



**2018**

**WHO'S LISTENING? SOUND AND PUBLIC SPACE**

**International Festival and Conference on Sound  
in the Arts, Science and Technology  
Derry/Londonderry  
Northern Ireland**





## **Festival/Conference Theme: WHO'S LISTENING? SOUND AND PUBLIC SPACE**

**Contemporary urban society is a contested space.** Commerce generates a flurry of signage and advertising jingles. Industry excavates and accumulates, building uniform structures of concrete and steel, and throughout all is the traffic of daily ritual, the friction of tires on tarmacadam. Commercial interests and planners often distill this heterogeneous field down to simplified brands, cultural signifiers designed to encourage investors. What room is left in this complex of power and policy for community? Where is public space and what role can it play in contemporary life? How can sound, in particular, interrogate the urban matrix?

In 2018, ISSTA returns to Derry to explore these issues, relationships and tensions. With the spatial definition provided by its historic walled city and cross-border hinterland, the resonances of its civil rights movement (of which 2018 marks the fiftieth anniversary), its historic conflicts and diverse musical and sonic cultures, from traditional music sessions to marches, we hope that Derry will provide a thought-provoking setting which will support fruitful discussion, debate and listening!

We would particularly welcome contributions relating to sound and urban studies, auditory architecture and design, sonic archaeology and sonic heritage, psychogeography, place-making, activism, soundscape studies, and sound's relationships with anthropology and human geography, alongside more general topics relating to music technologies, sound art, electronic and experimental music performance and composition.

Who's listening? We are.

### **About ISSTA**

The Irish Sound, Science and Technology Association is an organisation that brings together practitioners integrating fields of music, art, sound, science and technology. It serves musicians, researchers, scientists, engineers and artists by promoting sound within the arts, science and technology, within Irish and international communities. Since 2010 ISSTA has hosted an annual conference, gathering researchers from around the globe to present papers, installations, concerts and workshops.

Founding President: Dr Kerry Hagan

Founding Vice-President: Dr Tony Langlois

#### **ISSTA Board, 2017/18**

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Dr Jenn Kirby (University of Wales, Trinity Saint David), Vice-President

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## ISSTA 2018 Keynotes

**Dr Salomé Voegelin** (Listening Across Disciplines group, author of *Listening to Noise and Silence: Towards a Philosophy of Sound Art*, Reader in Sound Art at the University of the Arts, London)

**Prof. Anna Barney** (Listening Across disciplines group, Professor of Biomedical Acoustic Engineering at Southampton University)

**Invited composer: Prof. Leigh Landy** (Director of the Music, Technology and Innovation – Institute for Sonic Creativity research centre at De Montfort University)

## ISSTA 2018 Organising Committee and Conference Team

**Conference Chair: Dr Brian Bridges**, Ulster University and President of ISSTA  
**Co-chairs: Dr Adam Melvin, Dr Rob Casey and John Harding**, Ulster University  
**Chairs of Music track: Dr Adam Melvin** (Ulster) and **Dr Jenn Kirby** (UWTSD and ISSTA)  
**Chairs of Paper track: Dr Rob Casey** (Ulster), **Dr Stephen Roddy** (TCD and ISSTA), **Dr Adrian Smith** (DIT and Sounding Out the Space)

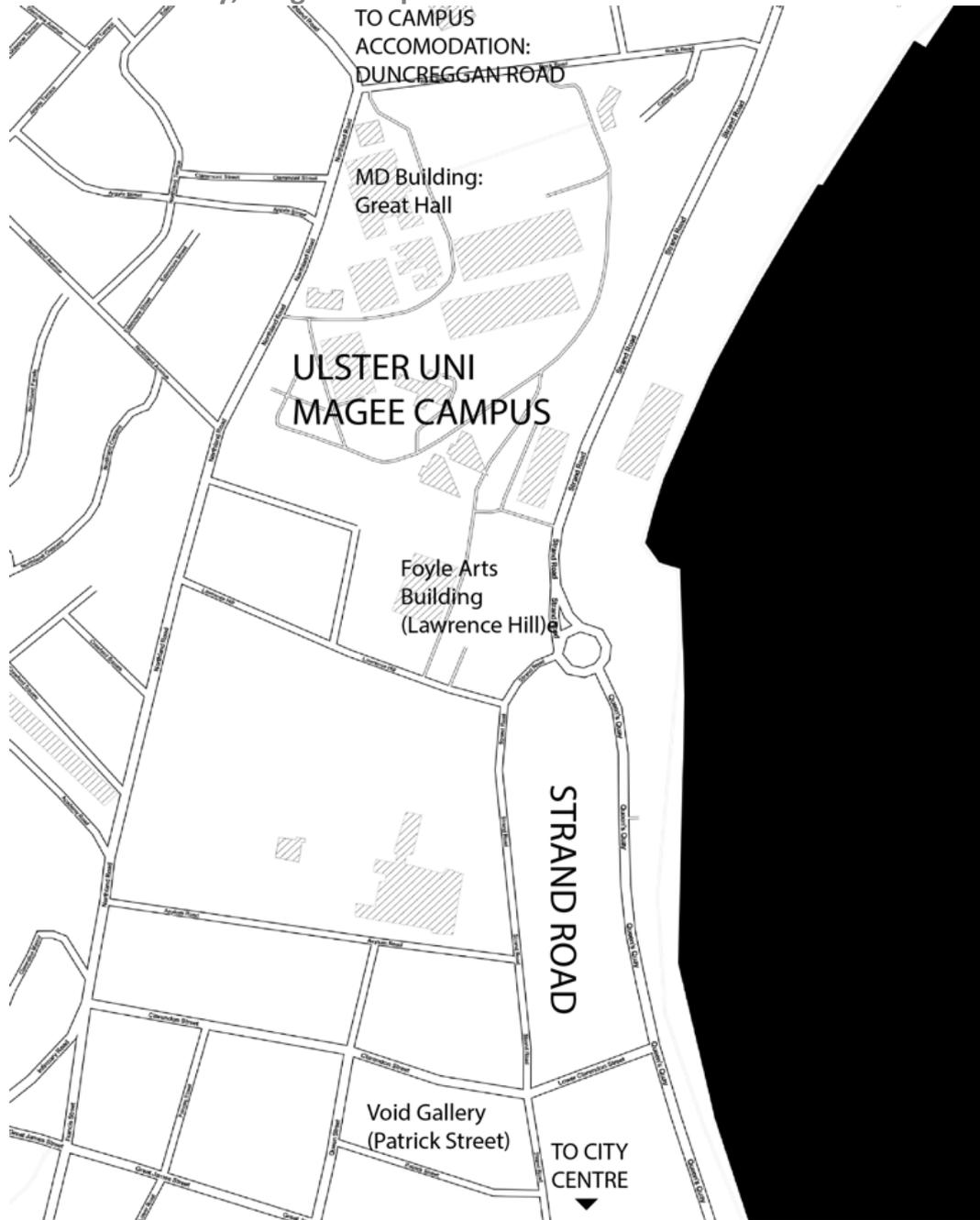
**Administration: Caroline Elvin**

**Technical: John Harding and Adrian O'Connell** (Ulster) with **Paddy Nixon** and **Jonny Delaney**

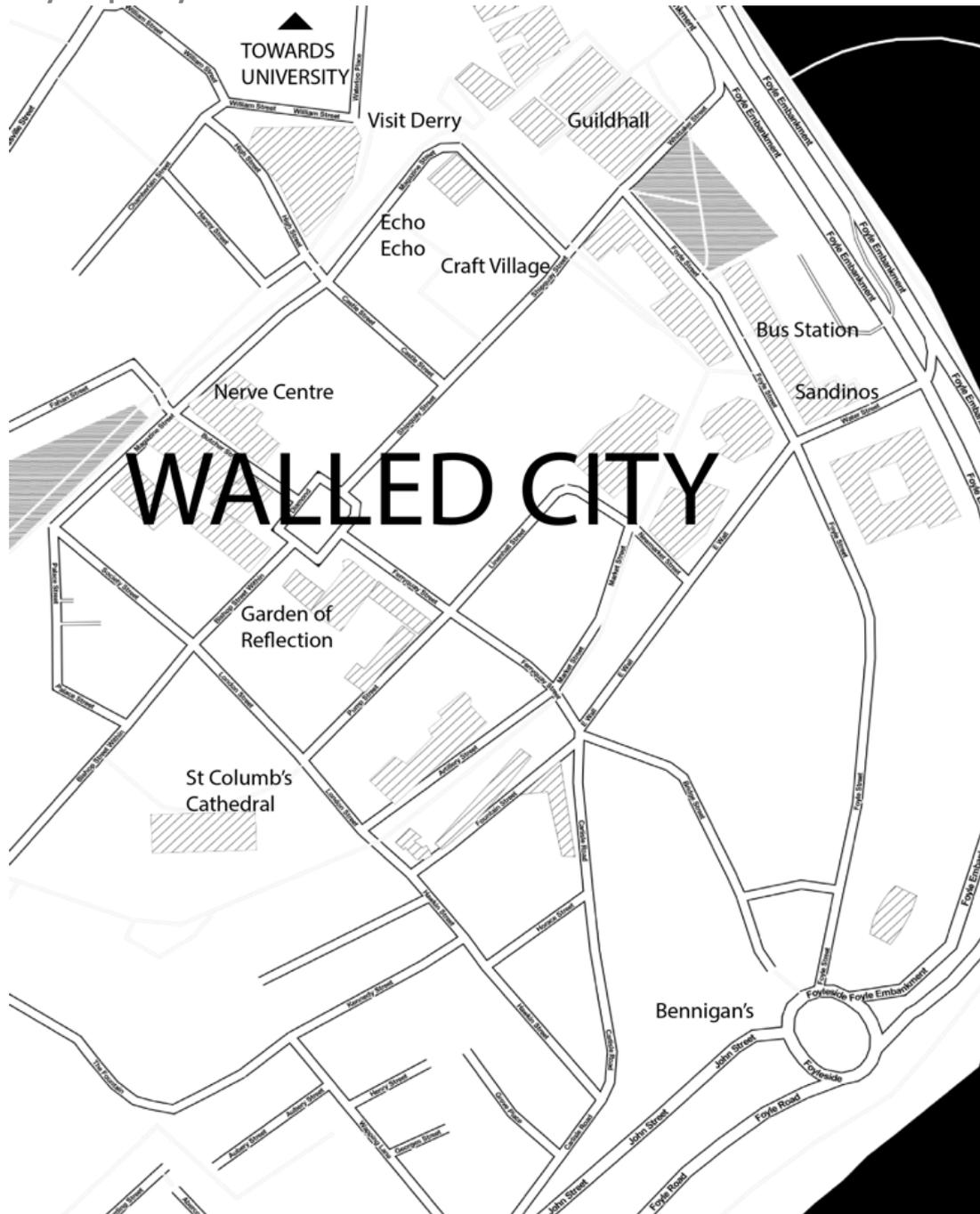
**Thanks to Prof. Frank Lyons**, Associate Dean for Research and Impact, Faculty of Art, Humanities and Social Sciences; **Dr Tom Maguire**, Head of School of Arts and Humanities, and colleagues at the School of Arts and Humanities, Ulster University, Magee campus; **Dr Malachy Ó Néill**, Provost of Magee campus; **Steve Batts**, Artistic Director of Echo Echo Dance Theatre

# Maps

## Ulster University, Magee campus

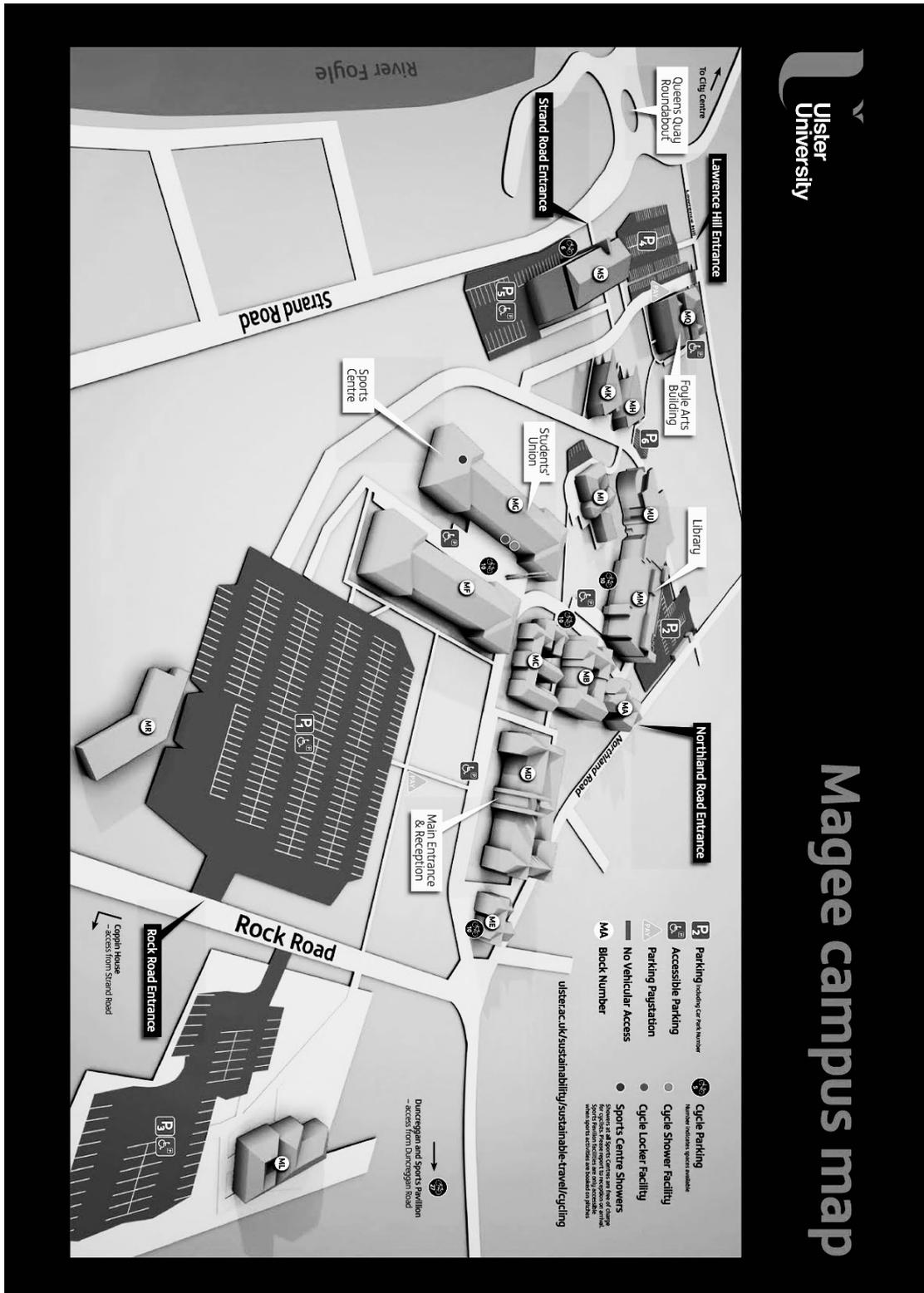


## City Map: City Centre Landmarks



Map tiles above by [Stamen Design](#), under [CC BY 3.0](#).  
Data by [OpenStreetMap](#), under [ODbL](#).

# Campus Map



Downloadable campus map available at: [https://www.ulster.ac.uk/pdf/campus-maps/UUMageeCampusMap\\_UpdateBGFINAL\\_SM\\_12Oct18.pdf](https://www.ulster.ac.uk/pdf/campus-maps/UUMageeCampusMap_UpdateBGFINAL_SM_12Oct18.pdf)

## Schedule Overview

ISSTA's programme of events takes place on the 9<sup>th</sup> and 10<sup>th</sup> of November.

Venue: MU (New Teaching Block), MI (Aberfoyle House) MD (original Magee College building), MQ (Foyle Arts) buildings, Magee campus; Bennigan's Bar (John Street)

FRI 9th Nov	Event	Location	Details
9.30 am	Registration and tea/coffee	MU building foyer	
10.00 am	Welcome and orientation	Lecture Theatre MU 011	
10.30 am	Paper session 1(a)	Lecture Theatre MU 011	Theme: Technologies
	Paper session 1(b)	Room MI022 (Aberfoyle House)	Theme: Case Studies
12.00 pm	Coffee break	MU building foyer	
12.30 pm	Keynote: Dr Salomé Voegelin and Prof. Anna Barney	Lecture Theatre MU 011	<i>Accessing Disciplinary Hinterlands through Listening</i>
1.30 pm	Lunch	MU125 (ground floor)	
2.15 pm	Artworks tour	MU building foyer and MQ building (Foyle Arts)	
3.30 pm	Paper session 2(a)	Lecture Theatre MU 011	Theme: Soundwalks
	Paper session 2(b)	Room MI022 (Aberfoyle House)	Theme: Performance
5.00 pm	Opening reception	MU125 (ground floor)	
6.00 pm	Performance of 'Atrium' by Manoli Moriati and Echo Echo Dance company	MU building foyer	
7.00 pm	Conference dinner (book via booking link provided by email)	MD building restaurant	
8.15 pm	Concert A	Great Hall, MD building	Multichannel audio, video and performance
10.00 pm	ISSTA fringe event: Analog On	Bennigans' Bar, John Street, Derry	Modular synth show with spatial audio

<b>Sat 10th Nov</b>	<b>Event</b>	<b>Location</b>	<b>Details</b>
<b>10.00 am</b>	Artworks tour and soundwalks	MU building foyer (depart)	
<b>11.30 am</b>	Coffee break	MU125	
<b>12.00 pm</b>	Paper session 3a)	Lecture Theatre MU114	Theme: Ecology
	Paper session 3(b)	Room MU301	Theme: Sound and the City
<b>1.30 pm</b>	Lunch	MU125	
<b>2.30 pm</b>	Concert B	Great Hall, MD building	Multichannel audio and performance
<b>3.30 pm</b>	ISSTA AGM	MD008A (Immersive Videoconference Suite), MD building	
<b>4.30 pm</b>	Close		

## Food and Drink

We will be providing buffet lunch for delegates each day of the festival/conference; there will also be a buffet dinner on the first night of the event (booking in advance required).

See below for coffee and restaurant options.

Bars are too numerous to mention, but our favourites are Sandinos (Water Street, a good spot most times of the day and night, and they have a coffee machine, too), Bennigans (John Street, open from late afternoon) and the Grand Central (corner of Strand Road and Great James Street).

### Coffee Shops

Derry has a lot of the usual chains, but here are some independent coffee shop options.

- The Coffee Tree, 49 Strand Road
- The Scullery Magee (MU Building, and The Scullery, 48 Waterloo Street
- Warehouse No. 1 (aka LegenDerry Warehouse), 1-3 Guildhall St
- The Pickled Duck, 2 Shipquay Place, Guildhall Square
- Limeleaf Café, 114 Strand Road, the Quay (by Derry City Council offices)
- Cow Bog, Waterloo Street (Vegan/Vegetarian-Friendly)
- The Hidden Derry Café, London Street (Vegan/Vegetarian-Friendly)
- Primrose Café, Strand Road.
- Syngé and Byrne, Foyleside Shopping Centre

### Restaurants

Derry's restaurants are divided into a number of clusters rather than a single central district, so we've listed them by area. Listings are for completeness rather than for recommendation, so check out reviews online or drop in for a look! In busy periods, it might be advisable to book or phone ahead. Some smaller restaurants close on Sunday and Monday.

#### Queens Quay

Quaywest  
The Wolf Shack Bar and Grill  
Mama Masala (Indian)  
Mandarin Palace (Chinese)

#### Clarendon Street

Saffron ('Modern Indian')  
Danano (Italian)

#### Strand Road, towards city centre

Browns in Town  
Primrose, Strand Road.

#### City Centre

The Gate Bistro and Coffee Bar, Ferryquay Street  
Badger's Bar, Orchard Street  
The Bentley Bar, Stakehouse and Wine Bar, Market Street

#### Carlisle Road

Fitzroys (Steakhouse), top of Carlisle Road (exit from Foyleside Shopping Centre)  
La Sosta (Authentic Italian)  
Cedar (Lebanese): open Wed-Sat

#### Waterside

The Sooty Olive, 162 Spencer Road  
Browns Restaurant and Champagne Lounge, 1 Bonds Hill  
Walled City Brewery: Ebrington square, across Peace Bridge  
Ollies: Ebrington Square, across Peace Bridge

## Getting Around

Derry/Londonderry city centre is pretty walkable (hills notwithstanding); there is an infrequent city bus service, but taxis are inexpensive, with most city centre journeys being around £3-4.

### Taxis

Note that taxis cannot (officially) be hailed on the street; either pick up a taxi at a rank or (generally a better option) book one!

City Cabs (+44 28 7126 4466) is our preferred taxi company.

Other options can be found here: <http://www.visitderry.com/Taxi-Companies-A282>

### Inter-city Bus

Inter-city/inter-regional bus services are operated by Translink (Northern Ireland) and Bus Éireann (Republic of Ireland); services to Donegal, Sligo, Galway and the West are operated by Bus Éireann, NI-only services and those to/from Dublin are operated by Translink

<http://www.translink.co.uk/Services/Goldline/>

<http://buseireann.ie>

### Regional Cross-border Buses to Donegal

Bus services to Buncrana (the largest town on the Inishowen Peninsula in Co. Donegal) depart from beside the Guildhall. <http://www.mcgonaglebushire.com/time-table/>

Bus services to the northerly towns of Carndonagh and Malin depart from Patrick Street.

<http://www.foylecoaches.com/carn-derry.htm>

### Train

Waterside Station (as it's known locally) is served by a rail link bus (noted at the bottom of the relevant train timetable) and connects with the train line to Belfast.

<http://www.translink.co.uk/Services/NI-Railways/>

### Belfast Airports

The Airporter service connects with the two Belfast airports (Belfast International and Belfast City) and departs from beside Da Vinci's Hotel.

<http://airporter.co.uk/>

### City of Derry Airport

Some local bus services pass by the airport, but if time is of the essence, a taxi may be a better idea!

### Dublin Airport

All Translink buses to Dublin stop at Dublin Airport, see inter-city buses above.

## **Detailed Schedule: Day 1, Fri 9th**

### **09.30: Registration (MU building foyer)**

### **10.00: Welcome (MU building foyer)**

Dr Tom Maguire (Head of School, Arts and Humanities), and Dr Malachy Ó Néill (Provost of Magee campus) and Dr Brian Bridges (President, ISSTA and Chair of ISSTA 2018)

### **10.30: Papers I(a): Technologies**

Chair: Dr Stephen Roddy (TCD)

*Only Expansion: Composing Temporal Structures For Augmented Audio Experiences In The Anthropocene*

Duncan Speakman

*Bubbles: an object-oriented approach to object-based sound for spatial composition and beyond.*

Richard Garrett

Automated Rhythmic Humanisation as a Structural Marker in Music

Linda Adams, Charlie Cullen, Liam O'Sullivan

### **10.30: Papers I(b): Case Studies**

Chair: Dr Rob Casey (Ulster)

*Locative Tools and Augmented Reality as tools for examining landscape and history*

Yonatan Collier

*Guide Invisibili: a migrant soundwalk experience*

Marco Stefaneli

This session will also feature an invited presentation by Jonathan Grimes, Head of Information at the Contemporary Music Centre, Ireland.

### **12.00: Coffee Break (MU building foyer)**

## **Abstracts for Paper Session 1(a)**

**Duncan Speakman**

**Title: Only Expansion: Composing Temporal Structures For Augmented Audio Experiences In The Anthropocene**

**Abstract:**

This paper will present the practice based research outcomes of an augmented audio urban artwork, offering an account of how merging realtime processing of the listeners immediate sonic environment with remote field recordings can offer new critical approaches to temporal perception and contemporary ecological thinking.

The artwork under examination uses custom mobile technology to create an urban audio walk that both remixes the immediate sound environment of the audience and combines it with field recordings from remote locations. In the experience participants wear headphones that also contain binaural microphones, the signal from these microphones is fed through DSP software in bespoke handheld devices before being fed back to the headphones. In this way the voices of passing pedestrians might become a resonant choir, or a bus engine may form a rhythmic counterpoint. The field recordings from are sourced from a series of international locations all undergoing major environmental shifts, so the sound of the wind in the city where the audience experiences the piece may become merged with wind recordings from the Tunisian Sahara. Through the combination of field recordings with processed and raw microphone signals, an interface is created between the listeners presence, the immediate space and remote locations.

Within the arc of the composition the audience is invited to seek out types of location through textual prompts often as simple as single words such as 'drift' or 'border'. In this way the work offers a site responsive rather than site specific experience, and the absence of cardinal guidance forces the audience to navigate the urban space through direct physical and sensory engagement.

Drawing on over a decade of the author's international practice in the creation of locative audio walks, the paper considers new compositional structures for works using augmented audio technologies, focusing on the layering of different temporalities within urban environments. The effect that is produced when the audiences' lived experience of walking through the work are layered with the timescales represented within the field recordings speaks to Timothy Morton's idea that we are currently living with the uncanny sense of existing on two timescales simultaneously. Our everyday human actions feeding into processes that extend far beyond are lifetimes. This experience is considered within the context of Anja Kanngieser's proposal that "sound can help to differentiate the sweeping universality—and hence the seeming unchangeability—that the Anthropocene poses" and that "sound renders apparent that the world is not for humans. The world is rather with humans." (Kanngieser, 2015).

By situating the audience within the layered temporality of the work, not just physically, but as an active contributor to the soundscape, this inquiry offers new approaches to augmented audio as a way of inhabiting, communicating and knowing an entangled world. It begins not with distant stories being collected and delivered, but at the site of the audience experience, and expands outwards from there through the transversality of sound.

**Richard Garrett**      Sunday Dance Music

**Title: Bubbles: an object-oriented approach to object-based sound for spatial composition and beyond.**

### **Abstract**

In recent times, there has been a huge expansion of interest in three-dimensional immersive and/or spatial audio and its application to everything from games to cinema to electroacoustic music. Much of the research in this area has focused on the distribution of audio around variable numbers of speakers, looking particularly towards panning and spatialisation tools that act upon tracks within a conventional Digital Audio Workstation. This paper contends that the late twentieth century studio paradigm embodied in this approach can be a hindrance to spatial aspects of composition, placing them in a subordinate role, comparable to an audio effect or treatment applied to existing material almost as an afterthought. Taking ideas from object-oriented programming and particle systems and applying them to the concept of object-based audio, this paper offers an alternative approach, not only to software design but also to compositional praxis, in which the organisation of sounds in space can, from the outset, be placed on an equal footing with time, timbre and other dimensions.

In this approach, the sound space in which a composition takes place can be thought of as a hierarchy of spherical loci (bubbles) in an abstract three-dimensional space, agnostic of both rendering methods and speaker configurations. The top-level bubble represents a volume containing all the sound-events that can be heard within the piece. Typically, this top-level bubble will contain a number of smaller loci, each of which may contain lower-level bubbles and so on. The lowest bubbles in each branch of this nested hierarchy contain tasks that generate object-based sound events, each with its own specific location in the virtual space. The position of each child bubble is defined with respect to its parent and it can undergo spatial transformation within that space. When a parent bubble is so transformed, each of its children inherits the information and its absolute position is modified accordingly. Thus, bubbles can move, expand, contract or rotate individually or as “groups” as part of the compositional design.

While Bubbles was initially developed with spatial audio in mind, it is not limited to this. Bubbles can also include properties regarding time, audio frequency or other parameters that may be inherited by their children. In this way, processes can inherit

tempo, event density changes, pitch shift and so on from their parent bubbles without altering the children of other parents.

The paper will discuss a prototype bubbles system using static sound events, built in SuperCollider and illustrated by a simple visualisation program.

**Linda Adams**                      Dublin Institute of Technology  
**Liam O’Sullivan**                Maynooth University  
**Charlie Cullen**                 University of West of Scotland

### **Title: Automated Rhythmic Humanisation as a Structural Marker in Music**

#### **Abstract**

Live musical performance features subtle deviations in tempo, velocity and rhythmic placement, which are rarely replicated in music software applications. Whilst melodic shape (or contour) has been shown to be a significant part of auditory stimuli recall, rhythm can arguably be considered as the primary means of discriminating auditory stimuli and thus is crucial to the presentation of harmonic stimuli. In addition to involuntary deviations, live musicians also use stylistic variations idiomatic to specific genres of music, such as swing feel in jazz. Research has shown that adding such deviations to a computer-generated performance can increase realism and listener engagement, and such ‘humanization’ features have been incorporated into some music production software in recent years. These are not yet standard outside academic and specialist applications, however, and many commercially-available humanisation processes tend not to allow for stylistic changes.

The development of a prototype rhythmic variation tool for music ‘humanisation’ is presented. It is packaged as a “playalong app”; a type of practice tool commonly used by music students to rehearse improvisation. Companion practice applications typically use MIDI files that can often be considered as artificially rigid and rhythmically invariant, which arguably leads to them being perceived as ‘flat’ and ‘un-musical’ on repeated listening. Based on analysis of real jazz performances, the presented system incorporates user control of a range of deviations and stylistic elements. The system differs from other approaches in that it uses a fuzzy logic implementation for the encoding of observed performance rules. An improvised bass-line is also generated using a Markov-chain technique. In initial subjective tests, the tracks generated by the program were found to be more enjoyable to practice with than another leading playalong application, and the ability to customise the range of variations was considered an advantage.

The author’s ongoing research investigates how rhythmic placement affects the melodic and harmonic contextualisation of notes. For example, harmonically salient notes are typically placed on strong beats, and less diatonic notes placed on weak beats. This means that the rhythmic placement of any note contributes to how it may be perceived melodically and harmonically, and two chords that are nominally

the same may be perceived as having very different sounds depending on their temporal position. It is argued that the inclusion of more realistic rhythmic patterns using 'humanisation' techniques such as those presented may assist in the detection and recognition of harmonic stimuli. By developing a tool for rendering such rhythms, it is hoped that future work can investigate the human recognition of harmonically salient structures and patterns in a more realistic experimental context

## **Abstracts for Paper Session 1(b)**

**Yoni Collier** Leeds Beckett University

### **Title: 'Justice, Freedom, Peace, Memory' - Using Locative Technology and Augmented Reality as Tools for Examining Location, History and Soundscape**

#### **Abstract**

'Justice, Freedom, Peace, Memory' is the first in a series of location-specific works that will form the basis of my practice-based PhD. It is an immersive, interactive musical work that has been mapped onto the streets of the city of Groningen in The Netherlands. The music is created primarily from field recordings gathered at the specific locations in the city where the work was later performed. The piece uses aural augmented reality (AR) to blend the performed work with the soundscape of the city itself.

'Justice, Freedom, Peace, Memory' is 'performed' through a GPS-enabled Smartphone and headphones. GPS technology allows for the mapping of a composition over a landscape, so that the music is experienced within the context of a very specific geography. It is possible to achieve a fine alignment of sound with space that enables the structuring of a musical work around specific city landmarks. In addition to hearing a musical piece that has been mapped on to the environment, the audience also hear the sounds of the city soundscape in real time; a soundscape that has formed the basis for the musical composition itself. This work therefore combines the real and the virtual into an AR experience.

It was my aim to use locative technology, AR and a non-linear musical structure to encourage an audience to engage with the history of the performance location. This paper will discuss the technical and compositional methodologies that were utilised in the creation of 'Justice, Freedom, Peace, Memory'. Furthermore, the use of locative technologies and AR as tools for the interrogation of a specific site, its history and its soundscape will be examined.

**Title: Guide Invisibili: a migrant soundwalk experience**

For years now, old Europe has witnessed unstoppable flows of migrants from countries near and far, places suffering wars, ethnic conflicts, economic and social pauperism.

Millions have arrived, and more still come, all looking for protection and better life conditions. Yet to European countries they are unwelcome guests. Fleeing their original suffering, they find themselves in crowded, antagonistic reception centers, the brunt of discrimination, racism, and social exclusion.

Our project begins here: how can sound affect the public opinion surrounding migration? How can sound increase migrants' self-esteem, create empowerment? In 2017, and now again in 2018, we conducted a nine-month audio storytelling workshop with 15 asylum seekers and refugees hosted in the reception centers of Rome to develop two sound walks in two different neighborhoods (the Trevi Fountain and Esquilino area).

The group, composed of people from a wide array of countries (West Africa, Pakistan, Kurdistan) and socio-economic as well as educational backgrounds, participates weekly in an urban exploration, creating their own narratives about the spaces. Elements in these narratives include their own aesthetic perceptions, personal stories linked to the areas, historical observations culled from interviews of older residents, and comparisons made to their countries of origin.

This exploration was also one of soundscapes. Recordings were collected from the farmer's markets, the tourist crowds, the loud streets and the quiet parks, empowering participants by way of a sonic perception of the city. All these stories and sounds are combined into the two soundwalks: a new Roman narrative in which migrants are not simply "guests" of the city, but full-blown citizens with the power to recount the place they now call home.

They are angry and sweet at the same time, with stories of violence in the Ivory Coast fusing with ritual scenes of Pakistani mothers at the local market in search of the freshest spices. The result is a complex emotional mosaic, an integral whole that challenges the listener to reevaluate their perspective, not just on migration but on the public space itself.

In June 2017, after nine months of workshops, the first two "Guide Invisibili Soundwalks" were released, with regular public walks organized for up to 25 people. At the end of each soundwalk, authors answered questions about the creative experience, about their travels or about life as a migrant in Italy.

Due to its success, the project continues. More than 700 people have been reached, including high school and university students. One of the walks has been translated into English, and at the end of June 2018 we will release two brand-new soundwalks.

## **12.30 Keynote: Dr Salomé Voegelin and Prof. Anna Barney**

### ***Accessing Disciplinary Hinterlands through Listening***

In the context of this presentation the Hinterland is the place beyond the agreed methodologies, vocabularies and processes that stand as certainties of a particular discipline. Accessing this Hinterland is a stepping into the unknown, the unagreed, what we might not be able to talk about or grasp within disciplinary frameworks; what might not yield value or acceptance within its community of researchers and knowledge stakeholders. However, it is potentially also a place of opportunity, of new insights and cross-disciplinary production, which might yield much innovative thinking and doing, augmenting the conventional disciplinary knowledge process.

The discipline, in this context, is understood as the walled cities of knowledge. And we believe that sounding and listening as a form of activism and interference, can break through these partitions to hear possibilities, and resistance to them, and to make propositions about how else we could work together, how else knowledge could be produced. In this sense this presentation, jointly staged by Prof. Anna Barney and Dr. Salomé Voegelin proposes that listening to these disciplinary Hinterlands provides access to an unknown sphere that hovers behind and between disciplines and that offers opportunities for new thinking, cross-disciplinary collaborations and another way to see the frames given to us by academic infrastructure and expectation.

This presentation will introduce the audience to Listening across Disciplines I & II, two UK Arts and Humanities Research Council funded projects, and involves them in a discussion of the cross-disciplinary potential of sound.

**Anna Barney** is Professor of Biomedical Acoustic Engineering in the Institute of Sound and Vibration Research at the University of Southampton. Her work considers application of signal processing techniques to sound recordings in the areas of medicine and health science to enhance diagnosis and monitoring of disease progression. She has worked on speech sounds, sound in the lungs, snoring and muscle noise.

Together with Dr Salomé Voegelin she lead Listening across Disciplines, ([www.listeningacrossdisciplines.net](http://www.listeningacrossdisciplines.net)) a pan- European network that sought to establish listening as a cross-disciplinary methodology and studied the ways in which sound can generate new knowledge and create innovative modes of knowledge-production.

She is a co-investigator on their new AHRC-funded grant: Listening across Disciplines II, which will start in January 2019.

**Salomé Voegelin** is an artist and writer engaged in listening as a socio-political practice of sound. Her work and writing deal with sound, the world sound makes: its aesthetic, social and political realities that are hidden by the persuasiveness of a visual point of view. Voegelin is the author of *Listening to Noise and Silence* 2010, and *Sonic Possible Worlds*, 2014, her third book in the series *The Political Possibility of Sound, Fragments of Listening*, will be published by Bloomsbury in November 2018.

Voegelin's work brings the philosophy of sound to a participatory engagement: She co-convenes *Points of Listening* a series of monthly events that engages in collective listening and communal sound making, with Mark Peter Wright [www.pointsoflistening.wordpress.com](http://www.pointsoflistening.wordpress.com). And her textual phonography blog [www.soundwords.tumblr.com](http://www.soundwords.tumblr.com) is the template for a participatory and public listening, writing and score making.

As an artist Voegelin works collaboratively with David Mollin, Mollin+Voegelin, in a practice that engages words, things and sound and focusses on invisible connections, transient behaviour and unseen rituals. Voegelin is a reader in Sound Arts at the London College of Communication, University of the Arts London. [www.salomevoegelin.net](http://www.salomevoegelin.net)

### **13.30 Lunch: (MU building)**

### **14.15 Artworks Tour I (MU building and MQ — Foyle Arts)**

#### **Conducted by Dr Adam Melvin (Ulster)**

The following pieces will be available, with artists drawn from Austria, Greece, and the UK and Ireland:

#### *Only Expansion* (soundwalk)

Duncan Speakman

Location: MU building (start) - campus-wide

#### *Promenade* (installation)

Martin Rumori

Location: MU block

#### *The Inherent Causes of Failure* (video)

Robert Gillespie

Location: MU block: video screens on second floor

#### *UMBRELLA: Same Place* (video anthology)

Umbrella Collective

Location: MU block: video screens on first floor

**SEABED** (installation)

Eleni Kolliopoulou

Location: MQ building (Foyle Arts) basement

Advance booking required: on the first day of conference, a booking sheet will be available.

You may also reserve a place *in advance of the first day of the conference* by booking using Eventbrite:

<https://www.eventbrite.co.uk/e/seabed-performative-installation-tickets-51883092727>

## **Programme notes for artworks: Day 1**

### **Duncan Speakman: *Only Expansion***

As sea levels rise and wildfires burn, *Only Expansion* remixes the sound of Bristol so you can experience sonically how your own life might change in the future. A beautifully made guidebook prompts you to explore the city, choosing your own route, while headphones with customised electronics capture and manipulate the sounds around you. Voices of passers by become a choir, bus brakes create pulsating rhythms, these might then be blended with desert winds from Tunisia or the crumbling coasts of Norfolk.

A visceral and poetic reflection on what it means to live on a planet in crisis, *Only Expansion* connects the here to the elsewhere, letting you experience our tangled ecology through sound.

*Only Expansion* is commissioned by University of Exeter Arts And Culture. It was developed with support from Lydgalleriet Bergen, Theatre in The Mill Bradford, and Arts Council National Lottery Project Grants.

### **Martin Rumori: *Promenade***

*Promenade* is a sound environment consisting of multiple tableaux suspended in space. Their arrangement hints at paintings in an art exhibition, but they do not show anything – each of them is a visually silent canvas. However, the tableaux become auditory images by means of two transducers mounted on one side. When a listener positions themselves in front of a tableau, soundscape recordings projected by the canvas invite for an immersive listening experience. The entire environment provides a semi-narrative, anecdotal composition that emerges by strolling amongst multiple sound situations distributed in space.

*Promenade* explores the qualities of monaural, stereophonic and crosstalk-cancelled sound projection on solid, sculptural surfaces. Reflecting on different modes of regarding a painting, auditory experience shall range from an incidental sonic occurrence over "framed" spatiality restricted to the projection medium up to an immersive appearance that exceeds the physical dimensions of the canvas.

### **Robert Gillespie: *The Inherent Causes of Failure***

The audio component is the sound of the roof of the Millennium Forum in Londonderry recorded on 29/06/2017. The self-regulating mechanism of the roof was malfunctioning and the servos and actuators were producing an ambient music-like drone. This was enhanced by the reverberations of the interior space. The roof has since been serviced and no longer produces this sound. No processes have been applied to the sound. The accompanying video was produced specifically for this installation and being shot outdoors on the other side of the river Foyle, is a thematic counterbalance to the enclosed nature of the sound.

### **UMBRELLA: *Same Place***

*Same Place* is an anthology video by the Belfast-based sound art collective UMBRELLA. Each artist presents their aural and visual reflections on an environment of Belfast. The environments represented in *Same Place* span urban and rural, man-made and natural, public and private. The audio-visual works by the artists of UMBRELLA employ personal reflection, field recording, performance, technological intervention, reimagining and critique. *Same Place* acts as a mediation on Belfast composed through this series of individual cartographies.

Exhibiting artists and individual works are as follows:

- Barry Cullen: *Data & Contact* presents electromagnetic radiation from various call centres in Belfast as made audible using a handmade Logarithmic amplifier for RSSI measurement (Bandwidth: 0.1GHz - 2.5GHz).
- John D'Arcy: *North Street* looks at the current state of North Street and potential changes brought by the forthcoming Royal Exchange redevelopment programme.
- Elen Flügge: *In between* takes route as place, in stages.
- Liam McCartan: This work is a sonic reaction to Francis Pym's design of the *Ulster Museum*.
- Aidan Deery: *Ormeau Park* presents a place of unsettled sanctuary.
- Pablo Sanz: *Divis Mountain* originated from a serendipitous walk through the hills of West Belfast.
- Una Lee: There is an unknown songbird in *Botanic Gardens!!!*
- Andrew Harrison: *The Big Fish* is a ceramic mosaic sculpture by John Kindness located on Donegall Quay. Each ceramic 'scale' bears an image about the city: images that reference communities and industrial and maritime heritage, newspaper headlines, and drawings.
- Alex Lucas: *Lennoxvale* is represented by a series of ASCII images accompanied by rudimentary keyboard tones. Alex hopes this piece will serve as a reminder of the creative potential of antiquated technology.

- Richard Davis: *Sometimes We Wake* explores the connection of memory to place and the self-reflection that emerges from that experience.
- Hadi Bastani: *#neversame* re-visits places captured on Hadi's Instagram archive of Northern Ireland, offering a meditation on the experience of place via mobile media. The feeling of a place, its aura or its meaning is revealed to us experientially. As such, it is fluid. It never remains the same.

**Eleni Kolliopoulou: *SEABED***

You are welcomed to...

***Seabed, performative installation***

... an installation art project that explores the lived experience of the body in its environment.

...deploys audio and visual stimuli to create an ongoing kinaesthetic-inner landscape through stillness.

...invites you to discover your body memory and become aware of your unfolding perception.

... an art-piece that is experienced singly.

...an open invitation to create your own relationship with it.

Eleni Kolliopoulou is a PhD researcher in Drama/Performance Studies and Fine Art at Ulster University.

### **15.30: Papers II(a): Soundwalk**

Chair: Dr Rob Casey (Ulster)

*Promenade: Auditory explorations of strolling, image, and everyday life*

Martin Rumori

*Building a Spatial-Sonic instrument for Critical Engagement with Urban Change:  
Debut of a Transdisciplinary Co-Creation Project*

Caroline Claus, Giulia Vismara, Johann Diedrick and Burak Pak

Virtual auditory reality: on first-person field recording and re-presenting proximate space

Iain Findlay-Walsh

### **15.30: Papers II(b): Performance**

Chair: Dr Adam Melvin (Ulster)

*Tempo-rhythms, clocks and drift: escaping the micro-drama of the CPU cycle*

Richard Duckworth

*A New Earth: The North Indian lute and electroacoustic composition.*

Matthew Noone

### **Abstracts for Paper Session II(a)**

**Martin Rumori**

Institute of Electronic Music and Acoustics Graz

**Title: Promenade: Auditory explorations of strolling, image, and everyday life**

#### **Abstract**

This paper will present my current artistic research project /Promenade,/ its motivation, theoretical foundations, and its artefacts that aim to invite for aesthetic experience.

The environment created for /Promenade/ consists of multiple similar sonic sculptures that are arranged in space for free exploration. Each of the sculptures resembles an empty canvas made of Finnboard, which is hung from the ceiling and accessible from both sides. Instead of showing an image, its surface is excited by two transducers sitting on one side of the board. The sculptures radiate subtle compositions of mostly unprocessed, anecdotal field recordings into space. Recorded sound situations may be "visited" and "entered" by approaching the respective canvas.

In each sculpture, the board material serves as a common membrane for both

channels of a stereophonic projection. Cross-talk cancellation is used such that the auditory image of the sound situation appears much wider than the visible, physical extension of the canvas. This effect occurs suddenly when the listener positions themselves exactly in front of the canvas in a certain medium distance. The metaphorical notion of "entering" the image by enabling this projection technique is further supported by a distance-dependent narrowing of the stereo image even until monaural projection when listeners are far away or not in front of the canvas.

The entire installation of multiple sculptures unfolds an auditory landscape with several entry points to its narrative. This narrative is further determined by the structure of each of the compositions, which may be temporally unrelated to each other or played back synchronised, and by the individual trajectories of the audience when exploring the landscape.

*/Promenade/* has been conceived as a dispositif for enquiries into three scholarly and artistic areas: those of anecdotal music, strollology or promenadology, and narrative identity. */Anecdotal music/* as coined in the 1960s by French composer Luc Ferrari contrasts */musique concrète/* by explicitly exploiting source bonding, the recognition of the sounds' origins and connected associations. */Strollology/* aims at extending environmental awareness by studying uncommon modes and techniques of perception, namely those enabled by slowly walking through the observed field. While this "minor subject", as its founder Lucius Burckhardt put it, was mostly visually oriented initially and has been incorporated in cultural studies, architecture and urban planning, strollology has been further extended to the auditory domain in sound and listening walks. Finally, */narrative identity/* as a discipline of psychology investigates self-construction by means of telling stories. Narrative fragments derived from everyday life experience are constantly negotiated with our social surrounding such that personalities are constructed, acknowledged and incorporated.

**Caroline Claus, Giulia Vismara, Johann Diedrick and Burak Pak**  
Catholic University of Leuven (KU Leuven), IUAV University Venice

**Title: *Building a Spatial-Sonic instrument for Critical Engagement with Urban Change: Debut of a Transdisciplinary Co-Creation Project***

### **Abstract**

In line with the definition of a trans-disciplinary perspective on sonic urbanism, we develop tools for a re-thinking and redefinition of the position of sound in the design of old industrial infrastructure space in transition. Starting from the idea-suggestion of the metropolitan landscape as a collective work, we have initiated a project for the co-creation of a spatial-sonic instrument for a critical engagement with public space development on old industrial land of changing western cities. From an interdisciplinary collaboration with composer-researcher Giulia Vismara and sound artist Johann Diedrick we developed the idea of an instrument that could generate an augmented sound environment driven by the variation in morphology and

position of people. Via a mobile/phone application the user would be able to modify some of the characteristics of the sounds that happen in transforming old industrial urban areas. The project was aimed to develop in several stages and to be tested on location in different metropolitan areas like Brussels-Capital Region, the Metropolitan City of Venice and Berlin. In continuous dialogue and the organization of field research in Brussels and New York, gradually we have brought together our knowledge and expertise, for a selection of different instrumental parts. An important objective of this project was to test an experimental transdisciplinary research environment taking into account all the aspects and means of our individual research as: critical spatial design, sounding arts, technology, perception and musical composition. These ambitions have been translated into a research model based on three cycles. In what follows we will use Action Research as a framework for an evaluation of the project aimed at a better understanding of the problems and effects of an interdisciplinary collaboration and a reflection on the value and consequences of the results that have been achieved in the context of research into sonic urbanism.

**Iain Findlay-Walsh**

University of Glasgow

**Title: Virtual auditory reality: first-person field recording and proximate space**

### **Abstract**

The foreground sounds of my experience are those of a body moving and feeling through proximate space. Walking sitting turning. Closer; shifting breathing swallowing. I hear my body in relation to its self, to emerging nearness and its content. It is from this close and personal zone that environment and agency develop. The auditory everyday is identifiable as the constant sound of a solitary body listening to its self in emerging relation to the close at hand. I can hear the street, but beyond the touch of the clothes on my back and the ground on my feet.

This presentation explores 'first-person' field recording as a means of capturing and re-presenting the auditory experiences and emerging proximities of a solitary listener. First-person field recording is here defined as both method and material whereby environmental sound recordings are generated by a single recordist through their holding, wearing or 'being with' the microphone(s), consciously and reflexively documenting their personal listening encounters. Such methods are discussed as means of tracing a shifting point of ear, which may be inhabited, embodied, and listened through by a subsequent listener. By engaging with examples by sound artists including Gabi Losoncy, Graham Lambkin and Christopher DeLaurenti, as well as touching on my own recent work, such methods are considered in terms of their representational and communicational possibilities. What kinds of identification and understanding are made possible when a listener inhabits the proximate, personal spaces of a recordist? How do these possibilities correspond to specific microphone techniques, recording and playback technologies and listening contexts? What connections can be made between such methods in

sonic practice and methods and practices in other fields that focus on producing and presenting virtual environments?

### **Abstracts for Paper Session II(b)**

**Richard Duckworth** Trinity College Dublin

**Title: Tempo-rhythms, clocks and drift: escaping the micro-drama of the CPU cycle**

#### **Abstract**

Konstantin Stanislavski's training and directing practices employed a number of techniques and concepts that can be of use to the contemporary electronic musician. In this paper, I will examine how the following concepts – derived from Stanislavski's system – provide a framework for the development of analogue electronic music practice in an ensemble setting: tempo-rhythms, emotional memory, the objective and the super-objective (supertask), the circle of attention, improvisation, physical action, and the Plan of Experience.

The material in this paper is made possible through creative practice with the electronic ensemble Analog On, i.e., rehearsals and shows featuring structured improvisation and application of the Stanislavskian methods listed above. These are adapted as follows: a) past experiences with tonalities/timbres are accessed via the emotional memory of the musicians; b) the innate tempo-rhythms of the individual performers – projected into the tempos the analogue clock-driven pulses of the modular sub-networks – are allowed to coalesce to form an orthogonal syncretic entity; c) the concepts of the objective (the immediate or 'local' technical/creative challenge) and the supertask (the holistic aspiration of the collaboration) are applied; d) the concept of the circle of attention is especially useful as musicians phase or transition between the first and the ultimate circles of attention; e) the Plan of Experience acts as a potent navigation system for the effective realisation of larger pieces and or shows.

**Matthew Noone** University of Limerick

**Title: A New Erth: The North Indian lute and electroacoustic composition**

#### **Abstract**

This project is a development of research into the use of non-western instruments in a contemporary setting and the creative process of using such instruments in non-traditional ways (Keyes, 2005; Gluck, 2008; Blackburn, 2011; Kapur & Carengie, 2014). The use of traditional non-western instrumentation in electroacoustic composition, despite an increasing number of contemporary practitioners (Ishii, 2006; Dolat-Shahi, 1985; Raharjo, 2004; Yadegari, 2004; Gluck, 2005), has received little sustained research attention. There is, in particular, a gap in the academic

literature on the use of my main instrument, the 23 stringed North Indian lute called sarode, and its uses in original composition and electroacoustic practice. While, significant work has focused on the organology and performance practice of the sarode in the context of Indian classical music (Mc Neil, 2004), there is little documentation of the uses of the sarode in electroacoustic and other 'new music' settings. Yet, in contemporary practice, both in India and abroad, there are numerous musicians working with original composition using the sarode, particularly with elements of electronic manipulation.

This paper proposes using the authors own research into composition for sarode and the computer music software called 'Chuck' as a case study of contemporary electroacoustic practice. Chuck is a programming language for real-time sound synthesis and music creation developed by Ge Wang (2008) in Princeton University. It is open-source and freely available on MacOS X, Windows, and Linux. Chuck presents a unique time-based, concurrent programming model that's precise and expressive (strongly-timed), dynamic control rates, and the ability to add and modify code on-the-fly. It's a powerful programming tool for building and experimenting with complex audio synthesis/analysis programs, and real-time interactive music. Further examples will also be given of other sarode electroacoustic practitioners, including Alam Khan's (2016) 'Grand Tapestry' which incorporates sarode, electronic beats and Dr Manuella Blackburn and Dr Rajeeb Chakraborty's (2013) collaboration, 'New Shruti for sarod and electronics'. The research is informed by performance theory (Melrose, 2002; Cook, 2003) and arts practice epistemology (Nelson, 2013; Leavy; 2015) which argues that artistic process is a valuable site of cultural knowledge.

### **17.00 ISSTA 2018 opening reception (MU building foyer)**

### **18.00 'Atrium' (sound and music performance) by Manoli Moriarty and Echo Echo Dance Theatre (MU building foyer)**

*Exploring the relationship between dynamic and static elements existing in urban environments through sound and movement...*

As part of an Open Call for ISSTA 2018 conference, sound artist Manoli Moriarty was selected to work in collaboration with Echo Echo Dance Theatre Company on a 'site-informed' installation – responding to the new Atrium Building at Magee Campus. This collaboration explores the relationship between dynamic and static elements existing in urban environments, and how the often-charged memories embedded in the surrounding structures affect their human occupants.

Using a combination of fixed-media and live generated sounds, the dancers interact with the composition by controlling and creating sounds through a range of interactive object, and exploit the opportunities and limitations presented by using Magee building's atrium as their performance space.

Manoli Moriaty is an Athens-born composer, performer, researcher, and curator. Currently based in Manchester, UK, his practice is informed by themes of symbiotic relationships and collective action as conceptual framework towards facilitating environments of synergy between distinct artists, media, and disciplines. Through methodologies pertinent to data sonification, re-appropriation of technology, and human-machine interactions, he regularly collaborates with physical performers and creative technologists towards creating works across a range of formats and disciplines: live collaborative performance art, interactive audiovisual installations, fixed-media acousmatic compositions, and live electronics performances. His work and research have been presented at international new music concerts, performance arts festivals, and academic conferences, such as ICMC, SMC, MANTIS, Supersonic Festival, Electric Nights, Surge Festival, New York City Electroacoustic Music Festival, Beijing New Dance Festival, and the Audiovisual Arts Festival of the Ionian Academy.

He has performed for the BBC Philharmonic Orchestra, and composed live scores for Jim Cartwright's *Burning Bright* and Teresia Björk's *Vi-We-Nous*. Awards include funding by Arts Council England and IdeasTap towards artistic activities, and by Sound and Music for his curatorial work within the sonic-arts collective *Metanast*. He is published by Taylor & Francis, and holds memberships with the Hellenic Electroacoustic Music Composers Association (HELMCA) and Irish Sound Science and Technology Association (ISSTA). Manoli has been fortunate to study composition under Stephen Davismoon, Alan Williams, Joe Duddell, and Craig Vear. He is associate lecturer on popular music, interdisciplinary performance practice, and multimedia technologies at the University of Salford, where he is also completing his doctoral thesis *Symbiotic Synergies* investigating polydisciplinary collaboration, supervised by Joanne Scott and Stephen Kilpatrick.

Further details:

<http://www.echoecho.com/whatson/atrium-manoli-moriaty-echo-echo-ensemble-free-event>

**Thanks to:** ISSTA and Ulster University would like to thank Steve Batts (Artistic Director, Echo Echo) for partnering with us on this project.

### **19.00 Dinner, MD Building restaurant (ground floor)**

A conference dinner is available for delegates who have booked in advance by Nov 5<sup>th</sup> (as communicated via website, email, and FB/Twitter). If you have missed the deadline for this, please see the orientation section of this conference handbook for listings of cafés and restaurants.

## 20.15 Concert 1, Great Hall, MD building

This concert will feature acousmatic, live electronic and audiovisual works by international composers and artists.

**Una Lee and Miguel Ortiz (NI): *The First Flowers of the Year are Always Yellow* (13 mins)** mixed-media

**Rosalía Soria Luz (DE/MX): *TABÚ* (9 mins)** 8-channel plus video

**Stephen Roddy (IRE): *Signal to Noise Loops 3++* (10 mins)** live performance

**John C.S. Keston (USA): *MODULATOR* (10 mins)** live performance

**Constantin Popp (DE): *Points, Lines, Planes* (14 mins)** 8-channel plus video

**Michael Trommer (CA): *greyfields/wavefields* (15 mins)** AV performance

**Fergal Dowling (IRE): *Ground and Background* (10 mins)** multi-channel plus video

### Concert I: Programme Notes and Bios

#### Una Lee + Miguel Ortiz: *The First Flowers of the Year are Always Yellow*

This is a live performance work that highlights a relationship between the human body and memories through a unique amalgamation of embodied music mediation technology and theatrical storytelling. The work exhibits a sonic blend of spoken and sung voice, sound recordings and electronics. The plot revolves around two narrative figures: a writer and his fictional character, roles that two artists take up as live performers. The two characters firstly seem to exist as independent entities, by which one is in ostensible control of the other. These roles however conceptually merge into one over the course of the piece, epitomising the ambiguities found within the distinction of human body and mind in regards to storing and recalling of memories.

#### Rosalía Soria Luz: *TABÚ*

Mexican society is the result of a confluence of diverse races and cultures, mostly because of Spanish colonisation. Great cultural diversity is considered a strength. However, different levels of discrimination towards the indigenous (indios) and morenos (people of dark skin tone) are present in daily life.

In this piece I collect fragments of interviews with Mexicans who agreed to share their own struggles, opinions and concerns regarding this matter. The idea is not only to raise awareness but also to give some advice on how to eradicate this problem that deeply affects Mexican society.

#### Stephen Roddy: *Signal to Noise Loops 3++*

Signal to Noise Loops: 3++ is live data-driven musical performance for laptop and guitar. The performance will be realised with the 'PerformIoT' system. PerformIoT is a simple system written in Python for leveraging IoT data in live electronic music performance. PerformIoT has grown out of work undertaken to sonify IoT network data from Pervasive Nation, a nationwide IoT network test bed operated by CONNECT, the Science Foundation Ireland Research Centre for Future Networks headquartered at Trinity College Dublin. PerformIoT retrieves data from the relevant API and maps it to OSC for use in a live performance setting. The first use for the frameworks was for the piece Noise Loops for Laptop, Improvised Electric Guitar and Dublin City Noise Data. This was performed at the 2017 Sonic Dreams Festival. In this piece IoT data from sensors measuring ambient noise levels

around Dublin city was mapped to control performance parameters of a live electric guitar improvisation. The data was mapped to control the timbre of the guitar utilizing a multiband distortion to morph the sound. The data was also mapped to control advanced buffer, delay and filtering processing of the performance. It also controlled the synthesis of percussive elements within the performance. The system was expanded and adapted after the first performance and a different version of the system will be used at a second performance is scheduled for xCoAx in Madrid in July. A third performance will be taking place in Dublin in August. Updated iterations of the systems have been developed for each performance.

The first three performances with the system used Smart City data to generate musical content. This was informed by the recent re-emergence of Lefebvre's Rhythmanalysis in discourses around the Smart City. The version of the system to be used at ISSTA 2018 will represent a return to the original concept, drawing data drawn from Pervasive Nation. Network traffic data mapped to control parameters of a generative music system. This generative music system is responsive to both the original data and to the performer who will be interacting with the system live through an electric guitar. This system allows the player to explore and highlight interesting patterns in the data by way of musical interaction. This system involves the application of techniques and concepts from the field of data-driven music to achieve a balanced co-ordination between generative music composition and improvisation in the context of live laptop music performance. The tasks of data acquisition and preparation as well as the mapping of data to MIDI is carried out by a bespoke Python script. From there the data is sent to Ableton Live 10 where Max for Live is used to convert the guitar signal midi and both the data and the guitar signal are fed into generative bespoke music system to control and modulate parameters concerned with the generation of MIDI information, the musical organisation of that information and its mapping to synthesis parameters.

The point of mapping data to sound, and more specifically IoT data, is to leverage some of the interesting patterns that present themselves across data streams/sets of this manner. Data-driven music is different from sonification where the point is to faithfully communicate or represent the data to the listener. Data-driven music is closer in many ways to generative music composition than it is to sonification because of its focus on finding patterns in the data that might be interesting when mapped to sonic and musical parameters. My previous data-driven music work has employed algorithmic composition techniques and dealt with used from the global financial crash. More recently I have begun to work with IoT data as I believe that the kinds of data we choose to measure and our reasons for measuring them say a lot about what a society values, cares about and finds interesting while the specific data measurements chronicle the complex interactions between people, the technologies they create and the worlds in which those people and technologies are situated.

While these explicit points of information may not be directly represented in a performance the rich interleaved patterns of interaction between people, place and technology are transposed into the sonic realm in each performance. While more abstract and implicit in nature it is the aesthetic dimensionality of these interlocked patterns, which is of interest to me.

### **John C.S. Keston: *MODULATOR***

***MODULATOR*** is a series of pieces composed using a sequence of stochastic, deliberate, and arbitrary processes. A hybrid of algorithmic and improvised methodologies were devised to evolve textures beyond aesthetic considerations allowing peculiar, harsh, and even grotesque sounds to emerge. The process is applied to an FM synthesizer called the PreenFM2. The instrument uses carrier and modulator waveforms organized through a series of algorithms to create a nearly infinite array of complex synthetic sounds. Textures range from evolving Shepard tones to unusual, percussive glitches. A custom Max for Live patch morphs parameter values on the synth. Multi-threading allows many parameters to be changed simultaneously. Because of chance factors in the algorithms the textures and rhythmic content are significantly different each time the piece is performed. However, some identifying characteristics are maintained, such as how the performer "plays" the algorithm, and the peculiarities of the FM synthesizer.

**John C.S. Keston** is an award-winning composer of electronic, experimental, and instrumental music. His work embraces the chaotic ambiguities of environmental and sensorial influences providing context within unpredictable or everyday events. His unconventional compositions convey a spirit of discovery and exploration through the use of graphic scores, chance and generative techniques, analog and digital synthesis, experimental sound design, signal processing, and acoustic piano. His compositions parallel indeterminate improvisation activating what remains immutable within traditional forms of notation driven music. Performers are empowered to use their phonomnesia, or sonic imaginations, to contribute to the work.

John has performed and exhibited original work at ISSTA (IE), Northern Spark (MN); the Weisman Art Museum (MN); the Montreal Jazz Festival; the Walker Art Center (MN); the Burnet Gallery (MN); the In/Out Festival (NYC); the Eyeo Festival (MN); INST-INT (MN); Echofluxx (Prague); WMC (Miami); and Moogfest (NC). His music appears in *The Jeffrey Dahmer Files* (2012) and he composed the music for the short *Familiar Pavement* (2015). He has appeared on more than a dozen albums including solo albums on [UearthedMusic.com](http://UearthedMusic.com). John resides in Minneapolis where he is a professor of creative multimedia at the University of St. Thomas and founded the sound design resource [AudioCookbook.org](http://AudioCookbook.org).

### **Constantin Popp: *Points, Lines, Planes***

*Points, Lines, Planes* creates an immersive, composed environment in which various landscapes of sounds and fields of emotions augment each other. The composition contrasts text-to-speech recordings of wikipedia articles about topics such as anxiety, compassion and friendship with filtered basic waveforms and pink noise. The electronic sounds contextualise the articles using various trajectories in space, timbre and pitch. Data extracted from spectral analyses of the hallways found at the Zentrum für Kunst und Medien (ZKM) and filtered noise found the piece's harmonic content. The timbres, the spatialisation and dynamic range of the sounds delineate the piece's flow of tension and release.

The piece contains parts of a meditation kindly provided by The Counselling Service of the University of Manchester. The piece is commissioned by the ZKM as part of their Tangible Sounds Festival. The piece has been composed and produced at the ZKM, Karlsruhe, Germany.

Many thanks to Claudia Larcher for creating the visuals / video to the composition.

### **Michael Trommer: *greyfields/wavefields***

*Greyfields* is an ongoing audio-visual project investigating the psychogeography of commercial environments.

This latest iteration is a live, improvised multi-channel sound performance, which focuses on the sound of the electro-magnetic spectra emitted by the informational, security, communication and power infrastructures which pervade the urban grid.

*Greyfields/wavefields* seeks to render that which is invisible, inaudible, hidden yet omnipresent, into something which can be contemplated. We are aware of these systems which infuse the physical structures of our metropolis, yet their ephemerality leads us to disregard the vastness, power (and related health implications) of their existence. They are, in many respects, a kind of urban ghost, clustering in and haunting our centres of financial and political dominance. As such, *greyfields/wavefields* can be seen as a continuation/extension of the parapsychological investigations of EVP ('electronic voice phenomenon' - the search for spirit communications via radio waves and the recording of silent spaces) - an investigation of what lies concealed in the ether.

## **Fergal Dowling: *Ground and Background***

*Ground and Background* reimagines the Dublin cityscape as an immersive audio-visual experience for surround sound and video projection. The urban environment is reconsidered through the metaphor of a journey, wherein the listener is jolted through a fragmented streetscape reconstructed with audio and video jump cuts.

The work is composed entirely of audio and video recordings made in Dublin city centre in early 2017 and attempts to reimagine the city as a fictionalized space through the selective reassembling of recordings. In the newly imagined city the boundary of the real and the imagined is a fluid membrane – on one side the recorded space, on the other a transliteration, a new space occupying an invented geographical memory.

In the audio part, hundreds of impulses, recorded in dozens of acoustically distinctive exterior spaces, are assembled, reassembled, and contrasted with a continuously evolving background. The listener/viewer transverses a reconstructed imaginary city in which local details become mirrored by their context – foreground details accumulate into dense gestures, and distant backgrounds condense into localised impulses. By re-contextualising the sampled audio and video material, the work aims to decouple the relationship between the sound of the city and its original geographical context. This dislocation has the effect of foregrounding the sonic character of the sampled space and allows us to consider the cumulative space as a larger sampled meta-space with a specific and otherwise inaccessible sonic identity.

The listener and the creator find themselves assuming the same spatial locale, and the same role, as the observer replaces the recording artist as the city's voyeur. The city, undressed of its human presence, awaits our interpretation. The incessant motion of the point-of-view mimics the routine of travel, but the reconstructed soundscape only hints at how the absent population might navigate their disjointed environment. Whom, we might wonder, does this city serve, and how do the occupants relate to these spaces? We are not told, but we recognise their presence through the sound of their footsteps and the distant background noise of their activities.

*Ground and Background* was commissioned by Dublin Sound Lab and produced by Sabina Bonnici, with video photography and editing by Mihai Cucu.

## **22.00 ISSTA 2018 Fringe: Analog On at Bennigans'**

To close day 1 of ISSTA 2018, we have an associated event at Bennigans' Bar featuring Analog On from Dublin. Analog On is an experimental electronic music ensemble that composes and performs on vintage analogue electronics and modular synthesizers. They will perform a live 'quadrasonic' set of spatial analog synthesizer music at Bennigan's Bar (John Street), one of Derry's leading music venues.

## Detailed Schedule: Day 2, Sat 10th

### 10.00 Registration (MU building foyer)

Late registration is available to those who are arriving on Saturday; please contact the ISSTA President ([president@issta.ie](mailto:president@issta.ie)) to confirm that you will be registering on Saturday.

### 10.00 Artworks Tour and Soundwalks

#### Conducted by Dr Adam Melvin (Ulster)

The following pieces will be available, with artists drawn from Austria, the UK and Ireland:

*Only Expansion* (soundwalk)

Duncan Speakman

Location: MU building (start) - campus-wide

*From the Wall to the Door* (installation)

Declan Tuite

Location: MU building foyer

*Promenade* (installation)

Martin Rumori

Location: MU block

*The Inherent Causes of Failure* (video)

Robert Gillespie

Location: MU block: video screens on second floor

*UMBRELLA: Same Place* (video anthology)

Umbrella Collective

Location: MU block: video screens on first floor

*Walls of Sound* (soundwalk)

Neil Burns

In addition, a city soundwalk by Derry-based composer Neil Burns is available here: <https://neilburnsmusic.bandcamp.com/album/walls-of-sound>

This provides the ideal introduction to Derry/Londonderry's historic walled city, and may be experienced at any time during your visit.

## **Programme notes for artworks: Day 2**

### **Duncan Speakman: *Only Expansion***

See notes for day 1, above.

### **Declan Tuite: *From the Wall to the Door***

*From the Wall to the Door* is a sound installation piece realised through a spatial array of speakers. The piece uses field recordings of the terrain of the journey from Dublin (East Wall) to Derry (Doire) as a background and bed. Through and over this are recordings of the place names through which the journey takes place - both English language and Irish language place names are used in unison and counterpoint.

Working with and colleagues from logainm.ie, principle places names are teased out through Irish, Translated and Anglicised forms. The installation comprises of generative and procedural audio, which leverage both the most contemporary open data sets along with results from explorations through an Artist in residency programme with the Ordnance Survey Ireland.

Spatial positioning which affords interplay and mix using these data are important to the piece as it explores the pathways to meanings of boundaries, place-names & waterways. The work offers fresh representations of place and identity but also environmental use, which has tensions between the geographical, cultural and ideological.

### **Martin Rumori: *Promenade***

See notes for day 1, above.

### **Robert Gillespie: *The Inherent Causes of Failure***

See notes for day 1, above.

### **UMBRELLA: *Same Place* (video anthology)**

See notes for day 1, above.

### **Neil Burns: *Walls of Sound***

This soundwalk by Derry-based composer Neil Burns provides the ideal introduction to key landmarks in Derry/Londonderry's historic walled city, and may be experienced at any time during your visit. It is available here: <https://neilburnsmusic.bandcamp.com/album/walls-of-sound>

*Walls of Sound is a soundscape I created using sounds collected from around the city of Derry/Londonderry during 2013, supported by the City of Culture, which accompanies a walking route in and around the historic city walls. Stream or download the tracks and listen as you walk along the route indicated on the map.*

#### 1. Guildhall Square – Castle Gate

*Hear the Guildhall clock chime, a Derry 'Aye' and a bustling square with buskers and street performers, recorded during the historic Fleadh Cheoil na hEireann in August 2013. Pause to take in the atmosphere. Walk towards Waterloo Place, turn left up Waterloo Street. Hear music – traditional and rock, seep from the bars as you pass. Go through Castle Gate and turn right, stop at the Nerve Centre.*

#### 2. Castle Gate – Bishop's Gate

*Walk up the steps opposite the Nerve Centre onto the Walls. Walk along the walls towards the historic heart of the city. Hear the bells of St. Eugene's Cathedral chime from to your right, in the Bogside, alongside other city sounds, including a tour guide and sirens. Follow the walls round the corner to Bishop's Gate. Listen for the ice cream man!*

#### 3. Bishop's Gate to Ferryquay Gate

*The tranquility is interrupted by the arrival of a flute band parading up Bishop's Street during the annual Relief of Derry celebrations. This gives way to the bells of St Columb's Cathedral, interspersed with distant hymns seeping through its walls. Follow the route along the walls and hear passing tourists and tour guides offer intriguing snapshots into the city's history.*

#### 4. Ferryquay Gate to Guildhall Square

*Hear a busker outside Foyleside as you continue along the walls past Ferryquay Gate. As you pass the Millennium Forum, hear a guide address a group in Irish. Go straight ahead at the end of this path, leaving the walls and left on to bustling Foyle Street, where you will hear friendly chatter and buses waiting at their stands. This brings us back to Guildhall Square, completing the route.*

### **11.30: Coffee break (MU building foyer)**

#### **12.00: Papers III(a): Ecology**

Chair: Dr Rob Casey (Ulster)

*Sonic Seascapes, Science, and the Cthulucene*

Elizabeth Hopkins

*HEAR YOUS! An initial report from Belfast sound art collective UMBRELLA*

John D'Arcy

#### **12.00: Papers III(b): Sound and the City**

Chair: Dr Murat Akser (Ulster)

*Absolute Nothingness, Rhythmanalysis and Sonic Practices in the Smart City.*

Stephen Roddy

*Inner Listening: Translating the City*

Magda Stawarska-Beavan

*Memories of Shock: Listening to the City as a Patient*

Christina Foisy

## Abstracts for Papers III(a)

Elizabeth Hopkins      University of Chicago

**Title:** *Sonic Seascapes, Science and the Chthulucence*

### Abstract

In the European and American postwar tumult of (re)building, expanding, and exploring, sound was used to study and depict the natural environment. By the onset of the space age, scientists were “listening” out into space and down into the oceanic abyss, while musical conventions in the increasingly popular genre of nature documentary helped convey the dramatic pursuit of Science to the public. Yet the imbalances manifested between humans and their environment as a result of what is often referred to as the Great Acceleration of the Anthropocene were paralleled by the ongoing entanglement of facts and values expressed in these documentaries and their reception.

This paper interrogates the relationships between sonic worlds—natural, (Western) social, real, and imagined—by way of two oceanographic documentary soundtracks: Jacques Cousteau's use of Maurice Ravel in his 1976 *Voyage to the Edge of the World*, and Pierre Henry's musique concrète score for Jean Painlevé and Geneviève Hamon's 1965 film, *The Love Life of the Octopus*. Ravel's mythological depictions romanticize the work of Cousteau's swashbuckling scientists even as they lay waste to reefs and ocean creatures. By comparison, Henry's recorded sound manipulations express a seemingly elastic relationship to reality—a suitable aesthetic for an inscrutable cephalopod. While Cousteau was praised for authentic representation, Painlevé and Hamon's surrealistic, otherworldly film defies the scientific film genre. Highlighting the bricolage of historical and geographical spaces implied by sound and music in these documentaries, I question their implied scientific-political discrepancy between facts and values, conservation and fetishization. Where exploration potentially arouses an uncanny feeling, blurring between the possible and the impossible, these documentaries follow the promise of science "to the edge of the world." Following Donna Haraway, I ask whether sound—that “uneasy ocean of air”—might provide a way of understanding the “(s)cenes” in which we find ourselves: Cousteau's “Capitalocene,” the single-player (Western) story of world relations against Painlevé's “Chthulucene,” a way of understanding our historical epoch through “multispecies stories and practices of becoming-with.”

**John D’Arcy**

Queen’s University Belfast

**Title: *HEAR YOUS! An initial report from the Belfast sound art collective UMBRELLA***

In the summer of 2017 a group of artists based in Belfast formed UMBRELLA. The group is a collective that aims to promote arts practices related to sound, listening and aural environments. Meeting at the Sonic Arts Research Centre at Queen’s University Belfast, the group collaborates on the production of artworks and public events that explore their localities.

This presentation will present some of the public activities carried out by UMBRELLA since its inception. These have explored social and architectural environments in Belfast through the divergent practices of the group’s members. In September of 2017, seven members of the collective presented Hear Yous, a series of situated performances of new works amplified by using handheld megaphones. In December of 2017, eight members of the group produced the concert Umbrella in the Stairwell at the Sonic Arts Research Centre. In April 2018 the group produced the anthology film Same Pace, drawing together individual audiovisual reflections on a map of public and private spaces in Belfast.

Other key issues emerge, including the potential for socially-engaged sonic arts practice in Belfast, and the question of sustainability of artists collectives in the current economic environment.

### **Abstracts for Papers III(b)**

**Stephen Roddy**

Trinity College Dublin

**Title: IoT and AI-Driven Audio in the Smart City: A Rhythmanalysis inspired approach.**

#### **Abstract**

French Philosopher and theorist Henri Lefebvre's *The Production of Space* (1991) has proved a crucial text for framing the discourse around contemporary urban society in the fields of human geography, critical theory, cultural studies and sound studies. With the recent wave of research focusing on the Internet of Things, the Smart City and complementary developments in the research and application of geolocate technologies another of Lefebvre's works, his posthumous collection of essays on the concept of *Rhythmanalysis* (2004), has increasingly come to the fore (Coletta and Kitchin, 2017). *Rhythmanalysis* provides a conceptual apparatus for conceptualising and understanding urban space in terms of rhythmic patterns. The foundation of *Rhythmanalysis* is built upon what Lefebvre describes as a *Critique of the Thing* which highlights the inherent shortcomings of the concept of the “thing” for describing and understanding the of dynamic web of interrelations which constitute urban

space. He argues instead for the “no things: very diverse rhythms, slow or lively (in relation to us).” While research unifying Rhythmanalysis with sonic practices have tended to focus on musical concepts, the authors argue that there is another interesting dimension at play here.

Artificial intelligence is proving increasingly useful for detecting patterns in, and helping to make sense of, the kinds of complex data generated by the modern IoT networks that have come to define the Smart City (Roddy, 2018). Artificial intelligence is also becoming a crucial technological tool in sound and music practices while at the same time raising interesting questions about the nature of creativity, art and the role of the machine therein.

This paper explores and concept of Rhythmanalysis as a theoretical framework for the deployment of AI-driven techniques and IoT data in a live electronic music performance context. It explores the concept of disembodiment in computer music and emergence in complex systems positioning these in relation to Smart Cities, Data-driven Sound and the problem of Determinism vs Indeterminism in generative art.

**Magda Stawarska-Beavan**

University of Central Lancashire

**Title: Inner listening: Translating the City**

### **Abstract**

In this paper, I would like to discuss how through the experience of urban soundscape one can read the city from someone else’s perspective and attempt to claim ownership and a sense of belonging to the place.

I will address this by close exploration of the *To Follow* project 2017 (presented in the Sounds Like Her Exhibition curated by Christine Eyene) which combines a video Who/Wer projection with 4 channel audio, with a series of handmade silkscreens prints.

The *To Follow* project enquires into the complex processes of inner listening while experiencing the soundscape of the city, this led to an intense series of creative dialogues with an Austrian playwright, Wolfgang Kindermann, who produced three narrative texts in response to my urban field recordings, encouraging a questioning of the real and imagined histories of place.

The departure point for this piece is an examination of the familiarity and strangeness of a city’s soundscape, as experienced both by an insider and a stranger to the city. What is the native prepared to share and what can the stranger hear and see more clearly because of its unfamiliarity. How much are the exchanges designed to gain advantage one over the other.

The split screen video is an exploration of the power struggle between moving and still image; inner thoughts versus observed action. Reported and imagined text

appear to leak into each other's aural territory while presenting the complexities of European language; the spoken German text is heard at the same time as the English translation but is spoken with a Polish accent thereby necessitating an even more intense listening process. The language, gender, the tone and the rhythm of voices are different. Interwoven together, they create a vocal sonic 'tapestry'.

*To Follow* is in dialogue with the historic work by Vito Acconci *Following Piece* (1969) in which the artist followed, in the streets of New York city, a randomly selected person in a public place until they entered a private place. Similarly, *To Follow* through the experience of the drifter/follower and the person being followed, examines the notion of borders as boundaries: between private and public, as separations and as the outer layers of ourselves.

**Christina Foisy**

York University, Centre for Addiction and Mental Health

**Title: Ways of listening: Parkdale, Gentrification & Psychiatric Survivors' Root Shock**

**Abstract**

The nuance between forgetting, memory-loss and what Linda Andre defines as, "memory erasure" is a dangerous slip with ethical contours for considering how one narrates a life re-routed by shock. Utilizing soundscape recordings of psychiatric survivor protests and city panel discussions as a research method, I grapple with the metaphorical link between the memory erasure of gentrification and electroconvulsive therapy to listen to the city as a shock survivor. Building upon the concept of *root shock*, the violent and lasting psychological consequences of being uprooted by gentrification. I use soundscapes to engage with the acoustic topography of Parkdale, a Toronto neighbourhood, that underwent diverse, complex and persistent trauma and is now in recovery like many of the people who inhabit it. I consider how trauma is embodied within the environment, how colonial memory resurfaces and past injustices harden into the structures we inhabit. Abandoned buildings, broken glass, sidewalk-overdoses rest amongst the posh patios, glass high-rises and incubations of wealth. Recovery in this sense is both a state of renewal and repression, a form of covering over what one would rather forget but must attend to. My essay and sound piece generates interpretative acts of letting go and remembering (assembling information in a new, perhaps, "shocking" way) to channel "madness" beyond binaries of normalcy or biomedical psychiatric diagnosis. If speech is always/already an act of translation, that "shows as it conceals", definitions of individuals should be an endless labour in need of constant self-reflexive listening and innovative forms of meaning-making. This form of listening should be capable of hearing the nuances of selfhood that get lost in social urban spaces. It is fascinating to think about how the desire to "erase bad memories" using ECT coincides with urban planners displacement of undesirable populations in the name of public health. In response, my goal is to apply gentle methods on hard issues, centering compassionate listening as an ethical gesture and the role of sound

art in rethinking urban mental health and wellness, beyond market-based priorities and biomedical cures towards rebuilding peoples' quality of life and resilience. Sound art can help engage in difficult histories, to re-member, to work-through and to locate listening as central to micro and macro forms of recovery.

### **13.30: Lunch (MU building foyer)**

### **14.30: Concert 2, Great Hall, MD building**

**Kerry Hagan (IRE/USA): *plangent/perdu* (11 mins)** 8-channel Live performance (PD)

**Philip Liu (USA/DE): *Electro-ethnomusicology 1* (9 mins)** 8-channel

**Alessio Rossato (IT): *Temple of No Religion* (11 mins)** multi-channel

**Mark Flynn (IRE): *Jökull (Glacier)* (7 mins)** multi-channel

**David Ledoux (CA): *Ville Aux Cent Clochers (City of a Hundred Bell Towers)* (12 mins)** 8-channel

**Leigh Landy (NL/USA): *On the Éire* (11 mins)** 8-channel

### **Concert II: Programme Notes and Bios**

#### **Kerry Hagan: *plangent/perdu***

*plangent/perdu* is a real-time Pd composition inspired by the spatial possibilities afforded by WFS. There is one source sound created with the z12 algorithm (see Puckette 2015, SEAMUS) premiered in the work *Cubic Zirconia* (2014). However, this sound is "invisible" throughout the majority of the piece. Instead, it is the source for 8 different resonators, all different processes that can only make sound as a consequence of an input source. At first, we hear the source sound exposed. But it soon disappears, and all we hear are the resonators responding to an unheard influence. Later, *plangent/perdu* was adapted to the Cube at Virginia Tech, modified for ring-based and elevated spatial technology. This 8-channel version is an adaptation of the version for the Cube.

This piece explores placing sounds in various points of space, still or moving. The title comes from the concept of the work: *plangent*, English for resonant or ringing, and *perdu*, originally a French word meaning lost that was absorbed into English and changed to mean hidden.

#### **Philip Liu: *Electro-ethnomusicology 1***

Sound synthesis and electronic music were invented and have been largely developed by people who have European roots. Because of the historical reasons, synthesised sounds are hardly recognised as something has an element of eastern music or other world music by solely itself, unless arranged in specific intervals or rhythmic patterns. It is possible to achieve that though, for example, by imitating sound of an Asian traditional instrument with FM synthesis or by using a recording of a real traditional instrument as a sound source, but they still sound too synthesised=western, or too traditional, respectively.

This fixed-media work is first of the 'Electro-ethnomusicology' series. It is an exploration of synthesised and contemporary Far Eastern sounding sound textures, (not clearly defined), via custom made waveguide mesh models of the Pyeongeong, a Korean musical instrument (stonechimes) that was used in royal religious services. Sound samples generated from the physical model were partially algorithmically and partially manually arranged to obtain various musical gestures and also to reproduce a Korean rhythmic concept of no strict division. Levels of abstractness of the sounds gradually become stronger symbolising a journey between two stages of meditations: the first one is

concentration meditation with the purpose of calming down, while the second is insight meditation that is for realising everything is changing and nothing has an eternally fixed shape.

Philip Liu is a sound artist. He is especially interested in the actual world and virtual worlds, interactions between the two systems, and their differences which would become exponentially more vague in the near future. In the context, he mainly gets ideas from various digital culture related subjects. He is not only limited to sound but often uses videos and hardwares to express. He studied Electronic music composition, Media art, and Music technology; He recently participated in WeSA Audiovisual Festival (2018), Yeosu International Art Festival (2018), etc.

### **Alessio Rossato: *Temple of No Religion***

This piece was created with material recorded during a short residence at Villa Smilea of Montale Pistoiese (Tuscany - Italy), where Andrea Dami's metal and sheet metal sculptures were sampled in various recording sessions including short improvisations. The sculptures were played in different ways, from the bare hands to wooden sticks, metal, rubber felt or cobblestones or with different thickness chains; different types of microphones were used with "active" recording mode, searching different sound and position in the sculptures.

Material were treated with the following typical processes of early concrete music:

- Editing, simple editing and overlapping
- Stereophonic space distribution
- transpositions
- different file speed reading
- reverberation

The piece consists of five sections. The composition process is based on the concept of musical sculpture: from section I, four repetitions/variations have been made in which each one is based on precise focused music, mainly in the elimination of material. The title, ***Temple of No Religion*** is inspired by a building by Colombian architect Simón Vélez, and in particular at Iglesia sin Religion (a church without religion in Cartagena, Colombia), a cathedral-temple built only with bamboo canes, simple material and with attention to eco-sustainability that contradicts, at least in this work, the monumentality and functionality of the building itself...

### **Mark Flynn: *Jökull (Glacier)***

**Jökull** is a composition built upon our connection with one of nature's most powerful creations. A product of unintentional climatic transformation, which manifested into compressed mega-structures and gradually shaped our climatic environment over many centuries, time only influencing their impetus vigour. However, through years of environmental pollution and malice neglect we've been causing a massive thaw in these life crucial structures, propagating a need for global recognition. This composition utilises through instrumentation, objects which impact on this environmental anthropogenic affliction, articulated through the contrasting use of environmental sounds and electro-acoustically

### **David Ledoux: *Ville aux cent clochers***

**Ville aux cent clochers** is the first part of an acousmatic journey called Cathédrales, which addresses both sound immersion and cinema for the ear aesthetics into an acousmatic montage. Spotting bell towers as an urban landmark and soundmark, this spatialized music for loudspeaker domes (3D audio) also digs its inspiration from acoustic ecology and Montreal's city life to interpret the spatial relationship between the urban environment and the sounds that are specific to its identity.

David Ledoux is currently finishing his masters in Music Composition and Sound Design at l'Université

de Montréal, under the direction of prof. Robert Normandeau. Ledoux's work aims to create immersive musical experiences at the border of cinematic sound design, in an acousmatic montage aesthetic. Marfa, his first acousmatic piece composed for loudspeaker dome, has been heard in several venues internationally, including ZKM's Klangdom (Germany), Virginia Tech's CUBE (United States) and Santa Cecilia Conservatorio's Il Suono Di Piero (Italy). Ledoux also work as one of Normandeau's research assistant for the GRIS (Groupe de Recherche en Immersion Spatiale) on the development of an open-source 3D spatialization tools. Ledoux's music was composed using spatialization tools developed by the GRIS at l'Université de Montréal. These tools include a plug-in, called SpatGRIS, and a software, called ServerGRIS.

- SpatGRIS can be inserted on any audio or auxiliary track (assigned to an output) within a DAW. It serves the purpose of recording the spatial coordinates of the track's audio as automation data, as well as communicating those coordinates to the ServerGRIS software via OSC.

- ServerGRIS receives all the DAW's output channels (audio), along with their spatial coordinates (OSC), and output the resulting spatialization based on the algorithm used – VBAP in this case – and the speaker setup on which it will be played back.

These tools allow composers to easily create precise and fixed spatialization for their DAW-composed music while being portable, allowing the music to be played back on any dome-like multichannel system. SpatGRIS and ServerGRIS are free and open source tools that are set to be released very soon (February 2018).

## **Leigh Landy: *On the Éire***

### **Leigh Landy: *On the Éire* (2017) Ulster University commission, 11'21**

*On the Éire* is the 6th piece in Leigh Landy's Radio Series. This series of compositions focuses on one nation's (in this case one island's!) radio stations, recomposing samples from a wide variety of broadcasts from a short period of time (preceding St. Patrick's Day 2017), placing a fundamental part of our culture under the microscope, recomposing it and presenting it as an immersive sonic artwork in which the theatre and choreography of sound both feature. This is the first piece in which a border is involved, offering very special challenges and artistic opportunities. Ireland is a great source of inspiration to the composer and it will come as no surprise that humour, but also the darker sides of today's and yesterday's Ireland, cohabit in this sample-based work.

**Bio:** Prof. Leigh Landy ([www.llandy.dmu.ac.uk](http://www.llandy.dmu.ac.uk)) holds a Research Chair at De Montfort University (Leicester) where he directs Music, Technology and Innovation – Institute for Sonic Creativity (MTI<sup>2</sup>). His scholarship is divided between creative and musicological work. His compositions include several for video, dance and theatre and have been performed around the globe including collaborations with, for example, the late playwright, Heiner Müller, and the new media artist, Michel Jaffrenou and was composer in residence for the Dutch National Theatre during its first years of existence. His publications focus on the studies of electroacoustic music. He is editor of *Organised Sound* (CUP) and author of eight books including *What's the Matter with Today's Experimental Music?*, *Understanding the Art of Sound Organization* (MIT) and *Making Music with Sounds* (Routledge). More recently a co-edited book (with Simon Emmerson), *Expanding the Horizon of Electroacoustic Music Analysis* (CUP) was published. He directs the ElectroAcoustic Resource Site (EARS) projects and is a founding director of the Electroacoustic Music Studies Network (EMS).

**Acknowledgements:** *On the Éire* was commissioned by Ulster University's Arts and Humanities Research Institute. The following Ulster University students contributed to an initial sound gathering process: Daryl Brown, Patrick Gribben, Calum Hutchinson, Keith Kelly and Niall Parkinson. Composer Brian Connolly gathered many of the source materials from south of the border. Some additional work on translating Irish-language materials was done by Lauren O'Neill (PhD candidate, Music and Irish).

### **15.30: ISSTA AGM (Immersive Suite, MD008A, MD building)**

