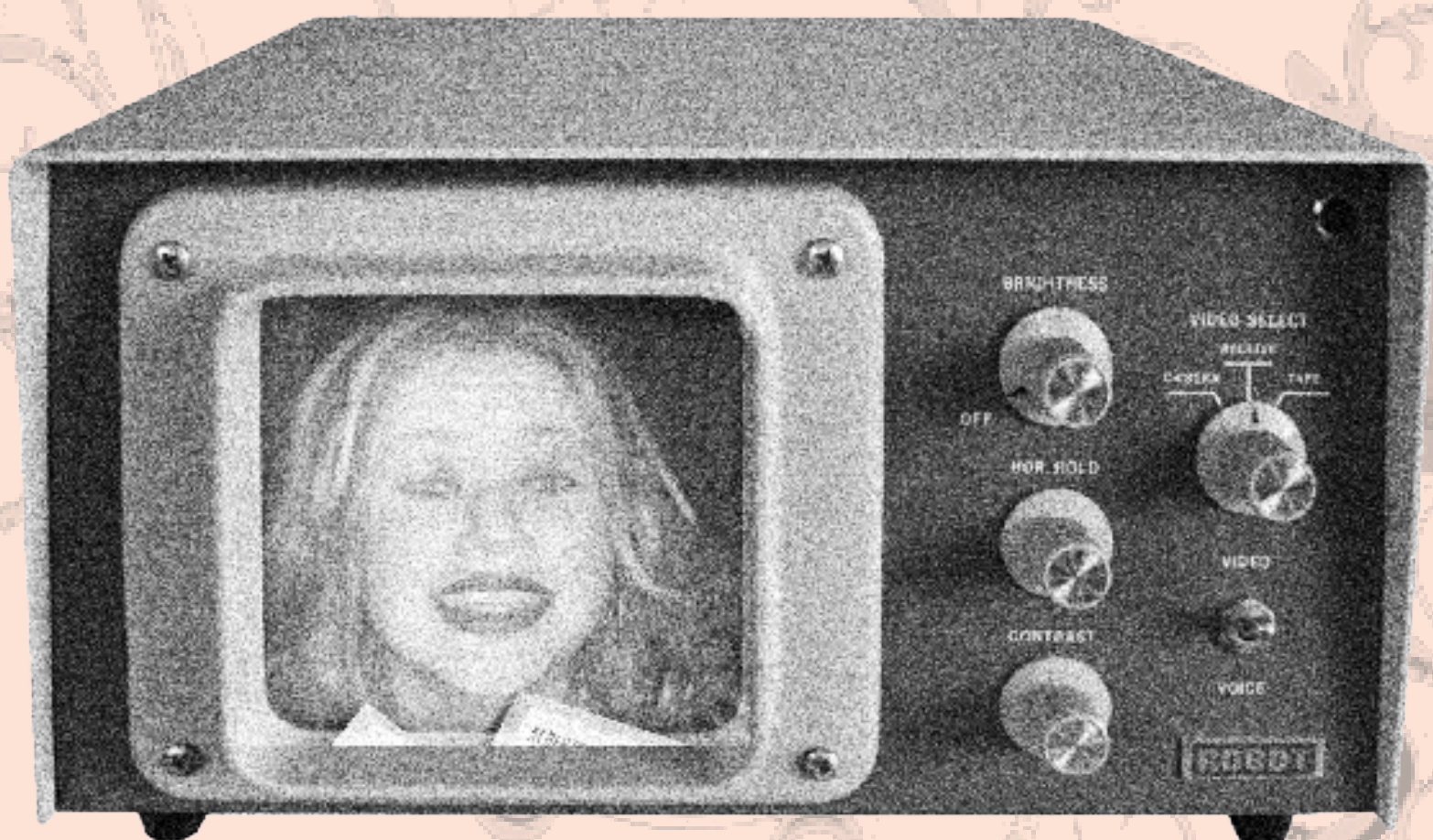


# *IMAGE FREQUENCIES*



*ELIZA OUTLAW  
PORTFOLIO*



# Listening to images

Investigating the potential of photography as an activator of sound. Using the primary senses of sight and hearing, this project explores the concept of auditory perception through association. *"Photography might be a silent medium, but in recording the experience of sound, these images turn up the volume."* [I]

'loud photographs' are images that contain visual signifiers of sound, on the basis that the vision activates the auditory cortex within us. [II]

Terms, technologies and even descriptions are used the same throughout photography and recording. In this project I start to investigate the basic connections of photography and sound to invoke the significance of 'listening' to 'loud photographs'.



I - <https://ugotphotography.se/ears-for-the-eyes-auditory-perception-through-photography/>  
II - <https://www.nature.com/articles/srep00054#:~:text=Evidence%20is%20provided%20that%20the,activate%20the%20associative%20auditory%20cortex.>

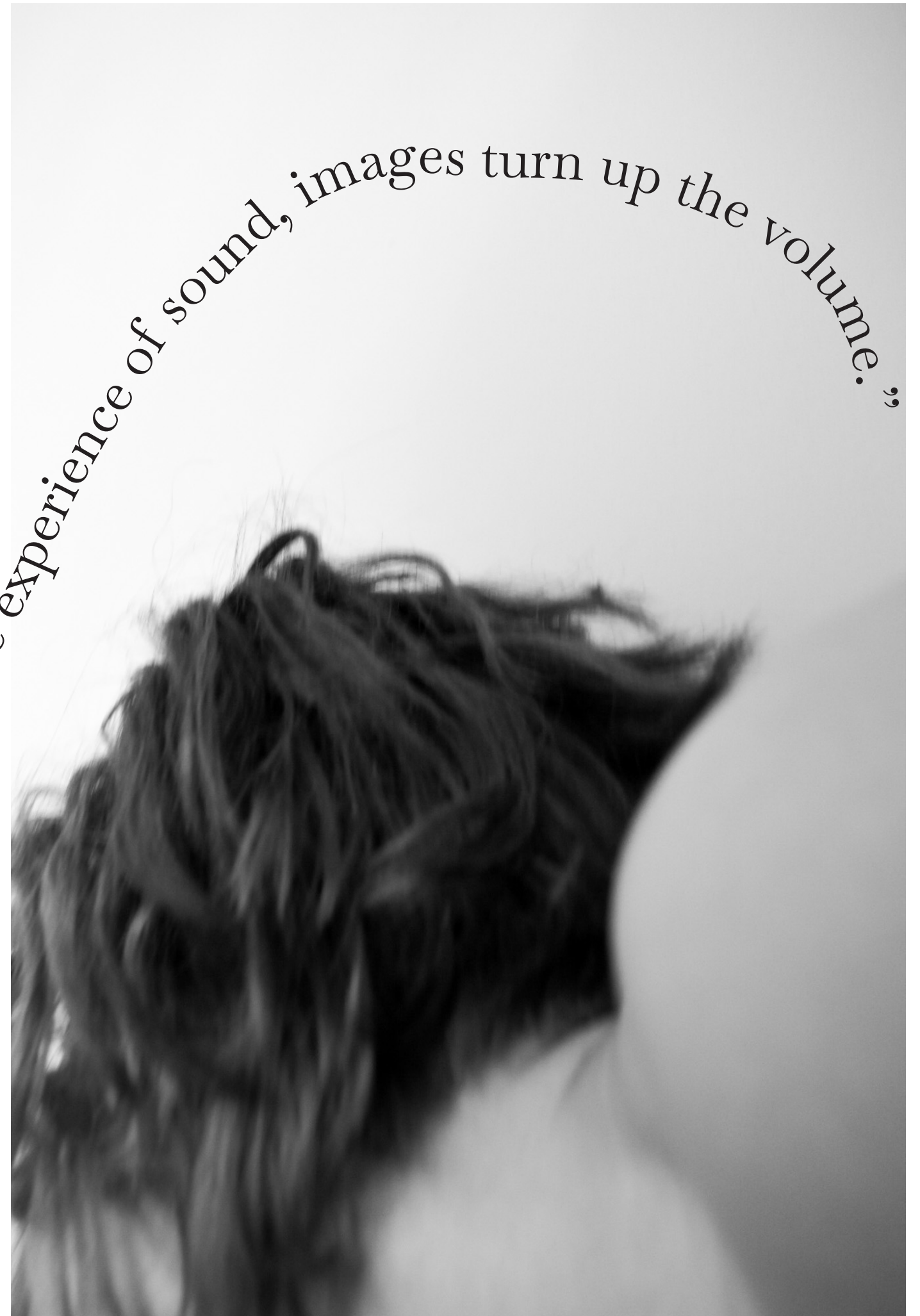




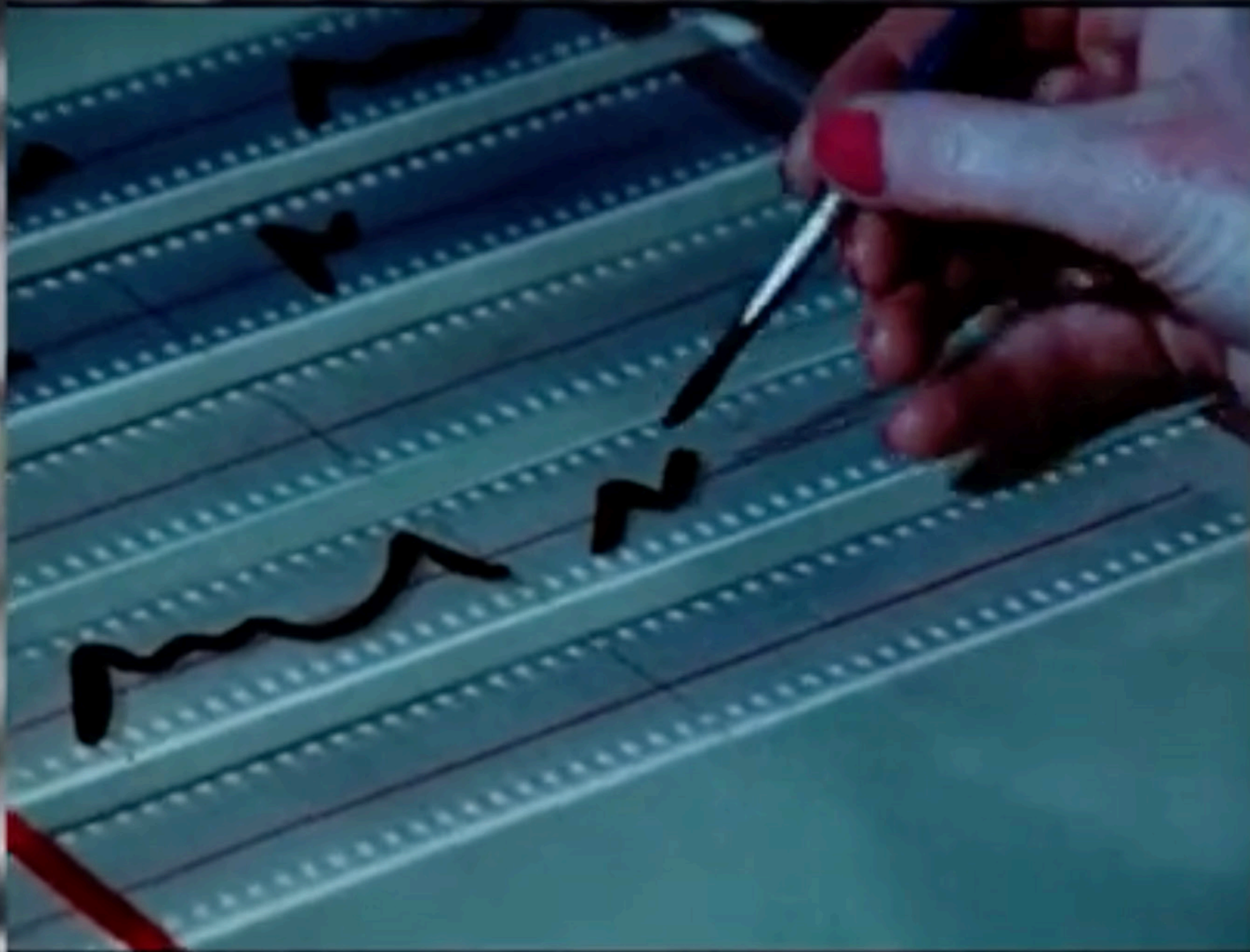


After this page most of the images are hyperlinks to my projects. I invite you to please click on the images.

“Photography might be a silent medium, but in recording the experience of sound, images turn up the volume.”







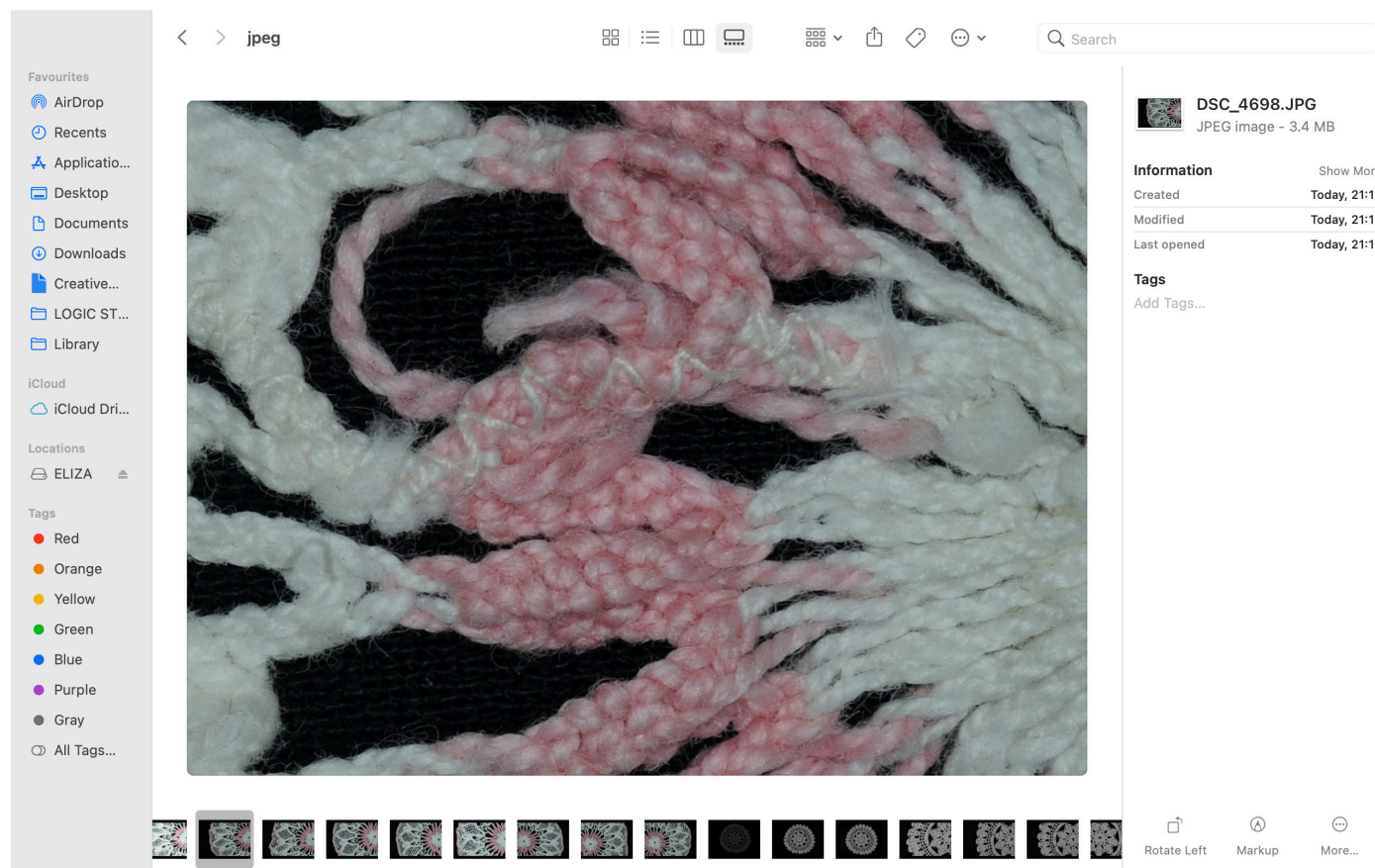
How to make images loud. Image sonification desk top  
documentary. DURATION: 4:56.  
Video essay exploring the connections between my two projects.



# Sonic Patterning.







(Left) Speakers on vosis. DURATION: 0:14.  
Pixel to audio translations.

This piece is a process, workshop and zine that explores the movement of translation, used here as a process to shift data from one language, form, sense or medium to another. Based on the principles of data sonification, I use sound as a medium to analyse and decode visual simulations of an object or photograph.

I have been collecting a bank of information and processes in which to turn photographs into sound or music as a continuation of my previous project, “listening to images”. Primarily I focused on attempting different translation methods, using doilies as my experimentory medium. I started to make compositions instead of singular sounds, the circular shape and intricate patterns allowed for me to ‘play’ the doilies as if they were a record, seeing and dividing each section as song. The three methods I focus on in this project include RGB data translation, Image to MIDI translation and image recreation in DAW software.

I continued this study by presenting my findings in a way that allowed participation. This project is presented as a form of situated learning that focuses on community participation as the art itself, cherishing the mobility and flexibility of process, allowing it to evolve in meaning and context depending on the outcomes and solutions of individuals participating. The workshop allows an expansion of ideas and knowledge and a questioning of the process itself. The main discussion being, is this a relevant or recognisable form of translation and the results were mixed but all agreed that the basis of this translation is accurate, that it lacks is human interference and emotion as a signifier which we began to add collectively.





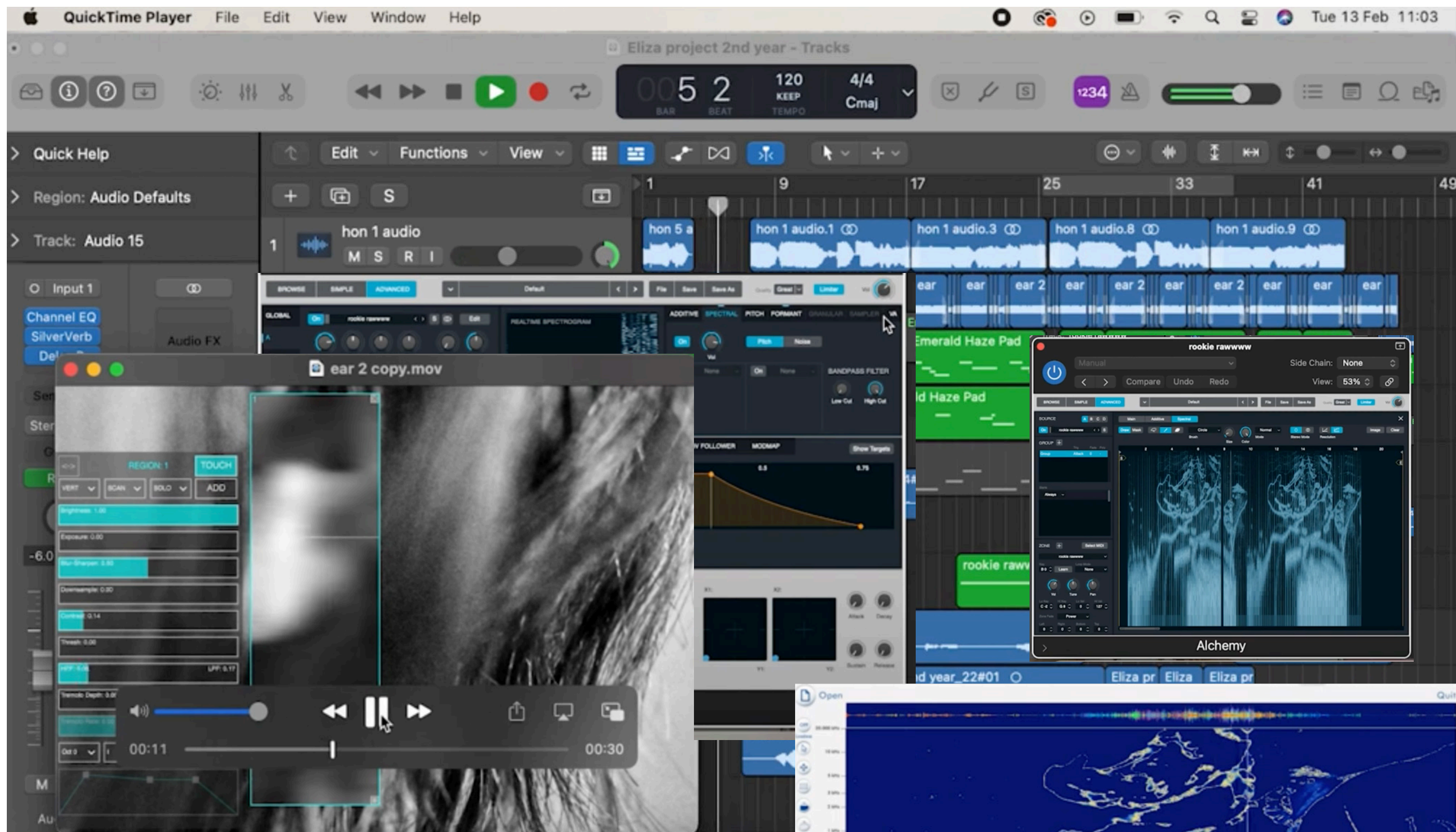
**Don't give it  
blood if it starts to sing.**

Play all

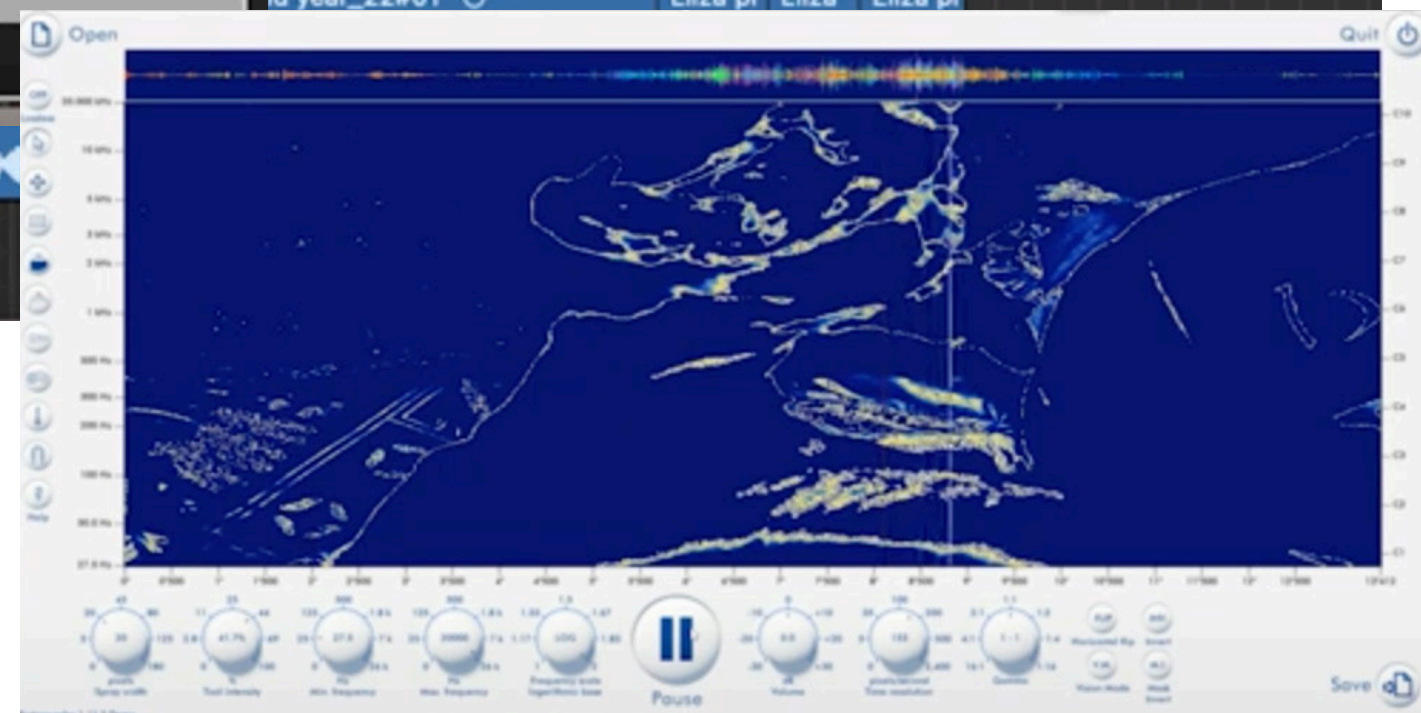


(left) VTS 01 1 DVD\_all\_WITHOUT. FILM DURATION: 8:04. Exhibited at Copeland Gallery March 2024. 6 Part film on how to turn images into sound.



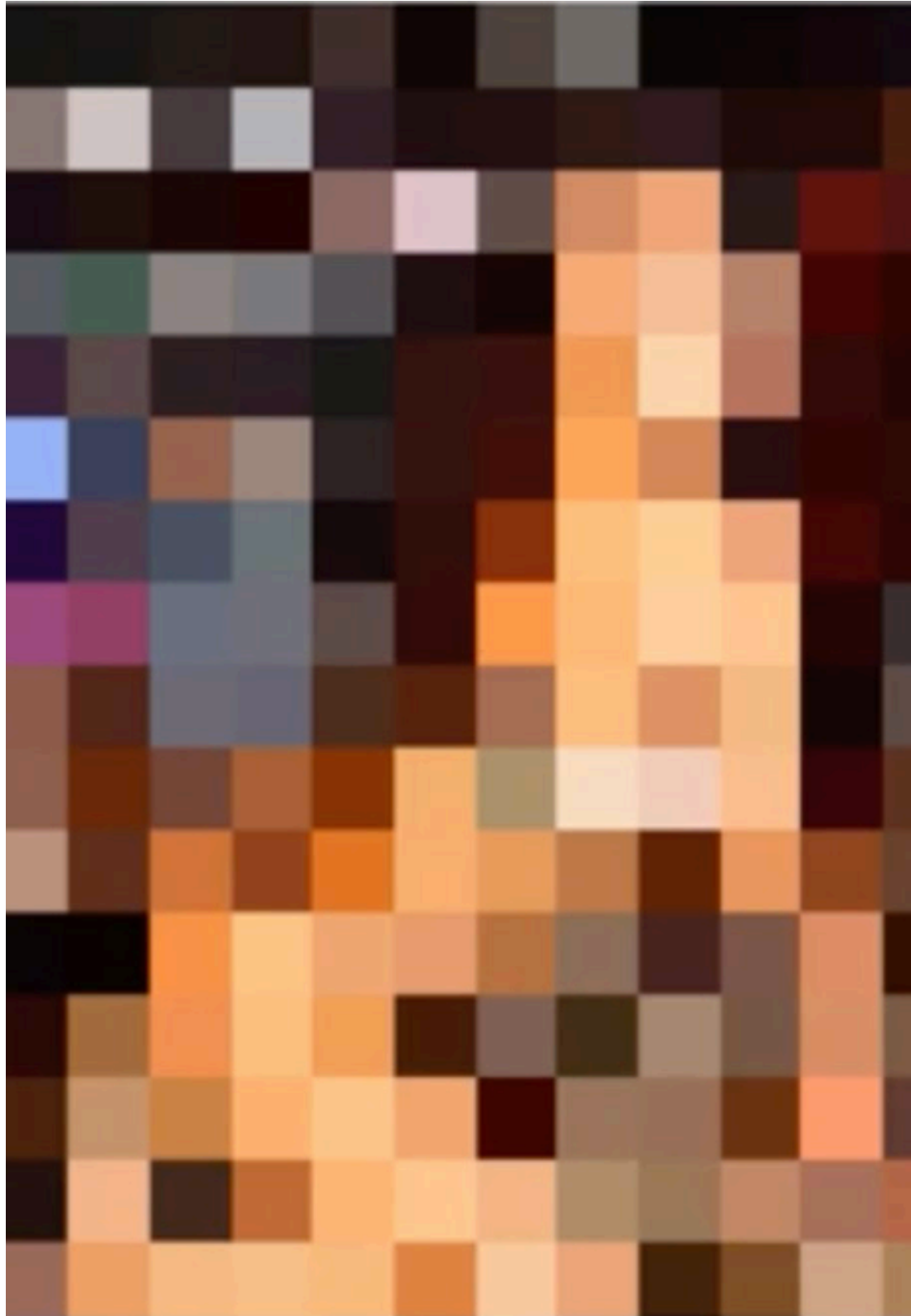


All without ever even stopping. DURATION: 1:41.  
Creating a music piece out of my image to sound research.





# Workshops



(Left)  
Pixel  
colour  
gradient  
to sound.  
DURATION:  
3:24.  
Using  
Kenji  
Kojima RGB  
Musiclab.

(Right)  
Ellie's  
cross.  
DURATION:  
0:40.  
Coding  
pixel to  
MIDI.

```
noise = False
```

```
if (len(sys.argv) > 5) and (sys.argv[5] == "noise"):
```

```
    noise = True
```

```
# Get values for our grid
```

```
rows = int(sys.argv[2])
```

```
cols = int(sys.argv[3])
```

```
return rows, cols, note_chance_modifier, noise
```

```
def get_image_and_hash():
```

```
    try:
```

```
        im = Image.open(sys.argv[1])
```

```
    except:
```

```
        print("Couldn't open image. Exiting.")
```

```
        exit()
```

```
    try:
```

```
        file_obj = open(sys.argv[1], 'rb')
```

```
        file_contents = file_obj.read()
```

```
        sha256_hash = hashlib.sha256(file_contents).hexdigest()
```

```
        hash_int = int(sha256_hash, 16)
```

```
    except:
```

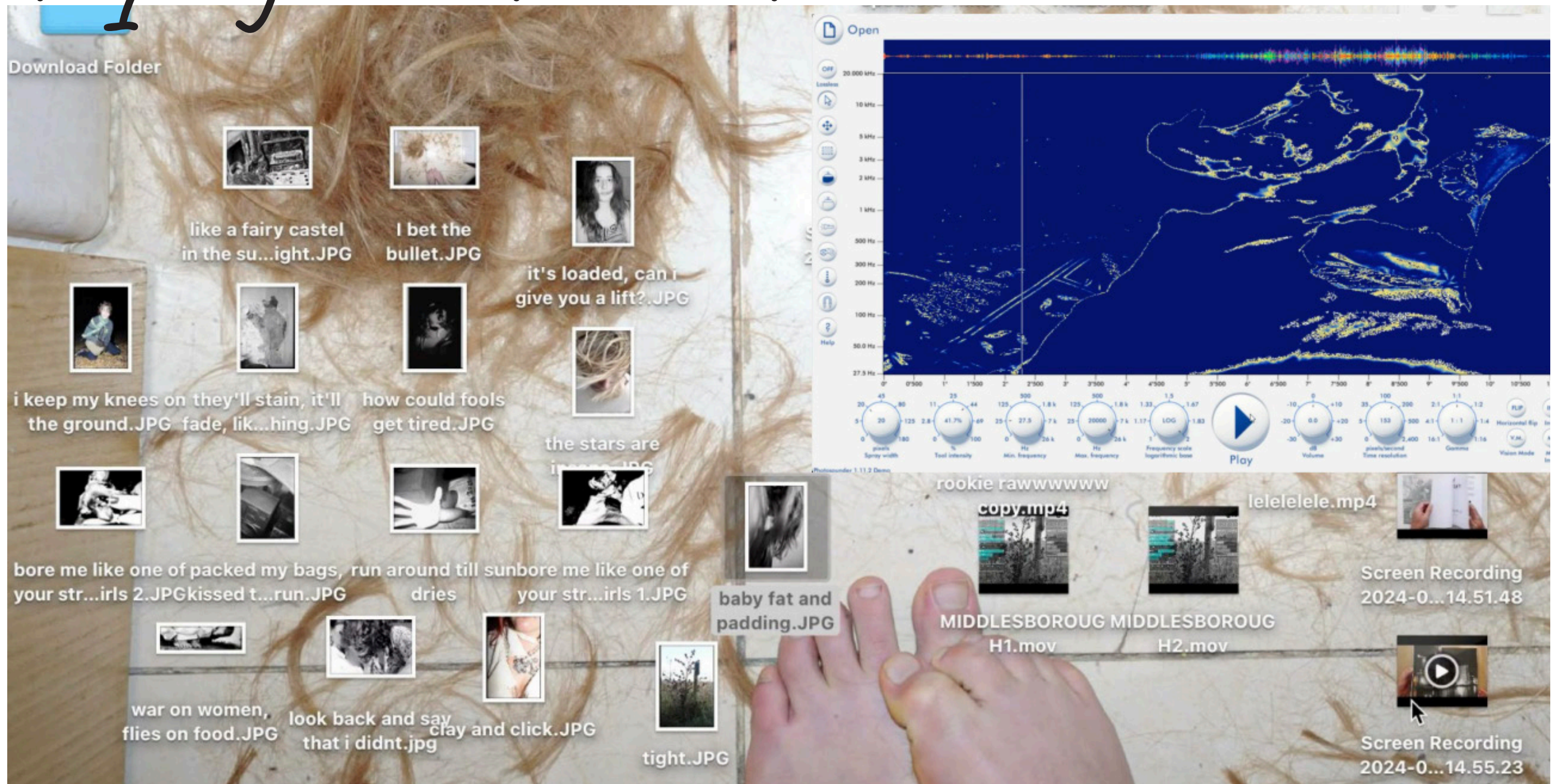
```
        print("Couldn't hash image. Exiting.")
```

```
        exit()
```

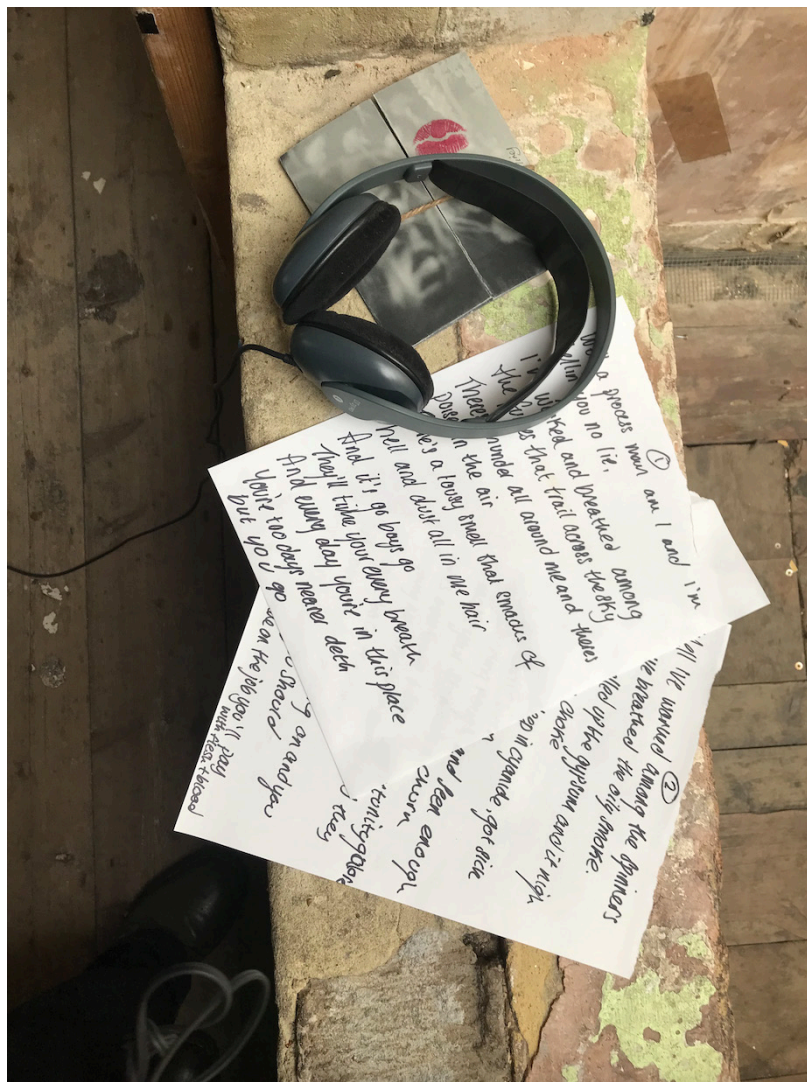




*Inbetween projects: An exhibition,  
a performance and some demos.*



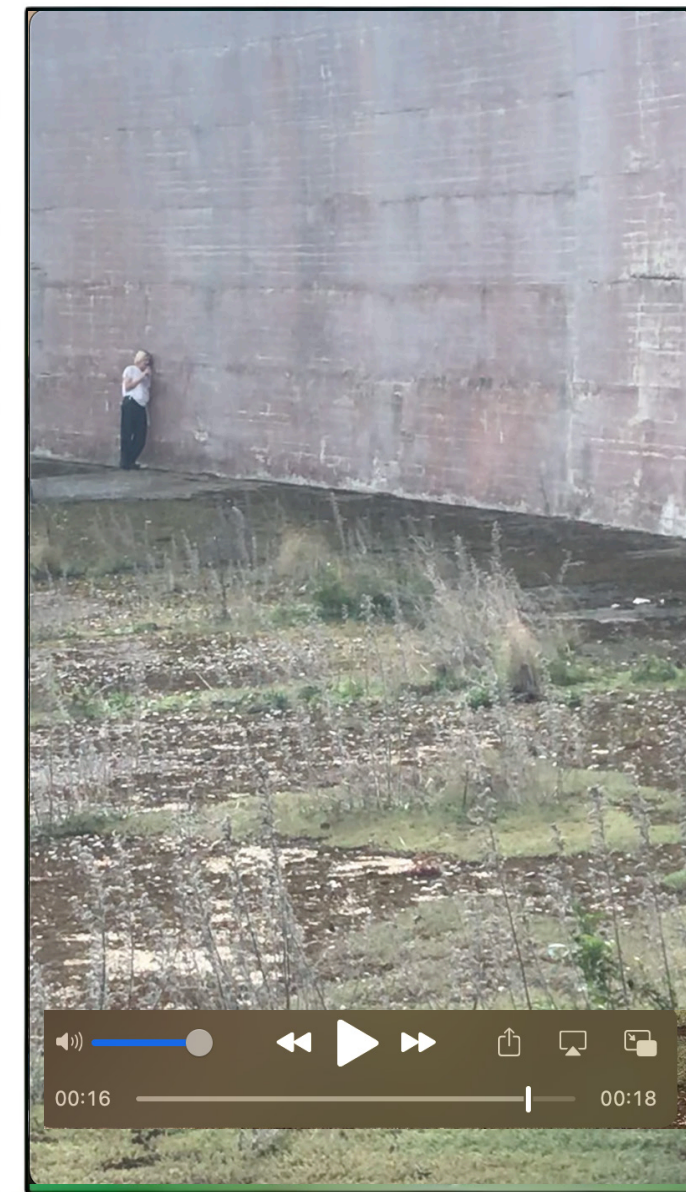
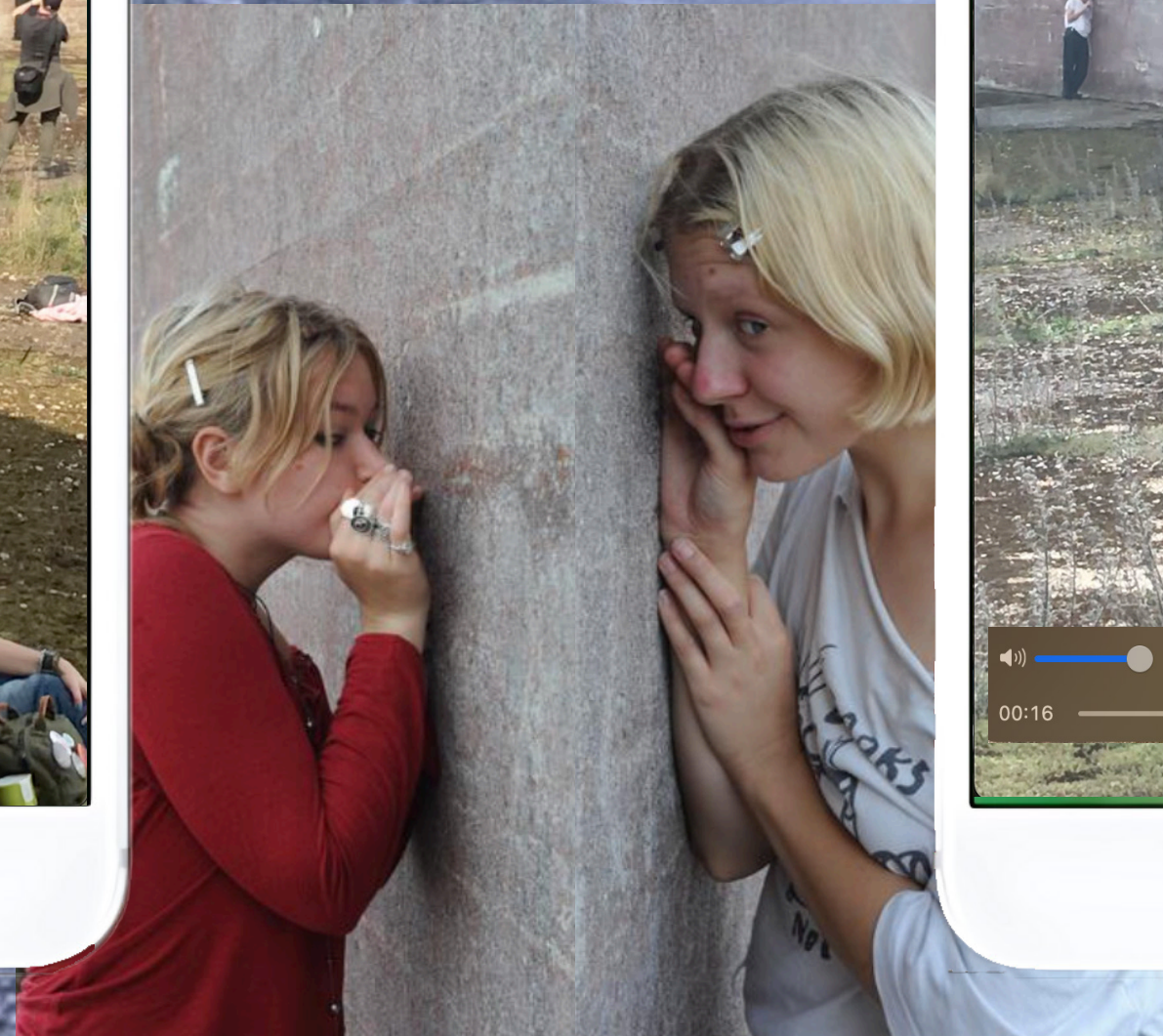




Exhibition safehouse 03/2024. FILM DURATION: 8:31. Film, sound piece and (live music) performance.



Live Performance, Echoland. 2 way communication utilising WW1 military acoustic "sound mirrors" to converse 200ft apart. Looking at female history and relationships with sound technology DURATION: 20mins. LOCATION: Denge sound walls.





outer ring straight Logic Pro 2025-03-27 7.540625 40 1575 1113 58 58 66 66 26 0 37 37 62 bracket no none yes Steinway Piano 2 Choir Aahs  
Yamaha Grand Piano Choir Aahs 1 53 Steinway Grand Piano Choir Aahs 1 53 Classic Electric Piano Choir Aahs 1 53 80s FM Piano Choir Aahs  
Choir Aahs 1 53 Celesta Choir Aahs 1 53 Glockenspiel Choir Aahs 1 53 Mystic Vibes Choir Aahs 1 53 Vibraphone Choir Aahs 1 53 194 0 90  
whole 2 4 1 whole 1 4 4 2 whole 2 26 0 37 4 1 whole 1 4 4 2 whole 2 4 1 whole 1 4 4 2 whole 2 4 1 whole 1 4 4 2 whole 2 26 0 37 4 1 whole 1  
whole 1 4 4 2 whole 2 26 0 37 4 1 whole 1 4 4 2 whole 2 4 1 whole 1 4 4 2 whole 2 4 1 whole 1 4 4 2 whole 2 26 0 37 4 1 whole 1 4 4 2 whole  
whole 2 26 0 37 4 1 whole 1 4 4 2 whole 2 4 1 whole 1 4 4 2 whole 2 4 1 whole 1 4 4 2 whole 2 26 0 37 4 1 whole 1 4 4 2 whole 2 4 1 whole 1  
37 4 1 whole 1 4 4 2 whole 2 4 1 whole 1 4 4 2 whole 2 26 0 37 4 1 whole 1 4 4 2 whole 2 4 1 whole 1 4 4 2 whole 2 26 0 37 4 1 whole 1 4 4 2  
4 4 2 whole 2 26 0 37 4 1 whole 1 4 4 2 whole 2 4 1 whole 1 4 4 2 whole 2 26 0 37 4 1 whole 1 4 4 2 whole 2 4 1 whole 1 4 4 2 whole 2 1 0 ma

41 whole 1 2 4 1 half 1 1 1  
whole 1 4 1 whole 1 4 1 wh  
sharp down 1 continue B 4  
begin F 1 4 1 1 eighth sharp  
whole 1 4 1 whole 1 4 1 wh  
sharp up 1 begin G 4 1 1 eig  
eighth down 1 continue D 5  
down 1 begin D 6 1 1 eighth  
down 1 continue B 4 1 1 eig  
begin D 6 1 1 eighth down 1  
1 E 4 1 1 eighth up 1 1 1 eig  
eighth down 1 begin B 4 1 1  
end C 6 1 1 eighth down 1 b  
4 2 1 quarter sharp up 1 1 1  
eighth down 1 continue A 5  
eighth down 1 begin F 1 5 1  
1 1 eighth down 1 continue  
4 1 1 eighth down 1 end A 5  
begin E 5 1 1 eighth up 1 en  
quarter down 1 D 6 1 1 eigh



nth up 1 end B 3 1 1 eighth u  
1 eighth down 1 begin E 5  
1 1 eighth down 1 continue  
ole 1 4 1 whole 1 4 1 whole  
A 5 1 1 eighth down 1 begin  
1 1 eighth sharp down 1 be  
5 1 1 eighth down 1 continu  
5 1 1 eighth down 1 begin I  
eighth down 1 continue A 3 1  
wn 1 begin C 5 1 1 eighth d  
1 E 5 1 1 eighth down 1 beg  
5 2 1 quarter down 1 A 4 1 1  
sharp down 1 end G 5 1 1 eig  
6 1 1 eighth down 1 begin F  
inue D 5 1 1 eighth down 1  
gin E 5 1 1 eighth down 1 e  
1 begin D 5 1 1 eighth dow  
ue A 5 1 1 eighth down 1 en  
own 1 continue D 6 1 1 eigh  
1 eighth down 1 end C 6 1 1

continue D 6 1 1 eighth down 1 continue A 5 1 1 eighth down 1 end B 3 1 1 eighth down 1 begin D 5 1 1 eighth down 1 continue E 6 1 1 eighth  
1 6 2 1 quarter sharp down 1 F 1 6 1 1 eighth down 1 begin E 6 1 1 eighth down 1 end 4 1 half 1 2 1 quarter 1 1 1 eighth 1 F 1 4 1 1 eighth shar  
eighth down 1 continue A 4 1 1 eighth down 1 continue B 4 1 1 eighth down 1 end B 4 1 1 eighth down 1 begin B 5 1 1 eighth down 1 continu  
down 1 end E 6 2 1 quarter down 1 D 5 1 1 eighth down 1 begin G 5 1 1 eighth down 1 end D 5 2 1 quarter down 1 G 5 1 1 eighth down 1 begi  
down 1 begin D 4 1 1 eighth down 1 continue A 5 1 1 eighth down 1 continue D 6 1 1 eighth down 1 end G 5 1 1 eighth down 1 begin C 6 1 1  
continue E 5 1 1 eighth down 1 end F 1 6 1 1 eighth sharp down 1 begin F 1 4 1 1 eighth sharp down 1 continue B 4 1 1 eighth down 1 continu  
down 1 begin G 5 1 1 eighth down 1 continue D 6 1 1 eighth down 1 continue A 5 1 1 eighth down 1 end A 5 1 1 eighth down 1 begin G 5 1 1  
continue G 5 1 1 eighth down 1 end E 5 1 1 eighth down 1 begin C 5 1 1 eighth down 1 continue D 5 1 1 eighth down 1 continue F 1 5 1 1 eigh



# Radio grrrl IX Interference

An investigation into the discriminatory nature of technology and technology-based art practices through sound and photography, focusing specifically on radio-based mediums and communications. The work is informed by contemporary Techno, Xeno, and Cyber-feminist theories to explore how technology could be used to create utopian spaces for women, nonbinary people, and trans folk. Developing knowledge through experimental practice and process on sound visual translation, the output for this project is a book, short film and eventually a performance piece that utilises the weighty history of radio culture to explore bigger issues of gender bias.

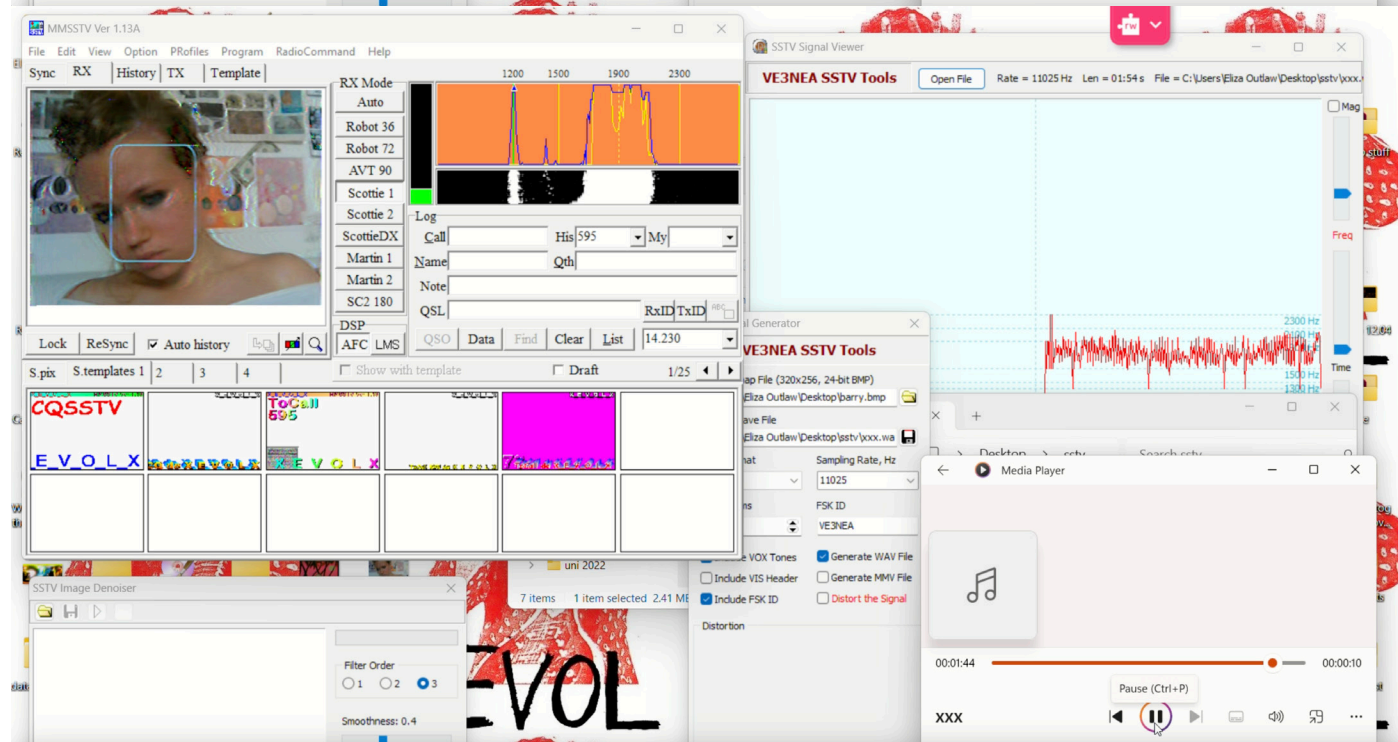
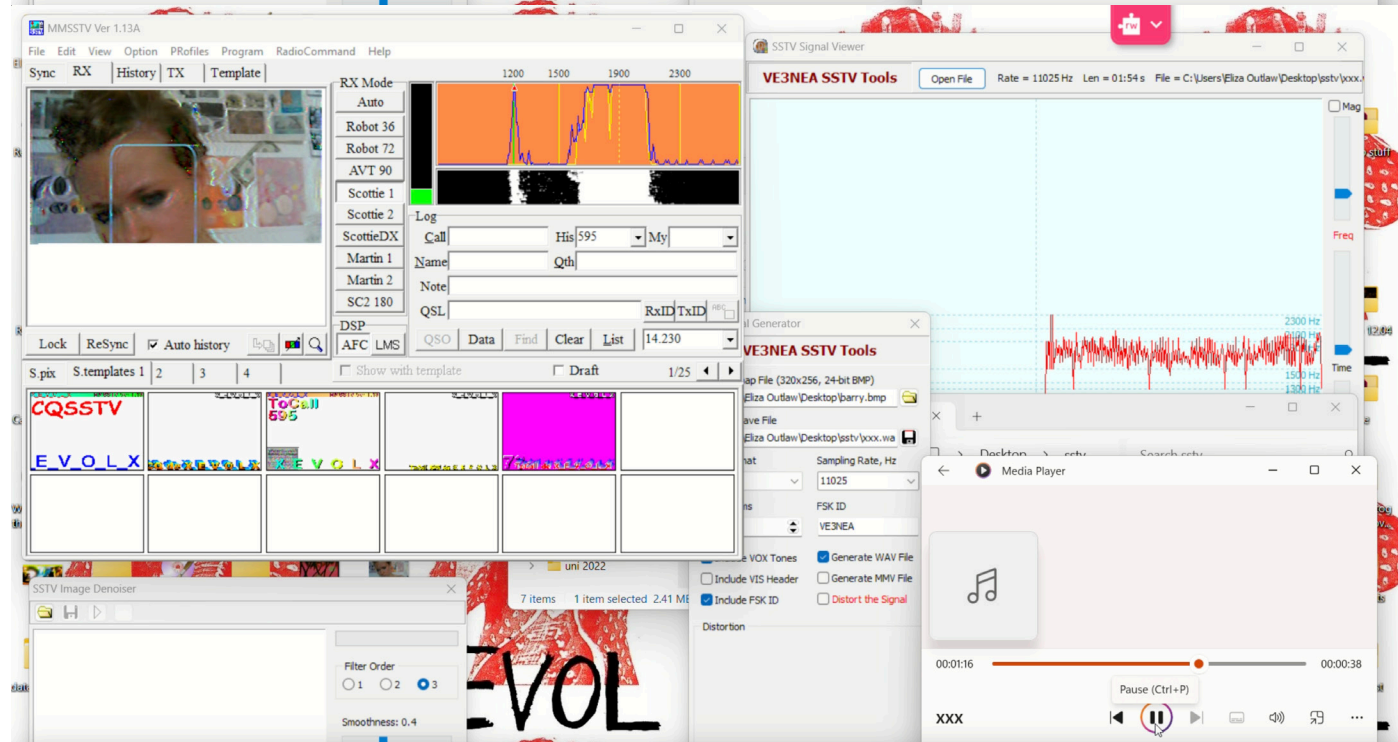
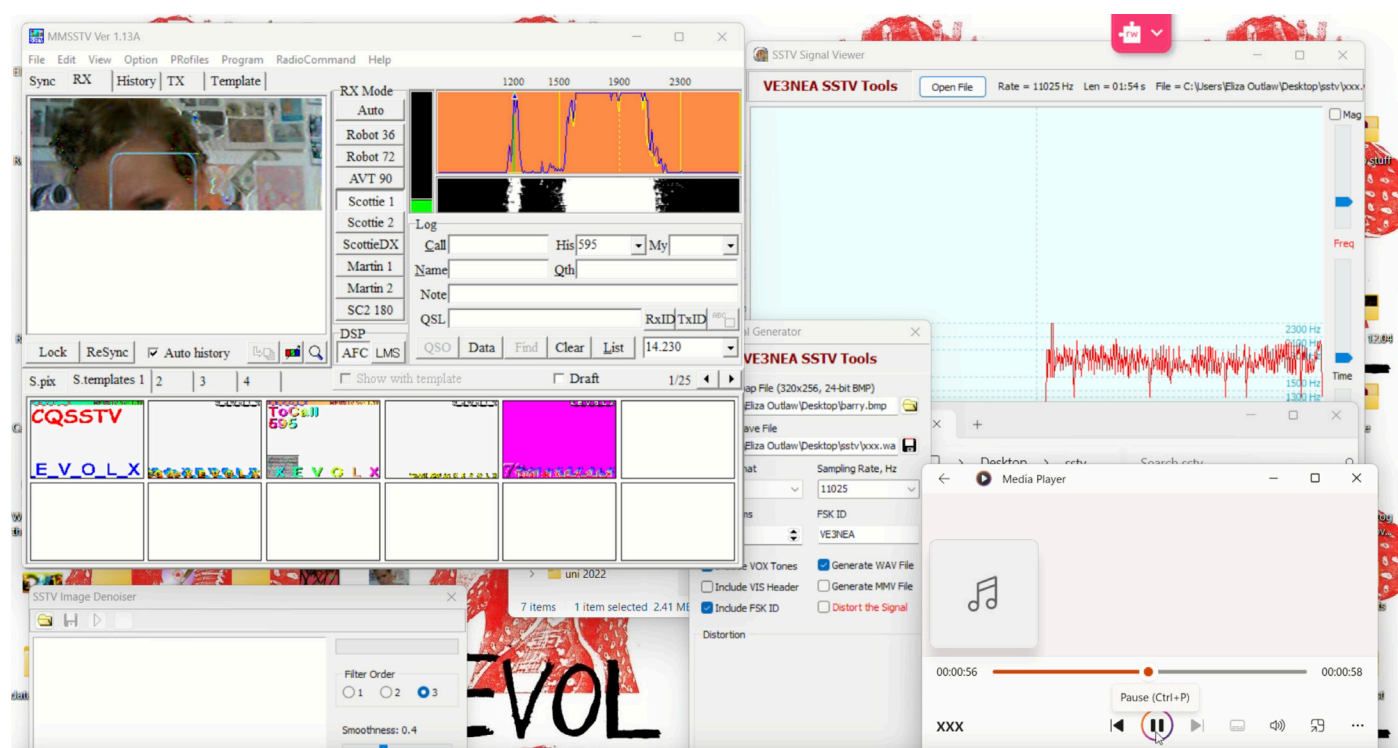


EVO 1045. DURATION: 1:00.  
Pushing image data as sound through effect pedals.



LA 07.11.24 11.20am. DURATION: 2:39. Audio.





(Above) Eyeballed?! I'm on the radio honey. DURATION: 13:14.  
SSTV Transmissions and recorded amature band radio.  
(Left) First attempt at SSTV. DURATION: 2:04



## HOW CAN WE USE RADIO CULTURES AND VISUALS, COMBINED WITH SONIC TECHNOFEMINIST THEORY, TO EXPLORE GENDER BIAS IN TECHNOLOGY-BASED FIELDS?

Technology, specifically radio technology, has had a long history of gender bias and discrimination, championed and supported by an androcentric dominance that has branched into nearly everything we use today. With a disparity in access and education, it is evident how prejudice has controlled our relationships and perception of how women interact with technology. *"The sociology of technology can only be strengthened by a feminist critique. This means looking at how the production and use of technology are shaped by male power and interests."* Wajcman, J. (2009). This publication will analyse radio's sexist visual material as a reflection of the discriminatory nature of technology. Reflecting, reclaiming and adapting otherwise male-dominated landscapes by applying feminist theory onto outdated mediums, acknowledging radio's weighty cultural history as a sight for change.

*"Technology is a medium of power"* Cockburn, C. (1987). Consistently we see *"Mens historical control over machines and the continuing underrepresentation of women in scientific and technological fields"* Wajcman, J. (2009, p.10) Through modern feminist theory, analysis can be made on how to improve technology spheres. *"Xenofeminism seeks to strategically deploy existing technologies to re-engineer the world. Technoscientific innovation must be linked to a collective theoretical and political thinking in which women, queers, and the gender non-conforming play an unparalleled role."* L, Cuboniks. (2018, p17.)

Techno, Xeno, Glitch and Cyber feminisms individually look at the relationship that women or people have with technology, computing, and the internet. With this concept in mind, I wanted to investigate how communication technology could interject a feminist lens into a male-dominated landscape as a method of information distribution, utilising *"feminist ears/listening"*. *Bodies of Sound'* Revell, I and Shin, S. (2024) is a collection of essays where *"histories and politics come together with sound and listening."* *"Feminist ears"* is a form of *"Sonic agency and earwitnessing"* Ahmed, S. (2024, p. IV). While analysing sound and feminist theory, Ahmed encourages active listening as *"Ways of thinking*

*politically the sonic."* (ibid) With radio as a transmission, a broadcast and a receiver it becomes a tool in which we can advocate for change. When re-establishing lost connections with communication technology we can advocate for *"The redistribution or rewiring of disembodied voices".* (ibid) This publication aims to promote the feminist and queer political potential of reclaiming radio: *"We are louder not only when we are heard together, but when we hear together"* Ahmed, S. (2024, p. IV).

With a combination of practice and play this publication explores how you can create abstract uses for obsolete technologies in a modern media landscape by analysing patterns of exploitation and neglect of engagement towards women, transgender and non-binary people. *"Glitched bodies - those who do not align with the canon of white cisgender heteronormativity - pose a threat to social order... The glitch challenges us to consider how we can 'penetrate, break, puncture, tear' the material of the institution... glitched bodies are not considered in the process of programming new creative technologies."* Russell, L. (2020, p.25) Using current and archival aesthetics surrounding technologies, this publication proposes ways to build a feminist artistic radio practice, informed by existing media, that mocks the outdated traditions of radio culture. Presentation of these images through distortion and editing mirrors the theories by redefining technologies from something unwelcoming, unmonitored and sexist, into tools that can be used artistically and politically for the benefit of others. Becoming a how-to guide, introducing early information on radio technologies stylistically and intentionally referencing riot grrrl culture by looking at spaces that need infiltrating as an active form of resistance, in the hope that one day the tone of discussion around women in technology changes.

*"You will never understand radio by listening to it. Take a spin through the AM or FM band on your set and you'll find music, sports, news and a witty repartee... radio contrary to what the commercial broadcasters and regulatory bodies would have you believe, is a model built of putty. You can stretch it, tug it and reshape it."* Strauss, N. (1993, p.9)

This publication encourages a feminist remodelling of how we use radio.





*Radiogr1, 73. TX Inteference.*

Radiogr1, 73. TX Interference. DURATION: 11:11.  
Radio Navigation.

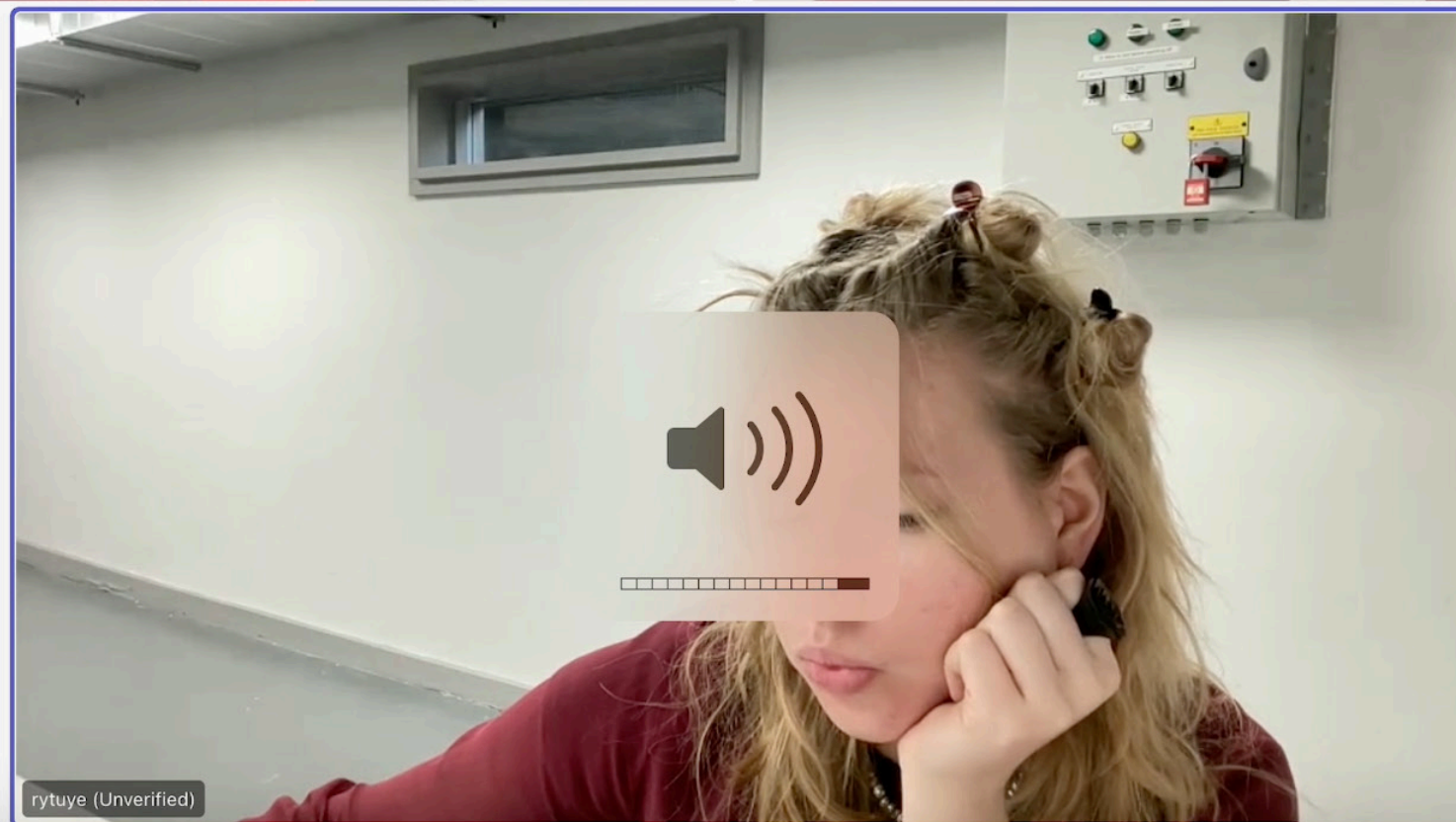




hfjn



Eliza Outlaw (Unverified)



rytuye (Unverified)

(Progression) Screen Recording 2025 03 14 at 13 08 40 1.  
Performance practice for live version of radiogrrrl. Using  
mutlitle screens and live performance to present my work.  
DURATION: 1:29. Controlling video feedback.



thank you  
for your time