

## **Week 7 Play and sound**

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**Folio Object:** <https://youtu.be/yCguESvYGqo>

### **Context:**

Sound is always around us, but we can't touch or see it. I came up with the idea for this week's theme after seeing Carsten Nicolai's Unidisplay. Carsten uses algorithms to transform sound into images that are presented in an abstract way, giving viewers a disorienting audio-visual experience. In addition, his Reflektor Distortion gave me idea that sound is transmitted by vibration, which inspired me about my work. The force generated by the vibration, even it is small, it still enough to move "a brush". To play the sound, I want to discuss how create images by sound. This past Friday was my birthday, I went to karaoke with my friends, I recorded our singing voice, it was a very happy time for me. To honor this short happy time, I'm going to turn our singing into a painting. My theme this week will discuss how to compress sound into a drawing.

### **Method:**

I'm going to use the scientific principle that sound transferred by vibration. The recording is played through the container to amplify the force of the vibration. At the same time, the laser records the movement of light caused by the vibration on the flat surface. And the path of light movement will be another manifestation of this sound. I will put the speaker in the paper cup, and put the paper cup upside down, it would become a container for amplifying the vibration. And I will put a mirror at the bottom of the cup. The mirror will act as a medium for transmitting vibrations. Because the vibrations are weak, in order to protect all the forces. I will use a laser pointer as the pen for this drawing (light is weightless). The vibration causes light to bounce back through the mirror onto patterns on the wall, and those patterns are what the sound looks like.

### **Response:**

I had a lot of technical problems. When I first came up with the idea, I didn't think about how to record images, but I knew I could get images in this way. During the operation, I realized that if I wanted to compress all the light trails, I would need to keep my camera exposed until the recording ended. This led me to investigate the operation of camera exposure duration. Eventually I decided

to use the manual shutter control mode to get my 3–4 minutes recording exposure. In addition, I found that the vibration amplitude was not large enough during the tests, so I decided to extend the distance between the light and the vibration source through the reflection of the mirror to make the motion amplitude of the light larger. So I set up mirrors in my room to lengthen its reflection.

### **Reflection:**

Before taking the photo, I can imagine the vibrations of sound showing shaky lines. But I think what's interesting about the theme this week is that sound itself is invisible and ephemeral. Unlike an image, it can be observed repeatedly, scrutinizing every detail. I listened to this song over and over while making videos and taking photos. When the music stopped, it kept playing in my head. This allows me to look at the photos and see the music painted on the wall. This is a very interesting discovery. I think this work can be improve and better used to achieve a better "painting sound" effect.

### **Related works:**

Carsten Nicolai:

Reflektor

[https://www.youtube.com/watch?v=y8kUYWVSELM&ab\\_channel=STEREO.RU](https://www.youtube.com/watch?v=y8kUYWVSELM&ab_channel=STEREO.RU)

Unidisplay

[https://www.youtube.com/watch?v=KKmAK35KJuU&ab\\_channel=artdone](https://www.youtube.com/watch?v=KKmAK35KJuU&ab_channel=artdone)