

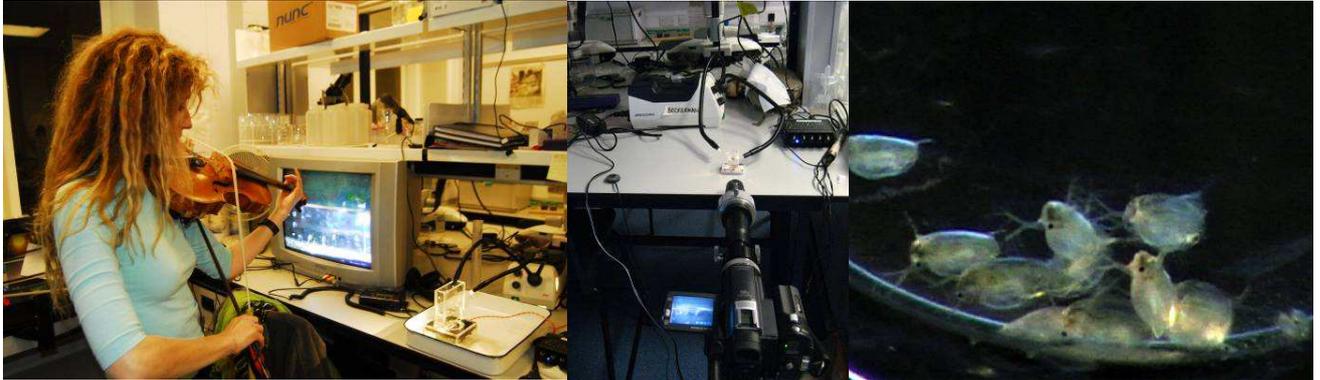
Daphnifications Cross-Science Project 2006-2007

1. Daphnia magna

The Daphnia magna consists primarily of a mouth, a basic form of heart, and antennae. It is extremely sensitive and possesses an almost inexhaustible repertoire of reactions to environmental conditions. (The Daphnia magna are used in science to measure the smallest traces of toxicity in water).

2. A Cross-science Project

Tests at the laboratory in Sheffield using a specialist camera developed for research into spermatozoa



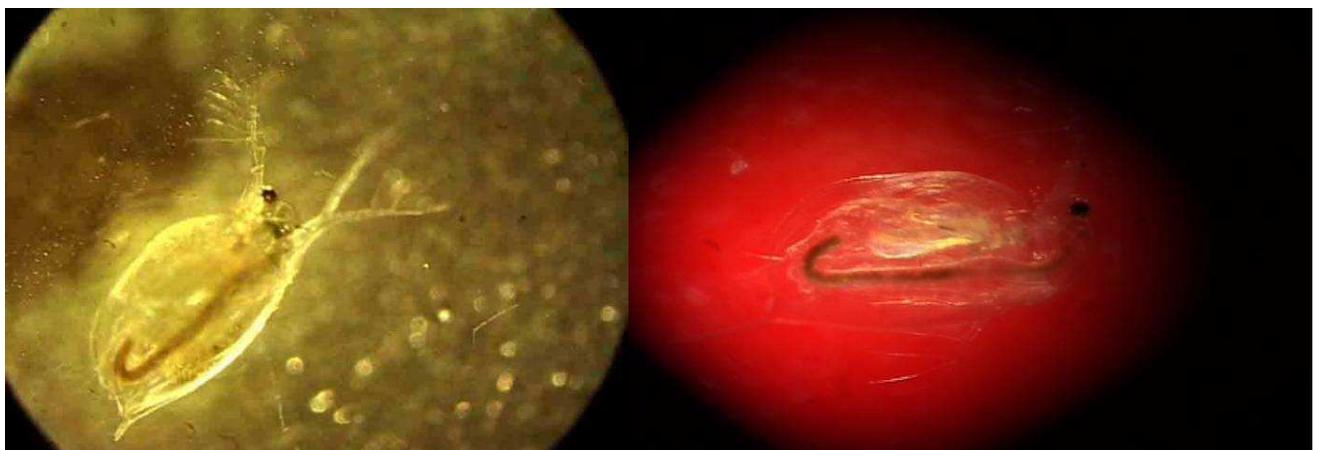
Biologist Dr. Michael Griesser and I conducted research as part of a project on biodiversity and established that the Daphnias react not only to foreign substances in the water but also to music, and indeed with a surprisingly rich variety of responses.

3. Composition and communication

Using the viola and voice I now explore the multiplicity of **oscillating, pulsing sounds produced by the Daphnia magna**. These sounds are fed into the water by means of a sonic transmitter which spur these microorganisms to leaps and the most diverse types of 'dance' in the water. The reactions of the Daphnias then influence my music.

4. Performance

During the concerts live sounds from voice and viola are fed directly to the Daphnia magna in the water. Individual Daphnias, pairs, families, clones and entire populations are placed in separate cuvettes and experience the music by means of direct sound transmission in the water. The Daphnias are filmed live on various video tracks. Film-maker Götz Rogge from Berlin makes a live Video-Streaming, which is projected onto the Son-Icons of my spatial scores. The dance of the Daphnias is then integrated again into my playing.



Daphnifications forms part of the "anderwelten" cycle, Premiere included in the audio-visual concert installation "the thing from the deep", Haus für Kunst Uri at the Alpentöne International Festival 2007

With thanks to the Bundesamt für Kultur (department for culture) for the media award "site mapping" and to Pro Helvetia for the commission.