SummerLab 2017
LABoral Centro de Arte y Creación Industrial

The purpose of SummerLAB is to exchange experiences of community work that promote the creative and critical use of technology and to focus on new methods of creation and production.

The LABoral's SummerLab provides an open environment that encourages meaningful exchanges and interactions between artists, industry professionals, and the public. It creates a context dedicated to increasing public knowledge of visual art, sound creation, digital culture and emerging technologies. This year's event aims to explore interdisciplinary approaches to art production with technology, and foster critical understanding of them through practice, artistic reflection and public debate. The diverse programme brings together artists, designers, journalists and member organisations from the European Network for Contemporary Audiovisual Creation (ENCAC) to discuss their work, share findings and best practices, and reflect on a variety of topics including Virtual Reality, Artificial Intelligence and emerging visual approaches to sound.

The programme of workshops will provide participants with hands-on experience and a broad understanding of how to use Reality Capture 3D Photogrammetry for art projects (ranging from VR art, 3D printing and video mapping), DIY audiovisual creation techniques for building multimedia instruments, and craft techniques for materialising our perception of sound.

During the panels and roundtable sessions, participants will have the opportunity to learn about new forms of narrative creation in VR, the value of international cultural networks and the materiality of sound.

For more information and to register please visit: www.laboralcentrodearte.org

LABoral Centro de Arte y Creación Industrial, Gijón
Friday 29 & Saturday 30 September, 2017

Artists: Leigh Alexander, Martin Backes, Mária Júdová & Andrej Boleslavský, Gangpol and Mit, Lawrence Lek, Florence To, Christian Cherene (BeAnotherLab), Martin Backes.

Registration: activities open and free-of-charge, registration at www.laboralcentrodearte.org is required.

<u>Programme Friday 29 September</u>

9:30 - 13:00 - Gangpol & Mit and Martin Backes workshops

Gangpol & Mit - **AV Jukebox Workshop**
Using simple drawings and cut paper techniques, workshop participants will conceive a small animation sequence based on the topic "button". During the workshop, participants will also learn to design and record a soundtrack for the animations. Each animation will then be integrated into an audiovisual jukebox installation built by the artists for the occasion of this workshop. The resulting installation will take the form of a multimedia instrument that will be exhibited during the whole duration of the SummerLab event. In line with the work carried out by Gangpol & Mit for more than 15 years, this workshop aims to playfully explore the interactions between sound and visual. While dealing with the notions of flash narration, offset and redundancy, hi and low tech, well or badly done, the workshop also offers an introduction to some of the tools and techniques used to create interactive installations.

Addressed to: Teenagers, between 12 and 17 years old. The workshops is opened to any kind of audience, from beginners to advanced.

Participants are requested to bring one or two sonic items of their choice (any kind of everyday object, toy or cheap instrument able to generate sound and that is appropriate for recording)

Conducted by: Sylvain Quément and Guillaume Castagné from Gangpol & Mit.

9:30 - 13:00 - **Intro to SuperCollider - part 1**
SuperCollider is one of the most powerful programming environments for real time sound synthesis and processing, algorithmic & generative composition, and many other audio related applications. It is widely used by artists and scientists alike for both research and actual artistic creation. It features a powerful state-of-the-art sound engine and an easy to learn, fully featured object oriented language. Moreover, it is open source and totally free of charge. SuperCollider works on Linux, Mac, and Windows.

This introductory workshop welcomes participants of any discipline with or without prior programming or musical experience. First of all, we will have a look into SuperCollider and how it compares to other programming environments such as Pd and Max/MSP. Besides getting a basic understanding of real time sound synthesis and processing, we will also make use of some basic built-in sensors, like microphone and computer mouse, as an input for interacting with sound. Furthermore, we will have a look at some famous sound art pieces from the past and will recreate them by the help of SuperCollider.

By the end of the workshop participants will be able to understand how to boot and run the system, understand some of the basics of digital signal processing, write recipes for sound synthesis and streams for algorithmic composition. The workshop runs over the two days of the SummerLab.

Participants will have access to several workstations available at **Laboral Summerlab** with SuperCollider installed. Alternatively, you may use your own laptop during the workshop. If you plan to use your own laptop, please install and test SuperCollider before the workshop starts. We will of course try to help troubleshooting your install if it does not work, but it it would be immensely helpful if you have a working setup when the workshop starts.

PLEASE BRING YOUR OWN HEADPHONES.

13:00 - 14:00 - **Geomancer screening by Lawrence Lek.**

Geomancer Film by Lawrence Lek (HD Video, 2017)
Geomancer is a CGI film by Lawrence Lek about the creative awakening of artificial intelligence. Featuring video game animation, a neural network-generated dream sequence, and a synthesised vocal soundtrack, Geomancer explores the aesthetics of post-human consciousness. Part philosophical reflection on where 'genius' resides, part playful inventory of how science fiction has dealt with these eternal human/automaton themes, Geomancer is provocative stimulation for both the eye and the mind.

Geomancer was commissioned for the Jerwood/FVU Awards: Neither One Thing or Another, a collaboration between Jerwood Charitable Foundation and FVU. FVU is supported by Arts Council England.

14:00 - 15:00 Lunch

15:00 - 16:00 **VR Storytellers: The Narrative Architects of the Future** | Panel Session 1

The combination of interaction, immersion, and the digital computer make VR a unique medium for the production of art and the interpretation of culture. Today's VR storytellers are developing new

narrative models specific to the medium in which the user is not only part of the story, but also central to it. Contrary to other narrative media, users in a 3D virtual environment play a central role in the building of the story and their own overall experience since this depends upon their actions, reactions and behaviour in the virtual world. What are the new possibilities for narrative and representation offered by the emerging technology of virtual reality? How do VR storytellers take their audiences' needs into consideration? Which technologies are required to develop a good VR experience? Can virtual reality challenge the real-life biases?.

When crafting their stories for VR, storytellers need to consider the logic of the experience they are creating: what's the role of the viewer?, how do they guide them through the narrative and how would the interaction work? The answers to these and other key questions will shape how storytellers create their story around the user and what they experience firsthand.

This panel will explore new forms of narrative creation in VR through the presentation of two VR projects: *DUST* by Mária Júdová & Andrej Boleslavský and *The Machine Be Another* by BeAnotherLab, as well as a discussion with video game journalist Leigh Alexander and Karin Ohlenschläger, LABoral's artistic director. During the panel, the speakers will also exchange ideas on the topics of gender and empathy in VR, and VR as an interpretative tool to explore artistic practice and to extend the museum experience. Panel Moderated by Carmen Salas.

Addressed to: artists, creators, designers, creative technologists, filmmakers, students, and anyone interested in storytelling, digital culture and emerging technologies.

16:00 - 16:30 - Coffee Break

16:30 - 19:00 - **3D Scanning / Photogrammetry workshop**
Workshop facilitators: Mária Júdová and Andrej Boleslavský Workshop

Photogrammetry is a method of reconstructing 3D geometry and texture of an arbitrary object using digital camera. This introductory workshop consists of two parts. In the first part, artist duo Mária Júdová and Andrej Boleslavský will explain the process of photogrammetry, show its use within art projects (ranging from VR, 3D printing, video mapping) and briefly mention the tools (Reality Capture, Autodesk 123D Catch and Photoscan). In the second part, the artists will guide participants through the actual process of capturing photos of selected objects with a digital camera and then reconstructing them in 3D using the software tool Reality Capture.

We expect participants to get a basic understanding of Photogrammetry, as well as gain the necessary skills to reconstructs 3D models from multiple photographs.

Addressed to: designers, programmers, artists, creative people, students and anyone interested in VR art, 3D scanning techniques, photography, filmmaking, and architecture.

19:00 - 20:00 - **VR Art Installation by Mária Júdová and Andrej Boleslavský (2017)**

DUST is an art project by artist duo Mária Júdová and Andrej Boleslavský that aims to transform the way people experience contemporary dance through a 4 minutes long immersive virtual reality experience and an interactive website. The project explores the boundaries between the virtual and the real-world experiences and advances research in the fields of participatory performance, human-computer-interaction and VR technologies. DUST has been produced by Carmen Salas with the support of Arts Council England. Project website: http://vrdust.org.uk/

9:30 - 13:00
VISUALISING SOUND AND FORM - CONCEPTUALISING IN 3D
Workshop Facilitator: Florence To

Through digital age and culture, we have become use to working with software applications helping us to characterize 3dimensional concepts and forms using the physics within a computerized format. It has become a daily tool and our mind has become accustomed to working with these applications. However, we have become less intuitive with our own body perception; the movements with our hands and how we observe using our own visual system. Intuitive crafts are also what shapes our minds and help visualise abstract problems when seeing and feeling the physical form. Being able to visualise these problems will increase the potential to realize an idea that is abstract rather than conventional, strengthening our imagination and encouraging the mind to work creatively.
In this workshop we will re-learn to be creative with physical forms, going back to the beginning from simple to complex relationships through three-dimensional experiences. This will give a sense of freedom with intuitive problem solving skills to help realize the potential of an idea through objective analysation. The workshop will involve a listening session with various types of sound compositions and formats. After the listening session, we will translate these sounds into physical forms using basic rules and restrictions, over a series of three stages we will guide our perception to discover finer details we would not normally consider digitally.

13:00 - 14:00 - ENCAC Roundtable

This panel is dedicated to presenting some of the ENCAC Network recent and upcoming plans and projects. The presentations will be followed by a discussion about cultural networks and their role in forming international collaborations and bridging realities. Participants include: Karin Ohlenschläger (Artistic director of LABoral), Prodromos Tsiavos (Onassis Cultural Centre), Daniel Romero (Director of Meq, hTh from Montpellier), Rafael Machado (Semibreve Festival Braga, Portugal). Panel Moderated by Lucía García Rodríguez (Managing director of LABoral).

Addressed to: people interested in visual arts, sound creation, digital culture, cultural networks and innovation.

14:00 - 15:00 - Lunch

15:00 - 16:00 - **Seeing / Sensing / Sounding** | Panel Session 2

Participants: Martin Backes (DE), Florence To (UK) and Taïca Replansky (CTM, DE). Panel moderated by Nora O Murchú.

The art and science of sound have long been historically entangled. Its physical phenomena and the ways in which our capacity to hear and create sound has extensive cultural and cognitive significance. With the rise of cultural media and new technical modalities, the cultural history of sound has been continuously transformed through practices, concepts, artefacts and technologies. Engaging with auditory mediums; installations and recordings, computation and human sensory capacities, acousmata and precise directional signals, this session will explore the ethical and aesthetic components of sound, and why sound of many kinds is so central to scientific exploration and the human arts.
This panel introduces the work of practitioners who are exploring the visual materiality of sound and it's cultural and social landscape. Grounded in contemporary artistic practices and recent technological and scientific developments, the panel will present an overview of the methods the panelists apply to research and work artistically with sound.

Addressed to: people interested in visual arts, sound creation, digital culture and installations.

16:00 - 16:30 - Coffee Break

16:30 - 19:00 Intro to SuperCollider - part 2
SuperCollider is one of the most powerful programming environments for real time sound synthesis and processing, algorithmic & generative composition, and many other audio related applications. It is widely used by artists and scientists alike for both research and actual artistic creation. It features a powerful state-of-the-art sound engine and an easy to learn, fully featured object oriented language. Moreover, it is open source and totally free of charge. SuperCollider works on Linux, Mac, and Windows.

This introductory workshop welcomes participants of any discipline with or without prior programming or musical experience. First of all, we will have a look into SuperCollider and how it compares to other programming environments such as Pd and Max/MSP. Besides getting a basic understanding of real time sound synthesis and processing, we will also make use of some basic built-in sensors, like microphone and computer mouse, as an input for interacting with sound. Furthermore, we will have a look at some famous sound art pieces from the past and will recreate them by the help of SuperCollider.

By the end of the workshop participants will be able to understand how to boot and run the system, understand some of the basics of digital signal processing, write recipes for sound synthesis and streams for algorithmic composition. The workshop runs over the two days of the SummerLab.

Participants will have access to several workstations available at **Laboral Summerlab** with SuperCollider installed. Alternatively, you may use your own laptop during the workshop. If you plan to use your own laptop, please install and test SuperCollider before the workshop starts. We will of course try to help troubleshooting your install if it does not work, but it it would be immensely helpful if you have a working setup when the workshop starts.

PLEASE BRING YOUR OWN HEADPHONES.

19:00 - 20:00 - Florence To Performance

CYEMA – Live Audiovisual Performance

As a designer first, Florence To developed her creative practice producing sound and light installations to create an awareness of the organized elements in architecture, which guided her process to research further into the biophysics, psychology and emotional triggers within vibrations. Berlin based artist Florence To has developed an instrument of reconstructed iron gongs, originally discovered in old clocks that produced a reverse-chord when struck. The sounds produced are of spatial harmonics and overtones that resonate within the field of psychoacoustics. This will be a progressive performance from pure acoustics to finer digital modular manipulations with a live responsive visual element accompanying the instrumental performance.