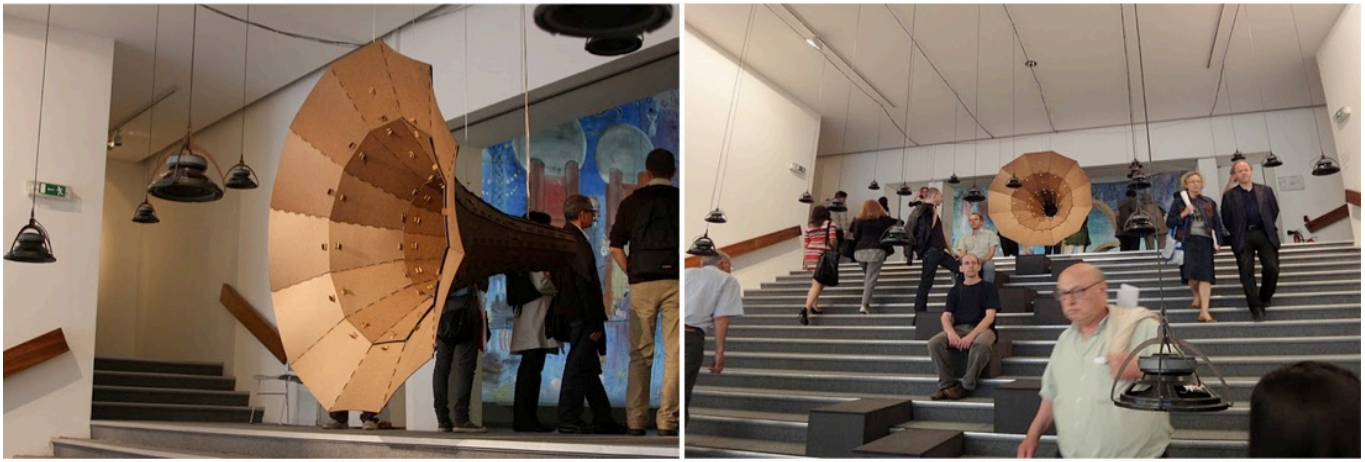


A Tentative Call to the Other

Robin Meier + Ali Momeni [2010]



Musée d'Art Moderne de la Ville de Paris, curated by
Fabrice Hergott and Angeline Scherf
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Architectural Sound Installation

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"A Tentative Call to the Other" is an immersive sonic environment. It consists of a hanging garden of suspended loud-speakers as well as a large speaker nearly 2m in diameter. Within this garden of speakers, the visitor is plunged into the barrage of electromagnetic activity that surrounds us. Invisible but omnipresent, these signals are picked up with an antenna placed on the roof of the museum. In parallel with the sonified electrical activity, visitors also hear sounds originating in outer space, picked up by ESA's CoRoT Satellite, that are made audible in real-time thanks to a collaboration with Eric Michel from the Paris Observatory.

The diffusion of these sounds is punctuated by interviews with astrologers, hymns, and incantations of ritualistic prayers in Southeast Asian languages. This installation thus offers a contemporary reinterpretation of the painted mural by Raoul Dufy, *La Fée Electricité* (1937) at Musée d'Art Modern, itself a commentary on the impact of the electric grid on human society.

Sounds from Outer Space

Thanks to a collaboration with renown astronomer Eric Michel¹, we gained access to France's CoRoT satellite. This peculiar space-telescope uses ultra-sensitive light sensors to measure the tiniest variations of luminosity - the twinkling of the stars. For "A Tentative Call to the Other" these light waves are translated into sound waves and can be heard through our speaker setup at the Musée d'Art Moderne.

The observation technique used by CoRoT is known as stellar seismology. Just as seismic waves travel through our planet, sound waves travel through a star, making it vibrate in different modes and at different frequencies. These vibrations make the surface of the star wobble and thereby change the light it emits. By translating these variations of light back into sound, scientists can learn about a star's size, age, rotation and chemical composition just by listening to the sound it produces.

Every 24 hours the data collected by CoRoT is transmitted to earth and made available to a small group of researchers and for the duration of the DYNASTY exhibition to us. Together with Eric Michel we adapted the sonification method used by him and other astro-seismologists for "A Tentative Call to the Other". By automating the process and by using new audio synthesis techniques we were able to obtain a continuous stream of new sounds from the stars as they are observed by CoRoT.

¹<http://news.bbc.co.uk/2/hi/7687286.stm>

<http://news.sciencemag.org/sciencenow/2008/10/24-01.html>

Sun Storms and Submarine Communications

The sounds obtained with CoRoT described above make for one layer of “A Tentative Call to the Other”. Another layer is driven by a Very Low Frequency (VLF) receiver placed on the museum’s roof. A VLF is a device used in radio-astronomy, which allows to listen into the electromagnetic activity around us - notably the earth's magnetosphere. This global electromagnetic field is punctuated by activity from geological shifts within earth and atmospheric events such as sun-storms or lightnings from around the planet.

VLF’s are typically used in environments with almost no electrical pollution such as deserts and mountains; when used in urban environments however, they uncover a flurry of human activity: In addition to picking up signals from hidden electrical power lines, we also pick up activity from elevators, cars, navigation systems, light switches, submarine communications and many other artefacts of *la Fée Électricité* as anticipated by Dufy. In quiet conditions we can even pick up bio-electrical activity such as the static electricity produced by an insect’s wing beat or a walking person’s muscles.

Analog Spatialisation System

Using low-cost electronic components such as analog relays and a Teensy micro-controller², we were able to create a cost-effective and highly scalable sound spatialisation setup. Thanks to its scalability it has become easy for us to create immersive sound installations with hundreds of speakers at a very low cost. We have successfully tested and deployed this system in Minneapolis (USA) at the University of Minnesota, Madrid (Spain) at the Auditorio Nacional de Musica, and Paris (France) at the Musée d’Art Moderne de la Ville de Paris.

Acknowledgment

We wish to thank Eric Michel, researcher at Paris Observatory’s LESIA Lab and the CoRoT space mission – developed and operated by the French space agency CNES with participation of ESA’s RSSD and Science Programmes, Austria, Belgium, Brazil, Germany, and Spain.

²<http://www.pjrc.com/teensy/>