

Proposal for an artistic work at AudioMostly'22

Working Title: Recursive Mirrors

Year: 2022 (still in progress)

Composer: Stefan Troschka

Type: Sonic Art / Installation / Circuit Bending

Duration: Infinite Loop

Background

Mirrors have always fascinated people and already appear as a symbolic motif in Greek mythology. Narcissus falls in love with his own reflection and has to realize that this love is unattainable. Perseus protects himself from the deadly gaze of Medusa by not looking directly into her eyes, but by looking at her reflection. The motif of the mirror is often taken up in art and literature. Lewis Carroll uses the mirror as a portal to let his protagonist Alice enter a parallel world in which cause and effect are reversed. The non-existent reflection of Dracula, which betrays the vampire because the reflection of the undead is not visible to humans. Many myths surround the mirror, which is capable of depicting a person's soul. It is often seen as a portal to a spiritual world. The mirrors in the house of a dying person were often covered with blankets so that the soul would not get caught in the mirrors and be trapped there for all eternity. Mise en abyme in the visual arts refers to images that contain themselves and reveal an infinite sequence of the same image, renowned examples can be found in the oeuvre of M.C. Escher. In the literature, on the other hand, it refers to specific ways of repetition at the narrative level. These can be frame plots, which in turn are told as microstructures within the frame plot, leading to infinite loops of repetition. Mirrors are also a subject in philosophy. What does it mean to look at the mirror image of an object that is an exact copy of the original? Is the mirror image then to be considered as real as the object that produces it?

Just as a mirror reflects light, a wall reflects sound and is heard as an echo. A second wall opposite the first wall would mean a recursion of this process and cause a feedback. In *Recursive Mirrors* I want to investigate the phenomenon of the mirror within the mirror through an audiovisual installation. Two opposing mirrors become two sound-emitting objects

in space with the help of transducers, which in turn make an auditory space visible. The composition originates from the sounds of a DIY instrument that generates different qualities of noise through circuit bending. For *Recursive Mirrors*, the circuits has been doubled and outputs two separate audio signals that are sent to a stereo delay and sound through the two mirrors. However, the two versions of the circuits influence each other in unpredictable ways, creating surprising stereo effects and feedbacks. The multimodal perception of the spatial repetition of the visible on the one hand, and the temporal feedback of the audible on the other hand, creates a virtual experience that questions the construction of space through our perception. In its center the visitors find themselves – namely between the repeated repetitions of themselves.

Technical Setup

Recursive Mirrors consists of two mirrors facing each other. The entire setup will cover an area of approximately four square meters. Transducers are attached to the backs of the mirrors to transmit the incoming audio signal to the mirror surfaces. The piece is generated in real time on a laptop running Max/MSP and processing recordings of the DIY instrument. The stereo signal will be then transmitted via an audio interface to an amplifier which is connected to the two transducers. The mirrors will finally sound.

Artist Biography

Stefan Troschka is a sound artist, composer and researcher living in Hamburg, Germany. He is a PhD student in the graduate program [Kinetics in Sound and Space](#) at the University of Music and Drama and the University of Applied Sciences Hamburg. His research activities focus on perceptual studies of virtual-spatial sound scenes in the context of artistic research. Stefan holds master's degrees in Multimedia Composition and in Time-based Media/ Sound-Vision. His works have been performed at several international festivals including Transitions (CCRMA Stanford), Next Generation (ZKM Karlsruhe), Remote Chaos Computer Club Germany, Katarakt – Festival für experimentelle Musik (Hamburg), Koordinaten – Festival der räumlichen Medien (Kiel), Greatest Hits – Festival für zeitgenössische Musik (Hamburg). His audiovisual installation *Der Bau* was awarded the Karl-Heinz-Ditze Prize in 2013. Stefan is involved in various music projects, currently as one half of the improvising duo [bandschlupf](#) and as a member of the ensemble [L'art pour l'art](#), where he performs live electronics for contemporary music. A selection of his work can be found on the website www.stefantroschka.de