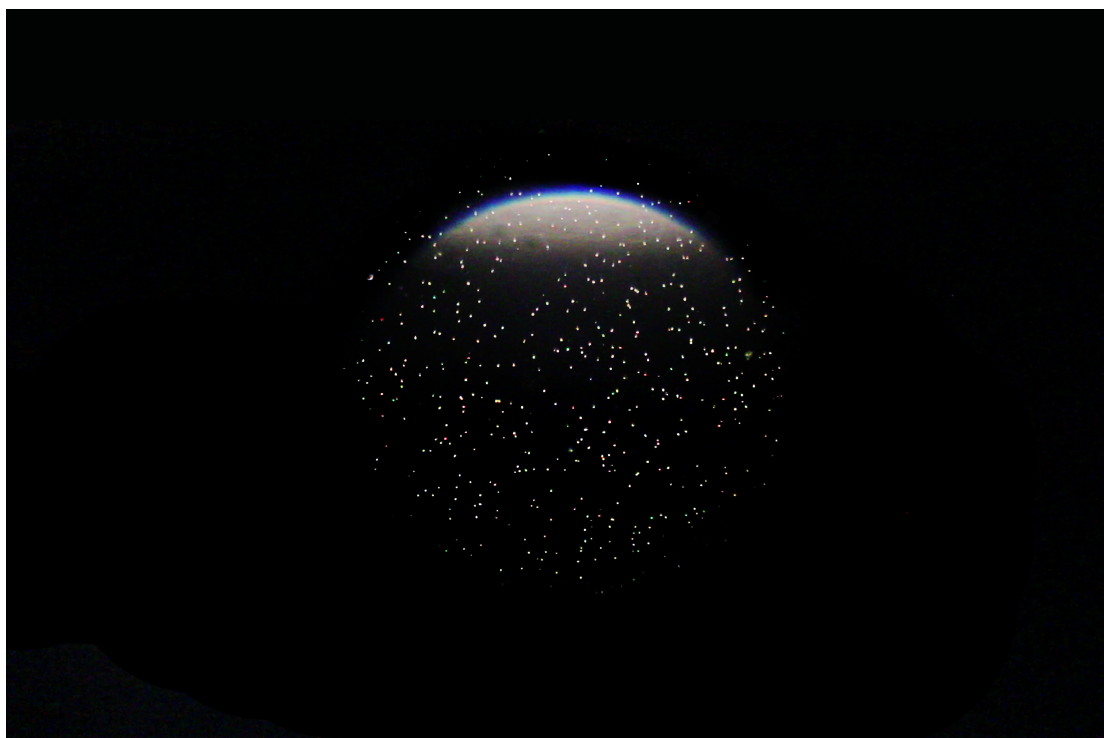


Alchemical Sensing: Creating an Embodied Experience of the Unseen Organism

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<https://vimeo.com/147120645>



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 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 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.