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Citation: Mackenzie, Louise, Thompson, Richard and Vickers, Paul (2016) Alchemical Sensing: Creating an Embodied Experience of the Unseen Organism. In: Sonic Environments — ACMC2016, Proceedings of the 2016 Conference of the Australasian Computer Music Association, 10-11 July, Brisbane, Australia.

URL: <http://www.sonicenvironments.org/uploads/2/0/1/3/2013969/acmcafae2016artisttalks.pdf>

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**Jordan Lacey:** Sonic Rupture  
Vice-Chancellor's postdoctoral fellow in the  
School of Architecture & Design, RMIT  
University.

He is a practising sound-artist and musician, whose research is focussed on urban sound design. His practice might be considered post-acoustic ecology, insofar as he seeks to apply acoustic ecology practices to noisy urban environments. His recently released book (Bloomsbury) and coming paper (Organised Sound) both emphasize what is for Lacey the most important aspect of his own practice: the possibility of creating in everyday life encounters that encourage imaginative, poetic and even mythic responses from the public. Lacey has created multiple sound installations in Melbourne. In each of these installations he applies a methodology he calls noise transformation. Noise, considered a homogenous material, is ruptured, not by introducing new sounds, but by recreating our impressions of what already exists. As such we are invited to engage with the world not as it is, but as what it could be. Lacey is presently working with Transurban to investigate the possibilities of noise transformation approaches in motorway parklands; thus applying his practice to corporately managed lands. His recently released book, published with Bloomsbury, titled 'Sonic Rupture: a practice-led approach to urban soundscape design' is an invitation to rethink the original tenets of acoustic ecology by considering a new relationship with the noises of global cities. Rather than remonstrating against the proliferation of noise, Lacey considers noises as cultural and political expressions that can be

**Louise Mackenzie, Richard Thompson and Paul Vickers:** Alchemical Sensing: Creating an Embodied Experience of the Unseen Organism  
Department of Arts, Northumbria University, Department of Computer Science and Digital Technologies, Northumbria University and Department of Chemistry, Durham University  
This paper presents the research surrounding the audiovisual installation, *Stars Beneath our Feet* (2015) by Louise Mackenzie. It introduces the concept of *alchemical sensing* to describe the layered use of scientific technology in the context of an audio-visual art installation as an alternative frame of reference that attempts an embodied understanding of the unseen organism. The process of translation through layers of technology is considered as alchemical in reference to the ancient Greek and Egyptian

redesigned to afford new everyday experiences. Lacey completed an international field trip at the end of 2015 investigating eleven permanent American and European sound art installations that have become features of the urban landscape. His paper 'Sonic Placemaking: ten attributes and three approaches for the creation of enduring sound art installations', which describes the trip, will be published in the coming edition of the international journal *Organised Sound*. The paper uses artist interviews, sound recordings and on-site observations to suggest a number of attributes that can be discerned in the visited installations. His work also extends into collaborations with Australian Indigenous people including the Yolngu, Barkindji and Wurundjeri, with whom he has produced a number of cross-cultural sound works. In these works Lacey seeks to be affected by mythic expression, by combining sounds with the stories he encounters. It is here that his practice overlaps with Acoustic Ecologists' search for the mythic 'ur-sound'; but rather than emphasizing its loss, he instead calls for a sonic activism that will rediscover such imaginative possibilities within the urban. Lacey has stereo recordings of all his installations and performances. He also has multi-channel works of pre-installation sound materials that can act as immersive pieces. He has the capacity to play these works in combination with an artist talk on his post-acoustic ecology practice. It is possible, presuming the organisers are interested, that Lacey could combine his artist talk with a book launch for 'Sonic Rupture: a practice-led approach to urban soundscape design', given that the book's intentions are closely aligned with conference themes.

origins of the tradition. Not alchemical in the sense of seeking immortality or turning metal into gold, but alchemical in the *anima mundi* sense of seeking out the 'essence' of matter. Referencing the development of the field of sonification, the acoustic artwork of Joe Davis and Katie Egan and of Anne Niemetz and Andrew Pelling, the use of Atomic Force Microscopy, Python, Photosounder and MAX MSP were employed to construct an embodied audio sense of the micro-organism, *Dunaliella salina*. Movements detected were translated using both sonification and audification techniques into sound files that were used to form the audio component of *Stars Beneath Our Feet*: an installation as part of Lumiere Durham 2015, a four-day international light festival produced in the UK by Artichoke. The video component of the installation was made using a

combination of dark field microscopy and DSLR camera to produce moving images that focus on a perspective of micro-organisms that is *other* to that commonly used within scientific research. The objective of 'looking at' the organisms in this expanded manner and 'listening to' the sounds of data obtained via technological

**Peter Mcilwain:** The Phonozoa Project  
Independent Artist

Peter will present recent work and discuss the theoretical aspects of his current project Phonozoa which is part of his ongoing exploration of imaginary sonic worlds and draws on ideas derived from affordance theory with particular emphasis on sound as a signifier of gesture. The Phonozoa project is a kind of pseudo-science enterprise where a zoology of imaginary creatures, called collectively phonozoa, is created in software. The juxtaposition of an imaginary world and scientific enterprise situates the work within a

**Mari Ohno:** Lines, Acoustic Cluster and Floating Sound.  
Goldsmiths, University of London

*lines* is a sound installation using microbial fuel cells (MFCs) powered by yeast. This sonic space has some sonic spots, and the sound is different depending on the visitor's position in the same space. The texture of the sound is created by the environmental conditions. The concept of this work is to express the action of internal microorganisms.

The power generation by the MFCs is translated to sound, and this signal is transmitted to eight ultrasonic speakers in the gallery. The speakers are rotating around to make sound reflections between the walls, like after images of sound. Although the sound is coming out from the speakers, the visitors are able to perceive the yeast's activities in the space as environmental sound.

*acoustic cluster.* A number of pipes of different lengths suspended within a space each contain a microphone and are equipped with a freely movable speaker assembly beneath them. The distance between each speaker assembly and microphone is expressed in the "howling" acoustic response. Having divided the space with pipes, moving the speaker assemblies closer to the spaces within the pipes amplifies the otherwise insignificant howling in the space outside the pipes, producing a sound like that of a wind instrument.

interpretation of the movement of micro-organisms in the context of an art installation adds a broader sensory dimension to our understanding of the unseen organism, one which encompasses their being in the world without consideration of their use as resources. <https://vimeo.com/147120645>

surrealist aesthetic. The creatures are designed with specific behaviours that generate motion, visual gesture and sound simultaneously and specific processes are used that make a tight coupling of these elements. An example of the phonozoa can be found at:

The talk will present examples from the project and related work, show some of the relevant technical aspects with particular reference to generative art practice and make comment on the broader aesthetic implications of the work. The presentation will include video examples as well as demonstrations of relevant code and generative techniques.

The pitch of these responses varies with the spatial properties of each pipe.

This series of phenomena seeks to make audible the normally inaudible material of space. Moreover, this work goes beyond transforming sound into information or data to imagine its exploration through a physical filter.

This work employs space itself as an acoustic material representing people's physical presence and makes it possible to experience a series of musical works by understanding the transformation of spatial properties as musical performance.

*floating sound.* We release extremely subtle sounds from inside our bodies which are hard to perceive. Although the sound is made by the body, it cannot be heard because of the limited audible range that a human being can hear.

This work is a composition using the sound of the composer's bloodstream as a sound source. All the sounds were created from the sounds of the bloodstream recorded mainly in an anechoic chamber.

The purpose of this work is to deconstruct and reconstruct the components of personal biological information via computing. These sounds were composed to express another reality beyond the boundary of the animate /inanimate.