



Seismic Symphonies

Elisa Strinna (1) and Graziano Ferrari (2)

(1) Visual artist, Italy (strinna.elisa@gmail.com), (2) Istituto Nazionale di Geofisica e Vulcanologia, Italy (graziano.ferrari@ingv.it)

The project started in 2008 as a sound installation, a collaboration between an artist, a barrel organ builder and a seismologist.

The work differs from other attempts of sound transposition of seismic records. In this case seismic frequencies are not converted automatically into the "sound of the earthquake."

However, it has been studied a musical translation system that, based on the organ tonal scale, generates a totally unexpected sequence of sounds which is intended to evoke the emotions aroused by the earthquake.

The symphonies proposed in the project have somewhat peculiar origins: they in fact come to life from the translation of graphic tracks into a sound track. The graphic tracks in question are made up by copies of seismograms recorded during some earthquakes that have taken place around the world.

Seismograms are translated into music by a sculpture-instrument, half a seismograph and half a barrel organ. The organ plays through holes practiced on paper. Adapting the documents to the instrument score, holes have been drilled on the waves' peaks.

The organ covers about three tonal scales, starting from heavy and deep sounds it reaches up to high and jarring notes. The translation of the seismic records is based on a criterion that does match the highest sounds to larger amplitudes with lower ones to minors. Translating the seismogram in the organ score, the larger the amplitude of recorded waves, the more the seismogram covers the full tonal scale played by the barrel organ and the notes arouse an intense emotional response in the listener.

Elisa Strinna's Seismic Symphonies installation becomes an unprecedented tool for emotional involvement, through which can be revived the memory of the greatest disasters of over a century of seismic history of the Earth. A bridge between art and science.

Seismic Symphonies is also a symbolic inversion: the instrument of the organ is most commonly used in churches, and its sounds are derived from the heavens and symbolize cosmic harmony. But here it is the earth, "nature", the ground beneath our feet that is moving. It speaks to us not of harmony, but of our fragility.

For the oldest earthquakes considered, Seismic Symphonies drew on SISMOS archives, the INGV project for recovery, high resolution digital reproduction and distribution of the seismograms of earthquakes of the Euro-Mediterranean area from 1895 to 1984. After the first exposure to the Fondazione Bevilacqua La Masa in Venice, the organ was later exhibited in Taiwan, the Taipei Biennial, with seismograms provided from the Taiwanese Central Weather Bureau, and at the EACC Castello in Spain, with seismograms of Spanish earthquakes provided by the Instituto Geográfico Nacional.