

## Artworks 2019

### Rumpus

**What:** Cinematic VR piece with interactive sound.

**Where:** Ars Electronica; <https://ars.electronica.art/news/>

## Publications 2019

### Accuracy of perceived distance in VR using verbal descriptors

in Audio Engineering Society Conference: 2019 International Conference on Immersive & Interactive Audio available at

## Artworks 2018

### [re]Sounding Balloon

**What:** Sculptural installation using spatial audio. A helium-filled weather balloon, attached to a weighted pulley system, determines the listener's sonic experience, via an ultrasonic sensor. Expending effort, the listener can hoist the balloon - counterintuitively - upwards, to hear the piece in dynamic binaural reproduction. This installation was inspired by infrasound recordings of the ocean collected from weather balloons at high altitude. Its sonic materials are hydrophonic and found recordings, alongside infrasound taken from actual ocean monitoring by marine biologists.

**Where:** EVA 2018; <http://www.eva-london.org/eva-london-2018/>  
Liquidscapes 2018 <https://liquidscapes.info/>

### Mapping the Kuikuro Community

**What:** Sound edit and installation of the Xingu Ensemble spatial audio for the People's Palace Projects. This exhibition was inspired by the indigenous territory of Xingu, and takes audiences on a journey to the Ipatse Village, home of the Kuikuro indigenous people in the Xingu region of Brazil.

**Where:** Tate Modern, London

<http://www.tate.org.uk/whats-on/tate-modern/tate-exchange/workshop/producing-memory-maps-materials-belongings/mapping>

### South of the River

**What:** Dynamic binaural sound for short cinematic VR film which explores painter Barry Bish's connection to the Thames River. Born and raised in south-east London to working class parents, he represents (in work and life) a slice of London culture which is fast disappearing. Sounds of the Thames, opposite the iconic Tate & Lyle factory, pervade his studio and thoughts. He is a window into a dimension which signals authenticity, whilst appealing to a fetish-like commodification of its symbols.

**Where:** To be showcased at major music and immersive videos events via BINCI consortium (Horizon 2020 project)

### Sundowning

**What:** Interactive binaural sound for short cinematic VR film. This film won an initial award and further funding, and was invited to Sheffield Docfest makers' market 2017. Sundowning is a symptom of Alzheimer's disease - this film explores what it is like to experience sundowning from a first person perspective. Shot in one take, it combines the technology of 360 degree filming with the stagecraft of theatre to create an immersive, unique and, at times, unsettling virtual reality experience. Based on personal experience of Angela's mother's diagnosis and decline, 'Sundowning' is an artistic representation of what it feels like to have Alzheimer's that aims at new understandings of this isolating disease.

**Where:** Kling Gut 2018 <http://klangsymposium.de/>

## Publications 2018

### Nobody knows what's best and everybody knows that's best (distributed directing and women in cinematic VR)

Doing Women's Film and Television History IV: Calling the Shots – Then, Now, Next. Southampton, UK May 2018 (manuscripts in preparation)

### **Perception of mismatched auditory distance - cinematic VR**

Submitted to Audio Engineering Society Conference: 2018 AES International Conference on Audio for Virtual and Augmented Reality.  
available at <http://www.aes.org/e-lib/browse.cfm?elib=19676>

## **Artworks 2017**

### **Novelstalgia**

**What:** Audiovisual installation using surround sound and projection-mapping, with eye-tracked sonification of a graphic score. There was also a workshop allowing participants to create their own scores.

**Where:** Chatham Historic Dockyard, Kent

### **Porcelain Heart**

**What:** Multi-channel sound work

**Where:** Intersections 2017 [http://www.mat.qmul.ac.uk/students\\_projects/mat-intersections-2017/](http://www.mat.qmul.ac.uk/students_projects/mat-intersections-2017/) or <https://intersections.io/>

### **Flamecho**

**What:** Multi-channel sound work

**Where:** Online diffusion for WAC 2017

## **Publications 2017**

### **Distance in audio for VR: constraints and opportunities**

in Proceedings of Audio Mostly 2017 London, UK, Aug 23-26

available at <https://dl.acm.org/citation.cfm?id=3123530&CFID=963781924&CFTOKEN=90860944>

### **Foregrounding expectation: spatial sound-image composition in virtual environments**

with Stefano Kalonaris, Sonic Arts Research Centre, Queens Uni Belfast

in The New Soundtrack Journal, Volume 7 Issue 2, Page 95-110, ISSN 2042-8855

available at <http://www.eupublishing.com/doi/abs/10.3366/sound.2017.0102>

### **Sounds Too True to be Good: Diegetic infidelity - the case for sound in VR**

in Journal of Media Practice

available at <http://www.tandfonline.com/doi/full/10.1080/14682753.2017.1305840>

### **Disparate Sound & Image - presence in cinematic VR**

Poster for Doctoral Workshop at Pompeu Fabra University

available at <http://www.mat.qmul.ac.uk/wp-content/uploads/2017/04/Angela-McArthur-UPF-Poster.jpg>

## **Publications 2016**

### **Disparity in Horizontal Correspondence of Sound and Source Positioning: The Impact on Spatial Presence for Cinematic VR**

in Audio Engineering Society Conference: 2016 AES International Conference on Audio for Virtual and Augmented Reality. Audio Engineering Society, 2016

available at <http://www.aes.org/e-lib/browse.cfm?elib=18500>

## **Recent awards**

2019 IEM/ Kunstuniversitat Graz - 5 month artist in residence award

2018 Research exchange award, for 4 month project with University of Technology Sydney

2018 Media Arts Technology Programme 'Outstanding contribution' award

2018 BINCI 'User Group Collaborative Project' using head-tracking module for DAWs

2016 Mutiny Media 'Ultimate VR Sound Design'

## **Invited events**

March 2019 AES Immersive & Interactive Audio conference - panel member ('Bridging the gap – Exploiting sensor technologies for perceptually driven immersive audio experiences') + paper session chair

October 2018 AES UK - lecture at Dept of Film, Television & Theatre, York University 'Examining the messy art and messier science of distance in spatial audio for immersive environments' <https://youtu.be/ZDfyzCkHxHY>

Nov 2017 Sound & Image symposium, University of Greenwich - session chair

### **Recent workshops**

2018 Soundstack - 3 day event on the aesthetics & technologies of spatial sound, with workshops on Spat (Thibaut Carpentier, Ircam), aesthetics (Tom Slater, Call & Response London) and the Heavy compiler for Unity (Chris Heinrichs, Enzien Audio)

2017 Intro to VR - workshop for V&A museum <https://www.vam.ac.uk/>

2017 Dramaturgy in VR - workshop for VRUK <http://www.vrukfest.co.uk/>

2017 Soundstack - 1-day event to introduce the workflow for ambiosics in Reaper (Enda Bates, Trinity College Dublin) and binaural head-tracking with Bela (Becky Stewart, Queen Mary University London)

### **Extra curricular**

2018/9 Research project with BBC and University of Technology Sydney

2017, 2018 Founder: Soundstack (annual spatial audio festival at the intersection of art + science)

2017 Founder: Spatial Audio Special Interest Group at the Centre for Digital Music, QMUL

2017 Committee member: Web Audio Conference 2017

2017 Workshop chair, Audio Mostly London 2017

2017 Chief designer, Audio Mostly London 2017

2016 Research project with BBC R&D North Audio (sound & presence in cinematic VR)

2014, 2015 Selected student trustee, Kent Student Union Board of Trustees

2013 Assistant, Tone Audiovisual Festival, Kent

2013 Assistant, Acoustic Ecology Symposium, University of Kent

2010 Co-ordinator, Kinetica Art Fair

2010 Intern, Hive art project

2009 Artist-in-residence, Greenpoint Gallery, Brooklyn, NY