Geophysical Research Abstracts Vol. 20, EGU2018-15433, 2018 EGU General Assembly 2018 © Author(s) 2018. CC Attribution 4.0 license.



hertz: Experiencing the inaudible sound of our Earth and Cosmos

Graeme Marlton (1), Juliet Robson (), Giles Harrison (), and Andrew Charlton-Perez ()

(1) University of Reading, Meteorology, Reading, United Kingdom (graeme.marlton@reading.ac.uk), (2) Wyfold Lane Studio, Wyfold Lane, Rotherfield Peppard, Oxfordshire

Everyday the human body is exposed to thousands of different sounds; smartphones, music, cars and overhead aircraft to name a few as well as those of the natural world around us. There are some sounds however which we cannot hear as they are below our range of hearing, sound at this level is known as infrasound and is of very low frequency. Such examples of infrasound are the sounds made by glaciers and volcanos, distant mining activities and the sound of the ocean. These sounds are emitted by these sources constantly all over the world and are recorded at infrasound stations, thus providing a recording of Earth's inaudible symphony. The aim of this art project was to create a proof of concept immersive experience in which participants are invited to sit in the installation and experience infrasound

The installation consists of a large sub-woofer facing a chair, which the participant sits on, fitted with a transducer which can shake the chair. Infrasound sensor data is then filtered, with its amplitude used to modulate a sound wave that is just audible to human hearing. The modulated infrasound is then played through both the subwoofer and the transducer. Participants feel the chair pulsate whilst they feel the soundwaves from the subwoofer flow through them.

The aim of hertz is to engage people with the many different processes on our planet and in the cosmos, that produce inaudible sound. By making an immersive experience which these sounds are experienced it encourages a personal connection between ourselves and the planet we call home, it is becoming vitally apparent that a strong bond with our planet is needed in light of the environmental challenges that face us.

A simple demonstration for this session could be equipping a chair with transducer system so participants can sit on the chair and experience our infrasound clips