

Immersive Sound Techniques and Virtual Worlds.

This presentation offers a theoretical and practical overview of contemporary sonic themes, issues and techniques arising around immersive and interactive sound within virtual environments.

The affordances offered by 360 audio technologies and techniques (e.g ambisonics) present new opportunities for sound designers, composers and their creative collaborators.

The traditional sound stage – as manifest by the long established stereo standard – is greatly expanded in virtual spaces into a spherical, fully immersive sound world. This new 4-dimensional compositional space (x, y, z + time) offers a number of creative challenges and presents some intriguing questions during the production process at the point of capture, and subsequently in post-production during the mixing process (or its virtual equivalent).

In our contemporary context, the ubiquitous trope of immersion operates alongside emerging principles of non-linear, interactive and adaptive sound composition.

A variety of tools exist to enable the creation of such content within V.R., e.g. *Fabric* (Tazman Audio), *Fmod* (Firelight Technology), *Wwise* (Audiokinetic, exemplary practical examples exist and a theoretical vocabulary has developed derived from digital media, game audio and film sound on one hand, and the legacy of experimental and contemporary music and sound arts on the other.

This presentation outlines a creative methodology informed by various creative practices of sound art and design (soundscape studies, acoustic ecology, game audio, film sound, sound installations and acousmatic / electroacoustic music) and explores the remediation of related historical concepts within the apparently new world of contemporary V.R.