


VISIBLE  
FOOTPRINTS

By Claire Cavanagh

Fabricademy 2025 /26

échofab

  
FABRICADEMY  
textile and technology academy



I have always been captivated by **nature's patterns...**

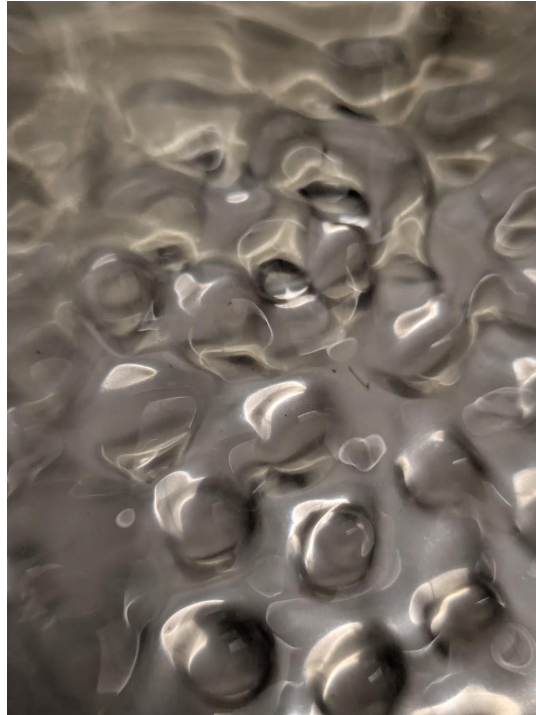


**I've been documenting them for years...**

In the future I'd like to work as an **“analogue” surface pattern designer.**

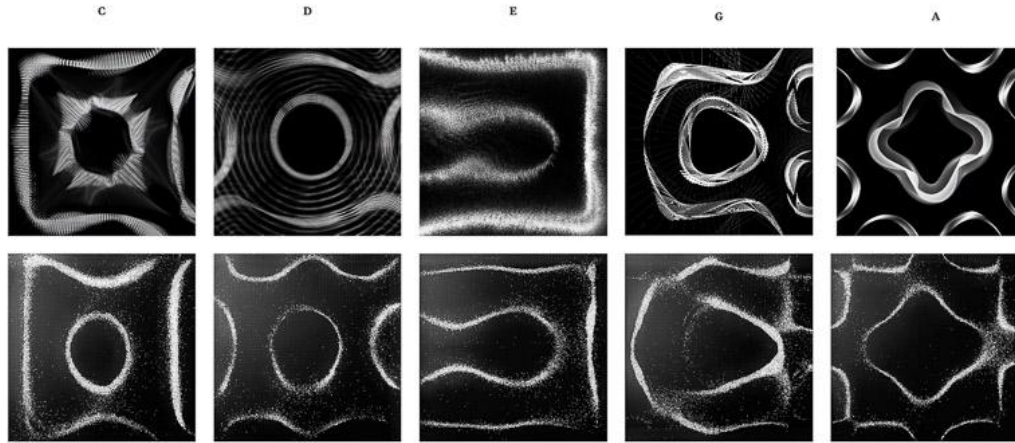
This doesn't mean digital processes can't be used.

But the point is to collaborate with nature and focus on the **real-world processes** I love...



For my final project I explored combining **cymatics with the art of water marbling (Ebru).**

**Cymatics** are patterns made by sound. They are all around us but generally unseen.



*Cymatics captured by  
Erika Weitz and  
Thomas Noya*

They are made visible by sending a tone to a metal plate or a bath of water.

The still “nodes” on the surface of the bath or plate is where the material wants to concentrate.

**Suddenly sound is visible.....**

Every plate has different **optimal resonant frequencies...**



For this project I captured the frequencies of ...

**22,24,32,45,53,37,63,89**



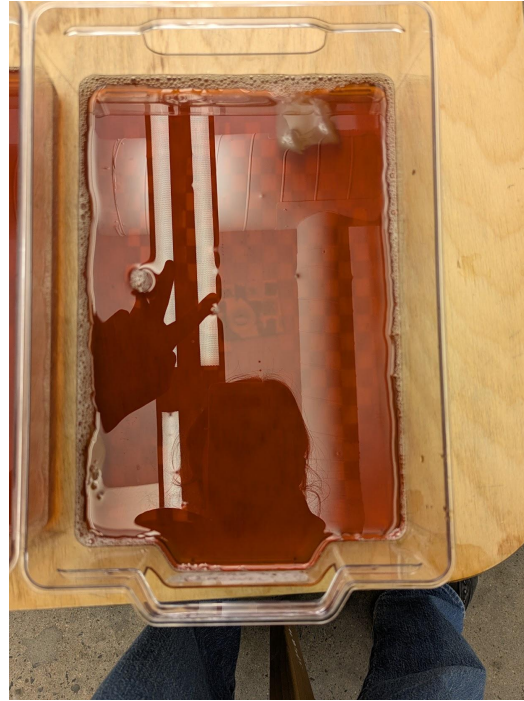
And I hand printed them on mulberry silk  
and paper.... By mixing **Indigo** with **Sumi ink (charcoal)**



Since I'm a gardener, and growing materials is a big part of my future, as a bonus, I couldn't resist throwing a **bio-material accessory** into the mix...



In this case a **kombucha bag**,



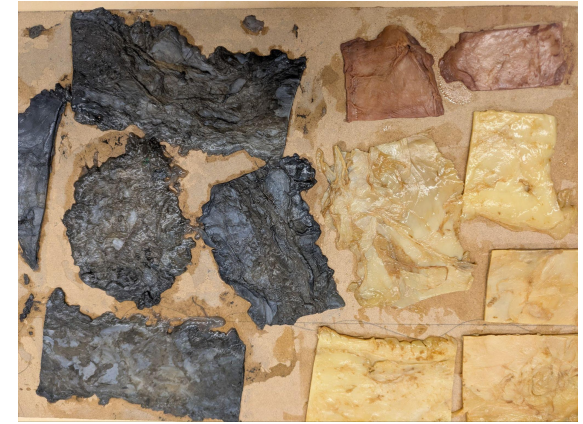
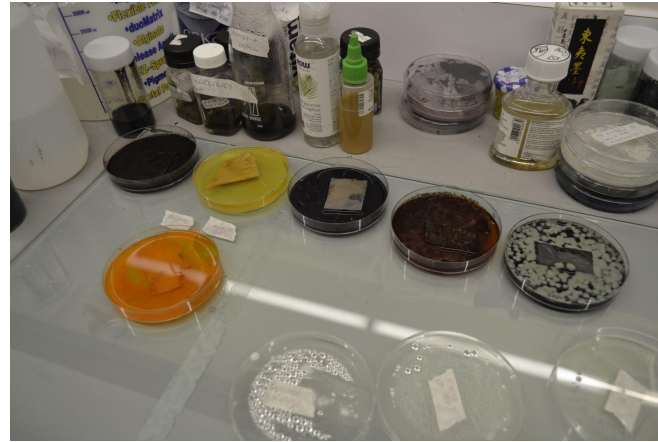
grown by me...



and sourced from a local supplier...

The Kombucha Bag was made of raw **denim** and **kombucha leather**. Dyed with:

- **Japanese knotweed + Iron sulphate**
- **Red onion skins**
- **Weld**
- **Safflower**



The base of my cymatics machine was made using:

- **an amplifier ( required to convert the vibrations to sound)**
- **A regular speaker**
- **A bucket and plastic sheet for waterproofing**
- **16 guage wire**
- **An aux cable for connecting phone**
- **An additional waterproof speaker as backup**



I really do believe in enjoying the **process...**

because process **is** the time  
that makes up our **lives.**

**So in addition, I seized the chance to incorporate some long standing goals into it all:**

- getting my second language (french) to a level where people don't switch to english for me in public.
- picking up analogue photography
- learning to animate and video edit
- writing music (which I will do based on the frequencies I've collected.)



Now it's time to build new processes with the help of other people. To share the enjoyment of curiosity.  
**Because there is so much beauty that constantly surrounds us, even when we can't see it....**