The Martin Harris Centre
For Music and Drama

Sines & Squares

18-20 November 2016

sines-squares.org

SINES & SQUARES 2016

A Celebration of Analogue and Modular Synthesis
18th-20th November, Manchester UK

WELCOME!

Welcome to the second edition of Sines & Squares, which again celebrates the resurgence of analogue and modular synthesizers. It features renowned UK and international performers, composers, lecturers and designers working with analogue and modular systems. It also includes theoretical "patchbay sessions" with papers and presentations focused on modular synthesis, a synthesiser workshop, many concerts, a clubnight, our modular lounge, a raffle and much more to enjoy.

Our aim during this long-weekend event is to offer an oppourtunity to present, to learn and to discuss what these technologies are, what they represent and how we use them. With this aim in mind we feel it is important to present artists, users, instrument designers, composers and researchers on an equal footing and to provide a relatively informal opportunity for an exchange of sounds, concepts and perspectives.

Sines & Squares is a labour of love put together by many hard-working volunteers and supported by organisations, manufacturers, our technical team and artists who have generously provided support in-kind, funds, expertise and donated gifts for the raffle. Our policy has been to make Sines & Square events as accessible as possible to both audience and participants. We very much hope it will be a positive, memorable and inspiring experience, especially for new attendees.

The Sines & Squares Team

GOOD VIBRATIONS SINCE 2014!

The first edition in 2014 brought people from different musical and technical backgrounds together and allowed new audiences to experience analogue synthesisers in the flesh for the first time. Since then, modular synthesisers have been the subject of many events, conventions and festivals. Sines & Squares focuses not only on the machines, but on the people using them, the new methods and technologies they devise, and the musical expressions they enable.

The first edition of the festival in 2014 inspired several composers to work in the analogue medium for the first time, including at least one of the composers whose work is represented this year. It also enabled performers to work with the MANTIS multichannel diffusion system, with many of them performing and experiencing a large-scale multi-speaker array for the first time.

Sines & Squares has also encouraged the development of a theoretical framework for discussion in the field of Analogue and Modular Synthesis, combining

publications from academic and non-academic contributors, informed by the Patchbay Sessions. A by-product of our first edition in 2014 was the publication of eContact journal 17.4 - Analogue and Modular Synthesis: Resurgence and Evolution, a collection of nineteen pertinent and sometimes impertinent articles, edited by Sines & Squares co-founder Richard Scott, which have been viewed and downloaded tens of thousands of times worldwide.

Please support Sines & Squares buy purchasing raffle tickets, which may well result in winning you a great modular prize!

MEDIA ENQUIRIES

PRESS CONTACT:
David McFarlane - email: mailto:press@sines-squares.org

THANKS TO OUR SPONSORS, SUPPORT TEAM AND VOLUNTEERS:

Schneidersladen, Moog Audio, Thonk, Todd Barton, Lamond Design, Kai Niggenmann, Expert Sleepers, Bugbrand, AJH Synths, Analogue Solutions, ALM Busy Circuits, Rob Hordijk, Clarke Robinson, Andrew Duff, Islington Mill, Metanast, Cusp Editions, Basic Electricity Berlin, Soulsbysynths, Analogue Systems, Sound Anatomy, Joker Nies, The University of Manchester, School of Arts, Histories and Cultures - Division Fund, Martin Harris Centre for Music and Drama, NOVARS Research Centre and NOVARS Postgraduates and Technical team, The MANTIS System, and many more…

ORGANISING TEAM 2016 EDITION

NOVARS Research Centre, The University of Manchester, UK
Open-Circuit, Salford, UK
Sound Anatomy, Berlin, Germany
Metanast
Brighton Modular Meet

DIRECTIONS:

Martin Harris Centre for Music and Drama
The University of Manchester
Bridgeford Street, off Oxford Road
Manchester M13 9PL
Tel: 0161 275 8951
Email:boxoffice@manchester.ac.uk

Islington Mill Club
Islington Mill
James Street
Salford UK M3 5HW
Web: http://www.islingtonmill.com

Texture (Northern Quarter, Manchester)
67 Lever Street
Manchester, UK
M1 1DN
Web: http://texture-mcr.com

Sines & Squares Programme Resume

Friday 18 November 2016

11:00 h - 15:00. MODULAR SYNTH WORKSHOP
Studio Cluster, NOVARS Research Centre
Places limited, advance booking necessary
Cost £30 and student concession £10

20:30 h. OPENING PERFORMANCES, ISLINGTON MILL
FREE, (donations accepted at the door)

SATURDAY 19 November 2016

11:00 h - 17.30: AUDIO-VISUAL CAROUSEL
Martin Harris Centre, Room F20
FREE

11.00 h - 17.30: PATCHBAY SESSIONS (WITH MUSICAL INTERLUDES)
Martin Harris Centre, Room G16
FREE

18.00 - 19.00 COSMO CONCERT 1
19.30 - 20.45 COSMO CONCERT 2
Cosmo Concert Hall, The Martin Harris Centre, The University of
Manchester, UK
Full/Concessions/Students
For one concert: £8.50/£5.50/£3 (either at 18.00 or 19.00 h)
For two concerts: £12.80/£8.80/£4.80 (both at 18.00 and 19.00 h)

22.00 - MODULAR CLUBNIGHT
TEXTURE, Northern Quarter
FREE (donations accepted at the door)

(Ongoing) SYNTH-BASED INSTALLATIONS
Martin Harris Centre, foyer and first floor
FREE

SUNDAY 20 November 2016

12.00-17.00 - MODULAR LOUNGE AND CLOSING CONCERT
Islington Mill
FREE (donations accepted at the door)

14.00 h- 17.00 h. CLOSING CONCERT
Islington Mill Club
FREE (donations accepted at the door)

17.00 h. RAFFLE DRAW
Islington Mill Club

PROGRAMME DETAILS

FRIDAY 18 November 2016

REBEL TECHNOLOGY WORKSHOP @ NOVARS	
TIME:	11:00 h - 15:00 h.
PLACE:	Studio Cluster, NOVARS (MARTIN HARRIS CENTRE FOR MUSIC AND DRAMA)
COST:	Cost £30 and student concession £10 Book a place on Eventbrite (via Rebel Technology) Note: Maximum capacity 28 people.
Workshop by Martin Klang, developer of the OWL Pedal and the Rebel Technology Modular system and Adam Parkinson, Rebel Technology and Goldsmiths University, UK	

OPENING PERFORMANCES @ ISLINGTON MILL	
TIME:	20:30 h.
PLACE:	Islington Mill Club, Salford
COST:	FREE, (donations accepted at the door)
TITLE	**AUTHOR/S**
Meditating on analogue circuitry	by Chris David (a.k.a. OSC1899) and Willemijn Ketting, Rotterdam, The Netherlands- - Serge Modular/Blippoo Box
Live Performance	by Phil Durrant (Southampton Solent Univ.)- Sowari Modular
Live Performance	by Richard Scott, NOVARS, The University of Manchester / Sound Anatomy, Berlin
Live Performance	by Sam Weaver (Cusp Editions) UK - Hordijk Modular"

SATURDAY 19 November 2016
MARTIN HARRIS CENTRE FOR MUSIC AND DRAMA

PATCHBAY SESSIONS (WITH MUSICAL INTERLUDES)	
TIME:	11.00 h - 17.30 h:
PLACE:	**ROOM G16** (Martin Harris Centre) - Ground Floor
COST:	FREE, (max capacity of the room is 60 people)
Papers	Can be downloaded from sines-squares.org
Chair:	ROSE SORIA

11.00 h - 12.45 h	PATCHBAY SESSION 1
AUTHOR/S	**PAPER PRESENTATION TITLE**
Dave O Mahony	Real-time Manipulation of Synthesis Parameters Using a Brainwave Interface and a Eurorack Modular Synthesizer.
Enrico Bertelli	STEAMtoTEAMS / Transforming the STEAM* agenda into a crossdisciplinary TEAMS* effort. *Science Technology Engineering Arts Mathematics.
Mark Burton	Analogue electronics and the quantum domain - Aether Machine
COMPOSER	**MUSICAL INTERLUDE TITLE**
Jonathan Higgins	**"Torpor"**
Due to their small size and lack of insulating downy feathers hummingbirds rapidly lose body heat to their surroundings. Because of this hummingbirds must regularly consume large quantities of nectar and insects to feed their rapid metabolism. To survive when sleeping at night hummingbirds must enter a state of reduced physiological activity called torpor. This process involves the bird lowering its internal temperature to a level barely able to maintain life, becoming hyperthermic. Doing so allows the bird to reduce its metabolic rate by as much as 95%, causing the bird to consume up to 50 times less energy. Alexander Wilson first described torpid hummingbirds in his book, *American Ornithology*; "No motion of the lungs could be perceived […] the eyes were shut, and, when touched by the finger, [the bird] gave no signs of life or motion." Awaking from a torpid state takes approximately 20 minutes; the bird gently vibrates its wing muscles to warm the blood supply. This process leaves the hummingbird with just enough energy supplies to survive the first feeding bouts of the morning. Torpor was composed utilising a modular synth as its sound source. The main modules used were the Bastl Grandpa and Nonlinearcircuit's Sloth.	

12.45 h - 14.30 h	PATCHBAY SESSION 2
AUTHOR/S	**PAPER PRESENTATION TITLE**
Willi Sauter	Logistic Equation, 1.order choatic system implemented in a modular synthesizer system

Radek Rudnicki, Jude Brereton, Andrew Chadwick	SONICULES
Michael Spicer	Arduino based random generators for Eurorack systems
Sean Peuquet	Cloud-Based Analogue Effects Processing as an Alternative to Analogue Modeled Plugins
COMPOSER	**MUSICAL INTERLUDE TITLE**
Pierre Alexandre Tremblay	**"asinglewordisnotenough1" for fixed pentaphonic media**

"Traduttore, traditore", says the Italian proverb. "Traduire, c'est avoir l'honnêteté de s'en tenir à une imperfection allusive", nuances the translator Pierre Leyris. This series of pieces looks at the impossibility of translating, firstly, the text, then, the context. The multiple nuances of words and images, flatten, lost, unseizable. Moreover, it is also a reflection on the inexpressible, where music and silence, allow some states/ sentiment/experience to be expressed with more power/precision/nuances. Therefore, this suite of pieces should be taken as different expressions of a single impression, whose sense is multiplied by their common/composed/remembered past.
Explain/comment/multiply the music by music, or as Harrold Bloom says so elegantly: "The meaning of a poem can only be another poem". This first piece/iteration/instance is the 'theme' of the suite, in three movements, each musing on one approach to the action of defining: by stubborn repetition, by nuanced contemplation, and by logical development.

14.30 h - 16.15 h	**PATCHBAY SESSION 3**
AUTHOR/S	**PAPER PRESENTATION TITLE**
Joker Nies	Creating a live-performance interface for the Buchla Music Easel
Travis Johns	Around theme: Experiences as a builder on the frontier, finding inspiration through scarcity
Seth Zahn	Expanding "The Experience" with Code, Institute of Sonology, The Hague, Netherlands
Tom Boram	The RGBe Goldberg Machine: Synesthetic Synthesis for A/V and V/A stressing A/D and D/A: The backwards Color Organ and Gesture, high Zero Festival (high Zero Foundation Baltimore, USA)
COMPOSER	**MUSICAL INTERLUDE TITLE**
Pierre John Wiggins	Iterations

"ITERATIONS" refers to composing in small but constant steps in life to produce this electro/acoustic "sound art". All sounds and spaces are compositional elements and by arranging and re-arranging, their counterpoint emerges. I've used my mighty Serge Modular Analog Synthesizer since 1978 to produce and process everything. By day I'm an Emmy winning TV sound designer and mixer, and it's here I get my dose of "real" sounds as well as a model for sound synthesis. Analog Modular sounds are sprinkled through out this work, as is everything else – iterations fuel evolution and that's what I hope I'm doing.

16.15 h - 17.15 h	**PATCHBAY SESSION 4 (KEYNOTES)**
KEYNOTE SPEAKER	**TITLE**
Andrés Lewin-Richter	From Barcelona to Columbia Princeton Electronic Music Centre to Phonos (Barcelona)
Rob Hordijk	A methodical approach to designing electronic music instruments

SATURDAY 19 November 2016 (continues)

AUDIO-VISUAL CAROUSEL

TIME:	11:00 h - 17.30 h (ongoing)
PLACE:	Room F20 (Martin Harris Centre) - 1st Floor - Drama side (MARTIN HARRIS CENTRE FOR MUSIC AND DRAMA)
COST:	Free, open event
Note	Programme notes in the audiovisual preentation in F20 Room

TITLE	AUTHOR/S
Matrix Studies (for Benjolin and Max)	by Patrick Gunawan Hartono , Indonesia
Home Woods	by Alex GowanWebster, University of Sheffield, UK
Concretamente	by Alejandro Albornoz (Chile), University of Sheffield, UK
Magda's home	by Rodrigo De León Garza and Veronica Milano, Mexico
Xaev1uox	by Luis Valdivia, Folkwang Universityof Arts
In my Own Words	by Sten-Olof Hellström, Sweden
Journey for modular synthesizer	by Alberto Novello (a/v) /Erin McKinney , Conservatorio di Padova
Shapeshifter	by Alexis Langevin-Tétrault , Université de Montréal
Ewok Poltergeist Revelations #17	by Volker Hennes, Cologne, Germany
Reliable Peopl1	by Reliable Peopl1 by Aleksandre Kordzaia, Bassel, Switzerland
Anodos Krell	by Chelsea Bruno (aka Eden Grey) and Céline Villaneau, Royal Holloway, University of London, UK
cubic	by Maxime Corbeil-Perron, Université de Montréal, Canada
The birds	by Hector Ulises Vera
Synthetic Delusions	by Nayelli Maldonado Montufar (Maya)

SYNTH-BASED INTERACTIVE INSTALLATIONS

TIME:	11:00 h - 17.30 h (ongoing)
PLACE:	Foyer & 1st Floor Drama side, The Martin Harris Centre
COST:	Free, open event

TITLE	AUTHOR/S
"p(n,r) = n!/(n-r)! "	**by Philippe-Aubert Gauthier & Tanya St-Pierre**

"The number of permutations for n = 6 possible choices, selected r = 2 at a time."
Through this miniature sound installation, Gauthier and St-Pierre revisit the idea and culture of the individual listening station. In fact, they expose listeners to approximately 10 Gigabytes of compositions and improvised sounds, totalling 20 hours of material

improvised in tandem via different, more or less mastered, analog and digital modular synthesizers. Audience members can listen individually or in groups by combining audio tracks played on six separate earphones. In this project, the act of listening, the aesthetics of listening through the accumulation of sound particles, and combinatorics are substitutes for the act of composition. Premiered at Centre Clark, Montréal, September 3, October 11, 2015.

The shape of electricity vs. the sound of electricity	by Pierpaolo Cimino

This is a live installation work for modular synthesizer and lissajous curves using an analogue modular synthesizer and oscilloscope. The work it (firstly) a manipulation of electricity and electronic signals that I can (secondarily) see, using oscilloscope, or listen to, with speakers. The point is to find equilibrium between audio and image because when you have a good audio you have not an interesting image, otherwise when you have an interesting image you have a poor, boring audio. In particular I have passion for Lissajous Curves (X/Y visualization mode) and I love some movement one can find, that seem to go beyond a machine, becoming alive.
This installation is about this kind of search; manipulation of electric signals to have a balance between silence and sound, symmetrical shapes and organic movement, using (in this case) analogue synth in a live electronic context.

Shelf Life sequence	by David & Andy Cox

On visits to Andy's flat over the years, I gradually became aware of the proliferation of tiny found-object constructions, populating home-made Perspex shelves he had made and carefully inserted, between two large panes of secondary glazing in his home workshop. The inscrutability, wit and charm of these objects led me to take a series of photographic stills in the hope they might inspire composing in my own home workshop. I was fascinated how Andy had transformed discarded everyday ready-mades like buttons, washers and pins, into something so emotive, poetic, and to me, musical.
The fragility of the objects necessitated they be photographed in situ in each other's company, often in each other's shadows, at home on their Perspex shelves.
The images proved to be highly inspirational, resulting in the composition of an accompanying series of time-modulated audio portraits. The music generated is elaborated from a single CV source, a prototype 'Jump-Step' sequencer by Frgmnt-Berlin, processed using a self-designed voltage-control time modulator. Contrapuntal evolving rhythmic/harmonic structures are created with a single shifting centre of gravity in a continual process of rebalancing, as an expressive analogue and homage to the physicality and character of the objects. The listener is asked to view a fixed image for the fixed duration of each accompanying piece of audio. It is hoped that the journey of listening produces changing perceptions and feelings about the unchanging still image. Presented is a sequence of 4 (from 44), motionless musical short films, created and compiled for Sines and Squares, back at Andy's workshop where the objects themselves were conceived and reside.

Putney Ponozky	by Manusamo&Bzika (synths by Climent and Pilkington)

Our research is inspired by the sound and component design of the classic analogue synthesizer the EMS VCS3. In this project, a convergence is made between analogue and new digital technologies. By introducing virtual and augmented realities into the performance space through the interconnection of real-time audio and visual synthesis. Our interconnected music network reveals new approaches to audio-visual composition: through audience interaction, allows non-musicians and musicians to perform together; integration of touchscreen technologies with analogue synthesis; Game-engine navigation. The piece aims to expand existing augmented reality theorems. For example, the reality-virtuality (RV) continuum (Milgram, Kishino, Utsumi and Takemura, 1995). We introduce the term Extended Reality, a transitional state between the real and the virtual, which focuses on mixing equally augmented, virtual and real contents, allowing form a reciprocal feedback loop. In this case, our intention is to mix analog synthesis

technologies (60) with current digital technologies, Augmented Reality and Virtual Reality theories Combining to create an interesting point of convergence between analog/digital and the audio-visual. The network uses various applications that operate together to emphasise the sense of hyper-connection in which we live today, where the Internet of things begins to glimpse, a concept that would not be possible without the use of wireless technologies.

SATURDAY 19 November 2016 (Continues)

COSMO CONCERT 1

TIME:	18.00h - 19.00h
PLACE:	Cosmo Concert Hall, The Martin Harris Centre, The University of Manchester
COST:	Cosmo Concerts 1 and 2 are free for festival participants. Concerts/Full/Concessions/Students - For one concert: £8.50/£5.50/£3 (either at 18.00 or 19.00 h) - For two concerts: £12.80/£8.80/£4.80 (both at 18.00 and 19.00 h) Box office: http://www.martinharriscentre.manchester.ac.uk/how-to-book/

TITLE	AUTHOR/S
"ENIAC girls" (Manchester Version)	**by Udo Moll, Cologne, Germany**

The piece that i would like to perform in Manchester is called ENIAC girls Manchester version. it consists of an electro- acoustic solo performance combined with a text projection that will be typed in real-time. The performance is built around some motives from the early days of computer development in the US : After the german engineer Konrad Zuse had built his still electro-mechanically working Z3 (1941), which is meanwhile recognized as the first working digital computer in the world, american engineers Presper Eckert and John Mauchly started constructing the vacuum-tube based ENIAC (1944) in Pennsylvania. presented to press and public in 1946, this machine was then the first all-electronic universal computer of all times. until 1948 the ENIAC was programmed exclusively by a group of six young women. They learned to program without programming languages or tools (for none existed)—only logical diagrams. Programming was done by patching cables to connect the different logical modules of the computer. this inspired me to integrate my modular synthesizer into the latest version of this piece. The performance ENIAC girls combines different musical and transmedial approaches: electronic music, field recordings taken from historic computers, sounds taken from oral-history-interviews, electro-acoustic improvised music, analog synthesizers. the performance is partly composed and partly improvised and i will perform the piece myself. Udo Moll - concept, composition, trumpet, modular analog synthesizer, live-electronics, video.

Permeance	by Matt Omahan, NOVARS Research Centre, The University of Manchester, UK

We are constantly surrounded by little bits of designed sound. From a cell phone's keyboard clicks on touch screens to synthesized engine noises in electric vehicles, synthesized sounds have reached a new commonality and—in cases such as these—even replace real world sounds. If a synthesized sound reaches the ubiquity and recognisability of that of a real world sound, does it, in turn, become a "real world sound"? Permeance is modular synthesizer patch that explores the rapidly fading line drawn between recorded, real-world sound and synthesized, abstract sound. Modular setups ("synthesizers"), once used only to synthesize sound, now have the capability to employ real-world sounds. Navigating this permeability is a means of accessing and employing the sounds of our current, technologically saturated lives. The entire patch is clocked by a low frequency sine wave that is modulated by several sources, including feedback. This LFO controls the speed of two random CV generators, one of which receives an inverted version of the signal. Thus, only one pole is active when the LFO is at an extreme positive

or negative. Pole one is composed of the granularly synthesized real-world sounds that is then filtered and sent through a heavily modulated delay line. Pole two is composed of two voices: a spectrally-filtered textured noise signal and an enveloped, digitally-emulated band-passed saw wave generator. Interdependence is created in the relations between each set of voices. The delay line that follows the granular synthesis is modulated by the random voltage source of the opposing generator. This opposing generator modulates the rhythmic parameters of the synthesized sounds. In doing so, each voice relies on the other for change. This is necessary both to the conceptual drive of the patch, as well as the organization of sound in time.

Bredvid	**by Ann Rosén + Sten-Olof Hellström, Stockholm, Sweden**

"Bredvid A" is performed on the Kneecuff-instrument that I designed and built. It is a synthesiser you play with your knees consisting of a knitted sensor (the kneecuff part) that controls a hardware synthesiser which in turn is based on a raspberry pi. Although the Kneecuff instrument is not predominantly an analog instrument it is based on modular synthesis which is controlled by analogue sensors and in the case of Bredvid A the output from the Kneecuff-instrument is fed through a number of analogue filters (Sherman) and analog feedback processes!
"Bredvid A" is about parallel processes that might affect each other but are not linked! It's like young children playing next to each other rather than with each other. They have a lot in common and can even borrow stuff from each other but they're still in their own worlds!

Infinities of Yonder/ness (come in, Sun Ra)	**by Daniel Warner, Hampshire College, Amherst MA U.S.A.**

The piece comprises a compression, in time, of sampled musical elements from Sun Ra's 1971 BYG Actuel album "The Solar-Myth Approach vol. 1." The Sun Ra material (stored on two ADDAC 101 Eurorack modules) is inter-modulated with recorded improvisations by multi-reed player Marty Ehrlich and various Eurorack sources. The overall control of the piece will be done by using the Pittsburgh Modular Game System. Since Sun Ra was from Saturn, the "Meteor Shower" game on the Pittsburgh module will be played.

Iteration/Banger	**by Danny Saul, NOVARS Research Centre, University of Manchester, UK**

Prior to taking the financial plunge into the murky underworld of modular synths I found myself exploring control signals in MAX/MSP. Taking the principle of audio-rate sequencing as a starting point (to generate timed events with a phasor~ ramp object for sample-accurate sequencing), the main programming patch manipulates a primary sine wave, up to three synthesised kick drums, additional gated and processed gestural noise materials and some simple FM synthesis. The resulting computer instrument is capable of producing unpredictable rhythmic output with timbral variation. The output is further shaped through several complex effects processing chains via Ableton Live. Finally, the stereo signal from Live is sent to a third transformative stage (a second Max patch) designed to manipulate spatialisation for an 8-channel output. Materials were generated using this three-stage process, then selected and organised by ear. While certain materials were developed to create a sense of vectorial movement and perspectival space-forms, the work primarily features chance spatial outcomes achieved through aleatoric processes, and the majority of sound materials, by design, exist in proximate circumspace. No modular/analogue synthesizers were used in the production of this piece.

COSMO CONCERT 2

TIME:	19.30-20.45
PLACE:	Cosmo Concert Hall, The Martin Harris Centre, The University of Manchester

TITLE	AUTHOR/S
Lens 7	**by Mark Pilkington, Thought Universe, UK**

Lens 7 investigates audio-visual synthesis through the multi-disciplinary practice of fabrication, analogue modular synthesis and digital image processing. The starting point was the fabrication of a 'bricolage' Texture 1 (2013) that provided a physical framework. A single photographic image of Texture 1 is digitally transformed using generative processes to form a graphic score-in-motion. The motion of the image reveals a temporal virtual landscape that contains spatial, textural and spectromorphological properties associated with electroacoustic music. The sound material for Lens 7 consists of improvised recordings of a Buchla 200 modular synthesiser based at Stockholm EMS, May 2014. The analogue sounds were repositioned to correspond to inherent musical properties of the graphic score-in-motion. Composing with modular synthesisers shares many similarities to the creation of visuals; the modular synthesiser acts as a tactile surface in which composer/performer produce sound by altering sonic architecture. The performer listens and responds to the sounds by making parametric changes: listening is inherently linked to physical gesture. Similarly, visual transformations occurred through interaction between performative or generative systems. Throughout the compositional process aesthetic judgement is contained in an audio-visual contact set within a system requiring programmed (no-input) and/or active participation (input). In the audio-visual realm, the predominate factor is the appliance of 'motion' to promote cross-modal correspondences between sound and image. Realised at Stockholm EMS, Thought Universe, LICA Lancaster university and NOVARS, the university of Manchester.

Microcosmos	**by Joseph Hyde, Bath Spa University, UK**

This performance is a natural evolution of the one I did at the first Sines and Squares event. At its core is the same 8-voice synthesizer, which is designed specifically for an 8-channel system and essentially consists of an 'ensemble' of 8 miniature sub-instruments, one routed to each channel. Since then, the system has expanded in two key ways – first, the digital/analogue approach I used back then (digital control by means of a bespoke Max patch; sound production entirely analogue) has been expanded to include an innovative self-tuning system, allowing pure harmonies based on low-order ratios to be maintained at 0.1% accuracy – this allows for the production of very rich harmonic drones and patterns with complex internal pitch structures to be perfectly maintained. This is complemented by a new section of the synth – essentially another instrument – with different aims and sonic possibilities. This is monophonic, and largely geared towards non-pitched sounds. Here the aim is sonic variety (this section incorporates some DSP-based modules), short sounds and gestures and rhythmic accuracy. Where the original system takes a parallel approach to spatialisation, here single sounds are panned around the 8 channel setup using two Intellijel Planar modules, allowing increased dynamism and movement.

RSF	**by Andres Lewin-Richter, Phonos Foundation, Barcelona, Spain**

"RSF" is an octophonic piece based on material produced by the RSF modular Synthesizer (produced in France) which we have in perfect working conditions at our studio. This piece was produced to be included in the Barcelona Music Museum exhibition of "40 year Phonos· 2014-2015.

Volt_#1	**by Monique Jean, University of Montreal, Canada**

Volt_#1 is the first of a series of pieces made with obsoletes analogue technology or the idea of it. That is, to create a modular system that allows the instability an unexpected that we found in the analogue synthesizer.

In Volt_#1, the feedback, noise and high pitch sounds comes from improvisation with a four-track cassette recorder, configured in the spirit of a non-input console with guitar FX., recorded in Ableton Live and remixed in Reaper.

Each piece of the series will be constructed with the idea of a large open space in the city at night, full of sound, waves, and indistinct events that appear in the distance, unexpectedly.

Droles d'oiseaux	**by Francis Dhomont , France**

To Françoise Barrière, Christian Clozier, Jean-Claude Leduc,Valia and Patrick Lemoine

Fifteen years after I composed this purely electronic work — the only one I ever produced — I exhume it, as a curiosity.

Invited to compose a work by the Groupe de musique expérimentale de Bourges (GMEB), I decided that as a guiding principle I would limit myself to the use of material generated by oscillators and other modules of the high-quality analogue synthesizer from the Charybde studio and to very few processing. I then added a number of elements produced at the Groupe de musique expérimentale de Marseille (GMEM) with the first version of the Synclavier.

But a more poetic image was guiding me, that of the forest as a magical symbol of our unconscious. This was my first foray into the "deep forest" that I had already been thinking about; in it a few reminders of that first effort can still be found. Here is what I felt about it :

"Today [artists] reveal the relativity of visible things; they express their belief that the visible is only an isolated aspect in relation to the universe as a whole, and that other, invisible truths are the overriding factors." Paul Klee

Here are traces of luxuriance and dream-like exoticism, a bestiary of the imagination that does not hide its kinship with François Bayle's Trois rêves d'oiseaux, Roger Cochini's Lullaby, and Ivo Malec's Bizarra. It is the fantasy-universe of the comic strip, or the fantastic one of fairy tales (in which no menace is excluded): the fantasmatic landscape of signs. FD

Drôles d'oiseaux (Strange Birds) was realized in the GMEB studios and in the composer's studio in 1985-86 and was premiered on 12 June 1985 as part of Synthèse, the Festival international de musique électroacoustique de Bourges (France). It was commissioned by l'État (France) and the Groupe de musique expérimentale de Bourges (GMEB). The version heard here was reworked and abridged in the composer's studio in 2001. © SACEM, France

Apophenia	**by Adam Parkinson/Martin Klang/Leafcutter John/Steph Horak, London**

The piece uses sonification of environmental data to control an 8-channel modular synthesizer processing and sampling live vocals. It also incorporates custom digital synthesis and sampling in a hybrid modular system. The performers include internationally renowned artists Leafcutter John, Steph Horak, Adam Parkinson and Martin Klang.
The piece is driven by Steph's voice which is manipulated and sampled by the modular system. Data about the air quality from multiple data centres around Manchester is sonified, controlling the processing and spatialisation of the vocals. The geographic location of the different data sources is represented spatially through the multichannel diffusion. The performers control the sonification and processing through live patching of the modular during the performance. The piece charts a sonic journey from ethereal textures to a fractured polyrhythmic landscape, as over time the voice is sampled and sliced by the modular. Rebel Technology's OWL modules which are fully reprogrammable, are used in this performance, combining the flexibility and control of modular synthesis with the endless potential of digital sound processing. The reconfigurable nature of the OWL means that some of the OWLs can be used for sound processing whilst others are used for storing, playing back and processing data which is sonified by the modular. Whilst being rooted in modular synthesis, the piece shows how the world of modular can interface with and utilise the myriad possibilities of digital technologies, and how real world data can be sonified and used in modular compositions.

SATURDAY 19 November 2016 (night)

MODULAR CLUBNIGHT @ TEXTURE, Northern Quarter	
TIME:	Starting at 22.00 h
PLACE:	TEXTURE NQ @ 67 Lever Street, Manchester M1 1DN
COST:	FREE, (donations accepted at the door)

TITLE	AUTHOR/S
Live Impro //Buchla Music Easel	**by Joker Nies, Cologne, Germany**
Joker Nies plays and experiments with all kinds of modular systems, ranging from "historic" instruments, like the EMS AKS or the Buchla Music Easel, to the modern designs of Rob Hordijk or Peter Blasser. Many of his instruments are custom-made, or highly modified, providing extended controls and the possibility of quickly changing sound and behavior. His enhanced Buchla Music Easel-K, provides instant timbre and behavior control through body-contacts and a modulation matrix.	
Vectrex & Eurorack study #X 'Performance v3'	**by Andrew Duff, University of Sussex, UK**
Vectrex & Eurorack study #X 'Performance v3' is a live audio/visual performance piece that combines the use of a modular synthesiser and a modified 1980s Vectrex games console C.R.T. for creation of sound and visuals. The piece builds from the use of basic waveforms which are systematically combined, folded and manipulated to create not only a wall of sound, but also abstract oscillographic forms and Rorschach-like three dimensional structures on the screen of the games console. The performer manipulates and explores the boundaries and limitations of the hardware, in the sculpting of audio/visual abstractions and through the interplay of sound and its visualisation. Referencing pioneering oscillographic work by Ben Laposky (Oscillons, 1953), Steve Rutt & Bill Etra (Rutt-Etra Video SynthesizeR, 1972), and contemporary work by Russell Haswell (ACID nO!se Synthesis, 2011), along with the immersive state brought on through using Gysin, Burroughs and Sommerville's Dreamachine, hypnotic and constantly evolving forms and structures are drawn on the C.R.T. screen. The piece itself relates to current developments in analogue and modular synthesis through its application of old and new technologies and the exploration of their capabilities in the production of oscillographic forms. Additionally, current interest in early video art (see Chris King's http://videocircuits.blogspot.co.uk) clearly walks hand-in-hand with the current resurgence of modular synthesis, as the two often use similar techniques, working methods, and modules can be used across platforms. Socially and culturally, the work builds on elements of my Sines & Squares Patchbay Session of 2014 (Synths and Social Capital), exploring the use of, and support from, an on- and off-line communities. Other artists in Europe and America are also experimenting with similar techniques and a small, informal network has gathered around various social media platforms.	
Object and Line to Space	**by Alexander Senko, Moscow, Russia**
In this work, sound and visuals are interdependent. Position, size, speed, and brightness of objects and lines generate sound, its spectrum, volume and rhythm. Live performance combines algorithmic composition and live improvisation. Object and Line to Space was created with visual programming language Pure Data.	
Fashion Fountain [BURNT DOT]	**by Ryan Gaston/ Sarah Belle Reid, California Institute of the Arts, USA**

"Fashion Fountain" (~11'00") is a semi-improvised piece for amplified trumpet, modular synthesizer, and reactive visuals in Processing. The visuals are generated and manipulated in real-time by analysing performance data from both instruments. Performance data is collected from the trumpet via MIGSI (Minimally Invasive Gesture Sensing Interface), a wireless interface developed by Burnt Dot for trumpet audiovisual performance. The synthesizer patch is an elaborate audio/control feedback network that behaves only semi- predictably. Performance data is collected from the synthesizer by tapping its audio/control path at various nodes in this network and slew limiting the resulting signals to create quasi-envelope-follower functions in Max/MSP. The data collected from MIGSI and the trumpet interacts in Max/MSP in order to generate OSC data that then controls the Processing sketch. The piece itself is an improvisation loosely guided by interpretation of the generated visual materials.

Decomposition	by Merkaba Macabre, London, UK

Decomposition is an 18-minute ever-evolving, camera-less, semi-improvised, audio-visual performance for one 16mm projector with optical sound and live modular soundtrack. The colour negative stock used in this film has undergone a series of organic and chemical decomposing techniques from food waste to harsh acids. A colour print is made of the results and while projected the sound output of the disrupted film emulsion is sent into the preamp of a modular synthesizer converting the film print into controlled voltage. The contours, shapes and colour of the decomposed celluloid is translated live into sound synthesis. Triggers, gates and envelopes are created from the film print and the parameters of the modular synthesizer are played live. Each live show is a recycled, re-decomposed version of itself where the film print and subsequent inter-negatives go through the same decomposing process and reprinted so no show is ever the same.

Modular Consoles AV performance	by Epigone -Gary Naylor (Scrubber Fox), Ross Scott-Buccleuch (Diurnal Burdens), Dustin Lyon(Cordial Pop) UK

Consisting of an audio-visual modular performance, the setup uses circuit bent/modular consoles such as Megadrive, Master System, NES, iMac CRT to generate glitched out visuals triggered by the modular synth setups and analogue synths such as Moog. The audio setup can be patched into the video chips on the consoles directly to create allsorts of weird rhythmical visuals, blended using visual mixer and projected, that react to the sounds alongside the TV/iMac and music composed live. Expect to be amazed by the sounds of dark terror weird soundscapes and noises, 8-bit chip sounds, fat hardware synths all mangled using the modular synth setups. The trio of electronic experimentalists use an array of unconventional and imaginative modified instruments, consoles, effects, modular synths and hardware to create interesting yet chaotic melodies and soundscapes in a unique AV performance .The audio created is combined with re-worked obsolete technologies and re-visited forgotten formats to create a live visual backdrop that includes a modular Sega Megadrive, Master system, NES (and many more) for the visualisation devices to create a patch work of explorative visualisations and frenzied glitch art backgrounds

SUNDAY 20 November 2016
ISLINGTON MILL, SALFORD

MODULAR LOUNGE AND CLOSING CONCERT	
TIME:	12:00-17:00
PLACE:	Islington Mill Club
COST:	FREE, (donations accepted at the door)

MODULAR LOUNGE	
Event co-organised by Andrew Duff -Brighton Modular meet, University of Sussex	
Presentations:	**AUTHOR/S**
"The Origins and Development of Eurorack"	by Holger Zapf, Schneidersladen, Berlin
Informal demonstrations and discussions:	**AUTHOR/S**
The Hordijk Modular	by Rob Hordik
RGBe Goldberg Machine	by Tom Borax
Ciat Lonbarde instruments and more	by Seth Zahn
Modified Buchla Music Easel Interface	by Joker Nies
Brainwave Interface and Eurorack Modular Synthesizer	by Dave O MaHoney
Aether Machine presents a novel variable harmonic FM oscillator pair	by Mark Burton
$p(n,r) = n!/(n-r)!$	by Philippe-Aubert Gauthier and Tanya St-Pierre

CLOSING CONCERT	
TIME:	14.00 h- 17.00 h
TITLE	**AUTHOR/S**
Suspended in the Pit	by Lars Bröndum, University of Skövde, Sweden
RGBe Goldberg Machine	by Tom Boram, Baltimore, USA
See paper online	
The International Sounds of the VauxFlores Sound System	by Travis Johns, University of Baltimore, Baltimore, Md. USA

I started building analogue synths about 8 years ago while I was living in a tent in the Rocky Mountains in the winter in an attempt to keep warm while I was finishing my thesis. Generally speaking, using a soldering iron connected to a small solar array as a source of heat isn't the best of ideas, but it was that cold and it was worth a shot – and when I left my mountain solitude, walking over 5 miles in chest-deep snow before coming to the nearest road, I had my first home-built synth in my pack along with the usual survivalist essentials. After that experience, I kept building – researching schematics, modifying designs, hunting components and assembling instruments that I would play until I got a better idea, needed money or felt the urge to build another; often using the proceeds of the sale of the last instrument to fund the next, naming each instrument sequentially. I think at the moment I'm up to Number 52. Not to say that I didn't keep a couple of my favourites for good measure and nostalgia. Then, a couple months ago while attending a

conference on legal scholarship, I was somehow inspired to adapt several of my surviving instruments into a standard format, creating a unique and expandable, as well as entirely home-built and primarily self-designed modular system that's inspired equally by the likes of David Tudor as it is King Tubby, with just a twist of Don Buchla and Peter B for good measure. For this performance, I would like to demonstrate this system live for you in hopes that by doing so it will generate discussion, expand repertoire and facilitate ideas – not only with regard to the future direction of this system, but also to the sounds of others in attendance.

RAFFLE DRAW

TIME:	Sunday ca. 17h (after Concert)

- ▪ (Including modular/analogue prizes by Moog (a Werkstatt), Thonk, Analogue Solutions, Expert Sleepers, Bugrand, Befaco, Todd Barton, CUSP Editions, Lamond Design and many more.

BIOGRAPHIES

OPENING PERFORMANCES @ ISLINGTON MILL

Chris David (a.k.a. OSC1899)
Rotterdam based synthesist Chris David a.k.a. OSC1899 is collecting and playing synthesizers since 2007. About 3 years ago he entered the modular synth scene and met mr. Noodlebar Mono-poly at one of the Noodlebar events. His first modular synth gig followed soon and he did a live performance for Noodlebar at BAR. "The modular synthesizer will give you the ultimate experience to look at the anatomy of sound to understand what synthesis is. All my live performances are fully improvised. I am the architect of my own patches on that moment. For preparation I only check if the system and interface works." Since 2015 OSC1899 is doing live performances with his wife Willemijn Ketting on both (modular) synthesizers as classical guitars as well.

Willemijn Ketting
Willemijn has entered the modular scene since 2015 and she plays the Blippoo Box alongside to OSC1899 during performances. Willemijn also soldered her own modules like the Falafular and at the moment she is doing a soldering project on 4U format panels. Besides playing the modular she also edits and rearranges compositions from composers like J.S. Bach, A. Vivaldi and 20th Century composers for classical guitar.

Phil Durrant
Born near London in 1957, Phil Durrant is an improviser/composer/sound artist who has devised his own virtual performance instruments using Reaktor. Recently, he has been performing solo and trio concerts (with **Mark Wastell** and **Richard Sanderson**), using an analogue/digital modular synthesizer system. As a violinist (and member of **the Butcher/Russell/Durrant** trio), he was one of the key exponents of the "group voice approach" style of improvised music. In the late 90s, his trio with **Radu Malfatti** and **Thomas Lehn** represented a shift to a more "reductionist" approach. Durrant's exploration in the use of live electronics to expand the timbre of the violin, evolved into the creation and building of self-made virtual instruments. His live sampling/treatments duo with **John Butcher** and his work **MIMEO**, saw Durrant move from the use of hardware to the use of software in live situations. He has always been keen to transfer the flexibility of playing an acoustic instrument, into his laptop performances. He also performs regularly with the acoustic/electronic group **Trio Sowari** (with **Bertrand Denzler** and **Burkhard Beins**). In addition, he is an Associate Lecturer at Southampton Solent University. Phil has also collaborated and composed site-specific music for a wide variety of choreographers, including Maxine Doyle, Susanne Thomas, and Gill Clarke.

Richard Scott

Richard is a free improvising musician and electroacoustic composer working with electronics including modular synthesizers and controllers such as the Buchla Thunder and Lightning. He has been composing and performing for over 25 years, recently working with Evan Parker, Jon Rose, Richard Barrett, Kazuhisa Uchihashi, Shelley Hirsch, Ute Wassermann, Michael Vorfeld, Frank Gratkowski and his own Lightning Ensemble. He studied free improvisation in the 1980s with John Stevens, saxophone with Elton Dean and Steve Lacy, and electroacoustic composition with David Berezan and Ricardo Climent. He has released many albums, for example with Grutronic and Evan Parker for PSI records, "The Magnificence of Stereo" (sruti BOX) and has a solo double modular synthesizer LP, "Several Circles" and an album with Sidsel Endresen, "Debris in Lower Earth Orbit" on CUSP Editions.
richard-scott.net ; https://cuspeditions.bandcamp.com/

Sam Weaver

One half of London outfit Hungryghost, Sam Weaver is a composer and sound artist with a longstanding interest in the studio as a sort off laboratory for sonic investigation, often re-routing instruments into abstraction and deliberately misusing his equipment. Since 2012 his main tool both live and in the studio, has been the Hordjik analogue modular synthesizer. He has recently recorded and performed with Charles Hayward, Danny Saul, Tombed Visions, Gnod and has performed along side Kevin Drumm as well as launching 'Cuspeditions'; a new vinyl label and series of sound art events championing experimental music and the unclassifiable.
His music lies in the grey areas between acousmatic music, free improvisation and experimental electronics, often exploring ways to bring moments of calm and harmony out of passages of chaos. "

PATCHBAY SESSIONS & MUSICAL INTERLUDES 1

Dave O Mahony

Dave is a PhD student at the University of Limerick, Ireland. His compositions have been performed at the Sines & Squares Festival (Manchester, UK), The Hilltown New Music Festival (Ireland) and as part of the Daghda Gravity & Grace Festival (Limerick, Ireland). He is a member of Irish Sound Science and Technology (ISSTA) and has an interest in modular synthesizers. He holds a BA in English and New Media (Hons) and an MA in Music Technology (Hons) from the University of Limerick. http://www.mckenic.com

Enrico Bertelli

Dr. Enrico Bertelli is a performance-based researcher, for Conductive Music CIC, and Strategic Programmes Manager in Knowledge Exchange for The Culture Capital Exchange, coordinating partnership programmes between London's Higher Education institutions (HEIs) and the entrepreneurial world of startups (SMEs). Co-founder of Conductive Music CIC, which focuses on development and delivery of innovative digital music technology experiences for audiences of all ages. We bring a strong network of new technology partners, including JoyLabz (USA), Adafruit (USA), and London Music Hackspace. P articipant (2012) and Curator (2013) of Big Ears: Sonic Art for Public Ears, with AHRC (2012) and HEA (2013) funding. As Conductive Music CIC, we directed the successful pilot project *C onductive Music* which reached 200+ young people in East London with funding from Grants for the Arts, PRS for Music Foundation, Newham Music Trust, Community Links, and European Cultural Foundation. Were awarded an Artist International Development Fund for 2014 UK - Japan tour featuring multimedia art as cultural bridges for shared agricultural, technological and environmental issues. Recently completed the 2014-2015 ACE-funded *MakeIt.WearIt.PlayIt* which reached 700+ young people in London and Bristol, in partnership with Raspberry Pi Foundation. Enrico's commissions include New Music New Media (Aldeburgh Festival & Kings Place), Hack the Barbican, Iran's New Year at the Southbank. Artist in Residence with Atelier L'Arsenale (Venice), Ensemble Modern (Innsbruck), Ensemble Recherche (Freiburg). Featured on *N ew Scientist, ScreamingGoatTV* and *Nonclassical*. Tour musician with *SpaceF!ght*, recipient of Emergency Excellence Award and WellcomeTrust

Mark Burton
Mark's fields of interest are psychology, maths, music, engineering, socialising and especially the intersection of as many of these as possible. Interests applied through recorded music, events, live performance, record labels, and most recently the design of his own equipment under the brand name Aether Machine.
Jonathan Higgins
Jonathan is a composer from England who has recently completed an MA in Sonic Art as the University of Sheffield. His music is often densely gestural and noise based with influences from beat and glitch based music. He has presented works both in the UK and internationally, most recently at the ICMC (Athens 2014, Texas 2015, Utrecht 2016), iFIMPaC (Leeds), Metanast (Manchester), Sound Junction (Sheffield) and Noise Floor (Staffordshire). His electroacoustic remix of Gary Carpenter's piece "Neiderau" played by the Tempest Flute Trio was shortlisted for the Nonclassical 10 Remix Contest. Fragments, a piece based on Humpty Dumpty received a runners up prize in the USSS Nursery Rhymes competition.

PATCHBAY SESSIONS & MUSICAL INTERLUDES 2
Willi Sauter
Born 1956 in Germany. Work as Social worker and TV Production manager for a large company in Germany. Willi is now producing handmade analogue synthesizer in his little manufacture workshop. "Living a bit my dream".
Radek Rudnicki
Radek is a sound artist, performer and sound designer focused on using improvised material in multidisciplinary projects. In 2008 Radoslaw has been shortlisted by SPNM (UK), as one of the most interesting emerging composers living in the UK. In 2013 announced Ambassador of Jazz in the North of England with the project Space F!ght, subsequently supported by Sound and Music toured the UK in November 2013. In 2014 received Emerging Excellence Award from Help Musicians UK. Radek holds PhD in Digital Composition from the University of York. He is interested in interactive multimedia, visual arts and multidisciplinary projects combining art and science. As a result, collaborated with NASA's GISS on sonification projects, which he toured both in USA and UK. He emphasizes a varied range of digital music, including contemporary composition and free improvisation. As founder of Space F!ght, co-founder of RPE Duo, Kirki Project and lead sound designer of Precyzja Foundation he regularly performs and showcases his work in Europe, USA and New Zealand.
Jude Brereton
Jude Brereton is a Lecturer in Audio and Music Technology in the AudioLab, Department of Electronics, University of York. Before joining academia she worked for a number of years as a freelance arts and music administrator, and music education facilitator and is still excited about music, performance art and science cross-over. Her research investigates human interaction with spatial sound-centring on the Virtual Singing Studio - as a means to explore how musical performance changes in different acoustic environments. She is also involved in sonification projects which seek to combine art and science to foster new ways of approaching data analysis and engaging the public with big questions in science and engineering.
Andrew Chadwick
Andrew is Support Music technology staff at the University of York
Michael Spicer
Michael has a B.A. (Hons) majoring in music, and a M.Sc in Computer Science, and is constantly looking for ways to combine these two areas. He has been performing professionally as a keyboard/synthesizer/flute player since the late 1970's. He was a member of the popular Australian folk/rock group Redgum in the 1980's. In 1995 he co-developed two music edutainment games *Agates, the rock group* and *Agates Virtual Music Machine*. He is currently teaching at Singapore Polytechnic, working on a PhD in composition at Monash University, Australia, and performing in Singapore with the improvisation group "Sonic Escapade".
Sean Peuquet

Sean is an independent composer, digital artist, scholar, programmer, and music hardware developer based in Denver. He presents his work regularly at national and international venues like Society for Electro-Acoustic Music in the U.S., International Computer Music Conference, New York City Electronic Music Festival, Society of Composers, Inc., Toronto International Electroacoustic Symposium, Electronic Music Midwest, and Boston CyberArts Festival. From 2012 to 2014 he held the position of Visiting Professor of Digital Arts at Stetson University while completing his PhD in Music Composition at the University of Florida. He received his MA from Dartmouth College and holds a BA from the University of Virginia. Across his career he's had the privledge of studying composition and computer music with Jon Appleton, Newton Armstrong, Matthew Burtner, Charles Dodge, Paul Koonce, Larry Polansky, Paul Richards, Marina Rosenfeld, James Paul Sain, Judith Shatin, and Ge Wang. His current research interests include generative music, self-reflexive listening practices, and new paths for art as a socio-cultural determinant.

Pierre Alexandre Tremblay

Prof. Tremblay (Montréal, 1975) is a composer and a performer on bass guitar and sound processing devices, in solo and within the groups *ars circa musicæ* (Paris, France), *de type inconnu* (Montréal, Québec), and *Splice* (London, England, UK). He is a member of the London-based collective *Loop*. His music is released by *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 Tremblay is Professor in Composition and Improvisation at the *University of Huddersfield* (England, UK) where he also is Director of the Electronic Music Studios. He previously worked in popular music as producer and bassist, and is interested in videomusic and coding. He likes 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. www.pierrealexandretremblay.com

PATCHBAY SESSIONS & MUSICAL INTERLUDES 3

Joker Nies

Lives and works in Cologne, Germany, as a musician, sound-designer, recording-engineer, photographer and technical editor for the German Sound&Recording and Keyboards magazines. Since the 80´s, Nies experiments with all kinds of hardware and software based sound-sources. During the early 90´s, modifying the Omnichord became his initiation to what is known as circuit-bending. Joker Nies taylors his instruments to his needs and creates electronic devices with a broad range of sounds, that he plays with great expression and musical gesture. By using body-contacts to directly interact as part of the circuitry, Electro-Sapiens Joker Nies re-resists the circuits into new sound territory. His musical activities are centered around a improvisational approach, though he also cooperates in composition-based multimedia projects like REALTIME-RESEARCH, the QUANTUM QUASI dance performances, Suguru Gotos Net-Body project and others. Since 2005 Nies is touring intensively with his trio Die Schrauber. Recent activities include software design in Max/MSP, and the exploration of playing interfaces for modular synthesizers. Joker Nies worked and recorded with artists like Gino Robair, Thomas Lehn, Alan Silva, Anna Homler, Paul Lytton, Hans Tammen, Günther Christmann, Georg Wissel and many others in all of Europe, USA, South-Afrika, India and Mexico.

Travis Johns

Travis (b. 1983) is a composer and sound artist currently active in the United States and Central America. Using processed field recordings, prepared instruments and homebuilt analog electronics, he creates pieces that blur the lines between performance, composition and installation, often using the environment and biological processes as inspiration for his works. He holds a B.M. in Technology in

Music and Related Arts from the Oberlin Conservatory of Music, studies conducted with Tom Lopez, as well as an MFA from Mills College in Electronic Music and Recording Media, studies conducted with Chris Brown, Les Stuck and Hilda Paredes. He has participated in residencies at such places as the Atlantic Center for the Arts and RPI's Create @ iEar, and has had work featured by el Museo Centroamericano de Arte Video (MUCEVI), the Electronic Music Foundation, Berkeley Art Museum/Pacific Film Archive (BAMPFA), and the Bienarte 8 Costa Rican Biennial, and in January 2013 represented Costa Rica alongside visual artist Paulina Velazquez-Solis at the Biennial of the Central American Isthmus, in Panama City, Panama. He currently lives in Baltimore, Maryland where he works at the University of Baltimore, and also helms the audio electronics company VauxFlores that specializes in the design and manufacture of electronic instruments and effects for creative musicians

Seth Zahn
Born Christian Borges Zahn, (Sao Paulo , Brazil, 1980) has been a "sonic artist" for more then 15 years, having jumped between many different scenes and not only performing or composing but also organizing and promoting events, managing labels and artists. For about 6 years, Seth has been intensively focused on improvised and electroacoustic/sound design practices with voltage controlled modular synthesizers. In the very same time span he has been in and out of Europe, more precisely between Sao Paulo and Berlin where he has performed several times, where he became strongly influenced by such great inputs particular to that environment. In 2015 he decided to change things more as he enrolled in the (in)famous "Course" at the Institute of Sonology in the Hague, NL where he still resides. Upping his skills and building great networks he looks forward to continue performing and as a researcher explore more and more the "dark depth" of modular synthesis. web: soundcloud.com/setherian ;
https://vimeo.com/search?q=seth+zahn

Tom Boram
Tom is a musician, filmmaker and video artist from Baltimore, MD, USA. He plays in the duo Leprechaun Catering with Jason Willett. He has performed and improvised with various musicians such as M. Geddes Gengras, Matmos, Thomas Lehn, Jack Wright, Tetsuya Yoshida, Kaffe Matthews, Tomomi Adachi, Dragos Tara, Jenny Graf, and Weasel Walter. He is also a founding member of the High Zero Festival of Experimental and Improvised Music, one of the longest running festivals of experimental music in the USA. His modular synthesizer re-scoring of some 1950s era Road Runner cartoons now has 400,000 hits on YouTube and a relatively small number of irate comments.

Pierre John Wiggins
Starting his career as a live sports sound mixer, John wrote music for commercials and won The Big Apple Award in 1979 for his music for the American Heart Association. He became Supervising Sound Editor at HBO Studios for 22 years and built their Post Audio Department, mixing such critically acclaimed documentaries as "America Undercover – High on Crack Street", "Autopsy", "Dwarfs" and   Academy Award Winner - "King Gimp". In the year 2000 he was also given an Emmy by HBO Sports for 10 years of award winning sound design and mixing on such Emmy winning documentaries as "When It Was A Game", "Do You Believe In Miracles: 1980 US Hockey Team " and more. In 2001 Wiggins opened his own Sound Production companies - Wonderland Sound and "no wonder music". He won an Emmy for "Best Mix" in 2009 for HBO Sports "24/7" and an Emmy in 2010 for HBO Sports "Assault In The Ring" as well as mixing and sound designing promo campaigns for "Angles in America", "Rome", "Big Love" "The Sopranos", "Boardwalk Empire", NBC Sports, Spike Lee and more. Wiggins has a deep involvement with the production of sound in New York's TV post market as well as participating in the commercial and International. New Music scene. He is a long standing AES member and a respected innovator with goals and vision about sound as art.

KEYNOTE SPEAKERS

Andres Lewin-Richter

Musical studies with Vladimir Ussachevsky, Mario Davidovsky and Edgar Varese at Columbia University, New York, USA, studied engineering at Barcelona Polytechnic and Columbia University, New York, USA. Teaching Assistant at Columbia Princeton Electronic Music Center New York, USA (1962/5). Established the Barcelona Electronic Music Studio in 1968. Founding member of the Phonos Electronic Music Studio in Barcelona 1974 and its secretary since its establishment (Phonos Foundation). Coorganizer of ICMC 2005 and SMC 2010. Lecturer for History of Electroacoustic Music at Barcelona Escola Superior de Musica and Pompeu Fabra University. His musical output is mainly electroacoustic, having composed many works in combination with live instruments.

Rob Hordijk

Rob Hordijk (The Hague, The Netherlands). One of the most most creative designers in modular synthesis today, Rob specializes in hand-build analog electronic instruments including his Hordijk modular system and standalone boxes somewhere between musical instruments and objets d'art. An example of an instrument designed by Rob is the Blippoo Box, an audio sound generator that operates according to the principles of chaos theory. Rob has been teaching, lecturing and conducting workshops since 1983 at a number of institutes in The Netherlands, and occasionally in other places on this planet"

INTERACTIVE INSTALLATIONS

Philippe Aubert Gauthier

Philippe-Aubert Gauthier is a sound and digital artist, junior mechanical engineer and a researcher in acoustics (spatial sound reproduction). He holds an MSc and PhD in acoustics, and is currently a researcher for the Groupe d'Acoustique de l'Université de Sherbrooke (Canada). His artist's statement is at the crossroads of the arts, sciences, technology and culture. Gauthier has received grants from the Canada Council for the Arts, Conseil des arts et des lettres du Québec, Natural Sciences and Engineering Research Council of Canada, Fonds de Recherche Nature et Technologie Québec and other organizations. More information: http://www.st-pierre-gauthier.com/

Tanya St-Pierre

T. St-Pierre practices performance art, drawing, painting, collage, sculpture, digital photography, sound art, experimental music and video art. The core of her art practice is installation work, often produced in collaboration with Philippe-Aubert Gauthier. Their installations mostly combine sculpture, digital prints, video and sound. St-Pierre's artistic statement is based on questioning notions of representation and cultural artefact. From 2001 to 2008, her work was dedicated to the exploration of potential links between installation art and narrative strategies. After few years, her investigation of fiction brought her to a new approach to storytelling and fiction. This approach is now extracted from a determinist, fictitious, and diegetic proposition, and tends towards more conceptual and poetic propositions. Accordingly, one finds in her productions traces of stories, fictions, characters and, especially, figures - as icons or symbols. St-Pierre received grants from the Conseil des arts et des lettres du Québec. Her work has been presented in Canada, USA and Mexico. More information: http://www.st-pierre-gauthier.com/

Pierpaolo Cimino

I was born in Bologna in 1977, I attended a master's degree Musicology (Letter and Philosophy in Bologna University) in 2003. I'm now studying a 2 year master course in Messina's: Conservatory: Musical disciplines - Musical Technology. Since 1996 I use electronical devices moving to modular synthsizer in 2000 (Eurorack format). I'm involved in total improvisation, live electronics, composing and producing, live visual projections and video manipulation since vhs and analogue video mixer to

vdmx software, todays. I also love to manipulate and reuse things and materials: upcycle. I make acoustic speakers by television components and used tyres and so on. I made various live concerts, audio visual installation and I composed music for puppetry. I worked as audio technician for a production of the Theatre of the city. (Antigone by Michele di Mauro, prod. of Theatre of Messina, Vittorio Emanuele Theatre, in 2015)

David Ross
Born in East London in 1967. Self-taught drummer - recorded/performed w/Bark Psychosis, Mighty Baby, Evan Parker, Andy Cox, Jah Wobble, Frank Chickens, Matt Deighton. Primarily in, 'Kenny Process Team', Ben Watson describes as 'the only combo who have mastered the poly-rhythms of Trout Mask Replica'. Drumming leads to Free Improvisation and work with adults with profound special needs, developing a multi-instrumental approach, producing releases from sessions in Day Centres and 'Mystery Lights/Nightflower', with Shakuhachi Maestro Clive Bell. A Multi-Instrumental approach leads to an Electro-Acoustic one in group 'Twinkle3', with Synthesist Richard Scott, Clive Bell and Sidsel Endresen. Ensemble improvisation with electronics explored in 'Grutronic' with soloists Evan Parker and Orphy Robinson, ultimately leading to a simultaneous immersion in pure voltage controlled electronics and rudimentary acoustic instruments, Mouthbow and Jaw Harp performing in duo, 'The Happy Couple' and producing solo electronic works including 'Boilophone', a piece made entirely with a synthesiser built into a plastic kettle. Article recently published in eContact! on the subject of time modulation and voltage control.

Manusamo&Bzika
Manusamo & Bzika is an interdisciplinary group created by Manuel Ferrer Hernández (visual artist) and Alena Mesarosova (architect), focused on the creation of interactive installations involving the use of Augmented Reality (AR), Virtual Reality (VR) , 3D modeling and Game‑Art, employing the open‑source software and hardware. Focusing their research area on combination of technologies of Mixed Realities and EEG, OSC, Game engines.
Started in 2006, the group has produced AR and VR creative work for numerous festivals and projects in Slovakia, Italy, Spain, Mexico, UK and Portugal. Manuel Ferrer Hernández holds a PhD degree in Art, Production and Investigation from Polytechnic University of Valencia, a Master in Fine Arts by the Polytechnic University of Valencia, and Fine Arts degree by Miguel Hernández University, Alicante. He has lectured at San Gregorio de Portoviejo University, Manabí. Ecuador. Alena holds the Engineer degree in Architecture (Ing.arch.) and Bachelor (Bc.) degree in Architecture from the Fakulta Umení, Technická Univerzita v Košiciach, Slovakia and is currently pursuing a PhD degree in Art, Production and Investigation at the Facultad de Bellas Artes de San Carlos, Polytechnic University of Valencia (UPV), Spain. She has also lectured at San Gregorio de Portoviejo University in Manabí, Ecuador.

CAROUSEL A/V

Patrick Gunawan Hartono
Born in Makassar 1988, Patrick Hartono is a young Indonesian electroacoustic composer and intermedia artist. His art and musical interest is to use technology and scientific approaches as creativity tools. He is also interested in 3-D sound spatialisation, analog/digital synthesis, psychoacoustic, and visual music. Most of his works use sound of Indonesian traditional music instrument, computer generated sound/images, field recordings, underwater photography; transformed, rearranged, modulated by mathematical rules, real time interaction, and controlled random operations.

Alex Gowan Webster

Alex is a composer based at the University of Sheffield. He has dual interests in Electroacoustic and Instrumental composition. His music is often timbre and gesture based as opposed to using pitch or tonality as a structural tool. Alex was a selected winner of the 2013 Armitage Composers' competition at the University of Sheffield and has been commissioned by the University Symphony Orchestra as well as in the past by pianist and composer Ben Gaunt. He has presented electronic works at Sines and Squares: University of Manchester 2014 and SoundJunction: University of Sheffield: 2014-2016. Alex is also the sometimes regretful owner of a Eurorack modular synthesiser that occasionally features in his music but is more often a distraction.

Alejandro Albornoz
He studied with Rodrigo Sigal and Federico Schumacher and works on acousmatic and live electronics since 2004.His music has been performed in several festivals in Europe and America. He is an active member of the Chilean Electroacoustic Music Community and the Latinamerican Sound Art Network. Usually he composes for performing arts. He has been producer of several concerts, meetings and publications, highlighting the Festival of Electroacoustic Music of Chile "Ai-maako" and collections of Chilean electroacoustic music. He currently is a PhD researcher on Electroacoustic Composition in the Department of Music at the University of Sheffield. The central topics in his research are the human voice, poetry, algorithms and language. His octophonic piece "La Lumière" (2015) was prized with the third place at the SIME 2016 competition organised by the University of Lille III, France.
http://alejandroalbornoz.wordpress.com
www.soundcloud.com/mankacen

Rodrigo De León Garza
He is interested in sound composition based on electronic media and unconventional means. Currently lives in Mexico City. Since 2007 i work on a sound project called ERREOPEO. ERREOPEO is now an audiovisual project where i collaborate with the visual artist Nika Milano. Our performances are based on improvisations, however, there is an structure behind all the work and the sound. Everything is created using two eurorack modular systems for the audio part and another eurorack system for the visuals.
While working with analog media, i have collaborated and participated in events and venues such as: Laboratorio Arte Alameda (Mexico City), Palacio de Bellas Artes (Mexico Cityl) , Live Performers Meeting/LPM (Mexico City), Visiones Sonoras Nocturnas (Morelia), Sines¬Squares Festival 2014 (Manchester), VEMS BOLLPLANK! (Stockholm), Noche Electrónica Alemana-Mexicana (Mexico City), Mutek 2015 (México).

Verónica Milano
I was born in Venezuela in 1986 and have been living in Mexico City for 12 years. I got a technical degree on Photography in 2009. I have been working as a freelance photographer for agencies and for fashion and art magazines. In 2012 I started working in the Center for Digital Culture in Mexico City, where i discover a new world a little far for traditional photography and more into digital arts, programming and music. Theater and music where a part of my life since i was very young so i took this as a sign to start experimenting with myself and my work. Now i create live visuals using analogue systems and also experiment creating my own sounds.
In 2014 i was a guest composer at EMS in Stockholm and since that trip i haven't stop connecting cables and interacting with machines.

Luis Valdivia
Luis Valdivia was born in La Plata, Argentina. He studies Electronic Music Composition (Master of Music) at the Folkwang Hochschule (Essen, Germany) with Prof. Thomas Neuhaus since 10.2009 and Computer Science at the Salzburg

University. He studied Guitar at the Conservatory Gilardo Gilardi. Private Study with Eduardo Fernandez (Guitar), Monica Cosachov (Chamber Music) and Enrique Gerardi (Compostion). He studied Composition from 2004-2009 at the University Mozarteum, Salzburg with Achim Bornhöft.

Prices: Elektronik Land, Prize for electronic music, first prize, Salzburg, Austria, 2015; Third Prize at the First European Electroacoustic Composition Competition Erasmus, Paris, France, 2012; First Prize at the Composition Competition „Eduardo Fabini", Montevideo, Uruguay, 2004.

Sten-Olof Hellström

Sten-Olof Hellström is an electroacoustic music composer and performer. In 2013 Sten-Olof celebrated thirty years as a professional composer by obtaining a PhD in composition at University of Huddersfield, UK, with the thesis entitled "Algorithmically-driven synthesis and feedback system: an investigation into the aesthetic and technical processes in my compositional practice ". His music has been featured at concerts, festivals and radio-broadcasts all around the world. In Recent years he has worked with a variety of compositional and musical projects such as "Sound Excursions in the Stockholm Archipelago" where he together with Ann Rosen performed EAM concerts and workshops in Stockholms Archipelago using a sailboat as a base.
http://www.innovativkultur.se/sv/projektsida/ljudexkursioner.
Sten-Olof basically splits his time between composing and performing often in duos together with Ann Rosen, Jacob Riis, John Bowers and Lars Bröndum. He also gives master classes in composition and has tutored students at University of Limerick (Ireland), University of Newcastle and Huddersfield (England).
Sten-Olof Hellström's phonograms SINE CERA (Hellström and Bowers) and KEPT IN THE DARK (AGAIG) were nominated for best experimental album at the 2014 Manifest Awards. KEPT IN THE DARK was also in 2015 nominated as the best contemporary music album by the Swedish magasin "Nutida musik"!
https://soundcloud.com/schhh-production/sets/oh-no-just-some-performances

Alberto Novello

Alberto is a Nuclear Physics and Experimenter of Electroacoustic music. He has worked at the Philips Research Labs, TU Eindhoven in Music Psychology and studied electroacoustic composition with J.C.Risset, P. Berg and J. Ryan. The focus of his practice is how humans perceive sound: what unconscious mechanisms we use to make sense of reality, and how can one alter the audience's perception through sound. His works have been presented in international festivals (Rewire, Spectrum, Seoul International Computer Music, NY Computer Music, Monaco Electroacoustique), institutes for experimental music (CCMAS - Mexico, Logos - Belgium, STEIM - Amsterdam) and conferences (NIME, ICMC, ICMPC).
www.jestern.com

Erin McKinney

Erin McKinney (Indiana, 1982) is a visual artist whose work focuses on the peculiar characters and situations she encounters in the world around her. Upon finishing her artistic studies at The FotoFactory in Amsterdam in 2012, she began working on assignments in The Netherlands, U.S.A., Italy, Russia, South Korea, Cuba, and India for various clients and publications, along with participating in numerous exhibitions. She is currently based in Italy where she is working on new projects interacting with a live modular synthesizer soundscape.

Alexis Langevin-Tétrault

As a composer, multi-instrumentalist and stage artist, Alexis Langevin-Tétrault has contributed to a variety of experimental music projects under the guises of QUADr, Falaises, Alexeï Kawolski, BetaFeed, Recepteurz and Destaël while also scoring short films and composing stage play music. He is now enrolled in the University of Montreal's electroacoustic music master's degree program, where he is studying with Robert Normandeau and Nicolas Bernier. His work was recognized by

Fondation Destellos in 2014 and 2015 and by SOCAN Foundation in 2015.

Volker Hennes
Volker (born 1976) studied at the Academy of Media Arts Cologne; works as composer and sound-artist focussing on methods of production and reproduction of temporal and local organized sound - synthesized and replicated incidences. Member of soundart-group "Therapeutische Hörgruppe Köln", intermedia-supergroup "Frequenzwechsel" and the Astrojungle-band "The Knob, The Finger & The It". Current solo album release "Emperor Ambassador" on Entr'acte.
Concerts, performances and presentations amongst others: Música Viva/Portugal, MANTIS Festival/Manchester, ZKM/Karlsruhe, Brussels/HS63, Metamorphoses /Belgium, Skulpturenmuseum Glaskasten Marl, IEM/Graz, Jazz Festival/Moers, EuCuE concert at Concordia University/Montreal, Computing Music/Köln, Inventionen/Berlin, Sound:Space/Bracknell, FILE/Sao Paulo, ICMC/Copenhagen, Ai-Maako/Chile, A&A Elektro-konzert/Argentina, et. al.

Aleksandre Kordzaia
Alexandre Kordzaia was born on the first of January 1994 in Tbilisi, Georgia. After moving to Switzerland at the age of five, he soon started to get an education in classical and later jazz piano. During high-school he got more and more invested in producing electronic music, which led to him starting a Bachelor at the music Academy of Basel on the subject "Audiodesign". Since then his focus lies on composing and producing electroacoustic music and recording/engineering classical music. Besides working on his third EP release, he performs his music regularly on contemporary music festivals (dBale, CloseEncounters) and also more commercial dance music events (ArtArea, Festival Spectaculare)

Chelsea Bruno (aka Eden Grey)
Chelsea Bruno (Miami, FL USA) has been composing and releasing a diverse range of electronic music for several years under her artist alias, Eden Grey. Originally trained as a classical pianist, she is an electronic composer with many influences, namely German and British styles, thus her music is a melodic mixture of multiple electronic genres, an experimental mix influenced by electro, dub, dnb, techno, drone, ambient and hip-hop. Her music took a major shift towards the collage-based methods of the historical avant-garde while earning her Masters' degree in music technology and after she built her modular synthesizer. Now working in soundscapes, researching installation work and innovations in synthesis, she is based in London and on the music composition PhD course at Royal Holloway, University of London.

Céline Villaneau
Céline is a French Canadian Digital Artist, based in South London. After moving over 23 times to four different countries, she settled to study Drawing and Fine Arts in Camberwell School of the Arts of London and The Royal Academy of Brussels. Céline progressively adapted her work to a contemporary approach of new medias. From composing video to tweaking Internet Art, she explores the boundaries between the physical and digital worlds, medleying absurdity and logic; Messing around with technology. Currently, Céline is in her first year of her MA Fine Art Digital and shortlisted for the Aspen Online Art Award 2016.

Maxime Corbeil-Perron
Maxime Corbeil-Perron is a composer and moving-image artist whose work has been noticed by many international competitions and events. His work has been qualified as an «infinite cosmos» (Etherreal, 2015), «pushing the boundaries of abstraction» (Silence and Sound, 2015) and «defying any explication or labelling» (La Folia, UK, 2015). He composes electroacoustic and mixed-media music, with a compositional approach that is inspired by electronic music, experimental cinema and visual arts - in a constant state of research to create an abstract, dynamic,

spiritual and poetic sound-world. His work has received national and international prizes, among them the first prize from the Jeu de temps/Times Play competition (Canada, 2011), awarded by the Canadian Electroacoustic Community. A special mention and the Senato della repubblica Italiana medal from the Città di Udine international composition competition (Italy, 2012) and a second place (Motus prize) from the Destellos Foundation international composition competition (Argentina, 2012). The Musicworks magazine awarded two of his video work *Ghostly,* and his mix-media piece *Vertiges* in ex-aequo in 2013 in the Musicworks international electronic composition contest (Canada, 2013). His work has been distributed by Vox Novus, Taukay Musicali, CEC Cache, Hardcore Jewellery, Ambiances Magnétiques, Speaker Footage and Kohlenstoff Records. He graduated with highest honours from the Conservatoire de Musique de Montréal, where he studied electroacoustic composition. He started a doctorat's degree at the Université de Montréal in fall of 2015.

Héctor Ulises Vera
Héctor studied piano and composition at National Music School, UNAM. His curriculum included choir conduction and recording techniques. Worked as a recording engineer, which helped him to get into electroacoustic composition. His work has been shown in FIMNME, Festival Internacional Cervantino, MUSLAB festival in Mexico and Argentina, WOCMAT 2016 in Taiwan, Ex-Nihilo Festival, among others. He's been the recipient of an internship and scholarships from CMMAS, Mexico, under programs such as "Prácticas de vuelo" and "Visiones sonoras". He's a rock enthusiast: since 2006 he is a founding member of the internationally renowned heavy metal act VOLTAX where he plays bass guitar. The band has recorded 3 LPs so far and has played in Mexico, Germany, United States and Canada.

Nayelli Maldonado Montufar (Maya Montufar)
I have lived all my life in Mexico, specifically in Mexico City, a noisy city, where any kind of sound is happening all the time. As well I have lived the last two years in between this big city and a small city where almost there is no more than nature sounds in Sweden. Since a teenager my life has been in extreme relationship with sound, I first became a Dj at a very young age and then started producing electronic music, as a logical step I found myself embracing the art of sound. I enjoy at my most sound recording and it is one of my main platforms to reproduce my art, as well as improvisation. Sound recording is modern magic, it is the way I can make my art not disappear forever, but that doesn´t oppose the idea where i would like to as well, forget right after I can hear my sounds with improvisation, I enjoy both things. Dj sets: Dissonant, Harmonic, Sound Design, Vj and Dj side by side, Ambient in all styles, Vinyl Installation, Performance, Sound Art.

COSMO CONCERTS

Udo Moll
Udo Moll, a cologne-based trumpeter, electronic musician and composer was born in rural southern Germany in 1966. He underwent his first musical socialisation in the brass orchestra of the local Musikverein Uhingen. After having studied jazz trumpet with Manfred Schoof and composition with the Stockhausen-companion Johannes Fritsch at the Musikhochschule (conservatory) Köln (germany) he embarked on a career as professional, freelancing trumpeter, composer and electronic musician.

Ann Rosén
Ann Rosén was originally trained as a sculptor at University College of Arts, Crafts and Design, Stockholm and has been active as a sound artist and composer since the 90s. In recent years she has received a great deal of attention for the project Syntjuntan and in 2013 their album was awarded the Manifest prize for the best experimental album. With Syntjuntan she has composed music, built instruments

and performed nearly two hundred concerts and workshops. Her sound art involves expanding the palette of sounds with timbres using sensors to register changing tensions in cloth instruments to control computer generated sounds and processes. Glitches, sparks and clicks, white noise and electronic artefacts characterise Ann Rosén's sound world, as do spatial soundscapes created using real-time synthesis.

Sten-Olof Hellström (see above)

Daniel Warner

Daniel Warner holds an M.F.A. and a Ph.D. in music from Princeton University. He is a composer and electronic artist whose sound and installation work has been presented at The Festival Synthèse in Bourges, France, The Butler Institute of American Art in Youngstown, The Victoria Independent Film and Video Festival in Vancouver, Canada, and The AV Festival in Newcastle, England. Warner's recent music is available on the Virtuelle label. His book *Audio Culture: Readings in Modern Music* (co-edited with Christoph Cox) is published by Continuum Press. He is currently Professor of Music at Hampshire College in Amherst, Massachusetts.

Marty Ehrlich, reeds

Marty Ehrlich is celebrating 30 years in the nexus of creative music centered in New York City. He began his musical career in St. Louis, Mo. while in high school, performing and recording with the Human Arts Ensemble. He graduated from the New England Conservatory of Music with honors in 1977, where his teachers included George Russell, Jaki Byard, Joseph Allard, and Gunther Schuller. Since that time, he has made 25 recordings of his compositions for ensembles ranging in size from duo to jazz orchestra. He is currently Professor of Music at Hampshire College in Amherst, Massachusetts.

Matt Omahan

Born in Battle Creek, Michigan, United States of America and raised in Gambier, Ohio, United States of America, Matt Omahan has been composing electronic and acoustic music for almost a decade. His main focuses are acousmatic composition, modular synthesizers, and acoustic composition. This Fall, he will be continuing his studies at the University of Manchester, pursuing a Master's Degree in Electroacoustic Composition. Omahan is an alumnus of the Oberlin Conservatory of Music's Technology in Music and the Related Arts program with an Acoustic Composition minor, most recently studying under Peter Swendsen and Aaron Helgeson. Additionally, Omahan has taken lessons and participated in masterclasses with composers such as Kaija Saariaho, Fred Lerdahl, George Lewis, Elizabeth Hoffman, Marcos Balter, and David Lang. Omahan has performed and engineered at the Marlboro Music Festival. In the 2015 season, 4 instrument and electronics pieces by the composer-in-residence, Kaija Saariaho, were performed. *Nymphea, for String Quartet and Electronics,* featured performers Tessa Lark (violin), Lucy Chapman (violin), John Stulz (viola), and Sarah Rommel (violoncello). Over thirty hours of intense rehearsal under the careful guidance of Saariaho and Jean-Baptiste Barrière were put into these performances. Outside of these performances, Omahan is also the Assistant Recording Engineer, where he aided in recording and producing recordings that see play on National Public Radio. He will be returning for his third season in the summer of 2016. In 2016 he started a MusM in Composition at NOVARS, The University of Manchester

Danny Saul

Danny Saul is an electroacoustic composer from Manchester, UK. His interests are acousmatic composition, space, sound diffusion, and improvisation. As a performer his involvement in a variety of experimental projects over the past few years have included a number of collaborations, performances and recordings with notable contemporary experimental musicians including Ben Frost (performing Music for 6 Guitars, at Iceland Airwaves, Reykjavik), Machinefabriek, Greg Haines, Jasper TX, Xela (Type Recordings), and Simon Scott. Danny has played throughout the UK, Europe, U.S.A and Japan. He is currently a PhD candidate at the NOVARS Research Centre for Electroacoustic Composition, University of Manchester.

Mark Pilkington

Mark is a composer and performer of electroacoustic music. His

practice encapsulates both sound and image as a means to extend spatial imaginings between real and virtual space. The coupling of sound and image are applied to electroacoustic music, site-specific installation and screen-based works. Forging immaterial and creative labor through a network of interwoven and augmented territories, his work increasingly queries the way operations carry great critical and creative potential. Seeking new modes of critical engagement that incorporate multiple narratives through non-digital and digital aesthetic informs the direction of his pedagogy. His theoretical research focuses on the relationship between artistic genres and their respective aesthetic theories with reference to: electroacoustic music, sound synthesis, visual music, coding, philosophy, and film. His practice especially focuses on audio-visual composition using real and virtual entities as a means to explore time and space. His work have been performed, exhibited and screened at conferences and festivals throughout the UK, Europe and USA. Collaborative interdisciplinary work is carried out with composes and visual artist/s. His work has been performed and screened at ICMC, ARS Electronica, MANTIS festival, Splice Festival and Open Circuit Festival. www.markpilkington.org.uk

Joseph Hyde

Joseph Hyde's background is as a musician and composer, working in various areas but in the late 90s, and for a period working with BEAST in Birmingham, settling on electroacoustic music, with or without live instruments. Whilst music and sound remain at the core of his practice, collaboration has become a key concern, particularly in the field of dance. Here he works both as a composer and with video, interactive systems and telepresence on large-scale projects such as me and my shadow and danceroom Spectroscopy. His solo work has broadened in scope to incorporate these elements, and he has made several audiovisual "visual music" works. He has also explored this field in writings, recently completing a project on the unique musical notation of animation pioneer Oskar Fischinger. Hyde also works as an academic, as Professor of Music at Bath Spa University. Since 2009 he has run a symposium on visual music at the university, Seeing Sound. http://www.josephhyde.co.uk; http://www.seeingsound.co.uk

Andrés Lewin-Richter

Musical studies with Vladimir Ussachevsky, Mario Davidovsky and Edgar Varese at Columbia University, New York, USA, studied engineering at Barcelona Polytechnic and Columbia University, New York, USA. Teaching Assistant at Columbia Princeton Electronic Music Center New York, USA (1962/5). Established the Barcelona Electronic Music Studio in 1968. Founding member of the Phonos Electronic Music Studio in Barcelona 1974 and its secretary since its establishment (Phonos Foundation). Co-organizer of ICMC 2005 and SMC 2010. Lecturer for History of Electroacoustic Music at Barcelona Escola Superior de Musica and Pompeu Fabra University. His musical output is mainly electroacoustic, having composed many works in combination with live instruments.

Monique Jean

As an electroacoustic composer and sound artist, Monique Jean is interested in the tensions, ruptures and clashes of sonic matter that produce a transmutation of the real into the poetic. This search for an organic substance takes various forms according to each project and technology at play: electroacoustic pieces, mixed music with live treatments, sound installations (Point d'attaches ou les infidélités rotatives), and live performance as part of the improvisers' collective Theresa Transistor. Since the piece *T.A.G.* (2013),the Korg MS-20 is at the core of her research. Her works have been played in national and international concerts and festivals : Multiphonies (GRM-Paris), Akousma X(Montréal), Sonorities (Ireland), NYCEMF (USA), San Francisco Tape Music (USA), Festival Ai-Maîao (Chili), Elektra (Montréal). In 2012, she was invited as artist in residency at Civitella Ranieri in Italy. Her most recent DVD Greffes received the Prix Opus 2013 in the section record of the year- actuelle- electroacoustic music.

Francis Dhomont

Francis Dhomont (Paris, France, 1926) studied under Ginette Waldmeier, Charles Koechlin and Nadia Boulanger. In the late 40's, in Paris (France), he intuitively discovered with magnetic wire what Schaeffer would later call "musique concrète" and consequently conducted solitary experiments with the musical possibilities of sound recording. Later, leaving behind instrumental writing, he dedicated himself exclusively to electroacoustic composition. An ardent proponent of acousmatics, his work (since 1963) is comprised exclusively of works for tape bearing witness to his continued interest in morphological interplay and ambiguities between sound and the images it may create. Since 1978, he has divided his time between France and Québec, where he has taught at the Université de Montréal from 1980 to 1996. He is an Associate Composer of the Canadian Music Centre (CMC, 1989) and a Founding Member (1986) and Honorary Member (1989) of the Canadian Electroacoustic Community (CEC).

Adam Parkinson

Adam Parkinson is an electronic musician who has released on multiple labels including Quantum Natives, Fat Cat, Upset the Rhythm and Entr'acte. He has performed throughout Europe and North America, and his latest album as "Dane Law" has been critically acclaimed by the Wire Magazine, Mixmag, Vice and Tiny Mix Tapes. http://cargocollective.com/manwithfeathers

Martin Klang

Martin Klang is the developer of the OWL Pedal and the Rebel Technology Modular system. Martin has extensive experience in leading workshops at events such as hackdays, festivals and modular meet-ups, and is an experienced programmer and maker. Martin studied at the University of Gothenburg, Chalmers University of Technology and Université Paris-Sorbonne, and spent 15 years as a software engineer and systems architect before setting up his own consultancy and then founding Rebel Technology. Martin was DJ'ing on the underground techno scene in London during the early 2000's, and eventually took his twin passions for electronic music and technology to their logical conclusion: making music electronics. In 2008, Martin created the BlipBox: a touch sensitive, LED matrix, MIDI and CV controller. This has been followed by a series of celebrated and unique synthesizer modules, and the establishment of Rebel Technology. http://www.rebeltech.org/

Leafcutter John

Leafcutter John is an acclaimed electronic musician based in London, known for his performances with laptops and creative live sampling of everyday objects, and for developing his own software and hardware and his installation work. He has released music on multiple labels including Planet Mu, Kit Records, Tigerbeat6 and Staubgold, and his performances have taken him around the world. A pioneer of laptop performances, Leafcutter John has explored how the computer can become an interactive musical instrument, performing with light controllers and other novel interfaces. His musical versatility is attested to by his role in the jazz group Polar Bear, who have twice been nominated for a Mercury Music Award, alongside numerous other awards and nominations. His recent work has seem him explore modular synthesisers, and working with the OWL is a way of bringing his programming expertise to the modular world. He also has extensive experience in sonification, whether it is drawing out the musical potential of a flickering candle, the stock market or a chess game, all of which have featured in recent performances. http://leafcutterjohn.com/

Steph Horak

Steph is a sound and video artist and graduate from Goldsmiths, University of London, where she completed an MA in Computational Studio Arts in 2013. In 2015, Horak was shortlisted for the Contemporary Art Society / Aspen Online Art Award. Through her work Horak reframes mundane and common experiences in immersive, dreamlike settings, such as in Commutations I and II, which is an exploration of the urban environment and transportation systems. Recent projects include threehundredandsixtysix, where Horak sings a note a day to see if her body holds a sonic bias. Horak explores the human tendency towards apophenia (the "unmotivated seeing of connections" accompanied by a "specific experience of an

abnormal meaningfulness") in her music, by assigning some of the most important decisions in her work to arbitrary factors; using strict rule-based principles for composition and creation. Horak has worked for over a decade in the field of contemporary electro-acoustic and academic music, performing on the improvisatory circuit in various London venues including The Roundhouse and the Institute for Contemporary Arts. She has performed alongside electronic music pioneers such as Trevor Wishart, John Richards, Steve Beresford and Atau Tanaka. Recent releases include a feature on the Dirty Electronics album Mute Synth II released on the legendary electronic label Mute Records. She now focuses her musical work on the development of improvisatory systems for voice.
https://stephhorak.wordpress.com/

TEXTURE CONCERTS

Joker Nies (see Patchbay sessions)

Andrew Duff

Andrew Duff is a multidisciplinary artist and organiser of the Brighton Modular meets at the University of Sussex (2012-current).

Since the late 1980s, along side studying Fine Art and Graphic Design, Andrew has collected a large selection of electronic music, and experimented with a range of, generally, Japanese analogue synthesizers. During this time Andrew also worked as a DJ, musician and live performer at electronic music club nights and various community events. His MA in Design and Digital Media (2000, Coventry University), and his role as a Teaching Fellow has seen him contribute to academic research and led him to teach graphic design, digital media and sound design, whilst continuing to develop his own audio/visual work, building performance tools and installations in MAX/MSP, and experimenting with audio visualisation. Since 2009 Andrew has been investigating the possibilities of modular synthesis in the creation of new work and his current exploration of oscillographics and sound performance.
http://www.andrew-duff.co.uk | http://brightonmodularmeet.co.uk

Alexander Senko

Alexander Senko was born in Moscow, Russia. Graduated from Gnesins Institute as a sound engineer. Composer, sound producer, Alexander runs a laboratory "Acoustic Images" (research and production of interactive installations). Alexander's interests include visual programming language Pure Data, electronic and electroacoustic music, sound art, audio-visual interaction. Joan Silver Pin / "Chiaroscuro" (2006) CD and "Object and Line to Space" (2014) Audiovisual album Selected exhibitions and performances: "9th Festival International De La Imagen", Manizales, Colombia; "Pure Data convention", Weimar, Germany; PIKSEL[X], Bergen, Norway; "Prepared Environments", Moscow, Russia; "Electric Nights" Festival, Athens, Greece; "Noise and Fury 2014" festival, Moscow, Russia
"FILE 2014", Sao Paulo, Brazil; "(h)ear XL II", Heerlen, the Netherlands
"Radical dB" festival, Zaragoza, Spain; "Audioblast #3" festival, Nantes, France
"The Engine Room" sound art exhibition, London, UK, 2015; "Ars Electronica 2015", Linz, Austria; "MADATAC 07", Madrid, Spain

Ryan Gaston

Burnt Dot is an LA-based noise and experimental jazz ensemble founded by Sarah Belle Reid (trumpet) and Ryan Gaston (modular synthesizer).

Reid and Gaston started Burnt Dot to explore open forms of spontaneous creation. The group is a fluid ensemble of sound and visual artists who are committed to creating work that is as quirky, fiery, and thought-provoking as the world that inspires it. Burnt Dot frequently features collaborators such as trumpeter Kris Tiner, synthesist Todd Barton, and visual artists Sahir Khan and Andrea Yasko.

Burnt Dot's performances range in scope from art museums and concert halls to intermedia installations and site-specific improvisations. Equally committed to

outreach and education, Burnt Dot frequently presents workshops and lectures to students in music, improvisation, and creative technology at universities such as California Institute of the Arts, University of Oregon, Hendrix College, and UC Irvine, among others.

Sarah Belle Reid

Sarah Belle Reid is a Canadian born, Los Angeles based trumpet player, creative coder, and intermedia artist. Her current work focuses on liminality and memory imprints both in sound and physical performance—a fascination inspired by Duchamp's writings on infrathin. She is also actively working on the design and development of new interfaces for musical expression, as a means of augmenting the trumpet.
Reid received a Master of the Fine Arts in Trumpet Performance at California Institute of the Arts in 2015.

Steven McInerney

Merkaba Macabre is an audio visual project by Steven McInerney, a multi-disciplinary artist and curator based in London. He is the founder of Hackney Film Festival and experimental label Psyché Tropes, which focuses largely on the synaesthetic intersections between sound and its visual counterpart. 'Decomposition' was most recently performed at The Old Church, Stoke Newington for a night called 'Dronica' (excerpt below) and for Strange Umbrellas, curated my Steve Beresford. On 5th June, 'Decompostion #3' will be performed at Splice Festival, London's only Audio Visual Performance Art Festival. http://www.splicefestival.com/line-up/merkaba-macabre/

Scrubber Fox – Gary Naylor

Scrubber Fox is an audio-visual artist, musician and hardware bend-maker. Using home-built modifications and circuit-bending techniques, it is possible to take antiquated and obsolete electronic equipment such video game consoles (e.g. Megadrives, NES, Atari 2600) and turn them into AV engines, using the existing sound and graphic chips within them. Such hardware can then be utilised as an "instrument" for avant-garde music and visual generation. "Scrubber has appeared over the years on labels such as Skam, Tigerbeat6, Merck, The Centrifuge, Peace Off and many others covering a vast array of electronic styles each branded with Scrubber's own unique flavour."

Ross Scott-Buccleuch

Ross utilises obsolete tape machines (such as 8 track cartridge recorders and a magnetic tape sheet dictaphone) and custom built oscillators to produce uneasy and disarming electronic drones. Central to his craft is the manipulation and sidechaining of feedback, creating eerie minimal tonal passages to voluptuous chaos. Live, he exclusively employs a free-improvisational approach to music making, allowing every element to be created in the moment, with no sounds pre-prepared. He records solo under the name Diurnal Burdens.

Cordialpop

Cordialpop is a sound artist, applying physics, mathematics and improvisational instinct to break down structures; creating abstractions with the mechanics of sound and vision. Science is both a framework and a methodology for Cordialpop. He deconstructs the narrative of science's dependability, exposing the elegance of it's fragility, and uses experiment and chance to do this. Distorting algorithms and physical objects and sound to create disruptions, glitches and artefacts, finding a nihilistic beauty in these results. He confronts and manipulates perception to discover how the world may be viewed by an unbiased meta-eye. Engagement and interactivity are essential to much of Cordialpop's practice as the multiplicity of

perceptions, sensorial experience and primordial responses are key to engaging with many of his projects.

SUNDAY INSLINGTON MILL

Holger Zapf // Schneidersladen:
SchneidersLaden is a market place of electronic music in Berlin. The space in Kottbusser Tor also showcases and provides hardware synthesizers, effects and sound processors, sequencers, almost everything for contemporary modular systems, interfaces and other devices for creative use with sound and music.

Lars Bröndum
Lars Bröndum, PhD is a composer, guitarist and performer of live-electronics. He has performed in Sweden, Japan, Scotland, Lithuania, Russia, Latvia, England, USA, Spain and Mexico. His music often explores the interaction between acoustic and electronic instruments and lives on the border between written music and improvisation. The compositions are often structured around cyclical processes, irregular ostinatos, fragmented gestures and microtonal clusters. Lars often performs live using an modular system, a Buchla Music Easel and effect pedals. Bröndum's recent cd "Fallout" was awarded a winning prize in the Experimental Music Category by SOM (Swedish Independent Music Producers) at the Manifest 2016 Gala.
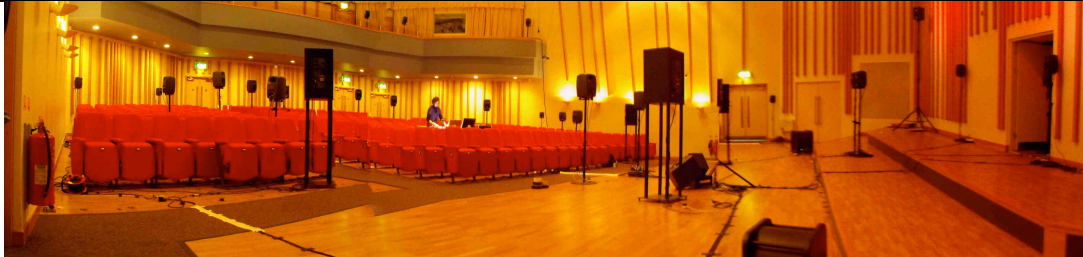
Tom Boram (See Patchbay sessions)

Travis Johns (See Patchbay sessions)

CREDITS

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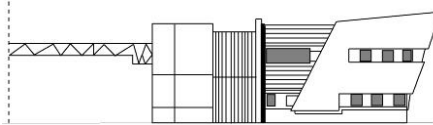

Lamond Design (Bespoke Modular Cases), Moog UK, Thonk (modular synthesiser DIY kits). Kai Niggenmann (Composer, Sound artist), Cusp Editions (Manchester based Label), Expert Sleepers, (synth hardware and

Martin Harris Centre + MANTIS System

NOVARS Research Centre