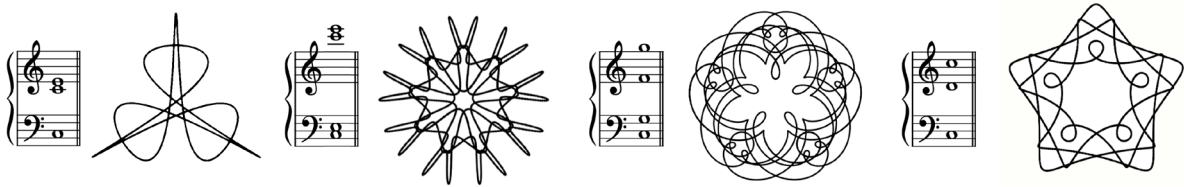


Trygve Nielsen

Thinking About Music Through Moving Visuals

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Geometric figures drawn by sinusoidal soundwaves on the oscilloscope

How can artistic material be transformed from visual art to music, from music to visual art, or continuously back and forth? This is a Ph-d. project in animation where these processes are attempted to be made as direct and immediate as possible. The project does consist of three distinct parts, one of them is here presented through a live performance and a talk:

Hand-drawn sound for the oscilloscope

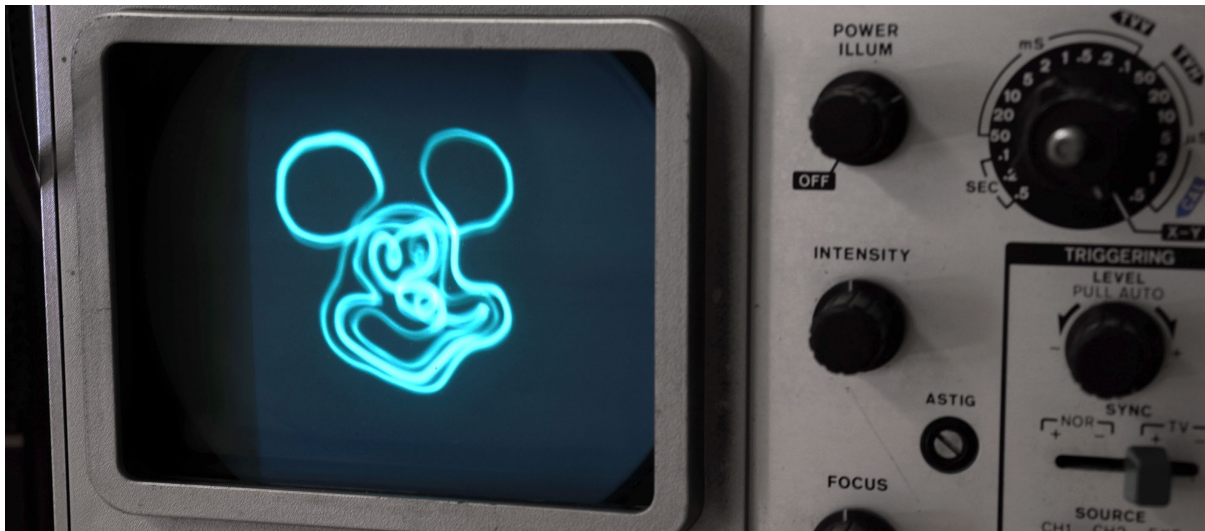
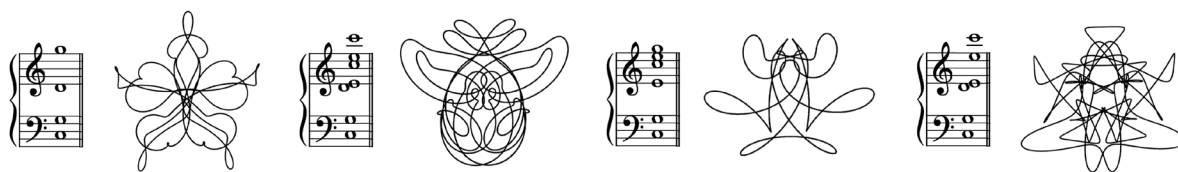


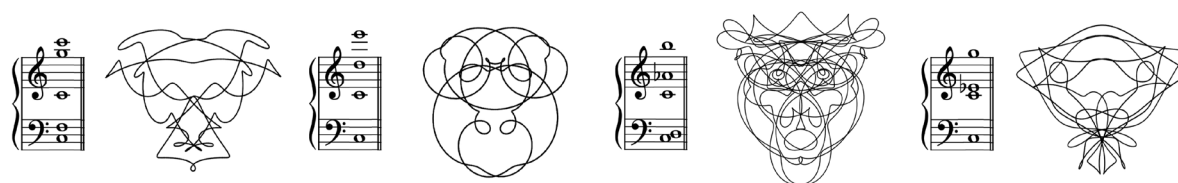
Figure drawn by a sound signal sent to an oscilloscope. The sound signal was created from a digital vector drawing

Since the early fifties visual art have been made by sending soundwaves to an oscilloscope and photographing the figures that appear on the oscilloscope's screen. The last decades there has been made software that can reverse this process – where one with the logic of the oscilloscope takes the wireframes of 3D models and converts them into sound waves. In this project hand-drawn animation is made specifically for the purpose and the same technology is applied to convert these to sound. The intention has been to investigate what kind of sound and music can be made with a hand-drawn line, and to explore a novel workflow for creating audio visual art.



Insects drawn by sinusoidal sound waves on the oscilloscope

The project has been presented publicly both as installation and as live performance. In a live performance the animation sequences are played as sound samples from a keyboard along with more traditional instruments. The entire sound mix is sent to an oscilloscope where the screen is captured by a camera and sent to a projector.



Animal faces drawn by sinusoidal sound waves on the oscilloscope

Apart from the Ph-d. Candidate Tuva Synnevåg has contributed with animation, Eilif Hensvold has played guitar in live performances and contributed to technical research and Morten Møller plays flute at this presentation.

Video documentation: <https://youtu.be/e9d0Bj1yr0o>