



School: School of Music and Performing Arts

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Project Title: Polymorphism in audio-visual composition

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300-Word Statement

This research defines a novel approach to materiality in audio-visual composition that fuses processes across sound and image mediums to develop a language based on hyperreal forms. Akin to the painting techniques of Mark Rothko and other abstract expressionists, this methodology uses hyperreal simulations to present mythic forms in light, colour and sound.

Continuum is an audio-visual piece that is underpinned by the principle of using sound and image spectra as metaphoric representations of life, entropy and energy across cosmological timescales. The syntax is focussed on mythic depictions of the earliest known period of the universe through to the evolution of complex life in a single audio-visual thread. Light and colour are the substrate material from which forms emerge from a lifeless void. The sonic materials elaborate this principle through the use of spectral cross-synthesis techniques that produce harmonic spectra as a surface in flux, erupting and evolving into being.

silently out of the night expanded on the techniques explored in *Continuum* through the use of 3D fluid simulations as tools to sculpt the dynamics of hyperreal forms over time. Realistic images of clouds gradually develop into mythic depictions of planetary-scale storms. Fluid simulations enabled precise shaping of storm advection, vorticity and turbulence as central compositional processes. Temporal manipulation techniques drawn from fourier transformations produced dense layers of sonic materials that evolved from a stable state into a turbulent unpredictable soundscape.

The works and strategies produced through this research developed new compositional methods based in a language of hyperreal forms. Through the focussing of spectral sound processing, light and fluid simulation techniques towards a hyperreal materiality, novel depictions of physical phenomena as mythic forms were produced. The materiality is the substrate of the works' central mythological structures and presents a new development in the representational capacities of the audio-visual artform.