

BrainWaves

By Dimitris Maronidis [Ph.D]

The piece was composed by elaborating EMOTIV data retrieved from soniHED website. I used the “Engagement” field to control the onsets of the events. “Meditation” data were used to control the durations and modulate the frequencies of the events (scaled to fit in two minutes and expanded to cover the auditory hearing range) while “Frustration” and “Boredom” data controlled the amplitude envelopes of the sonic events. Finally, “Excitement” data used to control the Amplitude Modulation and some aspects of spatial distribution.

I was imagining the encephalic signals, traveling across the human brain, as imaginary musical strings vibrated by stimuli of the real world (as if the brain would be a musical instrument itself).

The piece was implemented in OpenMusic (IRCAM) and Cmix (Princeton University) programming languages. Special patches/algorithms were developed to make the sonification of the data possible and meaningful. The process was completed after many experiments in a “trial and error” process.

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Composer