

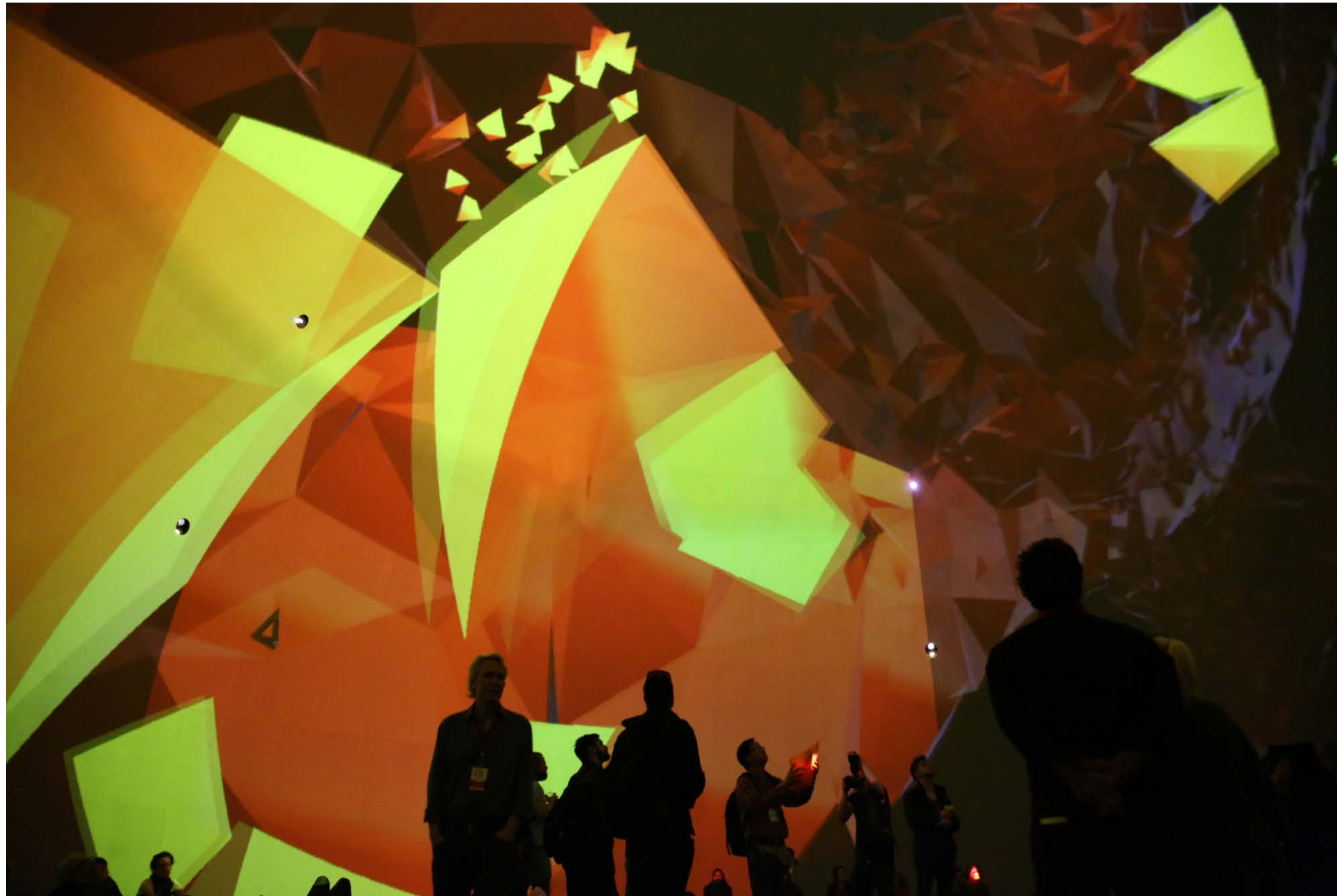
Murmuration

Phillips, Mike

<http://hdl.handle.net/10026.1/20328>

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Murmuration



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Murmuration:

Murmuration is an 'interactive immersive 'Full dome' production and consolidates Phillips' research into interactive immersive experiences. It is the outcome of the EU funded European Mobile Dome Labs. This transdisciplinary research initiative interrogates the language of the new creative environment of the digital Full dome, creating the possibility for a richer experience through audience participation: multi-user interactions, navigating through trans-scalar immersive data environments, harnessing the immersive both physical and synthetic spaces.

Research was undertaken to explore the potential of 'Internet of Things' devices and real-time audience interactions within large scale projected volumetric environments. The artistic and technical research used mixed methodologies and disseminated and tested through conferences, subsequent performance and incorporated into new Full dome installations, providing new tools and methods for the international Full dome community.

The output was designed, developed, and produced by Phillips through iterative designs, performances, and R&D workshops. Phillips was UK PI and, with five international PIs, responsible for designing the research programme, workshops, and managing research teams.

Murmuration represents a synthesis of research by an international interdisciplinary team, offering a useful model for the Full dome form at a time of liberation from the dominance by STEM disciplines, through a new dramaturgy, enhanced audience participation through networked devices, and data-driven and 3D sonified environments. Murmuration was presented for public engagement at SAT, under their curatorial governance. It marked the culmination of an interdisciplinary collaboration between Canadian and European partners through eight international residencies, performances, and symposiums.

The significance of the research is evident through the role it played in securing investment for the new Devonport Market Hall Full dome development in Plymouth and helping to secure further funding for the ERDF funded Impact Lab. Phillips' research at the Immersive Vision Theatre has further supported 9 PGR students, 5 RA's, 10 SME's and established FullDome UK, an International Full dome Biennale.

Research Statement:



Time-lapse:

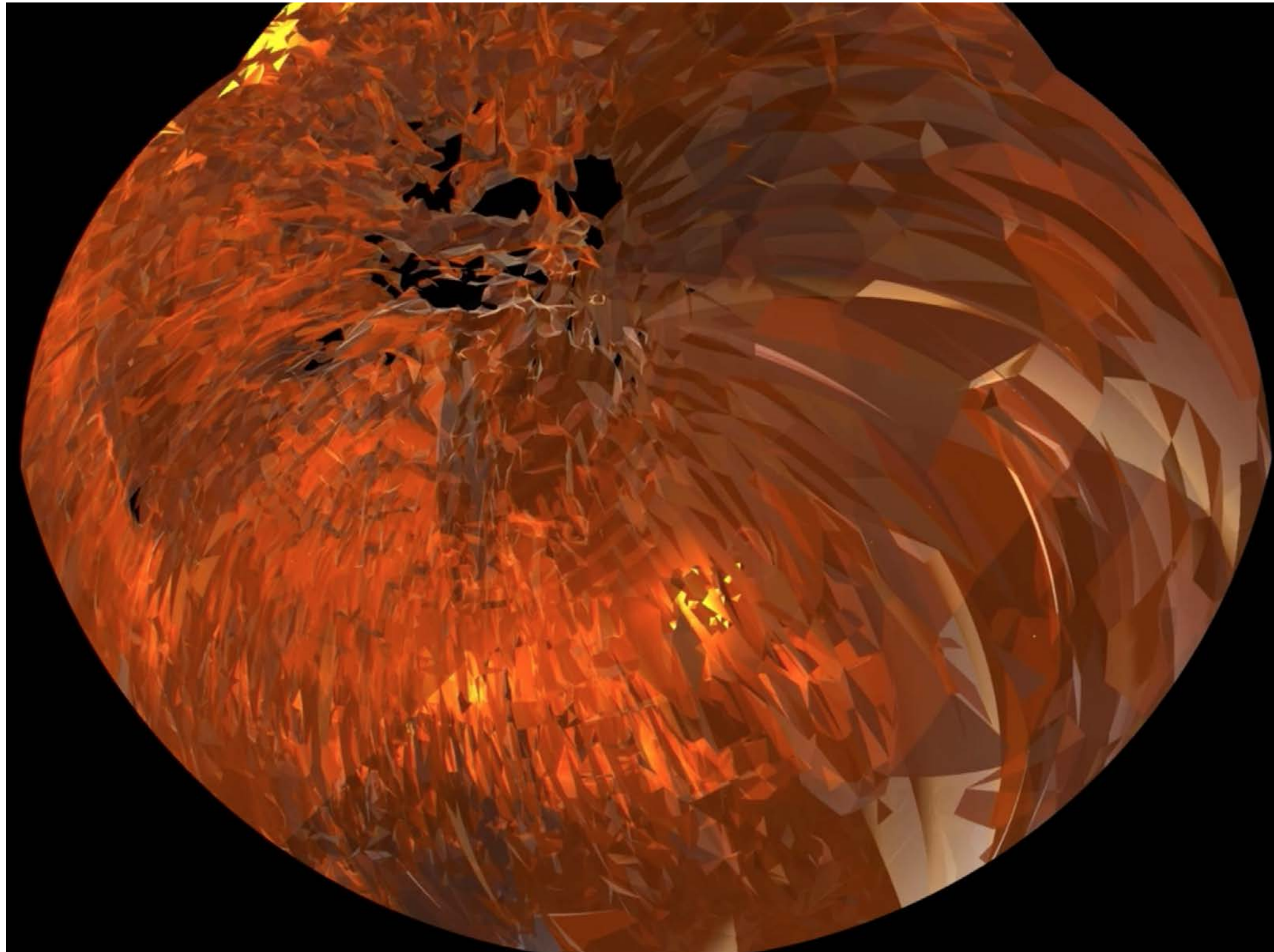


Murmuration Timelapse:

Link to Timelapse video recording of Murmuration.

Click to open URL:
<https://i-dat.org/murmuration-ref-context/>

Murmuration Fulldome AV.



Murmuration Virtual Environment.

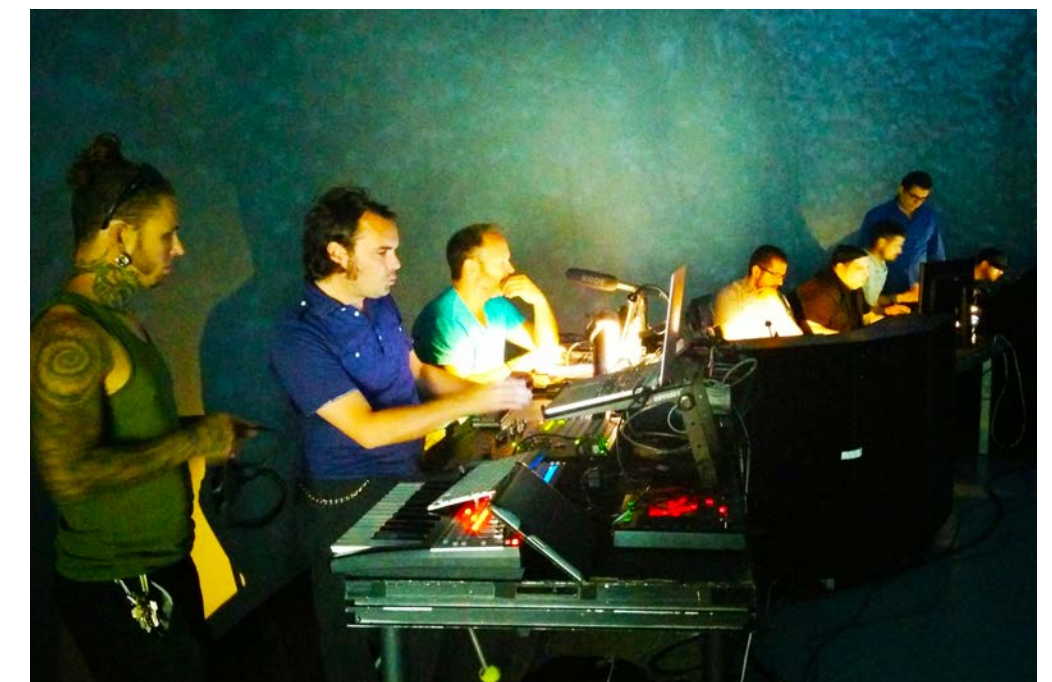
Screen recording of the environment and flocking boids. This shows only one possible pathway through the environment.

Click to open URL:
<https://i-dat.org/murmuration-ref-context/>

Murmuration Sonic Environment.

Real-time Audio mix recorded during a live performance of Murmuration.

Click to open URL:
<https://i-dat.org/murmuration-ref-context/>



Research Context:

Murmuration was a research outcome of the EU Culture funded European Mobile Dome Lab (EMDL) Project. www.emdl.eu



EMDL is a partnership of European and Canadian cultural organizations fostering an international community of artists/researchers dedicated to exploring the full-dome environment as a platform for creative innovation.

EMDL Co-organisers / associate partners:

University of Applied Arts Vienna [Austria]

i-DAT, Plymouth University [England]

Trans-Media Academy Hellerau/CYNETART festival, Dresden [Germany]

National and Kapodistrian University of Athens/NTLab [Greece]

Society for Arts and Technology [SAT], Montréal [Canada]

kondition pluriel, Montréal [Canada]

Laboratoire des Nouvelles Technologies de l'Image, du Son et de la Scène [LANTISS]/Université Laval, Quebec City [Canada]

EMDL Partnership:

Mike Phillips was the lead architect of the **Murmuration** production, which was produced in collaboration with:

Dimitris Charitos (UoA NTLab, GR),

Luke Christison (i-DAT, UK, Research Assistant),

Phil Mayer (GaiaNova, UK, commissioned artist),

Cameron Micallef (i-DAT, UK, Research Assistant),

Lee Nutbean (i-DAT, UK, Research Assistant),

Alexandre St-Onge (CA, commissioned Artist),

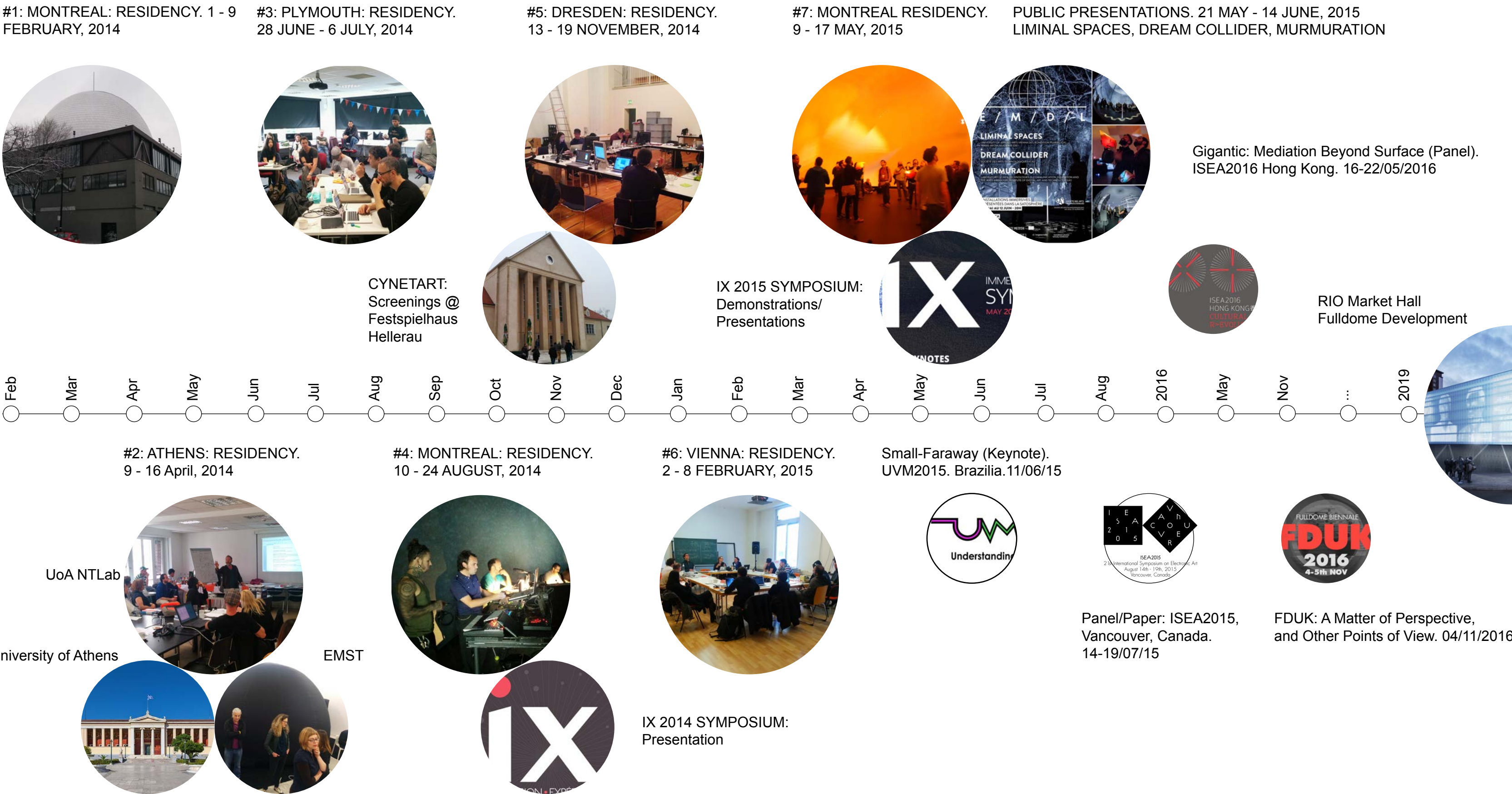
Olivier Rhéaume (SAT, CA),

Haris Rizopoulos (UoA NTLab, GR),

Ben Stern (GaiaNova, UK, commissioned artist),

Ioulani Theona (UoA NTLab, GR).

Research Timeline:



Research Workshops:

#1: MONTREAL: INITIAL WORKSHOP. 1 - 9 FEBRUARY, 2014
This first residency at the Society for Arts and Technology [SAT].



#2: ATHENS: APRIL 14 - WORKSHOP, PRESENTATION & SYMPOSIUM. 9 - 16 April, 2014
Planning, design and dramaturgy workshop with public showcase at the National Museum of Contemporary Art (EMST) in Athens, UoA NTLab with the University Research Institute of Applied Communication.



#3: PLYMOUTH: EXPLORATION RESIDENCY. 28 JUNE - 6 JULY, 2014
i-DAT's Digital Studios and Immersive Vision Theatre (IVT), University of Plymouth.



#4: MONTREAL: EXPLORATION RESIDENCY & PUBLIC PRESENTATION. 10 - 24 AUGUST, 2014
The second residency at the Society for Arts and Technology [SAT].



#5: DRESDEN: RESIDENCY & PUBLIC PRESENTATIONS. 13 - 19 NOVEMBER, 2014
The CYNETART festival 2014. Public performances and workshop residency.



#6: VIENNA: PRODUCTION RESIDENCY. 2 - 8 FEBRUARY, 2015
Digital Arts Department, University of Applied Arts Vienna.



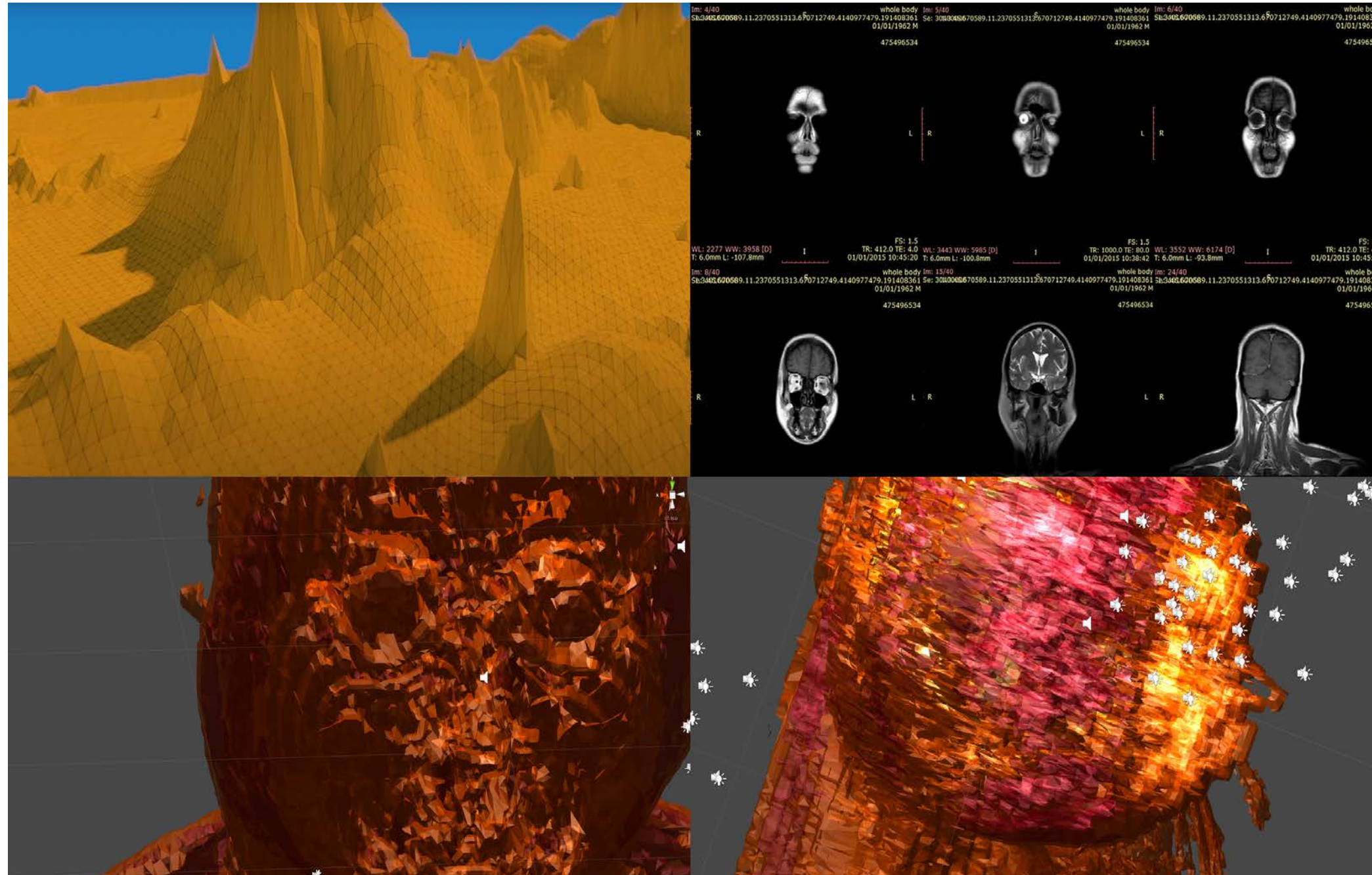
#7: MONTREAL FINAL PRODUCTION RESIDENCY. 9 - 17 MAY, 2015
The third residency at the Society for Arts and Technology [SAT].



MONTREAL: SERIES OF PUBLIC PRESENTATIONS. 21 MAY - 14 JUNE, 2015

E/M/D/L PRESENTS: LIMINAL SPACES, DREAM COLLIDER, MURMURATION.

R&D#1: Immersive Environment Design:



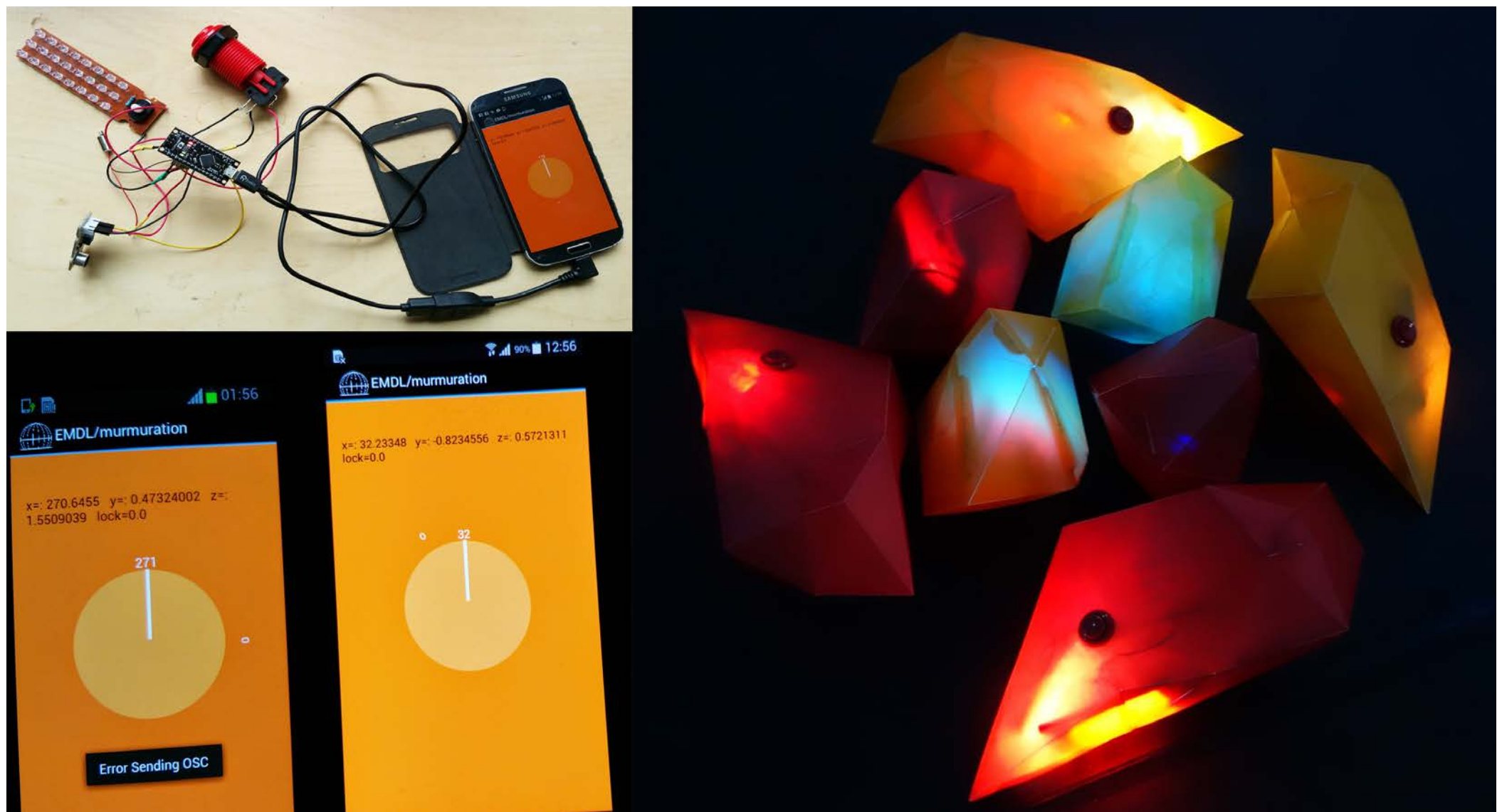
Volumetric game engine environment:

Magnetic Resonance Imaging (MRI) Digital Imaging and Communications in Medicine (DICOM) data, Atomic Force Microscopy, 3-D scanning (LiDar, Depth of Field (DOF), IR), photogrammetry, volumetric and point cloud visualization.

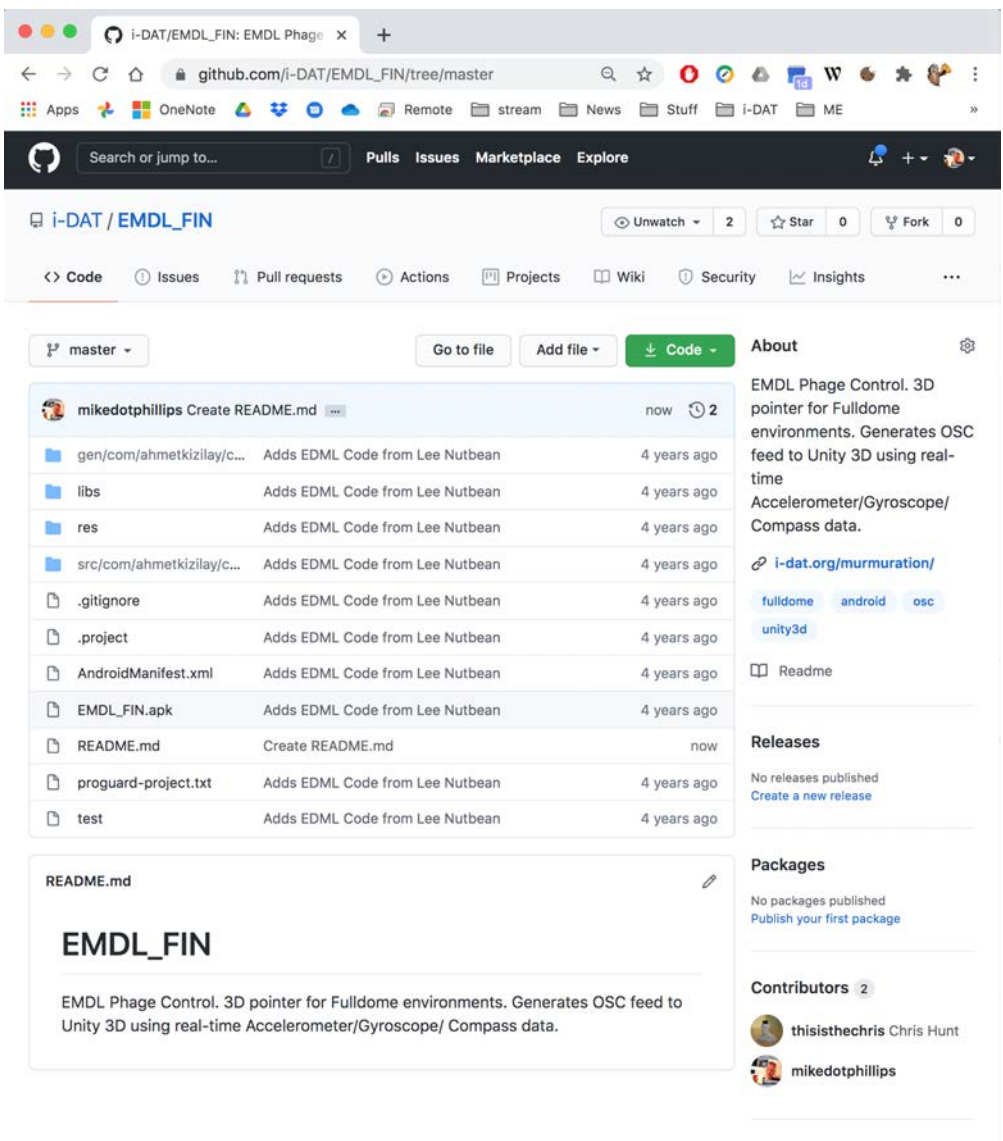
Environmental Audio and interactive sonic elements:

MRI Lorenz Forces in the multi-channel / speaker 360 Audio (incorporating experimental 10.1, ambisonic, 157 speaker 360 sound systems).

R&D#2: IoT Controller Design:



Real-time networked multi-user devices (using a mix of data feeds using MQTT, Bluetooth and OSC networks) allow multiple members of the audience to interact with and navigate through the projected virtual game engine environment.



The app is available on GitHub:
https://github.com/i-DAT/EMDL_FIN/tree/master

R&D#3: Interaction Design:



'Phage' Controllers:

Internet of Things devices, 'Phage', for audience navigation of the projected 3D environment.



Dissemination & Links:

Screenings, Papers and Presentations:

Scott Hessels, Mike Phillips, Maurice Benayoun, Jeffrey Shaw, Sven Travis. Gigantic: Mediation Beyond Surface Panel). 22nd International Symposium on Electronic Art. ISEA2016 Hong Kong 香港 Cultural R>evolution. 16-22/05/2016

Charitos, D., Kusch, M., Phillips, M., Poulin, M., Schnell, R., St-Arnault, L. EMDL European Mobile Dome Lab for Artistic Research. Panel. The 21st International Symposium on Electronic Art: ISEA2015, Vancouver, Canada. 14-19/07/15.

Kontini, K., Theona, I., Charitos, D., Phillips, M. Investigating the artistic potential of the Fulldome as a creative medium: the case of the E/M/D/L project. Long Paper. The 21st International Symposium on Electronic Art: ISEA2015, Vancouver, Canada. 14-19/07/15

Phillips, M. (Keynote): New Fields of Research Applied to Visual Music Full-Dome. Understanding Visual Music 2015 (UVM2015). Brasilia, Brazil. 11/06/15

Pierre Levy, Bill Seaman, Dan Neafus, Mike Phillips, David Mcconville (Chair).Keynote Panel: Emergence: Re-Cognizing Complexity. IX 2015 - Immersion Goes Mainstream. (ix.sat.qc.ca). Montreal, Canada. 24/05/15

Phillips, M, A Matter of Perspective, and Other Points of View. E/M/D/L (excerpts of Liminal Spaces, Murmuration and Dream Collider), 04/11/2016. Fulldome UK Biennale, National Space Centre, Leister.

Links:

- European Mobile Dome Labs:
 - <http://www.emdl.eu/>
 - <https://i-dat.org/emdl-european-mobile-dome-lab/>
- Screenings: <http://sat.qc.ca/fr/emdl>
- Documentation: <http://i-dat.org/murmuration/>
- Market Hall: <https://realideas.org/market-hall/>
- Environmental Futures and Big Data Impact Lab: <https://i-dat.org/impact-lab/>

