edith Lejet* (Ed. OMF, 2010), *Fusion du temps : Passé-Présent, Extrême Orient - Extrême Occident* (Co-Edit. Marc Battier, Ed. Delatour, 2014) and *Héritages culturels et pensée moderne : Les compositeurs taiwanais de musique contemporaine formés à l'étranger* (Ed. Delatour, 2014).

In the music composition, she studied with Allain Gaussin et Philippe Leroux. Her musical works are focus on the musical and philosophical fusion between time and space, between the physical and musical gesture and have been performed at la Cité de la Musique, Radio France, Pompidou Centre, Musée du Quai Branly and Extension, Why Note, ACL, MANCA festivals... || sorbonne-fr.academia.edu/LiaoLinNi

Martin Link

Westfälische Wilhelms Universität Münster

Friday, 22 June - 12:30 - Richelieu Hall

IC-Analysis as a future model of electroacoustic music-theory

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During the development of music history, several methods of analysis have been created in order to highlight elementary structures in a field known today as music theory. Among those, the most prominent are probably Schenkerian reduction and functional analysis. However, the evolution has also brought new musical material to daylight, which can be found especially in electroacoustic music. This new situation means new complexities in sound-structure, which classic music theory is not capable to handle. One of the new aspects of this genre, which needs to be investigated, is its elementary structure and syntax. But this leads us to a fundamental question: What do we define as elements and what is actually a syntax? Among the literature published in linguistic research, the most popular definition can be found in the book *Syntax* from British linguist

Peter Matthews: "The term syntax refers to the branch of grammar dealing with the way in which words, with or without appropriate inflections, are arranged to show connections of meaning within the sentence."

But can we transfer such terms into music? One example of electroacoustic music is the piece of *Inventario I* from Germán Toro Pérez, which he himself describes as "a group of pieces dealing from changing perspectives with the structure of time experience and aspects of syntax like repetition, bound of small sound fragments to bigger structures and contrast between between discreteness and continuity. Those kinds of syntax are present in different time-levels of musical organization (...). An important formal idea for the whole cycle is the list, the succession of elements sharing a special format."

Taking this definition from the composer itself, we can already define something as an elementary structure: the elements sharing a special format. In this context we can also see, that these are the smallest units shaping not only a formal entity but also *meaning*, since they have the ability to express something from themselves through repetition and contrast for instance.

The next important step is to investigate, how these units are organized in the piece and what structure this organization implies, like for instance repetition and variation. This macro-structure is what leads us to syntax through a logical position of our minimal units. In such syntaxes, we can even find other connections between variation and repetition forming larger and complexer entities, which structural theories call *constituents*. The dependency of the smaller elements in such large units and their relation to each other, is what today is analyzed in a method known as IC (Immediate Constituent)-Analysis:

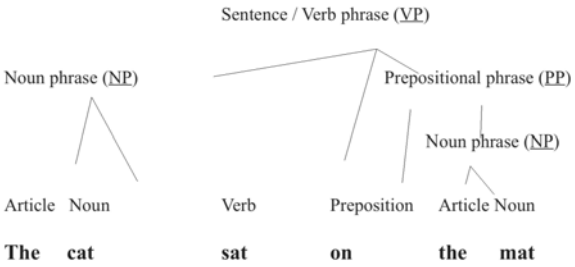

Figure 1: Immediate Constituent-Analysis of a classical sentence with the help of a tree diagram

This investigation has two main goals: First to investigate the basic definitions of syntax-theory and to find out similarities in music. Second, the analysis of a possible relation of small units in a composition with the help of IC-Analysis, to see whether it makes sense to analyze electroacoustic with such methods and if it contributes to understanding electroacoustic music even better.

Biography

Martin Link was born in Gießen 1989. During education at Folkwang University of Essen (B.M.) and Robert Schumann Hochschule Düsseldorf (M.M. mult.) theses have been written about the music theory of Olivier Messiaen, aesthetic philosophy of Theodor Lipps and systematic theory of Niklas Luhmann. Since 2014 a PhD study course is followed at Westfälische Wilhelms Universität Münster with the thesis *The friendship between Lucian Berio and Umberto Eco – Aesthetic foundations and artistic implications.* International research has been carried out in the United States, Italy, Switzerland and Greece.

Theodoros Lotis

Ionian University, Corfu

Thursday, 21 June - 11:30 - Richelieu Hall

The Missing Link in the Experimentalism of Electroacoustic Music

This paper argues that there is a missing link between the input (compositional process in the studio) and the output (diffusion of the musical piece in a concert hall) in experimental electroacoustic music: diffusion, as practiced today, is not innovative enough to unfold the uncontrollable aspects and the experimental character of electroacoustic composition in a meaningful and purposeful way. The practise of diffusion is applied only to articulate the sound morphologies and the spatial structures of a piece. This approach often guides to a pedantic and poor interpretation of the music. Apprehensive, the diffusion seems to serve the old byzantine painting's request of no deviations whatsoever from the

parable it represents. As a consequence, the practice of diffusion has been restrained in order to conform to strict rules and fixed patterns repeated over and over again during the concert regardless of the particularities of the musical piece, the characteristics of the concert space and, most important, the interests of the diffuser/performer. Diffusers often adopt a complacent approach interpreting the composed sonic structures while being unaware of the composed experimentalism of the piece. They meticulously articulate the composed gestures and the motion of the sonic material while remaining unconcerned about the variabilities of the musical composition. What is missing from the art of diffusion are the uncontrollable factors that cause unpredicted variabilities during a live performance. The way diffusion is performed, especially the pre-automated one, reduces variability to a minimum. It falls into a homogenous neutralization and academism, imprisoned by technicalities and the scholastic justification of accurately articulating the composed space of the diffused piece. As a consequence, the diffuser becomes a servant of the composer's structural intentions but lacks playfulness, inventiveness and dialectic character with the audience. The latter remains puzzled and often confused, submerged in a plethora of previously unheard sounds without understanding neither the *how* (facon de faire) or the *why* (raison *d'être*) of the performance. The paper develops some preliminary thoughts and proposes directions for introducing experimentalism in the performance/diffusion of electroacoustic music.

Biography

Theodoros Lotis' music has been performed in Europe, Australia, America and Asia, and has received a number of awards and distinctions at Bourges, Sculpted Sound Composers Competition, Metamorphoses, Luigi Russolo, CIMESP and Jeu de temps / Times Play. He was awarded the first prize at the Concours International de Spatialisation pour l'Interprétation des Ouevres Acousmatiques, Espace du Son 2002 by Musiques et Recherches, in Brussels. He has done commissioned work for Musiques et Recherches, Sculpted Sound Composers Competition, Amici della Musica di Cagliari, the festival Visiones Sonoras, the clarinetist Esther Lamneck and several dance companies. He is Assistant Professor at the Ionian University in Corfu, Greece. He is founding member of the Hellenic Electroacoustic Music Composers Association (HELMCA) and the Hellenic Society for

Acoustic Ecology. His music has been released by Empreintes Digitales.
|| www.theodoroslotis.com

Eric Maestri

University Paris 8

Wednesday, 20 June - 16:30 - Richelieu Hall

Four hypothesis about electroacoustic music as experimental: Evolution, interaction, morphology and form

Since its beginnings, electronic music was considered an "enigmatic, extreme development" of avant-gardes (Eimert 1955, 1), an "unusual mode of sound production" (Schaeffer 1966, 17) and defined as a *per se* musical practice, alternative to the traditional instrumental and/or vocal one because of its theoretical unlimited possibilities (Mathews 1963, 553). It wasn't an "extension of traditional procedures", but "compelled to deal with sound phenomena unknown to musicians of earlier times" (Eimert 1955, ibid.). Towards digital technologies, electronic music incorporates electronic/instrumental-generated/transformed sounds creating unknown musical objects. Instrumental/vocal sounds collide with the electronic ones, fostering hybrid musical units based on the contact of human, environmental, non-human and non-environmental sounds. However, even if experimental, unusual, alternative, avant-gardist, unknown and novel, electronic music is one of the most consensual music meta-genres, embracing the musical practices from the most experimental to the most commercial. Electronic music is a "nexus of numerous genres, styles, and subgenres, divided not only geographically but also institutionally, culturally, technologically, and economically" (Demers 2010, 5). To develop this idea and to exemplify the transition that electronic music did from experimentalism to vernacularism in the last two decades, this presentation will consider and compare four different electronic pieces: Pierre Alexandre Tremblay's *asinglewordisnotenough III*, for cello and electronics (2015), an *improvisation* by composer Alex Mclean (2016), Curtis Roads' *Half Life* (1999) and Massive Attak's *Angel* (1998). The author has chosen these pieces because they belong to four different musical genres – *mixed music*, live coding *improvisation*, *acousmatic* and *trip-hop* – and they melt real and evoked

living agencies' sound morphologies (pulses, repetitions, presence of voices, percussions and words) with abstract sound components (sustained sounds, textures evolving and morphing in time). The reanimation of electronics towards living sound figures (Emmerson 2007, 53), the utilisation of contrasting musical elements based on the articulation of noises and pitches, the contact between known and new sounds enhances the evolution of musical language. The author will try to indicate this transition highlighting the common sonic features of the pieces from the point of view of their sound morphologies, focusing on their novelty to show their impact in the musical practice. These examples will suggest that electronic music as experimental practice has become a profound means of musical evolution towards the experimentation of the links between electronic and instruments, intrinsic and imposed morphologies, human and machine, contributing to the development of the musical language in a new anthropological environment.

Biography

Eric Maestri is composer and researcher. Based in Paris, he is currently affiliated at CICM (*Centre de recherche Informatique et Création Musicale*), University Paris 8, where he is researcher and teaches electronic music. Eric composes music for instruments and electronics, presented in European and non-European concert venues. With a background in Philosophy (Università di Torino), Eric holds a Ph.D in composition (University of Huddersfield) and a "doctorat" in musicology (Université de Strasbourg). His music is characterized by the idea of "becoming" and his main research interests concern electroacoustic music analysis and the study of contemporary and experimental music. These interests are declined with his compositional practice and concur to think new approaches in artistic research. || www.ericmaestri.eu

Filipa Magalhães

FCT Fellow, CESEM- FCSH/NOVA, Lisbon

Wednesday, 20 June - 9:00 - Richelieu Hall

A proposal of analysis for music-theatre works with electroacoustic. The case of *Double* by Constança Capdeville

The coexistence of two sound universes, acoustic and electronic sounds, is a very complex issue. Yet when composers add to both universes other elements from different artistic expressions, resulting in a new "language" in which concert, theatre and dance are combined through the confluence and exploration of sound, music, word, light, gesture and movement, this makes the methodological approach and the analysis of music-theatre works that use electroacoustic sound even more difficult. The composer Constança Capdeville, an outstanding figure in Contemporary Portuguese Music, left us a great number of works of this genre, including acoustic and electroacoustic sounds and other elements such as those mentioned above. However, most of the documentation from Capdeville's music-theatre works is still dispersed, or is not in good condition (as for example the tape collection), and moreover there is no articulation and systematization of the existing information in order to reconstruct the performance, which can render any analysis of her works difficult.

Works within the music-theatre genre with electroacoustic sound may include audio recordings, images, scores, scripts, or additional notes, which, despite being occasionally disparate, explain aspects of lighting, sound recording (especially giving indications of on-stage inputs) and positioning on stage; nevertheless the information is still imprecise. In Capdeville's case, although there might have been original recordings (on magnetic tape) used during the performance, these might not exist any more, with the result that only a recording of the whole performance is available, but this does not help in distinguishing the acoustic sounds from electroacoustic sounds. This means that the analyst of mixed-music works is being constantly challenged, since is dealing with not accurate set of data, this makes it difficult to establish a model that can be applied to all these types of works. Today we deal with a multiplicity of technological paradigms and issues related to the

rapid obsolescence of the technical means involved, alongside often collective forms of creation, being these the main problems for the establishment of an appropriate methodology. However, the problem is magnified if there is no medium, or if the medium is not in the best physical condition, since this issue can make an analysis of such works unfeasible.

In "Analyse de la musique mixte: logiciels, procédures, workflows", Pierre Couprie writes an extensive article exposing, from a critical point of view, the latest tools and methods in the field of the analysis of electroacoustic music.

Hence, in the present paper, we intend to analyse *Double* (1982), composed by Capdeville, and written in the context of the music-theatre genre resorting to iAnalyse. Through the possibilities offered by the iAnalyse software, mainly the creation of a timeline and, consequently, the synchronization of all the elements involved in *Double*, we hope that an analysis will not only help in re-staging the work, but also make a contribution to the musicological study of works like Capdeville's.

Biography

Filipa Magalhães started her musical studies at the National Conservatory of Lisbon, studying voice with Filomena Amaro. In 2006 she concluded a Bachelor Degree in Musicology. In 2013 she completed a Master Degree in Musical Arts: Music and Technology, under the theme "General inventory of magnetic tape collections existing in Portugal: evaluation of their state of preservation". Currently, she is attending a PhD Program in Musicology – Music as culture and cognition at CESEM- FCSH/NOVA, funded by FCT focusing in the restoration, digitisation and archiving of magnetic tape collections. Her main research interests fall into the study of mixed-music, seeking for new methodologies to preserve music-theatre works with electroacoustic.

Peter Manning

Durham University

Wednesday, 20 June - 12:00 - Richelieu Hall

Integrating creative, technical, historical and analytical aspects of electroacoustic music in research and pedagogy: a perspective from the TaCEM project

→ See Frédéric Dufeu

Jônatas Manzolli

University of Campinas

Saturday, 23 June - 14:00 - Stendhal Hall

Convergences in Different Conceptions of the Granular Paradigm in Electroacoustic Music from the Notions of Sound Flux and Emergence

→ See Danilo Rossetti

Marco Marinoni

Conservatory of Music “L. Marenzio”, Brescia

Wednesday, 20 June - 9:30 - Richelieu Hall

The cyclic conception of musical time in Luigi Nono's *Post-Prae-Ludium n. 1 "per Donau*: An aesthesic-cognitive-perceptive analysis

The present contribution is focused on the analysis of Nono's Post-Prae-Ludium No.1 "per Donau". Both for its temporal placement and its compositional conception, Post-Prae Ludium should be considered as a key piece concerning the evolution of the interaction paradigm between composer, instrumental performer and live-electronics' performer. The interpretation of the analytical data brings out that Nono adopted a cyclic conception of musical time put into effect through techniques such as fragmentation, defocusing and anamorphosis applied to musical materials at micro-formal and macroformal level. The sound events have been investigated in the following three domains:

- domain of texture, the course of pitch parameter

  graphic representation on xy plane (sonogram)
  x = time (sec) y = frequency (Hz)

- domain of form, the course of amplitude and frequency parameters

  graphic representation on xy plane (spectrogram)
  x =frequency (sec) y =amplitude (dB)

- domain of timbre, the connections between previous parameters with reference to spectral components

  tridimensional representation (3D surface)
  x =frequency (Hz) y = amplitude (dB) z =time (sec)

The classification of sound events has been structured consequently to the one proposed by Schaeffer and completed by Chion's and Delalande's contributions, which identifies three types of sound event: continuous, iterative, impulsive. The macro-segmentation was carried out according to Delalande's analysis of listening behaviours.

The investigation of internal articulation of sound events starts from Smalley's theorization

and identifies three typologies of sound events: noise (chaotic texture); node (the texture is more complex than one single pitch); note (one single intelligible pitch).

The tridimentional elaboration allowed the access to the concepts of motion, texture and gesture. The structural motions were subdivided, following Smalley, in two typologies:

- directional, characterized by a form developing in time through well-defined point . like straight and curvilinear motions
- multi-directional, characterized by lack of focusing towards a target

confration (dispersion in fragments);
diffraction (crystallization in bands).

For what concerns the definition of musical structures in terms of gesture and texture, it was possible to indicate two different typologies: gesture-carried structures texture-carried structures.

The present analysis was conducted on the studio recording (January and February 1993) published on CD by Artis Records, featuring Giancarlo Schiaffini, tuba and Alvise Vidolin, live-electronics.

Biography

Marco Marinoni (10/04/1974) is a professor at the Conservatory of Music "L. Marenzio" of Brescia where he teaches Electroacoustic Performance Practice. He gained a M. Mus. Conservatory Degree in Computer Music (2007) 10/10 cum laude, a Master's Degree in Sound Direction and Live-Electronics at the Conservatory of Music "B. Marcello" of Venice (2007), 110/110 cum laude with Alvise Vidolin and a Master's Degree in Composition (2013), 110/110 cum laude. He was finalist for the Internatioanl Gaudeamus Composers Competition 2002 and 2003, Prix du Trivium at the 29e Concours International de Musique et d'Art Sonore Electroacoustiques – Bourges 2002, selected for the project What's Next by Nuova Consonanza – Rome 2003, winner at the second call for electroacoustic music by Federazione CEMAT and included the CD Punti di Ascolto 2005, 1st Prize at the Primo Concorso Internazionale di Composizione per Iperviolino – Genova 2007, 1st Prize at the VIII

Concorso Internazionale di Composizione Città di Udine – 2010. He is a member of SIMC - Società Italiana Musica Contemporanea. The scores and CDs of his pieces are published by ArsPublica and Taukay. He is also a writer: his first novel "Cauda Draconis" was published by Nerocromo Ed. in 2015; his second novel "Stagione di caccia" was published by 0111 Ed. (January 2018). His new thriller "La luna delle fragole" is published by Yume Books (May 2018).

Erika Matsunami

Akademie der Kunst, Berlin

Saturday, 23 June - 9:00 - Stendhal Hall

Possibility of experimentation in/between electro-acoustic music and other arts, after the digital revolution

This paper is a contemplation of the contemporary aesthetics in/between auditory (invisible) and visual (visible) experiences and their possibilities for the experimentation in/between experimental music and other arts, after the digital revolution. At the beginning, the "perception" of human ability and the medium "digital" as contemporary material are briefly considered as a background.

In the process of the research the medium "digital" is compared with the analogue medium as well as the magnetic tape from the point of view of aesthetics – such as in the aspect of the acousmatic theses. For this, three artistic projects are considered. The first is *Symphonie pour un homme seul (Symphony for a Man Alone)*, an early masterpiece of *musique concrète* by Pierre Schaeffer and Pierre Henry, which was composed in 1950, and a version for the ballet, which was choreographed by Maurice Béjart, that was first performed in 1955 at the Théâtre de l'Etoile in Paris. The second is the sound installation *Rotations 2* (2016) by Max Eastley, a British visual and sound artist, which was represented in the exhibition "Two Measures of Time" at the Stadtgalerie in Saarbrücken, September 2016 – January 2017. The third is the piece of music *Constellations for Koto* composed by Dr. Marc Battier, a French composer and musicologist, that was performed at the "Nacht Klang" concert at St. Elisabeth Church in Berlin, August 2012.

Simultaneously the subjects of auditive materiality and performativity are reviewed with regard to experimental music and visual arts in the potentiality of their experimentations.

Biography

Erika Matsunami was born in 1963 in Hiroshima, Japan. She is an artist and since 1991 she has lived and worked in Berlin, Germany. In 1997 she graduated in fine arts from the University of the Arts in Berlin, Germany; in the years 2009–2010 and 2011–2012 she studied music/sound art as a guest auditor under honorary professor Dr. Martin Supper at the University of the Arts in Berlin. Her artistic activities are international, for example as a member of GEDOK (Federation of Women Artists and Patrons of the Arts) and IGBK (International Association of Art) since 2008 and CID (The International Dance Council)/UNESCO since 2016. She has also been a member of the British Society of Aesthetics since 2015, the Nordic Society of Aesthetics since 2016 and the Society for Artistic Research since 2018. She has been researching span aesthetics and visual and sound art. She is especially interested in the light of insights from evolutionary psychology and cognitive science.

Clovis McEvoy

Auckland University School of Music

Saturday, 23 June - 9:30 - Richelieu Hall

Recomposed Relationships: Isomorphic Paradoxes and Media Pairings

Naturally occurring audio-visual phenomena typically exhibit perceivable, and proportionally congruent, action-reaction linkages. This paradigm is so prevalent that a natural sense of physical proportionality underpins much of the current compositional methodologies and analysis of electroacoustic music and visual music (Smalley, 1996; Zbikowski, 1998). However, there exist audio-visual phenomena that, though linked through a physical process of interaction, do not present satisfying action-reaction linkages, but instead demonstrate a distinct disproportionality between perceived input

and output. In order to better describe and categorize such phenomena, this paper introduces the term 'isomorphic paradoxes' and explores how, from a visual music perspective, such cases may be identified, classified and effectively utilised as source material for audio-visual composers.

From an 'audio-centric' viewpoint, an obvious example of such a paradox is the field of acousmatic music: here, extremely complex and immersive sound projections can be achieved with no strong visual reinforcement whatsoever (Emmerson, 2005). In the visual domain, there are similar examples: the non-Newtonian fluid, colloquially known as Oobleck, can, when activated by the vibrations of a simple, unchanging sine wave, be used to produce complex movements, interactions and symmetrical patterns (Raborn and Daniel, 1999). Though, intellectually, an observer may accept the physical interaction taking place, on a perceptual level, the isomorphic relationship between sound and visual is weak or near non-existent. The archetypal notion of cause and effect is at odds with what is experienced and, especially in the case of the casual observer, this can result in a certain amount of cognitive dissonance (Mathews, 2005). However, isomorphic paradoxes may offer significant artistic opportunities for the audio-visual composer to re-interpret these weak action-reaction linkages (Talsma et al, 2006; Coulter, 2010) and to 'recompose' the bond between sound and visuals.

This paper puts forth criteria for the identification of such cases, two distinct categories of isomorphic paradox and the compositional methods available for re-interpreting incongruous audio-visual relationships.

Biography

Clovis McEvoy is a 30-year-old composer, lecturer and sound engineer based in Auckland.

Clovis currently lectures at Auckland University School of Music in the field of sonic arts and music production. He specialises in the field of live electronics, designing customised music software for the purpose of interactive performances and installations.

In 2018 Clovis' work A Study in Virtual Music – Active Observation will be presented as a virtual reality installation at the International Computer Music Conference (ICMC) in Daegu, South Korea.

Raúl Minsburg

National University of Tres de Febrero, Buenos Aires

Wednesday, 20 June - 16:00 - Richelieu Hall

Music as sound: the quotation in acousmatic music

This work addresses an increasingly recurrent phenomenon in music made with technology: the quotation. This is a procedure that consists in the presence of fragments of preexisting works in a new composition, expanding thus the possibilities of making music through the use or appropriation of already recorded music.

Many Latin American countries, such as Argentina, Chile, Brazil or Mexico, have a long history and tradition as regards electroacoustic music, which began almost simultaneously in the late fifties. Today, the field is highly active, as can be seen in the number of works composed, in the festivals organized, in the growing number of publications, and in the even greater number of artistic and academic institutions devoted to this area.

This growing interest and development is not supplemented by a social incidence proportionate to its possibilities in terms of knowledge and access. This is due to several external factors, such as its presence (or lack thereof) in mass media and in some educational institutions' curricula, and also by internal factors, such as its relatively complex language. However, many times, a listener needs something recognizable, a given rhythmic, melodic or timbric pattern which he or she finds familiar, and that role is often played by a *quotation*. Many composers argue that music is made to be listened to, rather than analyzed or "understood". I agree. What this means for those of us who work with this type of language is that we need to bear the listener —or, better still, listeners— in mind in order to look for new ways of bringing acousmatic music to a more diverse, not necessarily specialized, audience; not with the goal of pleasing, but as a type of formal research or experimentation. The quotation is a powerful tool in this regard.

Taking as a reference the repertoire of Latin American works available in the files of the Langlois Foundation, I will present a survey which identifies the works which made use of quotations and the decade in which they were composed. Moreover, I will attempt to establish a link between the

composer's nationality and the origin of his or her quotations. Last, and after a brief historical review of quotations in acousmatic music, I will develop the perceptive impact of the quotation, in order to see how the use of a preexisting sound has a discursive function within the work and generates referentiality in the audience.

Biography

Composer, researcher and professor. He won several awards as a composer, being the latest the prize of the Government of the city of Buenos Aires (2013) and an honorific mention in the Prix CIME 2017 - International Confederation Of Electroacoustic Music.

He develops his activity as a Professor and Researcher at the National University of Tres de Febrero, in Buenos Aires, Argentina, where he is member of the Instituto de Investigaciones en Arte y Cultura. He is also Professor and Researcher in the National University of Lanús, also in Buenos Aires, Argentina.

His music has been performed in many different concerts and Festivals and his works has been released in different editions of Cds.

He is founder of the RedASLA, a network dedicated to the Latin American Sonic Arts and musical coordinator of the Festival "Bahía (IN) Sonora" from the city of Bahía Blanca.

Jun Mizumachi

Sound Artist, New Rochelle

Biography

He is a freelance sound artist/sound designer, lives and works in the US and Japan. He writes electro acoustic music and creates sound design for films, videos, theatre, dance and art installations. He has been writing and performing soundscape for Hayden Planetarium at The American Museum of Natural History.

Also he works with numbers of directors for feature films, documentary films and art videos. Notably, the film he worked on received the 2018 academy award for the best shot subject documentary film.

Mikako Mizuno

Nagoya City University, Nagoya

Thursday, 21 June - 14:30 - Richelieu Hall

First Japanese reception of MAX, as a meta-language of symbolic logos ---------- Nobuyasu SAKONDA and the body of Fluxus

The presentation focuses on the Japanese situation of introducing Max and discusses the aesthetical thinking inspired by Max, especially in the case of Nobuyasu Sakonda. Although Max v.1.0 had been used by Yuji Takahashi and Mamoru Fujieda before Sakonda and Akamatsu, more Japanese programmers, or programming beginners, and composers accessed to Max and learned it in the special atmosphere of sound arts in Kobe and Kyoto during the time from 1993 to 1996. In these cities no other artists concerned live-electronic performance than Yuji Takahashi. Takahashi's performance style was pretty different form that of Boulez and of Manoury.

I will verify ten years from the foundation of Xebec hall (1989) in Kobe as my discussion base because the place gave a very different cultural atmosphere from that of Tokyo, where the big festival of contemporary music was produced by Suntory Music Foundation but no electroacoustic music was performed at that time.

In the history of ten years of Kobe Xebec hall, that is from 1989 to 1999, we find several influential festivals, concerts and events; *Macintosh Music Fest* by Takahashi and Carl Stone(1989), *Kobe International Festival of Contemporary Music* (1990), *Just Forum* by Mamoru Fujieda(1996-1999), JACOM (Japan Computer Music Association) concert(1994), exhibitions and performances of sound arts by Akio Suzuki, Hiroshi Yoshimura, Mineko Grimmer, Kazue Mizushima and Nobuyasu Sakonda, workshop titled *Work on MAX* vol.1 - vol.6, International Computer Music Festival'98 to cerebrate 50 years of

musique concrete with François Bayle, Daniel Teruggi, François Tonato, Denis Dufour, Christian Zanési, etc.

<Ordering a Pizza de Brothers> (2003) is a live performance in which Formant Brothers played a keyboard to generate an artificial speech via telephone. They could succeed in both musical(the pizza shop staff can understand the meaning of the machine phonemes) and economic (paying money) activity and the audiences got a piece of pizza as a side-effect. Setting aside discussing about Miwa's extremely radical thoroughness and the graciousness, I want to think again about Sakonda's context of sound producing. Are the sounds only the results of system or the operation of replacement of phonemes? If so what is the aesthetic goal of their performance? Furthermore Sakonda asked to himself. When we deprive meanings of the words and make operation directly onto the data, that is, the concept of information, "what exactly does the concept of information explain, provide or prevent? "

After the first Japanese Max textbook, Sakonda and Akamatsu published three books on Max. With these books the younger generation learn Max more easily, but it is not sure to encounter the similar actual situation today between audio-visual programming and audio-visual communication in musical piece.

Biography

Graduated from Tokyo University(aesthetics) and Aichi Prefectural College of Arts and Music. Master degree for composition. Dr. of Engineering concerning the theme <Space Concept in the Contemporary Music>. The pieces were premiered in France(Bourges, Paris) Austria(Salzburg), Hungary(Budapest), Germany(GEDOK), Italy(International Music Festival in Venice, Alba Music Festival) Republic of Moldova (*Ars Poetica*), ISEA2000 and 2002, ISCM2003 and 2010, EMS2010 Changhai, *Musicacoustica2010* (Beijing), ACMP2011, 2012, 2013 , WOCMAT2013 and in several cities in Japan.

Professor of Nagoya City University, President of Japanese Society of Electronic Music (JSEM), Committee member of Japanese Society of Sonic Arts (JSSA) etc.

Steven Naylor

Acadia University, Wolfville, Nova Scotia, Canada

Friday, 22 June - 12:00 - Richelieu Hall

Sound Design and Electroacoustic Music: Practices or Perspectives?

The development of sound recording and reproduction technologies has enabled a wide range of creative practices in sound. Among those, we find the relative neologism 'sound design'—a descriptor associated particularly (albeit not exclusively) with sound for dramatic and visual media productions.

While there appears to be broad agreement that sound design can play an essential role in those productions, there is less consensus about what it actually 'is'.

From a structural perspective, sound design might simply be seen as the sonic equivalent of other functional design responsibilities, such as costumes, sets, or lighting. But its artistic implications are much less clear.

For example, in film, a sound designer's artistic responsibility could range from creating specific specialised sounds (such as for invented creatures, or futuristic weapons) to overall responsibility for the tone and content of the sound track.

Similarly, in major theatre productions, the sound designer may be responsible for any combination of playback system design and installation; diegetic sounds or 'sound effects' within the production; non-diegetic or 'abstract' sound material; and the choice of pre-show, transitional, or post-show music.

For electroacoustic composers interested in working within these media, the obvious question is: where do we fit in?

In a conventional production hierarchy, a 'composer' is likely to be considered exactly what we might expect – the person responsible for the 'musical score'. But while the title may seem clear enough, the actual creative role of the composer can be considerably less so, depending on the production context, and the style and materials of their contribution.

For instrumental composers, there is usually an assumption that 'the score' will meet the traditional expectations of 'music', and in so doing be reasonably distinguishable from other sonic layers in the production. Of course, some productions may encourage exploration within that paradigm – but the role is usually clear enough, and the result still constrained by expectation.

In contrast, when an electroacoustic composer creates a 'score' for a dramatic or visual media production, that contribution can readily be conflated with 'sound design'.

After all, apart from projects where all sound materials are created in real-time performance, both roles involve working directly with concrete sound materials on fixed media in support of the production—and both potentially have at their disposal the full range of sonic possibilities, rather than a well-understood and relatively limited subset of instrumental resources.

In some production contexts – particularly smaller, more adventurous, or inherently collaborative ones – the creative result of this potential ambiguity may, in fact, be quite positive. If a single artist has taken on both roles, they may have considerable creative freedom for their work. And if the roles have been assigned to two different fixed media sound artists, they may readily find common ground, while also recognising the value of each other's specialisms.

But it is equally possible that the overlapping materials and range can encourage confusion about exactly what is expected from each role – and, all too frequently, there is also considerable ambiguity about how to recognise or credit the resulting creative contributions.

To examine this evolving situation, we briefly review relevant critical discourse for both practices, then consider some specific production contexts. Finally, we reflect on personal perspectives provided by several electroacoustic composers who are also actively engaged in sound design for film and television, gaming, or theatre. In the end, definitive answers will likely still be elusive – but our goal is simply to offer electroacoustic composers useful viewpoints on potentially rewarding creative opportunities.

Biography

Steven Naylor composes electroacoustic and instrumental concert music, performs (piano, electronics, seljefløyte) in ensembles concerned with through-composition and improvisation, and creates scores and sound designs for theatre, film, television and radio.

His concert works have been performed and broadcast internationally; his theatre soundtracks have played to live audiences of over five million, in 15 countries. Steven co-founded Nova Scotia's *Upstream Ensemble* and *The Oscillations Festival*, and is a former President of the *Canadian Electroacoustic Community*.

He is artistic director of *subText Music & Media Arts*, an independent artist, and Adjunct Professor in the School of Music at Acadia University. His solo DVD-A of electroacoustic works, *Lieux imaginaires*, released on *empreintes DIGITALes*, was nominated for an East Coast Music Award.

Steven completed the PhD in Musical Composition at the University of Birmingham, UK, supervised by Jonty Harrison. He lives in Halifax, Nova Scotia, Canada. || sonicart.ca

Per Anders Nilsson

University of Gothenburg

Wednesday, 20 June - 14:30 - Richelieu Hall

Notions of Experiments in Electroacoustic Music

In this paper the author presents notions of artistic experiments, in relation to electroacoustic music practices. As a start one may pose some questions: what is electroacoustic music, what is an experiment; is electroacoustic music still a form of experimental music? Are there answers to such questions? This presentation does not claim to give definite answers, rather a number of questions and perspectives are proposed on subject matter. One crux is that neither electroacoustic music nor the experimental is clearly defined and agreed upon.

What is electroacoustic music? It is, from my point of view, art music created with electronic equipment, generated and/or replayed and heard from loudspeakers, sometimes mixed with other media such as film/video, and/or musicians playing traditional musical instruments. And its roots can be found in the 20th century western art music tradition.

What is experimental art? Artistic experiments aim to explore the unknown and to create new artistic paths and is not subject for analyses of success or failure. In my opinion, the evaluation of a given artistic experiment is based on subjective aesthetical preferences and will accordingly be judged differently from artist to artist. Another view on experiments is to regard the electroacoustic music studio as an experimental system. The electroacoustic studio, whether it is a big professional studio or a lap-top based home studio, can like a church organ be regarded an experimental system. In such a view, it serves many purposes: as a musical instrument for realizations of artistic ideas, as well as a resource for artistic and scientific experimentation with sounds.

From one point of view electroacoustic music is no longer experimental because most barriers are broken. From another, it is still experimental, since composers nevertheless are still experimenting with new tools, and new expressions of music. The aim with such experimenting is most likely not to produce new knowledge per see, rather to produce new music, with each new piece composed however, new knowledge is produced.

Biography

Per Anders Nilsson (1954) PhD. /Professor in music and media, improvising electronic musician and electroacoustic composer. Studied saxophone and electroacoustic music from 1981-87 at the School of Music at University of Gothenburg. In 2011, he finished his PhD thesis *A Field of Possibilities*: *Designing and Playing Digital Musical Instruments*. In his research, Nilsson developed a number of digital musical instruments, and a major tenet was to explore relations between made up design decisions of these instruments and its usability in real life playing. For the time being Nilsson is employed in a research project founded by Swedish Research Council called *Systemic Improvisation – computer-mediated interaction models for decentralized music-making*.

Moreover: Nilsson was commissioned with the acousmatic piece *La gamme voiture XM* by GRM in Paris 1999. Has been played at several ICMC

conferences as well as participating at NIME. Nilsson has also performed with free improv musicians such as Evan Parker, Eddie Prévost, and John Tilbury in addition playing with his regularly groups duo pantoMorf and Natural Artefacts. Nilsson has regularly being invited as visiting scholar to institutions such as CNMAT at UC Berkley, CCRMA at Stanford University and CREATE at UC St Barbara.

Andreia Nogueira

NOVA University, Department of Conservation and Restoration, Lisbon

Saturday, 23 June - 15:30 - Richelieu Hall

Examining the future of born-digital musical works. A survey on the Portuguese composers' preservation practices

The purpose of a score is primarily to preserve music, ensuring that a given work has an afterlife. However, with born-digital musical works which are prone to rapid obsolescence new preservation needs emerged. In this case, including the production of a proper complementary documentation on the musical text, one that encompasses information about software and hardware equipment along with the composers' intentions. It is, however, not always easy to define who is responsible for producing that documentation, as there are few institutions archiving this sort of heritage and keen to devote their human and financial resources to preservation issues. In other words, because most contemporary musical works are not institutionalized and hence not accurately documented or preserved this leaves that only those works that are being presented regularly will survive due to a performance-driven approach towards their technological upgrade. This is even more evident in the Portuguese realm, as there is no national phonographic archive or other sort of institutions devoted to the preservation of the contemporary musical legacy, which is being kept mainly at the composers' personal archives. This means that, apart from their creative labor, Portuguese composers are also being assigned to

accomplish preservation procedures of documentation, migration and emulation.

Departing from this backdrop, a questionnaire was submitted to and returned by 53 Portuguese composers in order to access the state of their involvement in the preservation of their works, especially those born in the digital era. With this procedure it was possible to realize that 60,4% of the respondents use music composition software, such as Max/MSP, PD, CSound, SupperCollider, among others. This is particularly challenging considering the rapid obsolescence of the associated software and hardware devices. This questionnaire also indicates that 77,4% of the composers that replied to the survey believe that with a proper documentation any work can be preserved for the future. And yet, composers are not particularly concerned with documentation, as only 24,5% of the respondents attempt to always document their works. A situation that may pose at risk a significant portion of our contemporary musical legacy.

In a word, by reflecting upon the results from the mentioned questionnaire, the aim of this paper is to examine the future of born-digital musical works and to demonstrate the need for the creation of new networks and repositories for documentation, that in Portugal are specially lacking. Without the establishment of this framework a significant part of our contemporary musical heritage will not be properly documented or preserved, and its future will be uncertain.

Biography

Andreia Nogueira is a PhD candidate at the Department of Conservation and Restoration, NOVA University of Lisbon. Her PhD research focus on the preservation of the Portuguese electroacoustic musical heritage through its documentation. She is also interested in reflecting on the concepts of authenticity, memory and archive. Between 2011 and 2013 she was a researcher on the project "Documentation of Contemporary Art". During that period, she had also completed her Master degree in Conservation and Restoration at the same university with the dissertation "Documenting: why, what, how and when? The preservation of Francisco Tropa's oeuvre".

Robert Normandeau

Université de Montreal

Saturday, 23 June - 12:00 - Stendhal Hall

Musical composition and measurement of sound space in 3D, a matter of scale

It will be here question of acousmatic music, that is to say of a musical art on fixed support (as opposed to the instrumental music) comparable to the cinema (face to the theater). The composer of acousmatic music works directly on the sound material, such as the painter's painting or the sculptor's stone. He is as independent as the latter, since like them, his work is completely finished when he leaves his studio.

One of the characteristics of acousmatic music is its context of presentation in concert. It is spatialized on orchestras or sets of speakers, arranged in a room in front of and around the audience, with a musician-broadcaster at the console that distributes the sound according to the internal space of the work. For a long time, say since the beginning of the 70s, the spatialization of the works has been done in plan mode, that is to say in two dimensions.

We will wonder if there is a grammar or a syntax of spatial composition, as there is one in terms of heights, especially as regards polyphony. Spatially, we know that mask effects - one sound can hide another - can occur when sounds appear in the same location axis. But from what threshold of differentiation (KUPPER: 1991) will the sounds begin to appear distinctly from one another and consequently become significant? Does a sound triad presented in front of the listener have the same perceptive weight, the same musical function if the three sounds that constitute it are presented in the form of a triangle around the listener? Does a sound gesture or a musical phrase have the same perceptive "weight" presented in plan view – at the height of the ears – with respect to a certain height in the speaker dome? This is the kind of question we are looking for in this research.

The tools we develop are open source, so distributed free to the community. It encourages international creation and collaboration.

Biography

His work as a composer is mainly devoted to acousmatic music, although he composed some mixed works. More specifically, his compositions employ esthetical criteria whereby he creates a 'cinema for the ear' in which 'meaning' as well as 'sound' become the elements that elaborate his works. More recently Robert Normandeau composed a cycle of works of immersive multiphonic music for dome of loudspeakers. Along with concert music he has composed, for a period of twenty years, incidental music especially for the theatre.

He also worked as artistic director for over twenty years, especially for the concert series Clair de terre (Association pour la création et la recherche électroacoustiques du Québec (ACREQ)) from 1989 to '93 at the Planétarium de Montréal, and Rien à voir and Akousma (Réseaux) from 1997 to 2006.

He is Professor in electroacoustic music composition at Université de Montréal since 1999. after completing the first PhDMus in Electroacoustic Composition (1992), under Marcelle Deschênes and Francis Dhomont. He leads the Groupe de recherche immersion spatiale (Spatial Immersion Research Group, GRIS), which produces sound spatialisation software.

Garth Paine

Arizona State University, Tempe

Friday, 22 June - 15:00 - Richelieu Hall

Interactive Time

Music is typically described as a temporal art form. Songs have verses, choruses, and bridges, symphonies have expositions with first and second subjects, developments and recapitulations, arranged one after another in known orders. One might consider time to be highly embedded, not only in the symbolic representation of the instrumental parts, drawn out on page within a time vector, tempo, but also embedded in the composition as formal structure, as an over arching conceptual vessel.

Interactive performance offers up new dramaturgical and formal challenges, where inter-relationships may be dynamic, overall structure and form are malleable and where, the performer at the heart of an interactive system often needs to have multiple, parallel awareness's.

When considering these possibilities, tradition approaches to composition are challenged. Systems that do not use pre-recorded content, but rely on realtime synthesis in performance, break down the traditional processes of content creation, rehearsal and performance. When using realtime synthesis, the performance may be the moment of content creation. In fact this is one of the unique potentials of such digital systems.

If we consider the inherent properties of digital creation, computation, where computers generating the material perform 20 trillion floating point operations a second or more, one might ask, what does it mean for time as a vector of interactive performance if the processing rate makes time imperceivable? Does or has the functional method of production established a time base for perception of content creation and performance? Is pre-digital practice vested in an embodied or enactive framework of human scale time - of biological time?

A second and simultaneous investigation is my post-concert experience, which, even of a highly structured work, leaves an impression of the performance as a compacted gestalt that encapsulates everything as a singular sensation – a kind of simulacra, a gestalt of all states of the work and its interactive potential.

In this experience there is no time vector. Time exists in the performative unfolding of the musical language and it exists in the recounting of a musical experience, but the performative memory is without time. Computer games offer a similar potential, sets of objectives, some inter-related, played out in an individualized articulation. The computer game is distinct from the musical and performing arts in that it is a poster child of the digital revolution – a form that was initiated in and inherently grew from the potentials of computation.

In considering inherent digital qualities, a framework titled SEAM (Somatic Embodiment, Agency and Mediation) was developed under the following headings: 1) Experience and Embodiment, 2) Agency and Control, 3) System Dynamics, 4) Process.

This paper will outline how time is a factor within each section of the framework and how this might lead to novel approaches to time in composition and performance.

Biography

Garth Paine is a composer, performer and scholar. He has created interactive responsive environments where the inhabitant generates the sonic landscape through their presence and behavior and composed many music scores for dance works, generated through realtime video tracking and bio-sensing and for acoustic instruments and live electronic processing. He has received awards for Outstanding Creativity, Best New Musical Score for Dance and his work has been shown across the globe.

Garth presented the Keynote at NIME2016 which outlined a framework for digital music instrument design. In 2014 he gave a Keynote for the Ecomusicologies Conference addressing Acoustic Ecology 2.0. Dr. Paine is a Professor of Digital Sound and Interactive Media at the School of Arts Media and Engineering and Digital Culture program at Arizona State University, a professor of Composition and Co-Director of the Acoustic Ecology Lab.

Jean Penny and Andrew Blackburn

Federation University, Victoria

Wednesday, 20 June - 11:00 - Richelieu Hall

Cultures, Chance, Electroacoustic Spaces: Exploring performance aspects of Cage's _____, _____ _____ CIRCUS ON _____.

Memento Memori: A Malaysian Circus on The Garden of Evening Mists [A novel by Tan Twan Eng]

Original composition: John Cage.

This realization supervised by Warren Burt, Catherine Schieve and Andrew Blackburn.

First performed at the Cage101 Conference at Universiti Pendidikan Sultan Idris, August 23, 2013.

This paper probes questions of performance space analysis and understandings of artistic interculturality in an electroacoustic context through the prism of Foucault's principles of heterotopia. The investigation focusses on the composition and performance of *Memento Memori: A Malaysian Circus on The Garden of Evening Mists* [A novel by Tan Twan Eng].

The idea of creating a Malaysian version of John Cage's _____, _____ Circus on _____ (1979) evolved in 2012-13 within a context of conference curation, intercultural research, and a wish to create a collection of evocations of Malaysia, with its extraordinary sounds, images and feelings. Tan Twan Eng's beautiful novel provided the perfect setting. It is a story of memories and loss, but above all a story of personal resolution intertwined with Malaysia's history. Cage's work (1979) is a set of instructions for turning any book into a music theatre performance without actors, which includes reading, environmental sounds, and music from various groups spread around the performance space. The construction of the work through text (Tan Twan Eng's *The Garden of Evening Mists*), images (of Kuala Lumpur, the Cameron Highlands, and Tanjung Malim in Malaysia), electroacoustic (manipulated environmental recordings and composition) and instrumental (traditional Malaysian and Western) sound, mesostics (chosen through I Ching methods) and narration created an elaborate series of processes and outcomes. Experimentalism, inherent in Cage's score instructions ("the performance will have '…untested ideas' and the music will by adherence to the score itself be 'not yet established or finalized'") (2013) proved an intrinsic part of performance. Applying Foucault's notion of heterotopia as a research model aims to provide new ways of articulating information in an experimental electroacoustic location. The layering of elements and spaces of performance, when seen through principles relating to cultures, spaces, time, opening/closing and functional and illusory space, creates a potential for gaining valuable insights into these interactive musical spaces.

Biographies

Flautist Dr Jean Penny, returned to Australia in 2016 following four years as Senior Lecturer in Music at the Fakulti Muzik dan Seni Persembahan, Universiti Pendidikan Sultan Idris, Malaysia and her subsequent

appointment as a Fellow at the UPSI Education Research Laboratory. Her multifaceted career has included extensive experience in performance with major Australian orchestras, ensembles and recitals, teaching at multiple levels, new music performance, intercultural studies and practice-led research. Her Doctor of Musical Arts (QCGU 2009) study investigated the performative nexus of flute with digital technologies. In Malaysia she led major research projects and was Chief Editor of the peer reviewed Malaysian Music Journal 2012-2015.

Dr Andrew Blackburn's career has spanned a broad range of musical pursuits, including music education, keyboard performance, music technology, and choral conducting. He has performed widely as soloist and with orchestras and ensembles in many parts of the world. In 2011 he was appointed Senior Lecturer in Music, Deputy Director of UPSI Education Research Laboratory, and Research Fellow at Universiti Pendidikan Sultan Idris, Malaysia. His research includes pipe organ and live electronics performance, forms of musical representation, higher education training and assessment, intercultural music, and musical histories in Malaysia. His Doctor of Musical Arts (2011) thesis was *The Pipe Organ and Realtime Digital Signal Processing: A Performer's Perspective*.

Isabel Pires

Nova University, Lisbon

Thursday, 21 June - 11:00 - Richelieu Hall

From an image to another: François Bayle and the experimental cinema from the sixties

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« [...] notre époque demande un effort de conscience pour comprendre que nous vivons dans un monde d'images. »

The studies on the relationship between electroacoustic composers form the *Groupe de Recherches Musicales* (GRM) and filmmakers from the *Groupe de Recherche Image* (GRI) are scarce. Even if some studies were produced, no specific work on the artistic and creative side of this collaboration as being

produced. In the same sense, no studies have been made about the aesthetic impact that the technologies and experimental techniques had on the artistic products.

So, after shortly presenting the *Service de Recherche*, we will focus our discussion on a particular work, approaching at the same time, the concept of *sound image* from François Bayle and its relationship with the sixties' experimental animation cinema. It is not by chance that Bayle considers us living in a world of images, explaining that «la musique "a un sens", elle contient et décrit des idées". Those ideas can be represented by images – either *sound images* or images on a screen.

Exploring the collaboration between filmmakers and composers at the *Service de Recherche* in the sixties is also to discuss some conceptual ideas, technological prototypes and experimental techniques. We will focus our presentation on Bayle's collaborative works with the filmmakers referred above, Piotr Kamler and Robert Lapoujade. In this context, where "l'écran du silence et du non-visible les sons projetés fonctionnent comme des images-de-sons, fragments de sens, pensée hors des mots, langage d'aéroformes», we will discuss Bayle's concept of *sound image* and its use as a compositional paradigm. We will also dwell on his compositional thinking in the context of these collaborations.

Still in the context of an analytical study of Bayle's acousmatic music from the sixties, we consider his musical compositions for image of this decade. We will focus our attention on works like *Lignes et points* (1961/1966) for an animation film by Piotr Kamler, *Galaxie* (1964), by the same director, or *Trois portraits d'un Oiseau-qui-n'existe-pas* (1963) for a film by Robert Lapoujade, whose third part, *L'oiseau Chanteur*, will later be included in *Trois Rêves d'Oiseau* (1971).

In our presentation, however, we will work around *Lignes et points*, whose first version (1961), titled *Vapeur*, was a 4 track piece essentially based on instrumental recorded sounds. This musical work, composed for Kamler's experimental animation film *Lignes et points / Linie i punkty*, was completely reworked in 1966, taking at this moment the title of Kamler's film. This becomes the definitive version of the cinematographic and musical work. *Lignes et points* will subsequently be integrated in an acousmatic work – *Métaphore, lignes et points* (1970), as part of the *L'Expérience Acoustique* cycle.

In this preliminary study of the two components of *Lignes et points* (animation and music), we will focus our attention on the articulation

between sound and image, as a product of collaborative work, as well as his potential as an autonomous acousmatic piece.

To discuss this passage from the "visible screen" to the loudspeaker - the "non-visible screen", we will refer to the complexity and coherence of the concepts of *sound image* and *listening space* in both music and image. Our analysis will be based on considerations about the experimental animation film and a musicological approach to the musical work.

Biography

Composer and performer of acousmatic music, Isabel Pieres has a PhD in *Esthétique, Sciences et Technologies des Arts - Spécialité Musique* from Paris VIII University. Teacher at Universidade Nova de Lisboa, she is a CESEMs researcher, director of the "Musical Arts: Music and Technology" Master degree, and director of LIM (Laboratory of Computer Music). Her research is focused on the cognitive auditory perception and the sound as physical phenomena relationship in musical contexts, as well as focused on the notions of space in music composition, contemporary music analysis and music recordings preservation. Her musical works include instrumental, acousmatic music, instrumental and mixed-media music and has been presented mainly in Europe.

Nathanaëlle Raboisson

MotusLab - Motus Compagnie musicale, Paris

Saturday, 23 June - 11:30 - Stendhal Hall

Analysis of creative process in acousmatic interpretation on acousmonium

Since May 2015, MotusLab has led research into acousmatic performance on acousmonium (loudspeakers orchestra). The main goal is to confirm or not, if a creative process might be in such a performance, and so to investigate how an interpretation could be verbalized and which parameters and methods a performer could use for that purpose.

Motus musical company is specialized in concert with loudspeakers orchestra, and in the interpretation of acousmatic music on this device. Since the beginning of the study, 72 concerts of acousmatic music performed on Motus' acousmonium have been recorded and analyzed. This talk will present some results of the research.

After a brief introduction on explaining the Motus' play device, I will first present performer's method of work, and show how performance is directly linked to listening and sounds references. By the comparative analysis of two performances of the same piece (two different performers), I will bring to light the way the performer constructs his interpretation and the most relevant moments of expressive choices. Each performer has his own interpretation project, his musical preferences, that he transcribes, by planning to use one or another speaker, with dominant game strategies and with his own gestures.

The acousmonium appears to be a real musical instrument, which need learning, practice and technical control. Current research, based on video's concerts analysis, allowed us to detect gesture pattern, and to describe and classify them. Second, I will explain how a cross analysis of these pattern with sound parameters and musical writing, reveals their musical functions. Gesture's research also confirms that variants of musical gestures not only result from musical preferences and sensibilities but also result from an instrument appropriation and from levels of virtuosity.

To analyze an acousmatic performance we must record and build on multiple traces of the performance including, video and audio records of performances, data collected from the musical interface, acousmonium's specifications, and playing scores (made by performers). No prescriptive notation exists for acousmatic performance on acousmonium. Playing scores give additional informations on the interpretation project, particularly on choices of sound's parameters balance and hierarchical organization. At least, I will set out the links between gesture typology, sound, and playing scores' contents and notation. Connections of performances' data with playing scores permit to estimate the relation between the project view of interpretation and the realization.

Before this research, very few practical or analytical tools exist to study and conceptualize acousmatic interpretation. This paper will simultaneously make explicit and illustrate new tools and methods used.

Biography

Musicological researcher, Doctor in aesthetic of digital arts, Nathanaëlle Raboisson conducts research on acousmatic interpretation and on the immersive and interactive experience in art installations.

Nathanaëlle Raboisson performs the acousmatic repertoire on acousmonium since 2004. She is a member of the Motus Musical Company (motus.fr) and she founded and manages the MotusLab research laboratory.

She teaches acousmatic interpretation, composition and analysis in master classes, training courses, and university seminars.

She is in charge of administrating the Motus Musical Company and the Futura Festival (festivalfutura.fr). She is also piano teacher, maker and tuner.

Felipe Ribeiro

Universidade Estadual do Paraná

Wednesday, 20 June - 14:00 - Richelieu Hall

The Democratic Potential of Fixed-Media Electroacoustic Music

Although electroacoustic music was known for its "liberation of sound" in the first half of the 20th Century, as affirmed by Edgard Varèse, not much has been stated about electroacoustic music's social impacts. Although many perspectives exist, this research focuses on the singularities of creation and reception in Electroacoustic Music. With regard to the traditional and linear concept of creation, electroacoustic music has interesting particularities. Since composers have the potential to become performers as well as instruments' designers, electroacoustic music is the first genre that blends compositional process, performance practice, and instrument design into the same structure, which can be modular, mutable, and custom designed for each piece. The other aspect of electroacoustic music that

interests us is the artwork's reception. In fixed-media electroacoustic music, the copy and reproduction concept are crucial because they are part of the work's essence. The theories and studies of Walter Benjamin, especially his understanding of the art concepts in film and photography are central references for this research as they can be applied to electroacoustic music. Thus, this text focuses on the political, social, and cultural changes in fixed-media musical works, from independent composers' music creation to the audience's access to the original work.

Biography

Brazilian composer of instrumental and electroacoustic music, studied composition with Dániel Péter Biró, Gordon Mumma, and Cort Lippe throughout his master's and PhD-level studies. Dr. Ribeiro has received several prizes and grants, such as the Funarte Composition Prize (in both 2016 and 2012), the Presidential Fellowship at SUNY Buffalo (2008-2011), and finalist for the NE/BAM Brazilian Composers' Competition in the Netherlands. He has also been selected as a composer for a diverse number of festivals, including the EXPERIMENTALSTUDIO des SWR matrix13 in Germany (2013) and the Goethe-Institut Buenos Aires, Bienal de Munich/Festival Internacional de Novo Teatro Musical (Argentina, 2015). Dr. Ribeiro's music has been performed in various concert halls in a number of countries, including the U.S., Germany, Hungary, England, Canada, Brazil, Argentina, Sweden, and the Netherlands. Dr. Ribeiro is currently professor at the Universidade Estadual do Paraná (Brazil), and editor-in-chief of the Vortex Music Journal.

Gerard Roma

CeReNem, University of Huddersfield

Friday, 22 June - 11:30 - Stendhal Hall

Interdisciplinary Research as Musical Experimentation
A case study in musicianly approaches to sound corpora

→ See Owen Green

Lula Romero

Artistic Doctoral School, University of Music and Performing Arts, Graz

Saturday, 23 June - 12:00 - Richelieu Hall

Experiment and Experience. The Openness of a Space of Encounter

What does the experimental in electroacoustic music mean, beyond the mere use and development of new technologies? Can we equate its experimental character with the use of a method of empirical experimentation modeled after the sciences? Can we still, following John Cage, think the musical experiment as an "action [...] the outcome of which is not foreseen"? If we accept both conceptions, we can understand the experiment in electroacoustic music as a practice whose processes could be modeled after the sciences, that takes place in the realm of sound production with electroacoustic means and whose goal is to create an experience of something that is not yet known. Therefore, the question will be the nature of this experiment and whether contemporary electroacoustic practices develop experimental processes and give rise to possible experiences of their results that can themselves be described as experimental. Furthermore, this paper regards as fundamental the revision and re-thinking of the conception of experiment in electroacoustic music in light of current developments and understandings of experimentation from the philosophy of science and art and in relation with contemporary issues of gender and social equality.

This paper relates new approaches to material described by philosophers of science (Barad, Rheinberger) with experimental artistic practices in electroacoustic music. It will thereby re-conceive notions of the musical experiment and openness. The experimental character of a musical work or practice will be investigated by means of three coordinates, which help to describe the degree of openness. These coordinates represent the process (how the experiment is conducted), the means (the use of electroacoustic means in the experiment) and the result itself (openness of the aesthetic experience). In addition, questions of gender and the role of the composer and the listener will be addressed.

In conclusion, this paper proposes a conception of experiment as a practice that encircles the unknown in the composition process and that opens up a space of encounter in the experience of the performance. This paper understands those works as experimental that do not impose an unequivocal listening or understanding but rather aim to unfold in different aspects and dimensions to be discovered and explored by the listener. By inviting the listener to take an active role in the experience, the experiment can be seen as a subversion of the hierarchical composer-material-listener relation.

Biography

Lula Romero is a composer of electroacoustic and acoustic music and a doctoral candidate at the University of Music and Performing Arts, Graz, Austria. She holds degrees in composition, piano, and art history.

In her compositional work she explores the phenomenon of space in music with regard to structure and material and their relation to theories and practices of feminism and questions of social equality.

Romero has been awarded among others with the "Edition Zeitgenössische Musik" (WERGO) by Deutscher Musikrat, Portrait CD (2017), the GIGA-HERTZ Production prize 2014 by the ZKM | SWR EXPERIMENTALSTUDIO, the Kompositionsstipendium 2015 and 2012 and the Berlin–Rheinsberger Kompositionspreis 2011, and the Residence at the Deutsches Studienzentrum Venedig (Venice) 2017 by the German Government.

She lives and works in Berlin.

Judith Romero Porras

Sorbonne University and IREMUS, Paris

Saturday, 23 June - 14:30 - Richelieu Hall

Two notions in electroacoustic music: process and interaction

The purpose of this lecture is to oppose two notions of "experimental" term in electroacoustic music. In 2002, the sound artist Rogelio Sosa affirmed in his article *New Electroacoustic Poetics*: "the electroacoustic creation ceases to be a purely experimental process and becomes a musical and compositional process". For Sosa, "experimental music" was a definition available until the advent of personal computers. Afterwards, access to personal computers allowed composers to manage his work more and more freely. However, Wilfrido Terrazas uses the term "experimental music" – term of Manuel Rocha – in an article of 2011 to define the contemporary musical production in Mexico. Its characteristic elements are improvisation, open form, timbre exploration, collective creation and multiparameters.

Our proposal aims to explore these notions, musical production and musical process as two paradigms that confront each other and that can help us answer the question: is electroacoustic music still experimental? We believe that the answer would be to define the boundaries between these two terms. We also believe that we can find the answer if we keep in mind the different levels of interaction between instrumentalists and current electronic devices. We will take as an example of this interaction the work of Roberto Morales Manzanares "Cenzontle" (Mockingbird) for flute, percussions and electronics. This interpretation could help us to better understand electroacoustic music and the notions that derive from it.

Biography

Judith Romero Porras was born in the city of Puebla on April 16th, 1975. She obtained a bachelor's degree in classical music at the Conservatory of Music of the State of Puebla. She worked there for 11 years as a teacher in training hearing and piano.

In 2010, she received a scholarship from the Ministry of Education of the State of Puebla for master's studies in musicology at the University of Paris-Sorbonne. This research was extended with a scholarship from Columbia University in New York during the fall of 2012. Her research subjects concern the history and construction of a musical identity in Mexico in the twentieth century. The evolution of Mexican music led her to become interested in the introduction of new techniques of composition of the 1960s. This subject is currently her research line for the doctorate in music that she has been doing since November 2015 under the advice of Ph.D. Marc Battier.

Danilo Rosseti and Jônatas Manzolli

University of Campinas

Saturday, 23 June - 14:00 - Stendhal Hall

Convergences in Different Conceptions of the Granular Paradigm in Electroacoustic Music from the Notions of Sound Flux and Emergence

This study has the aim to reveal convergence points between different works of the Granular Paradigm in electroacoustic music, and to investigate composition techniques and procedures applied to these works in order to generate sound flux as a kind of timbre variety. The Granular Paradigm in music (Solomos, 2006) emerged in the late 1950s from Iannis Xenakis' propositions, influenced by Dennis Gabor's acoustic quanta theory. Our viewpoint is that granular techniques applied to musical composition generate considerable sound flux. In order to examine this spectral activity, we anchor our analysis in two concepts: *Volume* and *Emergence*.

The Volume concept, coined by Truax (1992), is the perceived magnitude of a sound or the psychological "space" which a sound creates and occupies. For this concept, we are based on a graphical representation introduced by Malt (2012). We also discuss the emergent sonority produced by the interactions among the grains, dialoguing with the Emergence concept from Di Scipio (2003). The dynamic activity produced by the interactions between the grains in microtime generate the perceived

macroform of these works, which exhibit new properties that the isolated grains do not have. In order to visualize those emergent structures, the *Spectral Liveness* graphic representation was developed, a two-dimensional phase space plot composed by two audio descriptors: Spectral Flux (a measure of how quickly the spectrum amplitude changes), in the X-axis, and Spectral Flatness (the quantity of noise found in the spectrum, in opposition to a tonal configuration), in the Y-axis.

The approached concepts and their graphical representations are applied to three granular works: *Concret PH* (1958), from Iannis Xenakis, *Riverrun* (1986), from Barry Truax, and *Schall* (1996), from Horacio Vaggione. From the Volume graphic, a temporal representation, it is possible to perform a formal segmentation of the works, based on the perceived timbre discontinuities and modifications. From the Spectral Liveness graphic, an out-of-time representation, we can understand the timbre qualities of the works in terms of harmonic/noisy configuration and the amplitude variations of the spectrum activity. From these analyzes, we compared the obtained results of the three works, in order to evaluate the sound flux production and its features.

Biographies

Danilo Rossetti studied composition (instrumental and electroacoustic) with José Manuel López López, Silvio Ferraz, and Flo Menezes, and live-electronic music techniques with Alain Bonardi and Anne Sèdes. Ph.D. in Music Composition at the University of Campinas, with a doctoral stage at the CICM of Paris 8 University. He is a post-doc researcher at the Interdisciplinary Nucleus for Sound Communication of the University of Campinas, with a fellowship from the São Paulo Research Foundation. His main research area is computer-aided composition and musical analysis. In 2016, he has been awarded in the Brazilian Arts Foundation Composition Competition, in the category of electroacoustic and live-electronic works.

Jônatas Manzolli is a composer and mathematician and explores with passion the complex interplays between Art and Science. His works reflect his interest in the use of sound as an alternative form of knowledge building. As a consequence, some of his most notorious achievements have emphasized the delicate relationship between computer models and gesture

interfaces in electronic music, multimodal performances, and dance. A tenured professor at the University of Campinas (UNICAMP), Brazil, Jônatas Manzolli worked throughout his career in several international institutions. He has also received numerous grants and awards including, most recently, the Rockefeller Foundation "Arts & Literary Arts" residency at the Bellagio Centre, Italy.

Luisa Santacesaria

Tempo Reale, Florence

Thursday, 21 June - 12:00 - Richelieu Hall

TRK. SOUND CLUB: a case of experimental music concert season

This paper builds on my experience as music curator of TRK. SOUND CLUB, a series of concerts started in March 2016 and dedicated to experimental music, often featuring electronics. As a curator (together with Marco Baldini and Daniela Fantechi) willing to propose cutting-edge and experimental music to our audience, we continuously face questions such as: what is experimental music nowadays? What is innovation? Where does (sound) research lie? In techniques, creative process, ideas or in the combination of those elements?

In this paper I would like to articulate the answers that we have developed in our practice as curators in the last few years and the directions we are expecting to pursue in the future.

While TRK was born in the frame of the musical programming of Tempo Reale, the centre for music research, production and didactics founded in Florence in 1987 by Luciano Berio, we continuously strive to offer an artist profile that is rather uncommon: 1) not necessarily trained in conservatories, universities or academies; 2) not necessarily with a regular music background/education or self-taught; 3) artists who are both creators and performers of their own works (consequently, who do not write traditional scores or instructions to transmit their pieces to a performer); 4) artists who come from other artistic fields, such as visual art, video art, sculpture, etc.; 5) artists who create works that challenge the concept of "form", oscillating

between concert piece, improvisation piece, and sound installation. The reason for these choices were the will to demonstrate that music research nowadays is not happening only in academic environments, but there is a effervescent, lively and complex "outsider" musical scene that is pushing the limits. Also, our goal was to schedule this kind of musical program in the frame of an institution whose history is strictly interconnected to the highbrow contemporary musical scene.

I then would like to discuss three examples of invited artists whose work embed different aspects of experimentalism in electro-acoustic music: 1) the Canadian artist Jean-François Laporte who, along with his activities as a composer, has been developing and making new musical instruments (Tu-Yo, Bowl, Flying Can, Sax-trunk, vibrating membranes and Siren Organ), which he integrates in his works and in his visual and sound installations using computerized and robotized controls; 2) the duo formed by the artists Rie Nakajima (JP) and Pierre Berthet (BE), who presented a collaborative sound installation made of vibrating and sounding objects they interact with through different actions during the performance; 3) the project Frères Bobine, formed by the electronic musicians Stefano Bassanese (IT) and Benjamin Thigpen (US/BE), who use inductors, coils, small metal objects, amplifiers and computers to generate magnetic and silent feedback circuits.

Biography

Luisa Santacesaria is a musician and musicologist. She studied piano at the Scuola di Musica di Fiesole and musicology at the University of Pavia, graduating with a thesis on the relationship between sound and space in electroacoustic music. Since 2009, she has been working at the Centro Studi Luciano Berio. She collaborates with the research centre Tempo Reale, Florence: in 2014 she worked at the sonorization of Museo Novecento in Florence; since 2016, she has been curating TRK. SOUND CLUB, a concert season focused on experimental music; and she is part of the editorial board of the website musicaelettronica.it. Since 2015, she is part of the musical collective Blutwurst. In 2016 and 2017 she was the music curator of Centro per l'Arte Contemporanea Luigi Pecci, Prato.

Simonetta Sargenti

Conservatorio Guido Cantelli, Novara

Friday, 22 June - 11:00 - Richelieu Hall

Listening and analyzing electroacoustic music: sound analysis, gesture and communication of emotions

If electro-acoustic music is still today an experimental event, it is a question whose immediate answer would be negative. In fact, with the term electroacoustic and electronic music we mean today a very popular music. We are completely surrounded by music composed with technological means and therefore, far from being experimental, this music is part of our daily life. From this point of view electro-acoustic music is certainly no longer experimental. Nevertheless, there is still much to be done in terms of knowledge of methodologies and understanding of electroacoustic music from the point of view of his analysis. Even musicians, advanced students for example, do not have familiarity whith the repertoire of electroacoustic music and with the methods of approaching it. In this sense we can therefore say that electroacoustic music is still partly to be experimented. Moreover, the repertoire of electroacoustic music belongs to the era of post tonal music. Generally is this a music that induces a lower emotional response . Is that related to listeners' higher unfamiliarity with the underlying structure, and their lower acquaintance with performance techniques? This is a question that opens up a series of possible experimental investigations.

This paper aims to be the presentation of the results of an experience of listening and analysis of electroacoustic music conducted with intermediate music students . The starting point is the listening to some compositions belong to different periods in the history of electroacoustic music, proposed to a group of 10 students aged between 20 and 30. The second point concerns the ability to describe the sound events both in the presence of a score and in the absence of it. If there is a score we must relate the musical events indicated, if there is no, we need to create one based on our perception and recognising spectral types: it will be a graphic score that reproduces the perceived events.

A third important step consists in verifying the graphic score with the analysis of the audio signal obtained using software such as Acousmograph or Sonic Visualizer ecc. The experience includes the knowledge of the techniques used for sound processing. If the music is related to meanings and emotions, the last point of the project is to establish relationships between the sound events and the emotions aroused by the music. We ask to the listeners to spontaneously describe the compositions and performances in an interview. The analysis involves qualitative and quantitative methods (grounded theory, representation for analysis of audio files). The partial results of the experience will be discussed in the presentation.

Biography

Simonetta Sargenti was born in Milan. She completed a M.A. Degree in Violin , in Composition and in Electroacoustic Music at the Conservatory "G. Verdi" in Milan, and holds a M.A.Degree in Philosophy and Musicology at the Università Statale di Milano e Università di Bologna. As a professional performer, her interests mainly lie in the application of technology to the musical domain, with a special focus on the 20th-century repertoire. Her compositions involve several instrumentations, including live electronics and magnetic tape, and have been performed in several European countries. Recently she composed music for environments and collaborates with interior architecture projects (Milano Salone del mobile, Open House etc.). She is active as musicologist and researcher in electroacoustic music and music theory and analysis. She teaches History of Music and History and Analysis of Electroacoustic Music. Her next projects in 2018 is the performance of a new composition for ensemble and live electronics.

Dante Tanzi

AUDIOR association

Saturday, 23 June - 12:30 - Stendhal Hall

Showing the acousmatic sounds through the mobile acousmonium AUDIOR

→ See Eraldo Bocca

Pierre Alexandre Tremblay

CeReNem, University of Huddersfield

Friday, 22 June - 11:30 - Stendhal Hall

Interdisciplinary Research as Musical Experimentation A case study in musicianly approaches to sound corpora

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→ See Owen Green

Jan Urbiks, Anna-Lena Vogt, Martha Brech

Technical University, Berlin

Friday, 22 June - 15:00 - Stendhal Hall

Analysing experimental techno

Experimental Music can be described, as a compositional tendency in music that extends the boundaries of any predefined genre through the exploration of production techniques and the manipulation of sound. It

incorporates elements of unpredictability, non-linearity in structure as well as a research character.

In this sense, techno is experimental, its name originating from the technological progress in production and sound, bringing forth numerous variants and styles. Labels such as Avian, Bedouin, Pan, Posh Isolation, Raster-Media explore the margins of this experimental electronic music and constantly expand what it is known for. What all these varieties have in common is the creative use of electronic production techniques and the layering of elements, creating rhythmically dense sound images (Lothwesen, 1999). Thereby, the rhythm and its temporal structure form the essential compositional features. As a basic principal, sound is periodically arranged in time. Modifications of these repetitious elements break the order and give spontaneity to individual segments. As a fundamental mode of action they create tension through divergence and non-linearity and this can be understood as experimental elements.

Mark Butler showed in his studies that a new musical context has emerged in the practice of techno, in which style-specific and complex musical elements can be found (Butler, 2014). Similar tendencies could be observed in our sonogram-based reception analysis of productions from different sub genres of techno, which revealed a deep and differentiated insight into the impact of musical elements and showed that experimental elements in techno are not restricted to rhythm interactions. The variable analysis system developed for this purpose (Brech, 1994 and 2018) uses the principles of auditory gestalt perception formulated by Albert Bergman as a starting point (Bergman, 1990). This system separates between vertical structures (form and rhythm elements) and horizontal, parallel running, sound layers (each layer consists of a similar sound material).

In the presentation of the paper we will show with a few analytical examples experiments in rhythmic interactions of sound layers, rhythmic non-linearity and the emergence of different "classical" form elements built by sound layers that "play" with the straight rhythmic base that techno is usually reduced to.

Biographies

Jan Urbiks, drummer and composer, studied cultural and media technology (B.A.) in Karlsruhe, studies audio communication at the TU Berlin.

Anna-Lena Vogt, architect, (M.A. with studies in Hamburg and Aarhus) studies currently audio communication and technology at the TU Berlin.

Martha Brech, musicologist and sound engineer, research areas: electroacoustic music and its analysis, auditory spatial art; assistant professor TU Berlin.

Anna-Lena Vogt

Technical University, Berlin

Friday, 22 June - 15:00 - Stendhal Hall

Analysing experimental techno

→ See Jan Urbiks

Riccardo Wanke

CESEM- FCSH/NOVA, Lisbon

Saturday, 23 June - 14:30 - Stendhal Hall

How do we listen at different genres of today's experimental music?

The perceptual aspect of music has been the subject of an immense range of studies in the cognitive sciences from psychology to neuroscience, and concerns human reactions to simple stimuli all the way to complex feelings and emotions. However, within this large group of studies on music perception, only a small number deal with the contemporary experimental scene making use of empirical examinations. This lack seems paradoxical as many genres of experimental music are themselves concerned with these very questions of sonic perception.

In order to develop a cross-cut perspective towards today's experimental music practices including genres such post-spectralism, minimalism, electroacoustic music, glitch and IDM's offshoots, this paper aims to examine, through listening questionnaires, how a set of pieces – brought together under a common conception on sound – are perceived. The examination consists of a listening session combined with a questionnaire. Participants (N=75) are, first, invited to sort the audio samples (G. F. Haas, B. Lang, G. Verrando, Pan Sonic, Raime) into groups and to indicate which criteria they have applied; second they should associate to each extract a series of adjectives from a given list of semantic structural descriptors.

The responses to the extracts do allow some conclusions to be drawn: there is a mutual correspondence between musical preferences, familiarity with the audio samples, and the questionnaire evaluation, thus indicating that, even though this work extends across various genres of contemporary music, the group of genres as a whole is still considered as a *niche*: a limited and isolated branch of today's music. Trained participants showed a greater ability to: (i) distinguish styles and genres; (ii) identify the nature and the source of different sounds; (iii) deal with semantic descriptors from different spheres of sensation other than hearing. It seems to be more demanding to express verbally one's own musical decisions (first task) than apply given set of designations (second task).

Moreover, this study shows that in presence of an appropriate aesthetic framework, participants show a multiple listening approach: analytic (*i.e.* sound source and genre identification), affective (*i.e.* description of emotive associations) and immanent (*i.e.* direct apprehension of musical forms and shapes). Supported by a common perspective on sound, listeners grasp material aspects of sound and expand on spatial and temporal concepts (immanent), cultural and external factors (analytic), and emotive descriptions (affective).

The article addresses the difficulties in conveying our perception of these styles of music. The results of this study tell us which musical aspects draw a participant's attention more readily and which generate difficulties in approaching this type of music. This research shows how a coherent aesthetic framework favours the creation of new keys of interpretations and provides listeners with new tools of comparison and assessment. This strategy may lead to new convergences within musicological studies and the world of contemporary experimental music.

Biography

Riccardo Wanke (1977, Genova, IT), from 1995 active in music and science (academic studies), his interest includes improvised and exploratory music and it is focused on diffusion of new and contemporary art. He is PhD candidate in Musicology and member of the Centre for the Study of Sociology and Aesthetics of Music (CESEM) at the University "Nova" of Lisbon. He currently collaborates with Prof. Makis Solomos at the Université Paris8 and with Prof. Michael Clarke at Huddersfield University. He published papers in international journals and conferences (e.g. *Organised Sound*, ICMC2016). As performer, he explores digital and analog manipulation of sound and he performed live worldwide and published music for international labels. || rdwmusic.com

Yinuo Yang

Soochow University, Suzhou

Thursday, 21 June - 14:00 - Richelieu Hall

Reinventing Court Music in Ancient China: Form and Semiotics in Chen Yuanlin's *Flying Swan*

The first generation of Chinese electroacoustic-music composers have tended to adopt Chinese elements to establish its distinctive identity. Employing the technique of "extroversive semiotics," these composers use various sounds to imitate extra-musical objects to achieve immediate communication with their audiences. Current research on Chinese electroacoustic music has given less attention to the formal structures which function at the level of "introversive semiotics" yet nonetheless generate poetic meanings. Chen Yuanlin's *Flying Swan* does not use so-called Chinese elements to express a Chinese theme; instead, Chen relies on the tripartite structure of Xiang He Da Qu, a genre of court music from the Han Dynasty (third century), to recite the ancient poetry and suggest court music. Through the tempi and orchestration, this structure allows the poetic structure and ritual structure to collide. This paper draws from the semiotic theory of Kofi Agawu to analyze how Chen constructs a double-function

form: two separate yet overlapping structures express the internal poetic content (narrative structure) as well as the external procedure of Xiang He Da Qu (ritual structure).

Chen's use of electronic sounds is similar to procedures adopted by Luciano Berio that relate vocal speech and musical utterance. The structure of Yan-Song-Qu further helps Chen to depict the interiority of the two swans. For example, Ge and Jie, the primary sections in Qu, alternate between fast and slow tempi; this arrangement depicts the constant change between anxiety and sentimental feeling shared by the swans. The contrasting orchestration in each section not only reinforces the emotional depiction but also reimagines the ritual procedure used by court music in the Han Dynasty. The superimposition of voice, acoustic instruments, and electronic sounds constitutes the climax in the last section in evoking the fast dance and exciting sounds, which usually serve as the conclusion in Xiang He Da Qu. The double-function form narrates the love tragedy and at the same time evokes the rituality of court music. Without relying on any recognizable signs, Chen uses the structure to speak for the content: form and content are united.

Biography

Yang Yinuo is a graduate student studying musicology at the Soochow University School of Music, where her advisor is Dr. Yen-Ling Liu. She is interested in the history and aesthetics of Chinese electronic music, Chinese traditional aesthetic thought, and transcultural phenomena relating the West and East. She also studies electronic composition at Soochow University and presented research on Chinese electronic music at the IMS2017, EMS2017 and AAWM2016.

Masayuki Yasuhara

Aichi University of the Arts

Thursday, 21 June - 12:30 - Richelieu Hall

Thereminvox in Japan: A Historical Overview

The paper historically surveys articles in newspaper and journal as well as the invention of Matryomin, the matryoshka that functions as thereminvox. One of the oldest records of introducing Thereminvox in Japan can be found in an old journal for radio technology, and it gradually became known as an unique instruments.

Biography

Masayuki Yasuhara is a musicologist with a specialization in Russian music history. Graduated from Tokyo University of the Arts. In 2001 he was a visiting scholar at the Moscow Conservatory on a special grant from the Japanese Ministry of Foreign Affairs. Published book chapters and articles on Russian Avant-Garde music, Shostakovich, and Realism, among others. He has been on the faculty of Mary Baldwin College in Virginia (USA) and now holds an appointment at Aichi University of the Arts in Nagoya, Japan.

John Young

De Montfort University, Leicester

Saturday, 23 June - 10:00 - Richelieu Hall

Experiment/Expression

This paper examines the notion of experimentalism in electroacoustic music by evaluating its outcomes as expression. The starting point is Schaeffer's (2012) assertion that: 'Insofar as, for some contemporary musicians, only the dodecaphonist camp seemed to open up a new channel

of expression, we have seen that, without realising it, they were experimenting and not expressing.' While several definitions of experimental music have currency (especially that of Cage), Schaeffer's distinction is indicative of an often unspoken goal in all music: to convey something more than the sound material from which it is constructed. Expression is commonly connected to arguments around music's relationship with the emotions, whether by representation, evocation, or through the qualities of nuance and interpretation effected in performance. In this paper I look beyond that, contending that expression in music results when sounds are in the process of becoming something other-than-themselves – forming meanings beyond the sonic surface. As Dewey (1934) contends … 'the mere issuing forth or discharge of raw material is not expression.'

I typify experimental approaches to music in terms of:

1. Those driven by *procedures* which function as a framework in which sounds are activated, separating the generative scheme from sounding materials.
2. Those in which the fundamental *materials* of music are reconsidered: redesigning scale forms, concentration on noise, found sound etc.

This leads to a deeper question of how composers embrace any such distinctions. We might see this in terms of an upper case/lower case polarity:

1. experiment as a formative process that may lead toward realisation of musical material in some definitive state that is necessary or sufficient to a structural purpose: part of the composer's process, background to the listener.
2. Experiment as the defining, even emergent, formal principal in the realisation of a work: foreground to the listener and carrying expressive significance.

In order to exemplify these, critical readings of two works are offered – Nicolas Collins's performance at White Cube, Bermondsey (2015) and John Cousins's *Edit For Pauline* (1983). Both works present ritualised approaches to performance using electroacoustic resources, with the performative elements emphasising procedural action to impart clear impressions of experimental process. However, I also argue that the two works result in

different expressive outcomes and illustrate divergent perspectives on the experiment/Experiment distinction proposed above.

Biography

John Young is Professor of Composition in the Institute for Sonic Creativity at De Montfort University, Leicester. His output includes multi-channel acousmatic pieces, large-scale radiophonic work, and music combining instruments and electroacoustic sounds. His music focuses on the use computer technology to transform, disassemble and reassemble sound, aiming to blend sonic drama and musical development with an increasingly spectralist approach to materials. Some of his recent work has used oral history and archival recordings in a narrative-based approach to electroacoustic music. He has received numerous international awards, including First Prizes in the 1996 Stockholm Electronic Arts Award, the 34th Bourges International Electroacoustic Music and Sonic Art Competition (2007) and the Euphonie d'Or (2010) of the Bourges Competition. He was a recipient of a KEAR residency at Bowling Green State University, Ohio in 2015. Recent work includes the 22.2 channel *Abwesenheit* for the Vienna Acousmonium, *Magnetic Resonance* in collaboration with Xenia Pestova and Andrew McPherson and *Spirit* for orchestra and electroacoustic sounds, commissioned by the Christchurch Symphony Orchestra. Two solo discs of his work are available on the Empreintes Digitales label: *La limite du bruit* and *Lieu-temps.* || www.electrocd.com/en/bio/young_jo/discog/

Bai Zhao

Post Doc, China

Saturday, 23 June - 9:30 - Stendhal Hall

The influence of advanced technology and social policy change on the rise of electroacoustic music female composers in China

In the West as in the East, women have long been considered as an "obstacle" to overcome. Before the 20th century, Chinese women were essentially considered different from men. Although Taoists believe that representation of yin and yang is equally important, women are still considered to be at a lower position, because Chinese dynasties have ruled the people with Confucianism for over two thousand years, confucianism has profoundly influenced Chinese thinking from ancient China to the present day. In the early 20th century, feminism sprouted in China, the influence of confucianism started to decrease since the movement of May 4th, 1919; nevertheless, the feminist movement had little effect due to the feudal ideology still prevailing.

The independence of women goes hand in hand with a social revolution in the fields of economics, politics or classes.

At the end of the 70s in China, the single child policy (独生子女政策) raised the awareness of equality between women and men among the Chinese people; girls have more rights to share with boys in the traditional Chinese family, they are more likely to go to school and pursue a career; Above all, they can continue to work after their marriage.

In April 1986, the Chinese government implemented a nine-year compulsory education policy which has changed the lives of proletarian women to the status of educated women. If they have the ability required, anyone can now enter higher education, or do any studies they want, education has given spirit freedom to women.

In the old society, women could not study as men; today, society strongly encourages educated Chinese girls. Zhou Shu'an 胡周淑安 was the first Chinese woman composer of the early 20th century. She was the only

musical creator before the foundation of the new China. Afterwards, the female musical creators fell asleep for a long time, until after the Cultural Revolution and, from the reopening of the Chinese Conservatory in 1977, the Chinese female composers appeared in Chinese musical history. By our analysis, the trend of female musicians rather than male musicians has two social reasons: the economic role of women in the family and society, and the need for women's intellectual status after Chinese and Western movements of enlightenment.

The electroacoustic music is a new musical genre. It needs advanced technology knowledge that is often reserved to men; however, what are the reasons for the rise of electroacoustic music female composers today in China? Since this music has reached China 40 years ago, how could it develop in the future?

Biography

Zhao Bai, China-born and raised pianist, organist, lyrical singer, harpsichordist, composer, Dr. in musicology, and music professor.

Zhao had started playing the piano at seven. After obtaining a Bachelor degree in composition and electro-acoustic music in China, Zhao moved to France. Zhao continued her study at Limoges and Versailles Conservatory, where she completed courses of ear training and sight singing, organ, harpsichord, singing and orchestra conducting.

Zhao completed her Master's degree in Music and Musicology at Paris 8th University.

Zhao completed the Ph.D. program with 1st honour in December 2017, with Professor Joseph Butch Rovan, in the city of Providence, Rhode Island (USA), and Professor Marc Battier at University of Paris-Sorbonne.

Zhao has been teaching at Orsay Conservatory in France since 2015, as a music professor.

Concert Tempo Reale

Wednesday, 20 June - 20:00 - Galleria Michelangelo

Kilian Schwoon, *Pendelnde Schatten,* for alto flute and electronics (2010)
Italian premiere

Francesco Giomi, *Scabro,* for tape (2011)

Lelio Camilleri, *Minimal Poems*, for tape (2012)
based on poems by Aram Sayoran

Simonluca Laitempergher, *Otkaz,* for tape (2016)

Francesco Casciaro and Gianni Trovalusci, *Whistle Dots*, for flute and dot matrix printer (2018)
World premiere

Gianni Trovalusci, flute
Francesco Casciaro, dot matrix printer
Francesco Giomi, sound projection

List of Represented Countries

Argentina

Australia

Austria

Belgium

Brasil

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China

Czech Republic

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Germany

Greece

Hong Kong (China)

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CICM

Center For Research In Computer Science And Music Practice

cicm.mshparisnord.org

The CICM (Center for Research in Computer Science and Music Practice, translated from French) **is a group within the host institution** 1572 MUSIDANSE of the University of Paris 8. It is also **one of the supported projects** of the MSH Paris North. CICM welcomes doctoral projects oriented toward new technologies within the disciplines of music and musicology. The area of research of the CICM concerns computer science and music practice, intersecting composition and research and deploying methodologies of research-practice, with a project-based focus, highlighting education through research, all the while integrating young researchers into collective research projects.

The spatialization of sound, as well as mixed, electroacoustic, and experimental music; intermediality; or the collaborative creation of software dedicated to work environments for musicians…

Areas of research:

- Music technology and informatics.
- Computer-aided music composition.
- Digital techniques for music programming and analysis.
- Analysis, synthesis, and digital manipulation of sound.
- Production of musical works.
- Programming of specialized software.

- Epistemology of contemporary musical creation, notably works linked to the use of new technologies.
- Sonic spaces, spatialization, visualization, sonification, interactive arts, virtual environments.

IReMus

Institute For Research In Musicology

www.iremus.cnrs.fr

The Institute for Research in Musicology was born in January 2014 from the grouping of three teams (Observatoire Musical Français, Patrimoine et Langages Musicaux, and Institut de Recherche sur le Patrimoine Musical en France) under the supervision of four institutions: the National Centre for Scientific Research (CNRS), Sorbonne University, Bibliothèque nationale de France (BnF), and the Ministry of Culture and Communication. The unit includes about sixty permanent members, professors, researchers, including those from the CNRS, curator of the Music Department of BnF, engineers, technicians and doctoral students. It is currently the largest musicology research unit in France.

The field of study covers a vast chronology ranging from the Middle Ages to electroacoustic music, jazz and contemporary music. IReMus addresses most of the sub-disciplines of musicology (historical and systematic musicology, ethnomusicology, the study of contemporary popular culture, musical institutions, music sociology, cognitive psychology, musical aesthetics and digital musicology) and ensures a mission regarding the enhancement of the musical heritage conserved in France.

The IReMus is a part of the Collegium Musicæ Institute of Sorbonne University, in which it actively contributes to the evolution and the dialogue between the humanities, exact sciences and learned, popular, and traditional musical practices by supporting links between research, training, creation, valorisation and innovation.

MTI²

Music, Technology And Innovation – Institute For Sonic Creavity

www.mti.dmu.ac.uk

Founded in 2001, MTI² is an institute focused on sonic arts/electroacoustic music composition and its field of scholarship, electroacoustic music studies. It also includes a significant number of outreach and educational initiatives regarding sound-based creativity. It is the where the ElectroAcoustic Resource Site, EARS (www.ears.dmu.ac.uk) was developed as well as its associated pedagogical initiative, EARS 2 (ears2.dmu.ac.uk) and Compose with Sounds software (cws.dmu.ac.uk) that have been created for users with no previous knowledge of electroacoustic music. MTI² foci of interest include: experimental composition, spatialisation, DIY making, public art sound installations, analysis and much more. It has an annual series of concerts, symposia and conferences and is currently a partner within the Creative Europe 'Interfaces' project (www.interfacesnetwork.eu). It collaborates with educational and cultural organisations throughout Europe, in Asia and the Americas. The journal *Organised Sound* (Cambridge University Press) is based at the MTI² which is also a co-founder of the Electroacoustic Studies Network (EMS).

TEMPO REALE

Center Of Musical Research Production And Education

www.temporeale.it

Founded by Luciano Berio in 1987, Tempo Reale is one of the main Italian points of reference for research purposes, production and education in the field of new musical technologies. Since its beginning, the Center has been engaged in the realization of the Berio's works, allowing it the possibility of working in the most prestigious musical contexts in the world. The development of a criteria of quality and creativity derived from the Center's experiences is reflected by its continuous work with both famous composers and artists as well as with young emerging musicians. The main topics of research reflect the multifaceted ideas that have always characterised the choices and initiatives of Tempo Reale: the conception of musical events of great depth, the study of electronic processing of "live" sound, the experience of interaction between sound and space and the synergy between creativity and performance and rigour. In addition to the activity of research in these areas, the Center regularly organises performances, events and projects in collaboration with various institutions in Tuscany involved in the fields of music, theatre and dance, as well as promotes a wide network of educational exchanges.

Notes