

creation and technology : the contemporary opera

C . A M E L L E R

D . S O N N E N S C H E I N

G . C A M P O S

designing atmospheres

L . F R E E D M A N

M . A Z G U I M E

interactive sound i : virtual reality / augmented reality

M . D O L O R S T A P I A S

N . F O N S E C A

N . M E D I C

interactive sound ii : performance

interior design history and music

intertwining : sound graphic notation

J . M U N A R R I Z

P . A N D E R S N I L S S O N

P . H É B E R T

sound & storytelling

R . S U O M I N E N - K O K K O N E N

sound and vision in education

visual storytelling and music

S . K A N A C H

II international conference

**electroacoustic**winds

**eaW2017**

**SYNCHRESIS**

**AUDIO VISION TALES**

The International Conference *Electroacousticwinds 2017*:

*SYNCHRESIS – Audio Vision Tales* is organized by the Center of Electroacoustic Research (CIME), the Institute for Ethnomusicology – Research Center for Music and Dance (INET-MD), Research Institute in Design, Media and Culture (ID+) and DigiMedia – Digital Media and Interaction (CIC.Digital).

This conference seeks to establish bridges between Music Creation, Design & Soundscapes and New Media.

The *eaw2017 SYNCHRESIS – Audio Vision Tales* conference will focus on the relationship between sound and image, two different languages within the multimedia art form. The technological tools to improve this relationship are the main focus of the proposed symposium; dialogical perspectives will be given center stage relevance and participants will be confronted with both technical-linguistic and aesthetic points of view, but also discussions on how technology is enabling these two mediums to merge, creating tools for manipulating and enhancing not only the artist's creativity but also the audience's immersion.

This audio-vision relationship has become a research focus for different authors in recent decades. However, in this field, as in others within the digital humanities realm, new assumptions and theories are created every time technology overcomes its constraints and presents a new paradigm. Design and soundscapes aims to discuss and mirror interactions between and features of design, sound, silence and the potential to perceive space, place and time. Intending to enlarge the scope of the debate, Design and Soundscapes invites researchers, practitioners and performers to present theoretical frameworks and/or empirical studies that address these topics.

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David Sonnenschein

### Concordia University

Lori Freedman

Organização



apoios



## Monday, 13th November

8h00 **Registration**

### OPENING SESSION CCCI Auditorium

9h00 **Prof. Dr. Manuel Assunção**, Rector of University of Aveiro  
**Prof. Dr. Rui Raposo**, Head of Department  
 Communication and Art  
**Prof. Dr. Isabel Soveral**, Research Unit INET-MD,  
 University of Aveiro  
**Prof. Dr. Fátima Pombo**, Research Unit ID+, University of  
 Aveiro

10h00 **Coffee Break**

### SESSION I CCCI Auditorium

#### INTERACTIVE SOUND I VIRTUAL REALITY / AUGMENTED REALITY

10h30 **Keynote**  
**Guilherme Campos**, University of Aveiro  
*Give Us Some Space*

11h30 **Rui Penha**, INESC TEC – University of Porto  
*The unique expressivity of interactivity*

12h00 **Henrique Portovedo and Paulo Ferreira-Lopes** CITAR –  
 Portuguese Catholic University of Porto  
*HASGS: Hybrid augmented system of Gestural Symbiosis  
 Generating Visual Information*

12h30 **Lunch**

### SESSION II CCCI Auditorium

#### SOUND & STORYTELLING

14h00 **Keynote**  
**Nuno Fonseca**, Polytechnic Institute of Leiria  
*Sound Particles*

15h00 **António Sousa Dias**, University of Lisboa  
*Cinema e sonoplastia: O caso de Domingo à Tarde (1966)  
 de António de Macedo*

15h30 **António Costa Valente**, University of Aveiro  
*O CONTO DO VENTO: o jogo da narração*

16h00 **Mat Dalglish and Niel Reading**, United Kingdom  
*Seeing with One's Own Ears: Soundtrack as Interface for  
 Theatre*

17h00 **Coffee Break**

### CONCERT CCCI Auditorium

18h30 **SYNCHRESIS**  
*Works by Composers and Designers from University of  
 Aveiro*

### WORKSHOPS

10h00-13h00 – AV Studio  
**W1: Sound Particles**  
**Nuno Fonseca**, Polytechnic Institute of Leiria

15h00-18h00 – AV Studio  
**W2: Sing and Speak 4 Kids**  
**David Sonnenschein**, University of Southern California

15h30-18h00 – CCCI Auditorium  
**W3: Musidesign: patterns in live performance**  
**Lori Freedman**, University of Concordia  
**Pierre Hebert**, filmmaker, performer and visual artist

## Tuesday, 14th November

### SESSION III CCCI Auditorium

#### DESIGNING ATMOSPHERES

9h30 **Keynote Jaime Munarriz Ortiz**, Complutense University  
 of Madrid  
*Sonic landscapes, visual environments. Interaction and  
 synchronicity in composition and live performance.*

10h30 **Coffee Break**

11h00 **Lecture**  
**Anna Marie Fisker**, University of Aalborg  
*Teatro Olimpico by Andrea Palladio - an iconic opera  
 scenario - and the diffused lightning system - enhancing  
 the aura of mystery in the Wagnerian universe by Mariano  
 Fortuny*

11h30 **Niels Peter Skou**, University of Southern Denmark  
*Soundscapes of the experience museum*

12h00 **Nadine Leles, Joel Preto Paulo and Carlos Carvalho**,  
 Engineering Institute of Lisboa  
*Sensa Sound*

12h30 **Lunch**

### SESSION IV CCCI Auditorium

#### SOUND AND VISION IN EDUCATION

14h00 **Keynote**  
**David Sonnenschein**, University of California San Diego  
*Film Dialogue and Lyrics as Catalyst for Speech  
 Production*

15h00 **Rita Nicolau and Joana Quental**, University of Aveiro  
*Design as a tool for education in Dyslexia: the importance  
 of musical feedback*

15h30 **Marcelo Batista and Rui Costa**, University of Aveiro  
*Visual Representation in Musical Education*

16h00 **Carlos Alberto Augusto**, composer and sound designer  
*Soundscape studies in Portugal*

17h00 **Coffee Break**

### CONCERT DeCA Auditorium

18h00 **Bridging**  
*Lori Freedman and Pierre Hebert*

### WORKSHOPS

9h30-12h30 – Room 21.2.1 / 14h30-17h30 – Room 21.2.1  
**W4: Audio Post-Production for Cinema**  
**Nikola Medic**, MA in Sound Design at National Film and  
 Television School

## Wednesday, 15th November

### SESSION V DeCA Auditorium

#### VISUAL STORYTELLING AND MUSIC

- 9h30 **Omar Hamido** (online), University of California Irvine  
*Abstract Rhythm Model*
- 10h00 **Tânia Barros and Helena Barbosa**, University of Aveiro  
*From static to dynamic: representing images through music*
- 10h30 **Coffee Break**
- 11h15 **Joana Sá**, University of Aveiro  
*Beyond dualities and subjectivity – The performing body and the virtual*
- 11h45 **Nuno Dias**, University of Aveiro  
*Music versus Design – the possibility of a sound and vision co-creation culture in DeCA*
- 12h30 **Lunch**

### SESSION VI DeCA Auditorium

#### INTERIOR DESIGN HISTORY AND MUSIC

- 14h30 **Keynote\_Renja Suominen-Kokkonen**, University of Helsinki  
*Music and Soundscape in Alvar Aalto's Architecture*
- 15h30 **Liliana Neves and Fátima Pombo**, University of Aveiro  
*The quality of the Music Room in the domesticity of the Casa dos Patudos. Raul Lino project of 1905*
- 16h00 **Rita Cruz and Fátima Pombo**, University of Aveiro  
*Sound in space as a design feature in workplace interiors*
- 16h30 **Lecture**  
**Paulo Jorge Ferreira**, CEO of Avantools
- 17h00 **Coffee Break**

### CONCERT CCCI Auditorium

- 18h00 **Itinerário do Sal – multimedia opera**  
Miguel Azguime, Miso Ensemble

### WORKSHOPS

9h30-12h30 – Room 21.2.1

#### W4: Audio Post-Production for Cinema

**Nikola Medic**, MA in Sound Design at National Film and Television School

9h30-12h30 – Room 40.3.16

#### W5: Observation of the Environment and Construction of the Landscape (theoretical session and debate)

**Carles Ameller and M. Dolors Tapias**, University of Barcelona

## Thursday, 16th November

### SESSION VII DeCA Auditorium

#### INTERTWINING – SOUND GRAPHIC NOTATION

- 9h30 **Keynote\_Per Anders Nilsson**, University of Gothenburg  
*Symbols–Signs–Sounds*
- 10h30 **Coffee Break**
- 11h00 **Pedro Louzeiro**, University of Évora  
*Synchronizing to Visual Cues in a Networked, Real-Time Notation Environment – Comprovisador*
- 11h30 **Eunice Artur and Graça Magalhães**, University of Aveiro  
*Sound as a medium, the performer as a médium*

### SESSION VIII – DeCA Auditorium

#### INTERACTIVE SOUND II: Performance

- 12h00 **Belquior Marques and Pedro Rodrigues**, University of Aveiro  
*Perceive to Perform: Temporal Indeterminacy in Music for instrument and Live Electronics*
- 12h30 **Helena Marinho and Joaquim Branco**, University of Aveiro  
*New music for old instruments: The expanded fortepiano*
- 13h00 **Lunch**

### SESSION IX DeCA Auditorium

#### CREATION AND TECHNOLOGY: THE CONTEMPORARY OPERA

- 14h30 **Keynote\_Sharon Kanach**, University of Rouen, Centre Iannis Xenakis
- 15h30 **Eduardo Patriarca and Isabel Soveral**, University of Aveiro  
*Magdala*
- 16h00 **António Chagas Rosa**, University of Aveiro  
*Melodias Estranhas*
- 16h30 **Miguel Azguime**, Director of Portuguese Music Information Center  
*Two New Op-Era examples and their technological creation network*
- 17h00 **Coffee Break**

### MOVIE CCCI Auditorium

- 18h00 **Through this looking glass**  
Joana Sá, University of Aveiro

### WORKSHOPS

9h00-13h30 – Room 40.3.16 / 14h30-19h00 – Room 40.3.16

#### W5: Observation of the Environment and Construction of the Landscape (field work)

**Carles Ameller and M. Dolors Tapias**, University of Barcelona

14h30-17h30 – Sound Studio

#### W6: The Bucket System - a computer mediated improvisation system by Palle Dahlstedt, Per Anders Nilsson, and Gino Robair

Per Anders Nilsson, Performer Ensemble, University of Gothenburg

## Friday, 17th November

### ROUND TABLE AND GROUP DISCUSSIONS CCCI Auditorium

- 9h30 **Audio-Vision relationships – new research perspectives**

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## **HASGS: Hybrid augmented system of Gestural Symbiosis Generating Visual Information.**

**Henrique Portovedo and Paulo Ferreira Lopes**

CITAR – Portuguese Catholic University of Porto

**Keywords:** Saxophone, Augmented Instrument, Gestural Interaction, Live Electronics, Generative Visuals

This paper discusses a two-layer augmentation strategy applied to a saxophone. Augmented instruments are defined as “acoustic (sometimes electric) musical instruments extended by the addition of several sensors, providing performers the ability to control extra sound or musical parameters”. The first layer of augmentation is attached to the instrument, controlling sound events, and its based on several sensors (ribbon, trigger, pressure, accelerometer, gyroscope and keypad). The second layer is associated to the generation of visuals. This second layer was devised initially to capture gestural data, as performer gestures are perceived by the audience at the same time as they characterise and distinguish each performer particularities. This paper also explores how this system can serve for the adaptation of existing pieces using electronics, that in common, have the use of external devices. Finally, we discuss how notation and composition can be affected by this type of instrument in a symbiotic relation with visual augmentation.

This augmented system for saxophone was motivated by the need to perform pieces with a common aesthetic that have been written using electronic environments. These pieces share the need for control external devices in order to be performed. The repertoire for saxophone and electronics is growing in a huge scale, from pieces using stomp boxes or control pedals for different triggering or fading, to pieces requiring the manipulation of knobs. These controllers, by their nature, devices that separate sound production (synthesis) and performer gesture (control), have subsequently generated an increased interest in the study of compositional mapping strategies for computer music. From our experience, we conclude that the act of controlling external devices while performing an instrument is changing completely traditional performance practice, contributing to new performative gestures and virtuosity. The system presented here, was intended,

in first instance, to solve problems on the performance of existing pieces when trying to reduce external activity from the process of manipulating and playing the saxophone. This should allow to focus all activity of performing a piece on the instrument, as much as in a classical music performance situation, relating directly to traditional performance practice. One aspect that we like to highlight is that this system of augmentation, can be applied to any saxophone, the conception of this prototype, allows this augmentation kit to be placed in the soprano or in the baritone saxophone. If this project started with the idea of problem solving regarding to existing repertoire, new repertoire and improvisational performance situations led to the development of an hybrid system, as a sensor of gestures, giving musical signification translated into visual generative artwork.



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