



香港城市大學
City University of Hong Kong

Teaching practice-based research through Ambisonics (spatial audio) field recordings

Project Number: 6000803

Principal Investigator: Dr. Ryo IKESHIRO

Grant Type: TSG

Abstract:

Practice-based research is being increasingly recognised as a valid and innovative field of research. Often interdisciplinary in nature, it entails both practice-led research (research leading to new understanding concerning practice) and research-led practice (creative work based on new understanding from research) (Smith and Dean 2009; Candy and Edmonds 2018). Outputs consist of both scholarly articles and artistic works.

The proposal develops methodologies for teaching practice-based research using Ambisonics (spatial audio) field recordings. Field recordings (Lane and Carlyle 2013) have been used in a number of disciplines including the growing field of Sound Studies (Sterne 2012; Bull and Cobussen 2020). Ambisonics – the audio equivalent of 360-video – offers additional possibilities for the capture, reproduction and development of immersive audio (Zotter and Frank 2019). Although the technology dates back to the 1970s, its recent incorporation into 360-video and VR formats has made it much more accessible. However, there has thus far been a lack of adequate study into its use outside of commercial applications. It is not a conventional teaching tool or resource. The proposal makes use of the possibilities afforded by the technology in using field recordings for pedagogy, research and practice purposes within the interdisciplinary field of Sound Studies. The learning environment will consist of the classroom, online self-directed study and field research, with pedagogical resources including instructor reflections and hands-on on-site demonstrations along with discussions on existing case studies. To help the students meet the learning objectives, the PI will provide support in the form of regular check-in meetings, reflection journals with instructor feedback and workshop-style development of ideas during sessions. It also develops methodologies transferrable to other disciplines which use and teach practice-based research – e.g. art and design, performing arts as well as branches of humanities subjects – both in its general approach to the teaching of new technologies for creative purposes and more specifically in the use of spatial audio and their capture, archiving and manipulation for research and pedagogy.

The proposal will be developed for SM3748 Special Topics in Creative Media where approximately 15 students will be taught practice-based research through project-based assignments. Using Ambisonics they will collect sound data through field recordings at places of geographical and historical significance and sites of economic and social activity in Hong Kong. Students will then create sound-based artistic works based on an analysis of the sound data and re-designing of the field recordings along with



香港城市大學
City University of Hong Kong

scholarly text to be presented in an exhibition at Osage Gallery, a local gallery specialising in contemporary, media and sound art.

Intended outcomes:

- Resource on teaching and carrying out interdisciplinary practice-based research, shared within and beyond academia.
- Encouraging interdisciplinary collaborations related to studying the local environment of Hong Kong through sound data as a case study for universal concerns.
- Online best practice-guide on making Ambisonics field recordings and collecting sound data in interdisciplinary contexts.
- A collection of Ambisonics field recordings from locations of significance around Hong Kong.
- An exhibition of sound-based artworks by students based on field recordings from Hong Kong, presenting their practice and research demonstrating their understanding of our local environment, raising awareness of issues and offering possible solutions.
- Paper on the methodologies developed for teaching practice-based research in conjunction with the use of field recordings using Ambisonics.

By the end of the course, students will be able to:

- Carry out practice-based research projects on-site in interdisciplinary contexts.
- Collect sound data through Ambisonics field recordings using recent developments in technology.
- Analyse sound data and re-design sound environments.
- Create sound-based artworks, meaningfully exploring the varied sound environments of Hong Kong.
- Present outcomes from practice-based research in an exhibition.