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Foreword

April 3, 2023

Studying the “Making Drawings Making Things” course showed me how to build skills in developing possibilities and ways from a simple idea.

In the first session, “Making Drawings”, we learned how to draw with simple lines and develop ideas in diverse ways; however, in the next term “Making Things”, we learned the making ideas into physical objects. Although the models and concepts are rough and extemporaneous, this making method gave us a great possibility of developing the ideas into a higher-quality result.

The last folio book, “Making Drawings: For-Leo.” was made in a landscape format with Adobe Illustrator. The “Making Things” folio book shows in a portrait format with more apparent picture format layouts than the previous portfolio, which is made with Adobe InDesign.



Processes of Plaster casts in Victoria & Albert Museum.

Making Process Search: Victoria & Albert Museum

January 16, 2023

As soon as we returned from the break, our meeting point of the first day was the Victoria & Albert Museum, located just under Hyde park. Our mission there was to learn what kinds of processes are used in making things and how they are processed. So the first movement we did was to find different production methods inside the museum.

We learned three primary process methods which our tutor Edward Bagenal mentioned in a quote from Daniel Charney in this course, and based on them, we developed our skills.

"Makers use numerous different skills and techniques to shape their materials. All these techniques may be considered as falling into one of just three types.

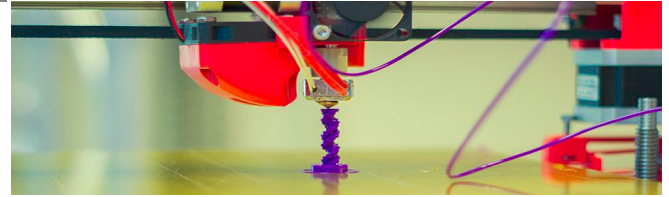
Adding techniques join, layer or combine materials. They include welding, soldering, veneering, weaving, embroidery and painting.

Subtracting techniques remove materials. They include cutting, carving, engraving, drilling and grinding.

Transforming techniques alter materials 'matter'. They include throwing clay, blowing glass, forging metal, and baking, etc.

The transformed states may be temporary or permanent. Irreversible transformations occur in processes like vacuum forming, 3D printing and casting."

-Daniel Charney-



Making Processes

Tutors: Edd Bagenal Spring Term

Context

Types of making;

"Makers use numerous different skills and techniques to shape their materials. All these techniques may be considered as falling into one of just three types.

Adding techniques join, layer or combine materials. They include welding, soldering, veneering, weaving, embroidery and painting.

Subtracting techniques remove materials.

They include cutting, carving, engraving, drilling and grinding.

Transforming techniques alter materials 'matter'. They include throwing clay, blowing glass, forging metal, and baking, etc. The transformed states may be temporary or permanent. Irreversible transformations occur in processes like vacuum forming, 3D printing and casting."

-a quote from designer Daniel Charney

www.vam.ac.uk/content/articles/p/powerofmaking

As designers it is important to understand how these processes are, and can be, applied to produce designed things. This workshop is designed to build your knowledge of these processes of making.

--

Brief

Location: The Victoria & Albert Museum

1. Tour the Museum finding as many processes as you can. Record them in your sketchbook noting the following:

- The name, era and use of the process.
- The nature of the process - what 'type' of process it is- for example; "an adding process" (see above, in 'Context')
- How YOU could use the process in the studio.

course area: Making Drawings Making Things

Assessed Outputs

Reflective report- PDF 2xA4 pages (minimum)
Uploaded to Learn.gold that distills and reflects upon at least 4 sketchbook pages that you have produced for this task

Guidance

Draw and take photographs of everything

Ask the V&A staff to help you! They have a good knowledge of the museum and will direct you to the best resources. Remember to write up each workshop session in this course to present with photographed or scanned digital material to illustrate the work you did for each brief.

You should have, alongside images and drawings;

- A description of what you were asked to do (the brief), where you carried it out, with whom and why.
- A description of what YOU did in response to what you were asked to do- your particular take on the work, the decisions you made and why.
- A reflection upon how well this worked, Examples of how it was difficult/successful/ Not successful etc. as well as noting what you learned from your working out the response you gave and where you think this might be useful in your own practice now and in the future.

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Schedule

10.30 am meet and brief-

11.00 - 12.30 survey and collect data

12.30 - meet to discuss findings

Friday by 09:00am-

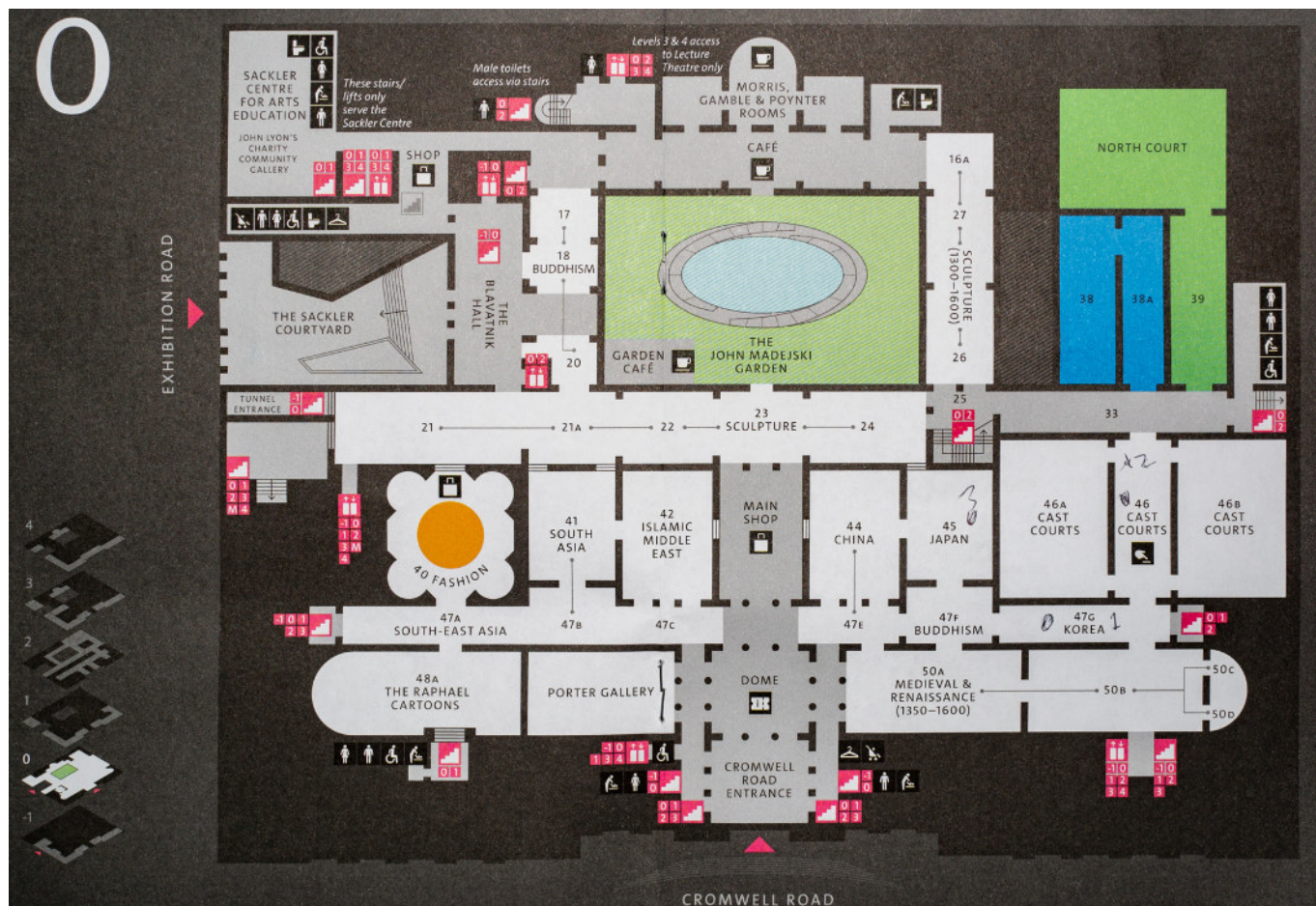
upload PDF report to Learn.gold --

References

www.vam.ac.uk/content/articles/p/powerofmaking

VLE area for this module: <https://learn.gold.ac.uk> -

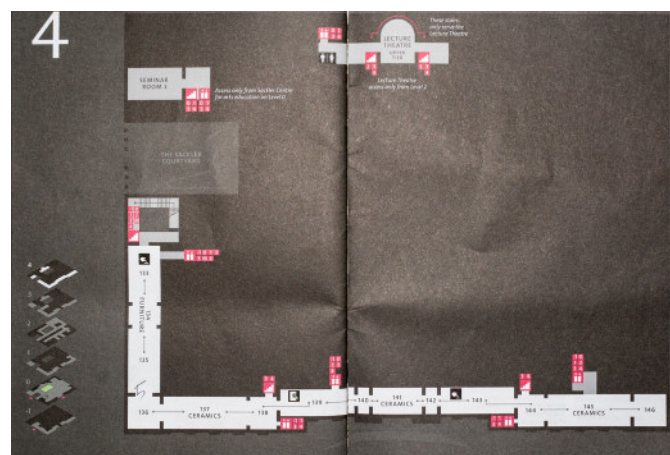
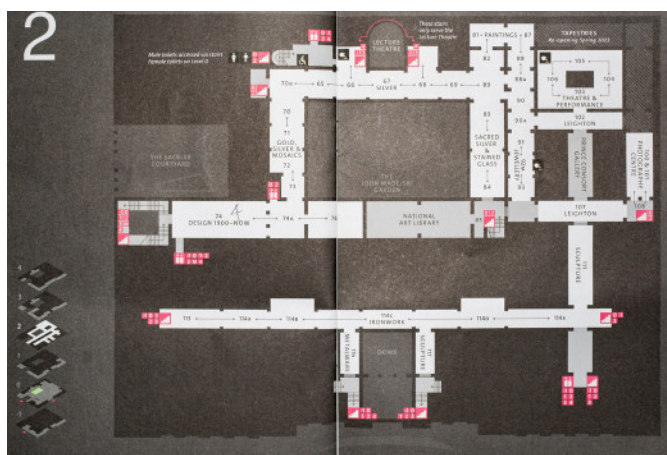
Marking locations on the map



As mentioned, the first task was to tour the museum and find interesting or valuable processes exhibited inside; however, before moving on to searching, the first brief we had from Edd was to mark every observation we made on our museum maps and record them on our sketchbooks.

The marking was to prepare for the need to find the location again to gain missing information, and the recording on the sketchbook was for us to study the process we found and to increase our knowledge with our research. Visiting the Victoria & Albert Museum gave me great help in figuring out

new kinds of methods I needed to learn, and I felt proud to have much further information.



Recording on sketchbook

January 19, 2023

In the chapter “Recording on sketchbook”, I sketched, wrote down the steps of the process and marked the information, including the maker and the date from the Victoria & Albert Museum.

This project allowed me to look at how products are made rather than how to use them. Knowing many of the making processes to make something of my own will be very advantageous. It was amazing that every country has their historical material. It is also that there are thousands of possibilities that different civilisations could have used the same material, but they have yet to.

Even though the materials have differences, they are all solid and diverse in their ways. It would have been better if I had looked up more types of processes from the Museum.

• Ott-chil: Laquer vessel

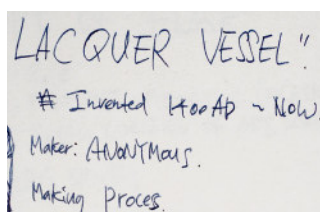
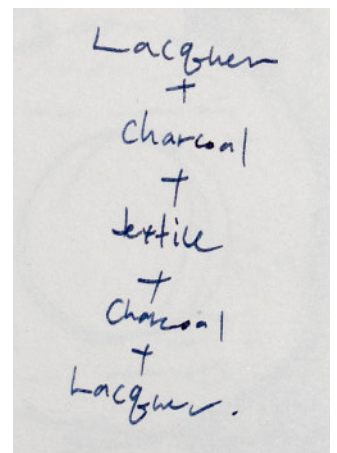
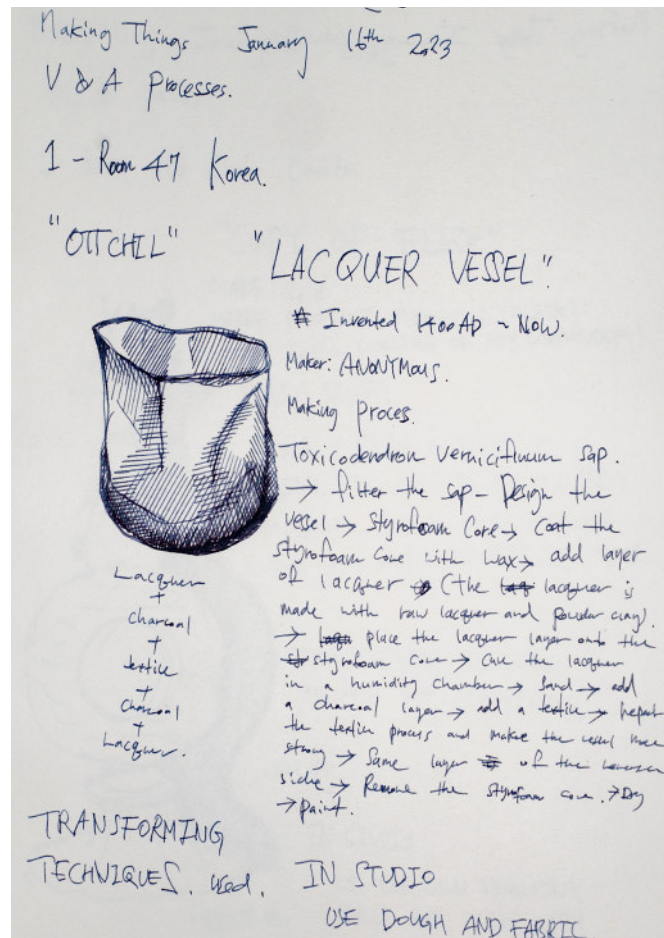
January 19, 2023

The word "Ott" came from the Korean word, which means "Lacquer" and "Chil" for "Applying"; altogether, "Ottchil" means "Applying Lacquer".

Unfortunately, Ottchil is a very long traditional way of making, so it is impossible to know who first invented the method; however, the vessel in the museum and the one described in the sketchbook is a product designed by Hae-Cho Chung, who is an Ottchil master and only uses the traditional way.

At first, This process was just a traditional and expensive type of process until I realised that applying Ott on wood gives the product self-healing abilities, makes it water resistant, and keeps the meal inside fresh for days. It also makes the product rich and colourful by being shiny. In studio, we can perhaps use dough and fabric to experience the method.

Below this text, I wrote down the steps of making a conventional Ottchil which was described in the museum.

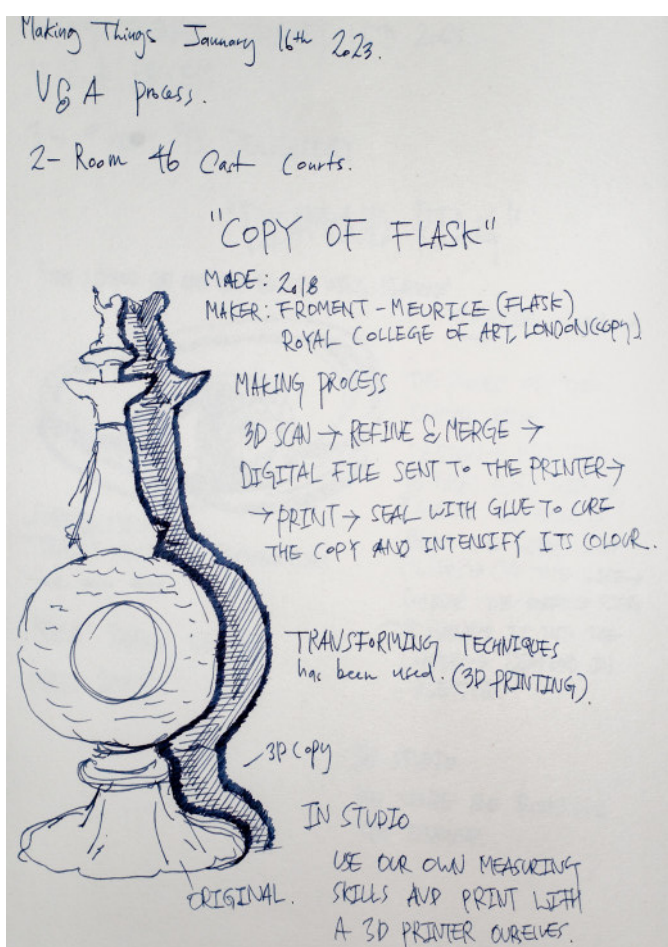


- make the Vessel more Strong -
- 13. Remove the Styrofoam Core -
- 14. Dry -
- 15. Paint.

Image from Victoria & Albert Museum.



1. Toxicodendron Vernicifluum Sap -
2. Filter the Sap -
3. Design the Vessel -
4. Styrofoam Core Build -
5. Coat the Styrofoam Core with Wax -
6. Add Layer of Lacquer (the Lacquer is made with raw lacquer and powder clay) -
7. Place the Lacquer layer onto the Styrofoam Core -
8. Cure the Lacquer in a Humidity Chamber -
9. Sand -
10. Add a Charcoal Layer -
11. Add a Textile -
12. Repeat the Textile Process and



Full image of the page "Copy of flask".

• Copy of flask

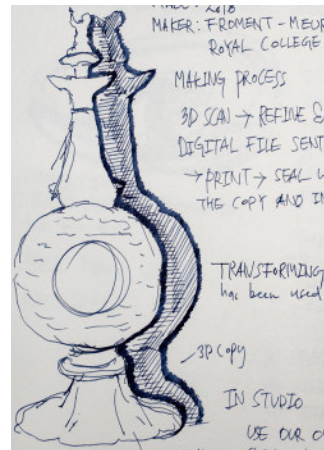
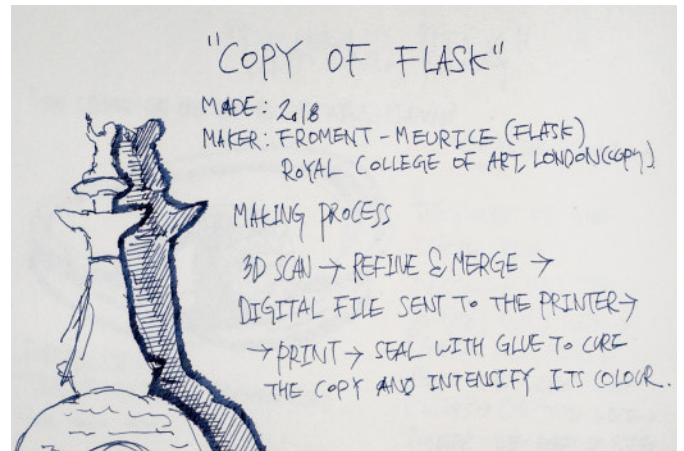
January 19, 2023

The second process I found was the Copying techniques using 3D scanning. With this process, I was surprised because of the possibilities it has.

The example shown in the museum was restoring the old flask and preserving the form of the old flask. This process makes it possible to keep the object's structure and history even though the original is gone; however, keeping the original will be more critical.

I think the importance of this process is storing the object in a virtual digital space. To reproduce this process in our studio, using our measuring skills and 3D programmes will make it possible. This process was made in the Royal College of Art, London in 2018.

Image from Victoria & Albert Museum

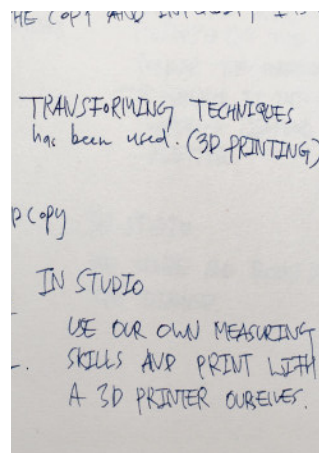


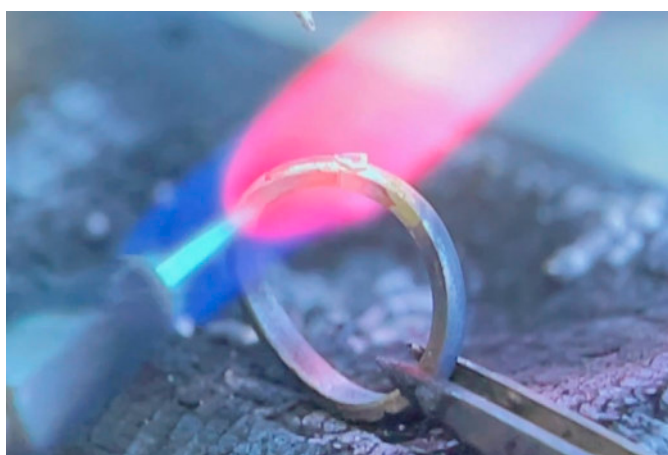
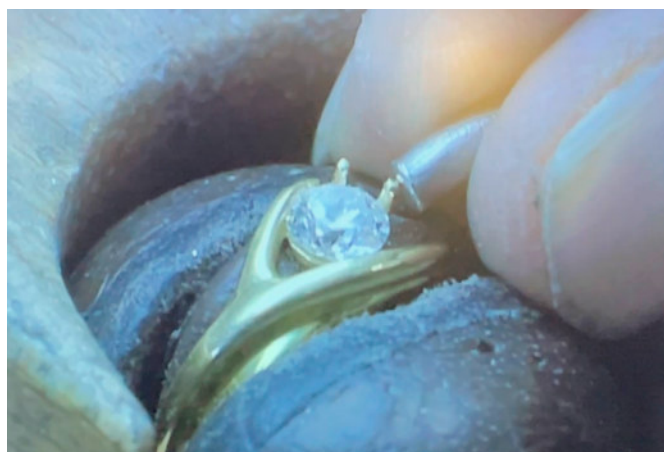
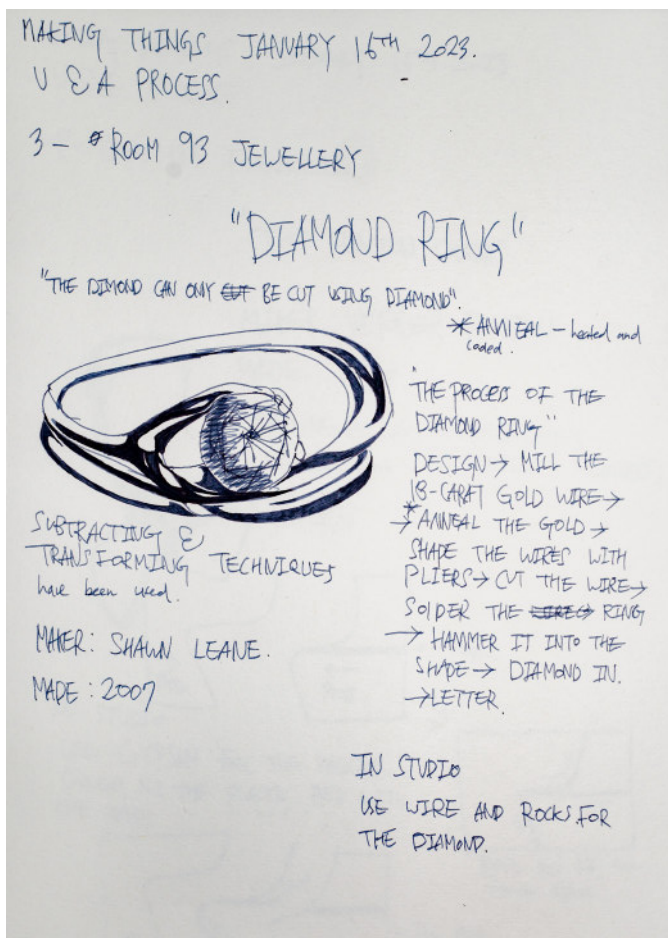
Also, a great application called "Polycam" on Appstore makes several iPhones possible to 3D scan an object through the LiDAR sensor below the rear camera.

For this process, transforming techniques have been used.

Below this text, I wrote down the steps of making a conventional Ottchil which was described in the museum.

1. 3D Scan -
2. Refine & Merge -
3. Digital File Sent to the Printer -
4. Print -
5. Seal with Glue to Cure the Copy and Intensify its Colour.

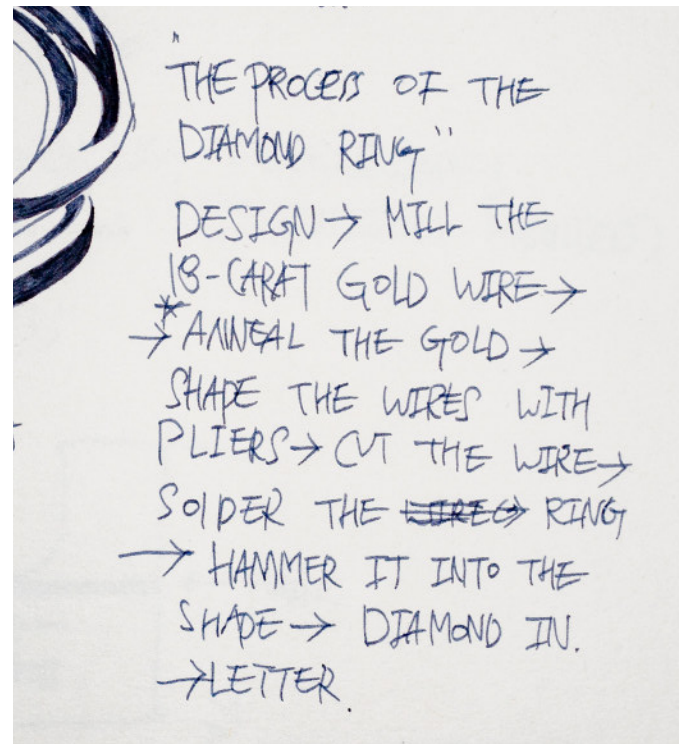
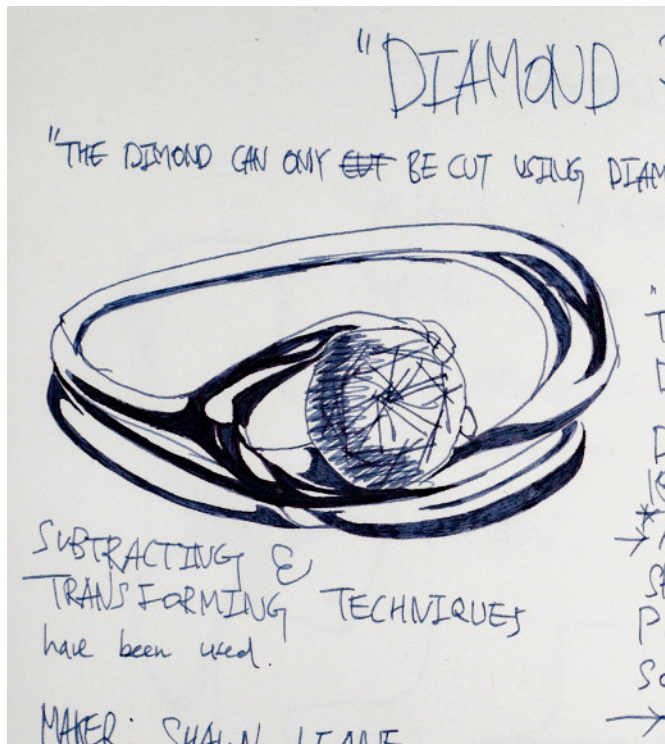




Full image of the page "Diamond ring".

• Diamond ring

January 19, 2023



My third observation was the process of making rings. Again, the method of goldsmiths took my sight because I am always into specific things and premium materials.

This process also gave me a different meaning because of the school's name, "Goldsmiths".

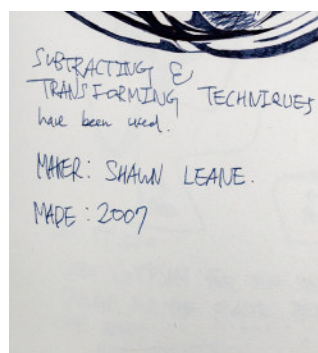
For this process, Subtracting & Transforming Techniques were used in 2007 at the Royal Col-

lege of Art, London.

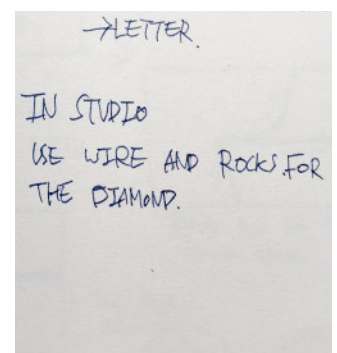
Below this text, I wrote down the steps of making a conventional Ottchil which was described in the museum.

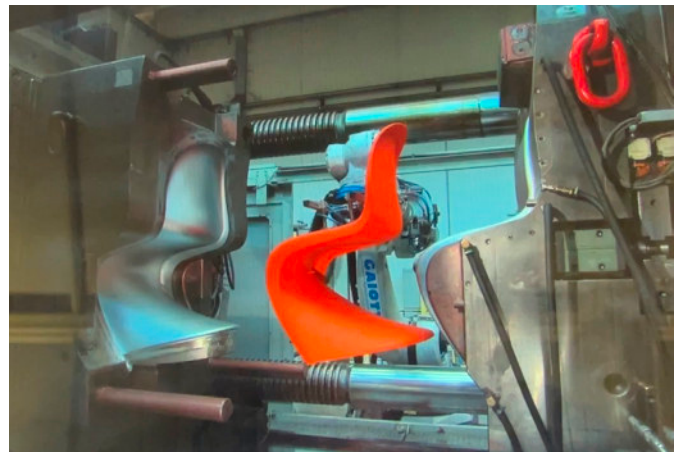
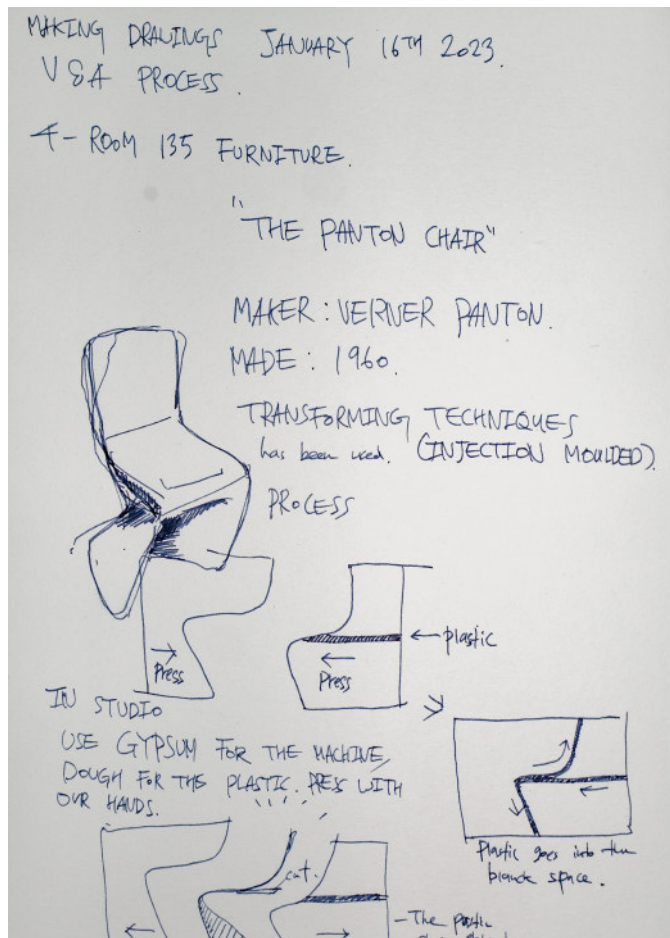
In our studios, using wires and rocks for the diamond will be possible to experience a similar technique.

The process made lesson for me to know the knowledge of how to change formations of solid metal into a curved shapes.



1. Design -
2. Mill the 18-Carat Gold Wire -
3. Anneal the Gold -
4. Shape the Wires with Pliers -
5. Cut the Wire -
6. Solder the Ring -
7. Hammer it into th Shape -
8. Attach the Diamond -
9. Engrave Letter.





Full image of the page "The Panton chair".



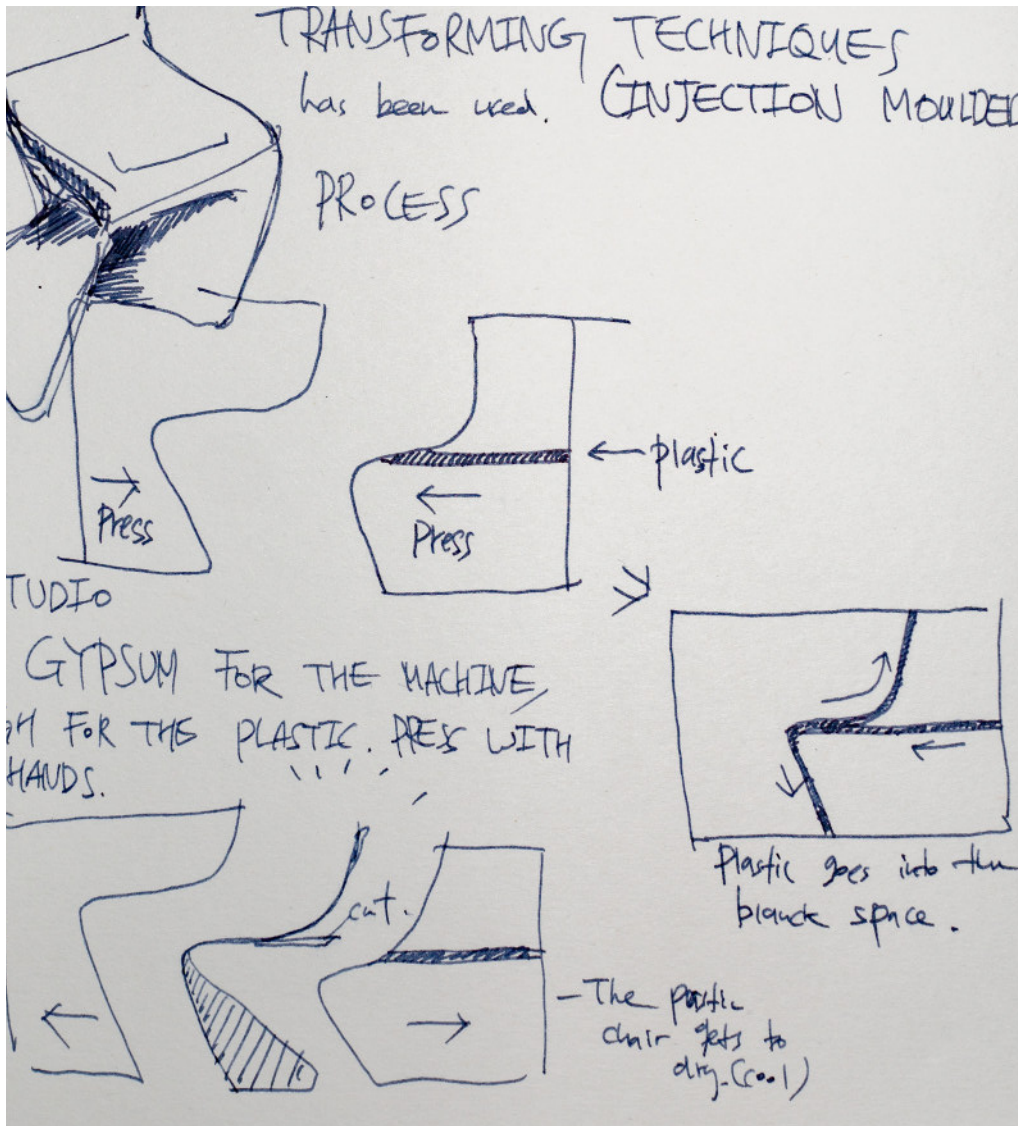
• The Panton chair

January 19, 2023

The last process I found was injection moulding which is a transforming technique.

This process came into my list because most of the products we use today are made with injection moulding.

In the Victoria & Albert Museum, the best example made with injection moulding was the Panton chair.



This chair captured my attention because of its simple design with the sophisticated look of how it makes a person sit. It is known that because it is injection moulding, it is made with a simple step.

Verner Panton made the chair in the 1960s.

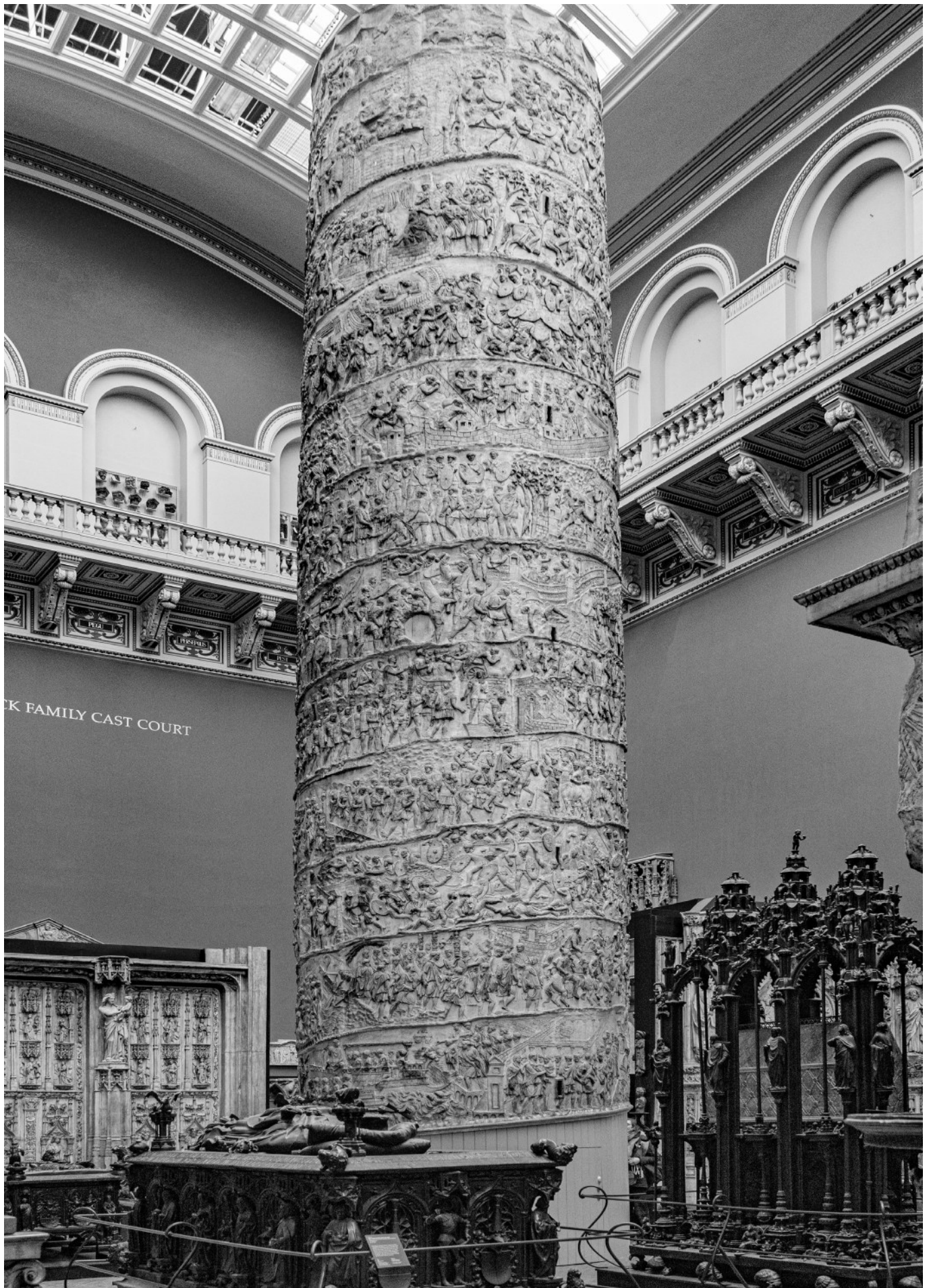
Below this text, I wrote down the steps of making a conventional Ottchil which was described in the museum.

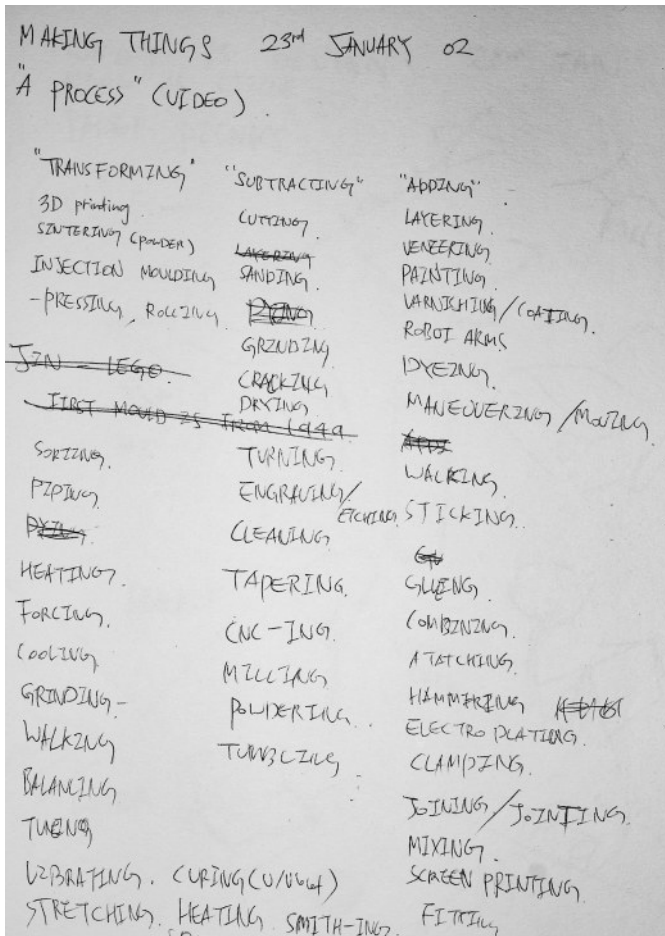
1. The presser goes together -
2. The plastic goes through the tube and gets full between the presser which is a shape of a chair -
3. The presser goes apart -
4. The plastic cools down -
5. Cuts the finish part away.

I learned from this process that injection moulding looked very simple and cheap, which will make a product easy if the process is well invested into the machine.

January 19, 2023

End of "Making Process Search: Victoria & Albert Museum"





Full image of the page "A process" brain storm.

A process

January 23, 2023

In the session "A process", our task was to research interesting processes, make a presentation about the research we did, and show a video of it.

With this presentation, I was able to learn about different methods and techniques of finishes that were used for making products.

The image on page 20 is my sketchbook page of brainstorming and observing the process videos from my IFC classmates. The videos contained many processes, and every single one was useful in making products.

Nowadays, environmental friendly is a significant matter in making such a product. However, Pianos, Audio and all wooden products need to be more environment-friendly as they require fresh wood from the forest. Because of this situation, it would be great to discover new environmental materials to replace these premium products.

IFC Term 02 week 02 _A_Process

Brief

1. Find an object that has been designed
2. Research ONE process that was used to make one part of it.
Make sure no one else in the group has chosen to research and present the same process- if they have, agree to find a different process to present.
3. Find a video (3 minutes or so long) that explains that process.
For examples- here is a video library showing over 40 varied and fascinating making processes;

<http://www.productbyprocess.com/>

REMEMBER to write down the reference for the video- Who made it? When? Why?

4. Now write a 5 minute presentation to present to the group explaining the process, to go alongside the video. This should include answers to the following questions;

- What else is this process used for?
- Is it an environmentally sustainable process?
- When was it invented?
- Who invented it?
- Why?
- What for?
- How else COULD it be used?
- What scale is it best for?
- And more...

We will watch your video and then you will present your accompanying description and research on the day. After the presentations you will be asked to write up a report about all the processes and discussions, as well as your own thoughts about processes of making to accompany the written version of your presentation showing screenshots from your chosen video. Include a link in your folio and printed/physical folio, to the video online.



Lacquerware process <http://echizen.org/panel/p46/>

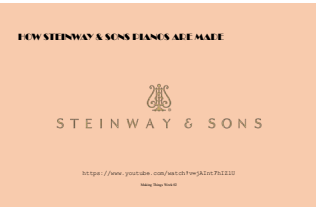
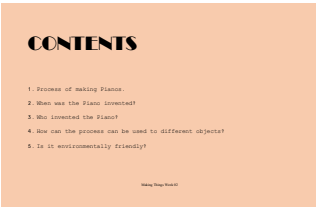
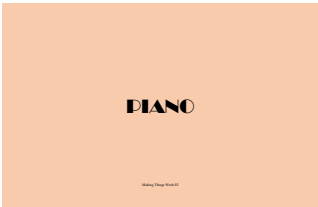
Making presentations

January 23, 2023

As the presentation was for finding videos and information about different processes, I found four videos about Pianos, Propellers and speakers. The images below this text are the actual presentation images I used

during the presentation. The presentation would have been smoother if I had more confidence and fluency in my language. I learnt that researching is an essential part of a project and gives

a lot more idea about the project than before the research. The next page will show the specific details about the videos I found.





Steinway & Sons piano (No copyright image)

• Steinway & Sons piano

January 26, 2023



The first video was about "Pianos". Pianos are an excellent research example and show many exciting techniques we can study.

Pianos use "wood" for the basic structure, which humans have used for a long time. Changing the shape of wood is more accessible than other chemical-used materials but strong as the others. It also gives a premium touch.

The first video is about Steinway & Son's piano. The video through the link shows how Steinway & Sons pianos are made in the New York factory by describing the specific steps how pianos are built, for example, how the body structure is made, how they bend their piano body, how they tune the strings and how they make their piano hammer.

Because of this research, I consider that pianos are the most representative product that uses all the three process techniques mentioned on page 9.

<https://www.youtube.com/watch?v=jAInt7hIZIU>



Cavendish piano (No copyright image)

• Cavendish piano

January 26, 2023



The second video is about Britain's only piano makers. The footage details how pianos are made and who made the first piano. According to the video, the first piano was made/invented by Bartolomeo Cristofori in Italy.

It is so amazing that people make such an extensive product like a piano with their hands and even require a precise finish.

The process of making a piano is divided into three big stages.

The first step is drying and bending the wood (Transforming), which they curve the wood to make the basic shape of the piano.

The second step is making the little parts of the piano, like the hammers and structure inside the piano. This process requires "Subtracting" wood to make it into shape.

The last step is putting the parts together, which is "Adding". The piano contains the three significant processing steps we have learned.

Making a piano is full of possibilities and gave me a structure of how wooden products are made using the three techniques mentioned on page 9.

<https://youtu.be/4zwDokkSWp8>



Wooden propeller (No copyright image)

• Wooden propeller

January 26, 2023



In brief, there was a task to research the process and find where the process can be used in different products.
The product I found was a Wooden Propeller. Propellers were initially made with wood, and some people still make them.

The first step is to press the wood flat(Transforming).

The second step is to grind the wood (Subtracting) into a propeller's shape.

They usually do this process with their hands; however, people use C. N. C(computer numerical control) today.
The video shows the specific details of how the propellers are made.

<https://youtu.be/ax0yaHi4acc>



Bowers & Wilkins 685 Bookshelf speakers
(No copyright image)

• Loud speakers

January 26, 2023



Wood is also used in premium audio systems. One of my favourite audio companies "Sonus Faber" had a video on Youtube. They make all the wooden bodies with their hands.

The process contains all of Transforming, Subtracting and Adding. So I think it is essential to master at least one of the materials and the process to gain 100% idea possibility.

The video through the link shows the video of making the "Sonus Faber" speaker.

<https://www.youtube.com/watch?v=t8sJO2UITfA>

January 26, 2023

End of "A process"

MAKING THINGS 23rd JANUARY 02 "A PROCESS" (VIDEO)

"TRANSFORMING"

3D printing
 SINTERING (POWDER)
 INJECTION MOULDING
 -PRESSING, ROLLING

~~3D - LEGO~~

~~FIRST MOUND AS FROM 1949~~

SORTING

PIPING

~~PIPE~~

HEATING

FORGING

COOLING

GRINDING

WALKING

BALANCING

TUNING

VIBRATING. CURING (U/V/LT)

STRETCHING. HEATING. SMITH-ING.

NEEDLEING. SQUEEZING

PRESERVING. BLOWING. RECYCLING.

"SUBTRACTING"

CUTTING

LAYERING

SANDING

~~DRILLING~~

GRINDING

CRACKING

DRYING

TURNING

ENGRAVING

CLEANING

TAPERING

CNC-ING

MILLING

POLYMERIZING

TURBOCHARGING

"ADDING"

LAYERING

VENEERING

PAINTING

VARNISHING / COATING

ROBOT ARMS

DYEING

MANEUVERING / MOVING

~~WALKING~~

STICKING

~~GLUING~~

GLUING

COMBINING

ATTACHING

HAMMERING

ELECTRO PLATING

CLAMPING

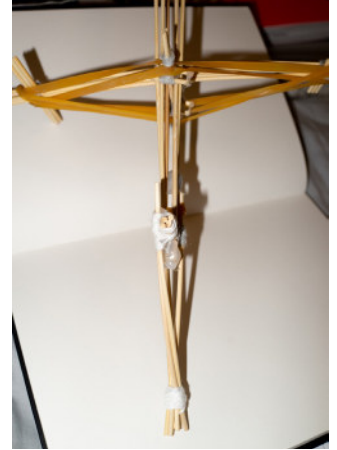
JOINING / JOINTING

MIXING

SCREEN PRINTING

FITTING

WRAPPING



The process of the project "Making machines".

Making machines

February 2, 2023

Images on page 32 are the overall processes of the Crossbow. It is strongly made and completed.

This task allowed me to think about mechanisms and how objects function in their ways. Understanding how things work and how I should make them my way was imperative.

It was fascinating to brainstorm with my classmates about what kinds of energy a machine can use.

This task also taught me to differentiate between a Device and a Machine. Also, it gave me the help to study "What Is Design?" Course by making relation of the Clown act with the Crossbow as "Water Gun".

"A house is a machine for living in."
Le Corbusier, *Toward an Architecture*
(1923)

Background

Machines are objects with moving parts that carry out a process. Almost exclusively, they require some kind of external input, energy or force in order to do this.

Schedule

Firstly, Watch the films linked at the bottom of this brief. Next, think about a context or situation **WITH NO MACHINES IN IT.**

In your sketchbook, write a first person description of the actions and processes that are enacted in the scene. Simple examples are best for this- walking, lifting, pushing etc. Importantly, think about questions about the scene;

Where is it?

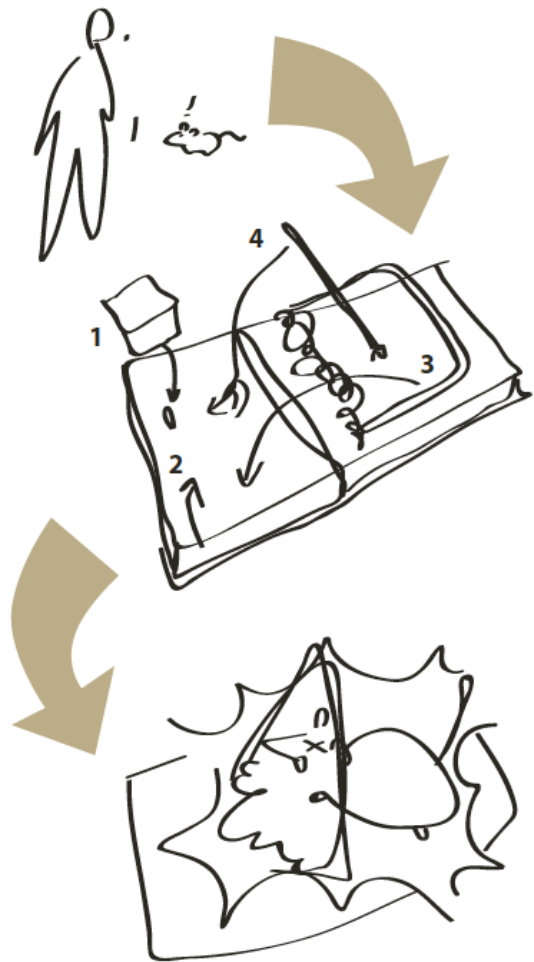
Why is it happening?

Who is doing it? etc.

If possible, relate it to your current studio project.

Now introduce a simple machine that enables, stops or changes the act you have described. Draw the machine and make a simple functioning model. Next draw a step-by-step set of instructions for someone to use the machine.

Outcome (for final folio submission)
Record all your work at all stages of the process. Use a camera, notes and drawings to reflect on what you are doing and why you are doing it.



PDF report, to be submitted before the Friday after the workshop at 09:00: Produce 4 pages to record your work and the process, your methods, your ideas, analysis and the designed outcome. Write 200-300wds reflection, as with all these briefs, detailing; What you did in response to the brief, how it changed your designing and how you could employ this ideation method in your studio work in current and future projects.

References; tutor & author e.bagenal@gold.ac.uk 02079197809

Le Corbusier. *Toward an Architecture* (1923) Publisher: Frances Lincoln

0 percurso das coisas (Der Lauf Der Dinge, Peter Fischli and David Weiss, 1987)
<https://vimeo.com/41630032>

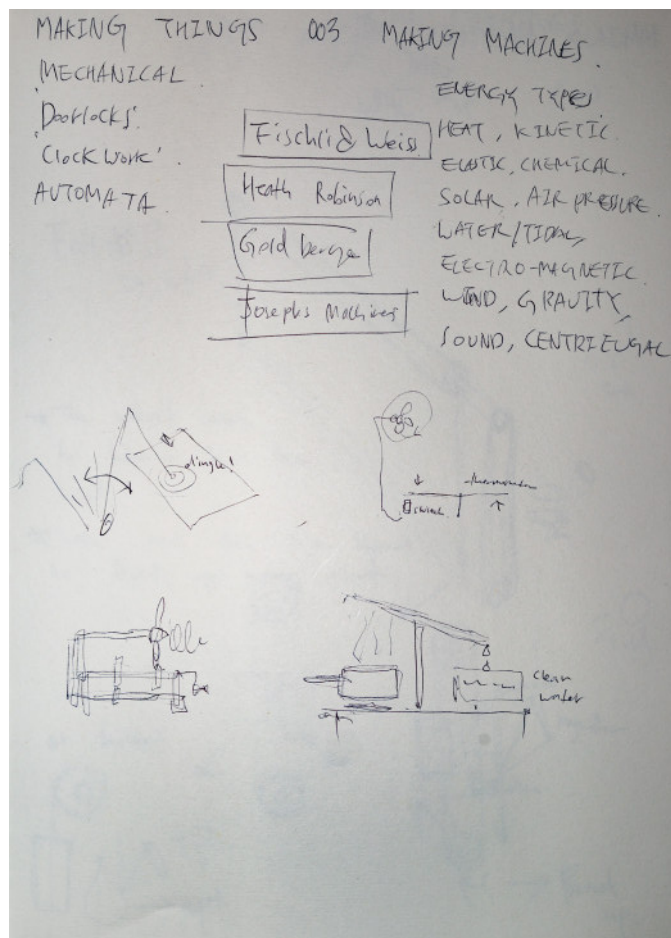
Heath Robinson machines - search for images using this!

Animated mechanisms <http://507movements.com/>

Joseph's Machines on Youtube: <https://www.youtube.com/channel/UCbNvfx3rYYxEopnRGxfu53Q>

Before making the machine

January 30, 2023



Our first task was to gather up the idea of machines and what kind of energy machine uses.

The first thing we did during the class was to watch different types of videos about using energy and transferring them into additional energy. We also discussed famous people who made or drew exciting machines.

Next, we looked at other people who made machines.

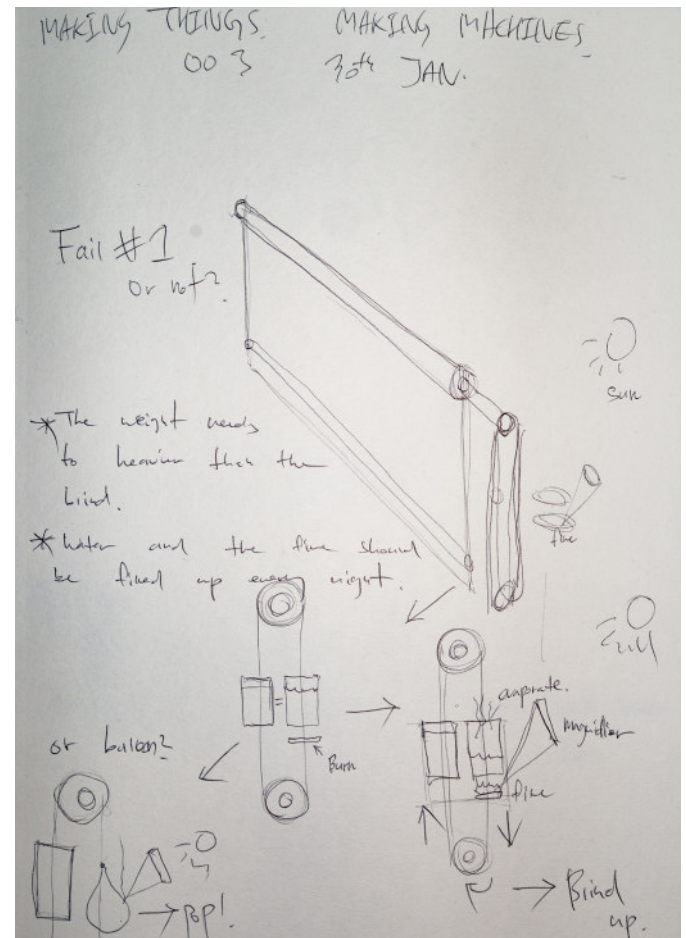
The first person is "Fischli & Weiss", "known artists who create cardboard and paper products. Edd introduces "Der Lauf der Dinge" from their work.

The second person was "Heath Robinson", an artist famous for drawing machines. His works are so creative and neat.

The third person is called "Rube Goldberg", famous for building machines. There is also a contest named after his name, and I participated in it in High school. His work is a great example of our task. A YouTube channel called "Joseph's Machines" was also introduced in the briefing. The contents were creative Goldberg machines.

• Automatic roller blind

January 30, 2023



The image above is the first idea I created for the "Making Machine" project.

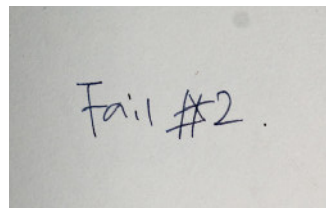
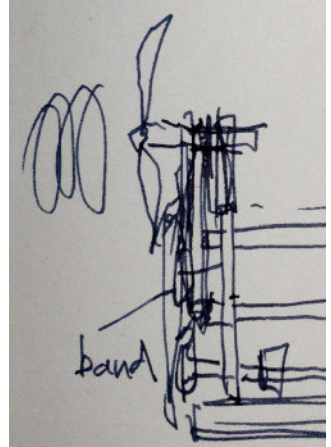
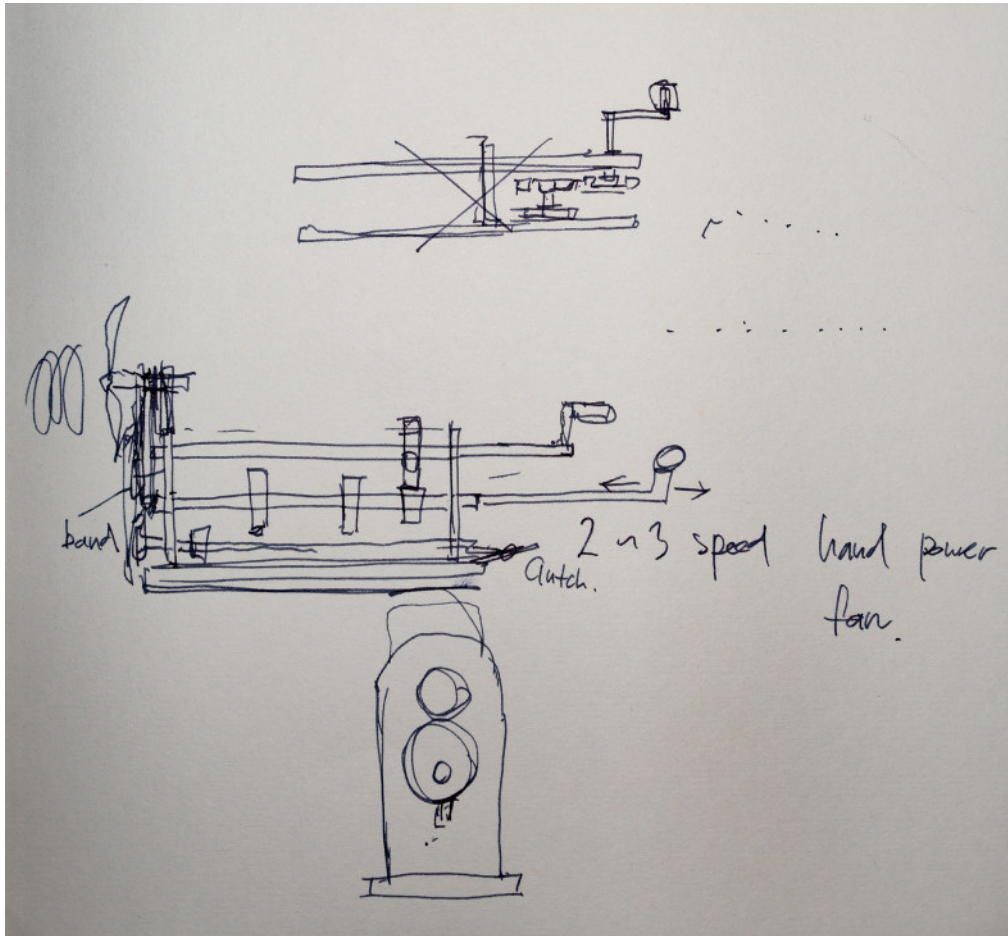
The idea was to make the roller blind go up automatically when the morning came. Two filled water pots are hanging onto the handle of the roller blind, and those weigh evenly. When morning comes, the magnifier focuses on the sun and burns the solid fuel under the water pot on the going-up side. When the water boils, the pot gets lighter, and the heavier pot lifts the handle, rolls

the roller and opens the blind. It was creative.

However, it needed to be more practical and worth the effort to make it into a real machine.

• Manual fan

January 30, 2023



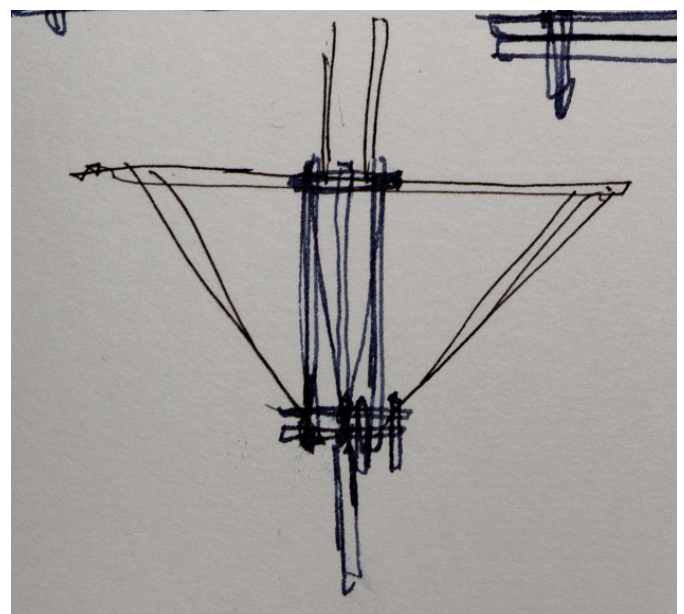
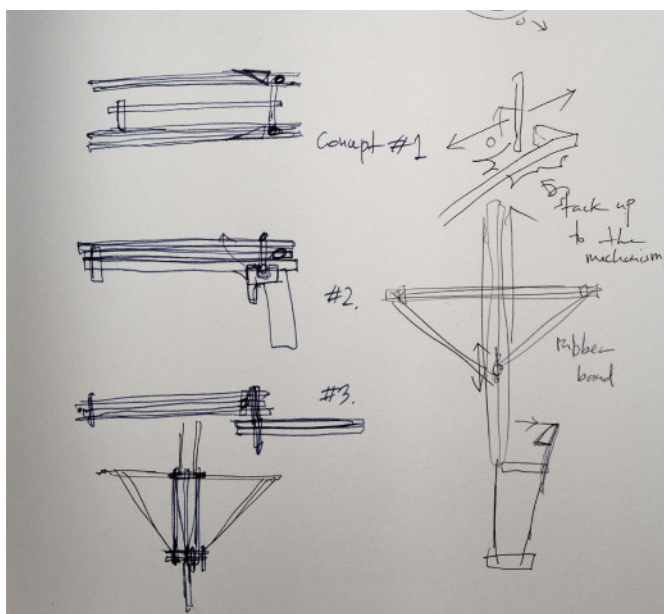
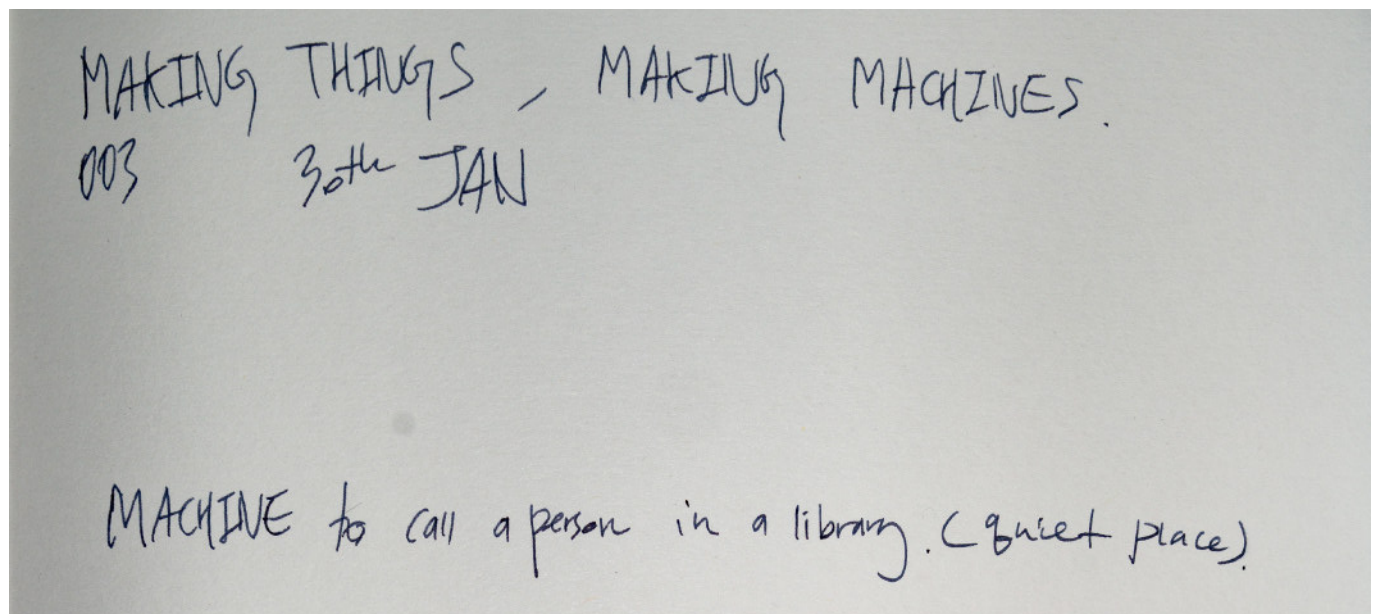
The second idea that I came up with was the Gearbox fan. The fan is operated with a gearbox inside. It can adjust the fan's speed whilst turning the handle with hands for power. The idea was complex and challenging. It

served no use and was complicated.

The gearbox was almost impossible to make with parts of the paper. This idea was another failure.

• Library caller

January 30, 2023



The last idea which becomes my outcome of this project is a crossbow for libraries.

When people in libraries need to call someone, they are not allowed to make noise. For that problem, my solution was to make a little crossbow

that could shoot a tiny bullet that isn't harmful to make the friend look at this side.

The machine is called "Library Caller".

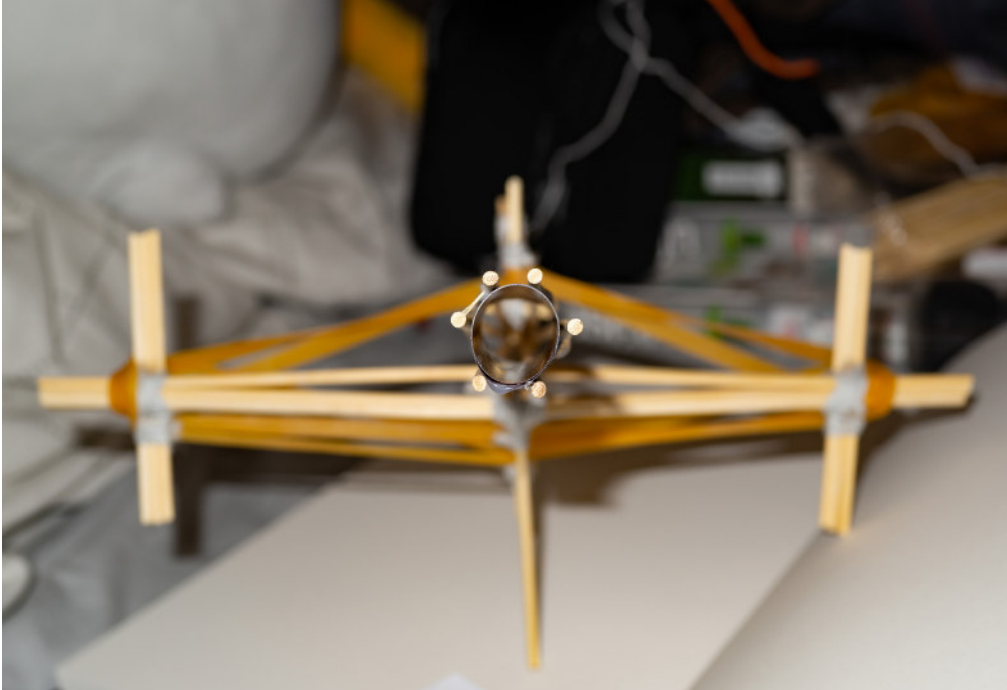
The machine also relates to my "What Is Design?" Clown Act. One

of Clown's tools is a water gun. This machine is a library gun!

The gun is quiet and funny. Best suitable for libraries.

Moving on to the making

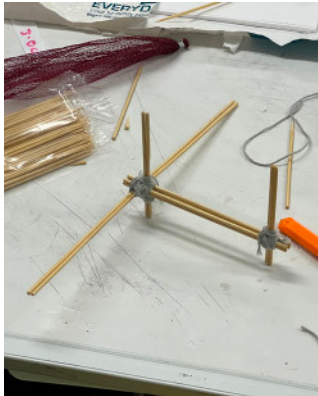
February 2, 2023



Front of the "Library caller"

• Process of making the “Library caller”

February 2, 2023



1 The first act was to make the basic structure of the Crossbow. The body was made with wooden sticks, and the parts were gathered with strings. More than two sticks were used to make the structure stronger. The body had to be strong enough to hold more than 5 kilograms of pressure.



2 The rubber band was applied after the basic structure was done. The front bar required many wooden sticks to stay stabilised in shape. The rubber had enough pressure to shoot an object.



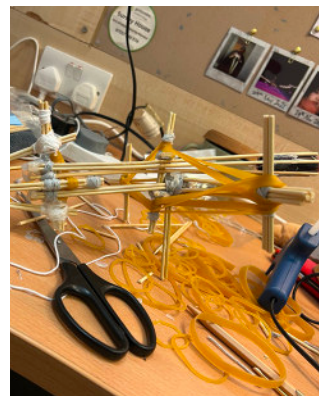
3 The barrel of the Crossbow was made with an abandoned film negative. It was in perfect shape and was very suitable for the barrel structure. A glue gun was used to make the design more strong.



4 Unlike the first shape of the Crossbow, the previous rubber band was removed, and new rubber bands were applied to the shooting mechanism's top and bottom. This way, the structure is more stable and robust.



5 To make the machine better, having some complex mechanisms inside will be better. So my choice was to put some trigger mechanism into the Crossbow. The material used in the trigger mechanism is fabric and a glue gun. Mixing the glue gun with fabric makes it much more substantial.



6 The gun's tail is to put the trigger mechanism in place and completes the shape of the Crossbow.

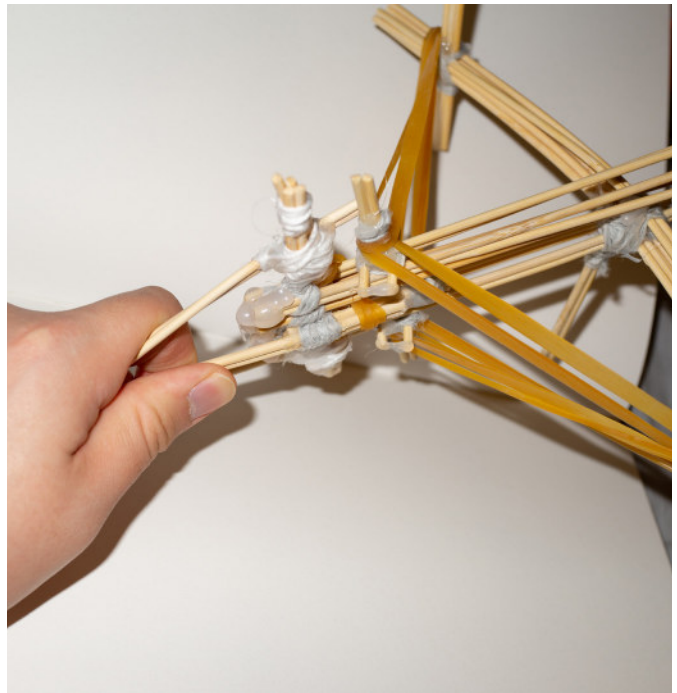
The overall process of making the “Library caller” was exciting and enjoyable that it made me make the machine until midnight. It was a great experience to make a machine with my hand and see it work. In addition, the process taught me how to fix things when a problem occurred, and I experienced the process of developing a product. At the end, I was amazed by the overall product's shooting power and

durability because of the degree of completion.

I figured that mixing fabric with glue makes a strong structure and thought this process would have many uses in different circumstances. A video of shooting the “Library caller” is available through the link and the QR code on page 51.

- Finished “Library caller”

February 2, 2023



February 2, 2023



Bullet



The image on the right side is the bullet used for the Library Crossbow.

It is quiet, and when you get hit by this bullet, It just touches the skin.

It was made after several failures.



<https://wuanny.edublogs.org/2023/02/03/video-of-library-gun-making-machines/>

February 2, 2023

End of "Making machines"

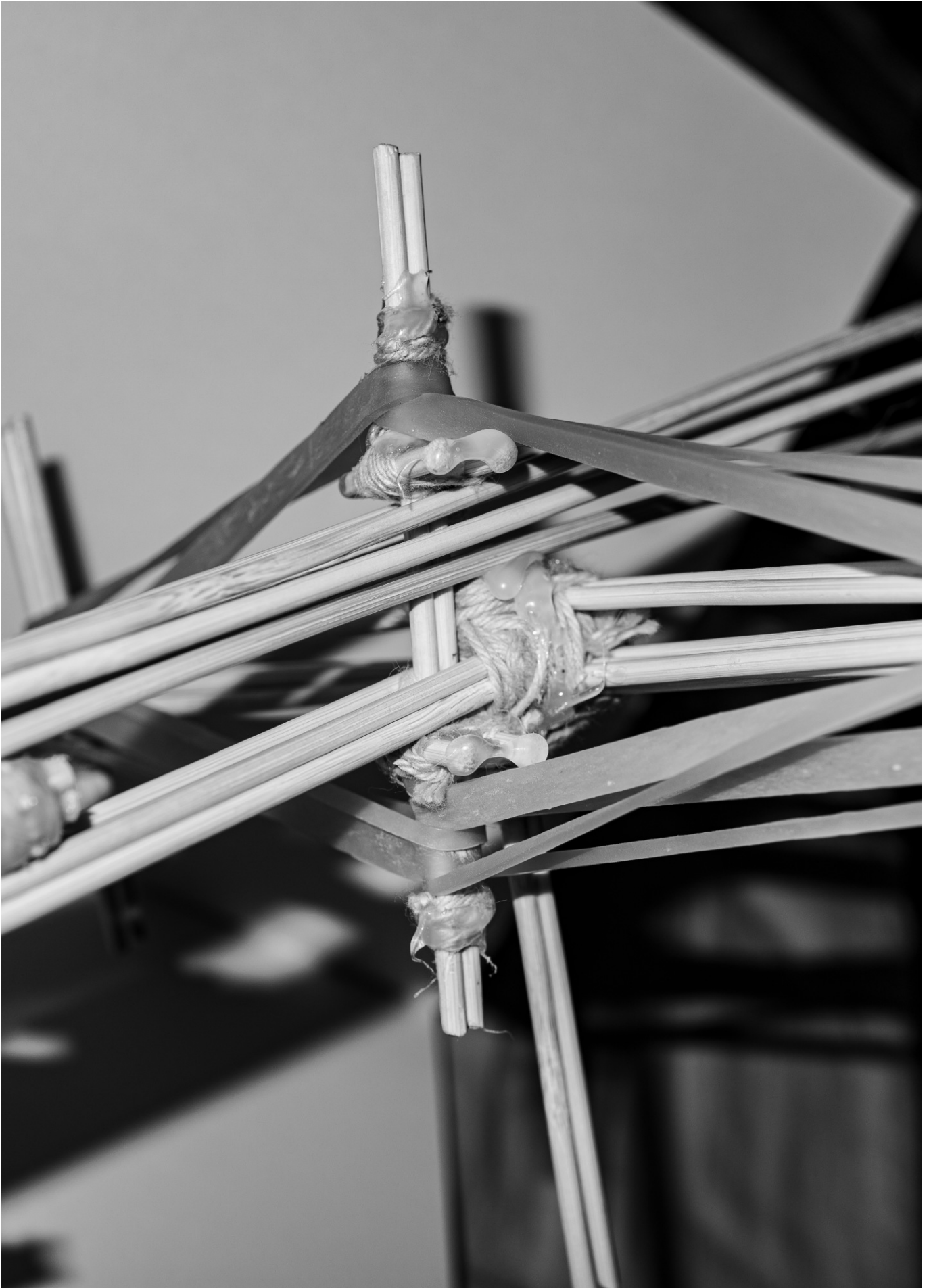
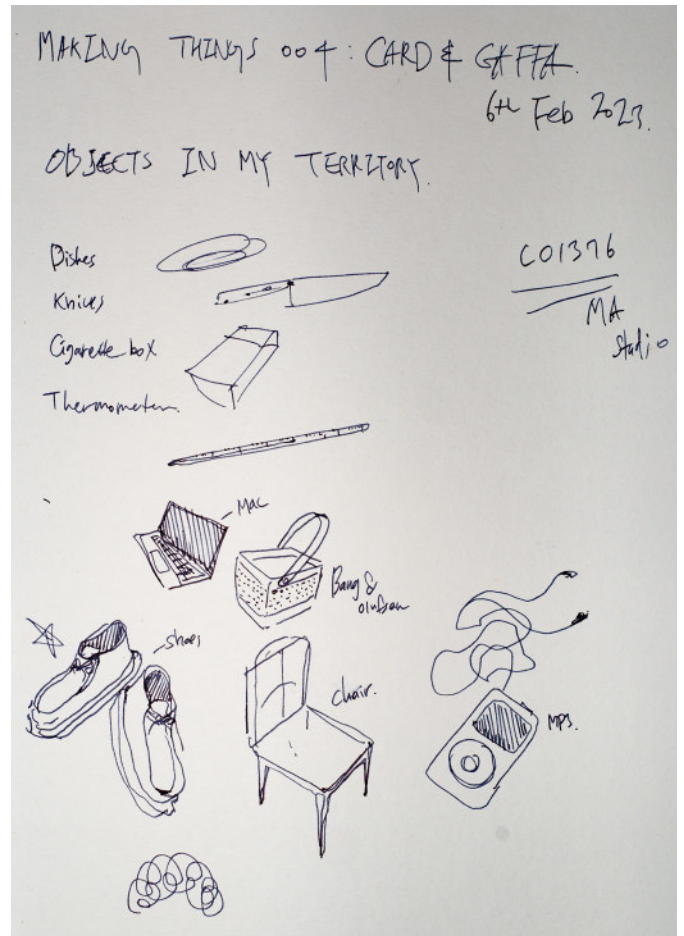




Image of the outcome.

Cardboard & Gaffa Tape

February 6, 2023



Our task was sketching three objects related to my interest or studio project. We also brainstormed with our classmates about finding things in our territory, and several everyday-use objects emerged. The brainstorming helped my brain to get flexible in thinking and making objects.

The next mission was to make the task into a 1:1 scale model using only cardboard and gaffa tape. My final decision was to relate the model to my studio programme, which was making

a metaphor with circus acts and meals. Because the circus act I chose was the 'clown', I wanted to make an object that had something to do with clowns.

The thing I came up with was 'Shoes'. The shoe was an excellent example of expressing the Clown's characteristics and a crucial component of the Clown. It is effortless to see clowns wearing large shoes in their performance. Also, making a shoe of my choice met very well on the condition that it should not be simple.

Cardboard and Gaffa Tape

IFC Design:
Making Things

Brief (original brief by Laura Potter & Jimmy Loizeau)

This is an exercise in making and pushing your ideas into a tangible and physical form. It will demand that you produce an object, create opportunities to reflect and find possible ways to extend the physical and narrative potential of your thinking.

You might not see a direct route between your thinking (now) and an obvious object.

This exercise will provide a platform for you to forge one. Making will create a reflective space where you explore how these change the environment or context you are thinking through. This is a non-critical chance to commit to and build an object: to make mistakes and open doors. During this exercise there will be two phases of making, followed by a review phase where we build and extend narrative potential exploring the new fictions of your intervention. During this part you will be encouraged to document your object in two ways: firstly, as an artefact with no context, secondly, as an object in context with people and behaviour.

Task 1 | 10.00am-1.00pm

You are asked to produce a three-dimensional sketch of an artefact: a product, a wearable, a piece of technology, something architectural or a 'prop' from within a territory you consider. It can be anything, but it has to somehow interact with or relate to your interests and/or current studio project.

Firstly, list your possible objects.

Next make a 1:1 scale model of your chosen object. Use found images and make drawings to work from (or study the real thing if you have it to hand). Be adventurous; don't choose something simple for the sake of making the model easily or quickly. You can only use gaffer tape and cardboard.

Papier-mâché is strictly forbidden, but remember you can crush and squash your material into 'soft' shapes if required. Document the process of modelling your chosen object using photographs. Record your mistakes as well as your successes.

10.00am-11.00am List objects. Sketch and draw possibilities. Collect together images and/or examples to work from.

11.00am-12.00pm Discuss objects with tutor & peers. Decide which object will offer most potential.

12.00pm-1.00pm Begin construction.

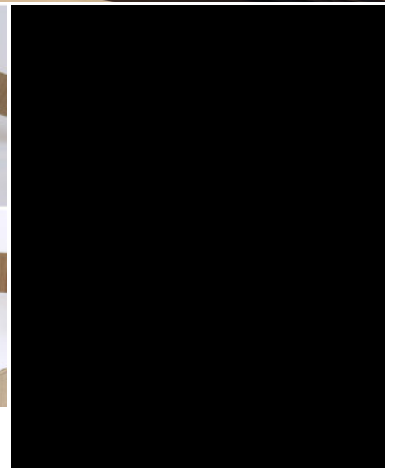


Image credit: Risk Facilitator by Sam Hill 2009

<http://samhilldesign.blogspot.com/2009/07/building-risk-facilitator-flickr.html>

Amazing card sculptures by Monomi Ohno of Japan - <https://www.instagram.com/monamincb/>

In the process of making

February 6, 2023

After the making process, my shoe project became shoes, and they look great. Also, the oversized character reminds me of a clown act of walking funny.

This task gave me the idea of making objects using only cardboard and tape. It allowed me to create prototypes of objects using pieces of boxes.

The brainstorming before the class gave me time to think of the items in my boundary one more time and analyse the possibility of them. This module was a delightful time and worth spending time in the studio for extra hours. It opened my concentration skill of myself when making things and the feeling of achievement.

Next time, It would be better to think of an object more variably and improve the idea in various ways.



• Making the foundation

February 6, 2023

The first step in making my shoes was to size my feet to make the shoe's floor. Next, I stepped on a piece of cardboard and outlined my feet. Then I started to cut the cardboard following the line I drew.

I repeated this step four times to make the floor solid and stiff to stabilise the foundation even if my heavy weight pushed it down. Finally, four layers of cardboard

were enough to handle my weight, so the next step was to make the heel of the shoe.

Again, to make the heel stay strong even if I stepped on it, I folded cardboard pieces vertically along the direction of the grain and attached them under the shoe's floor with some gaffa tape. This way, the box stayed so strong that stepping on the shoe wouldn't be a problem. I repeated this

process twice, first on the front and then on the back.



• Orienting the overall structure

February 6, 2023



The final step of making the shoe form was to make the structure for holding the shoe to my feet. I used a cardboard piece to make this shoe part and repeated it twice to make it solid and stable. Somehow, the shoe's form became a shape of a slipper.

When making this shoe, there was a problem with making the shoe with cardboard pieces. The problem was that cardboard is paper, and as humans, we sweat. So learning that cardboards get wet when wearing the shoe for a long time was valuable.

My idea was to wrap the whole shoe around with gaffa tape to fix the problem of the shoe getting wet and weak. Before this step, I made another instalment at the behind to make the shoe stay set on my feet.

The last photo is the overall shape of my shoe. However, it needs a clear finish to wear and remain solid.



- Making it into a pair

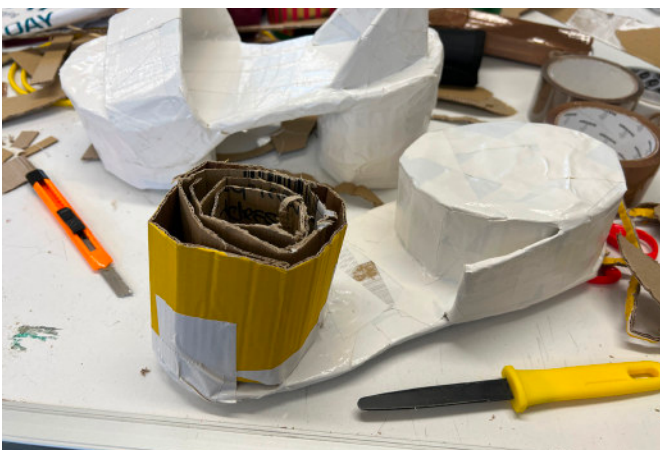
February 6, 2023



The photo above, also on the first page of this chapter, is the final result of my shoe finished with full surrounding gaffa tape.

The shoe is solid and stabilised to wear and walk around. It is also waterproof and drop-proof. However, I wanted it to be 'Shoes' than a 'Shoe'. So I decided to make a pair for this product.

I repeated the process from the beginning; however, the process was a lot easier the second time because of my experience and the mistakes I made from making the shoe before.



• Filming a video

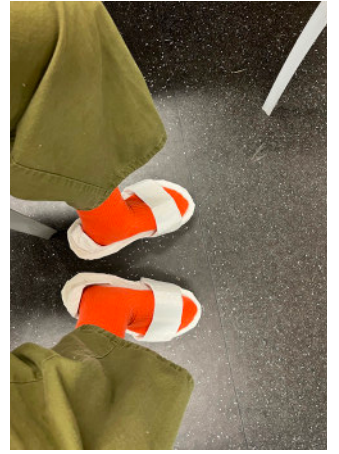
February 9, 2023

I filmed a video of myself using the shoes as my phone and giving a relation with my "What is design?" Clown act.

The link and the QR code shows videos of wearing the shoes, walking around, and using them differently by answering a call with the shoes.

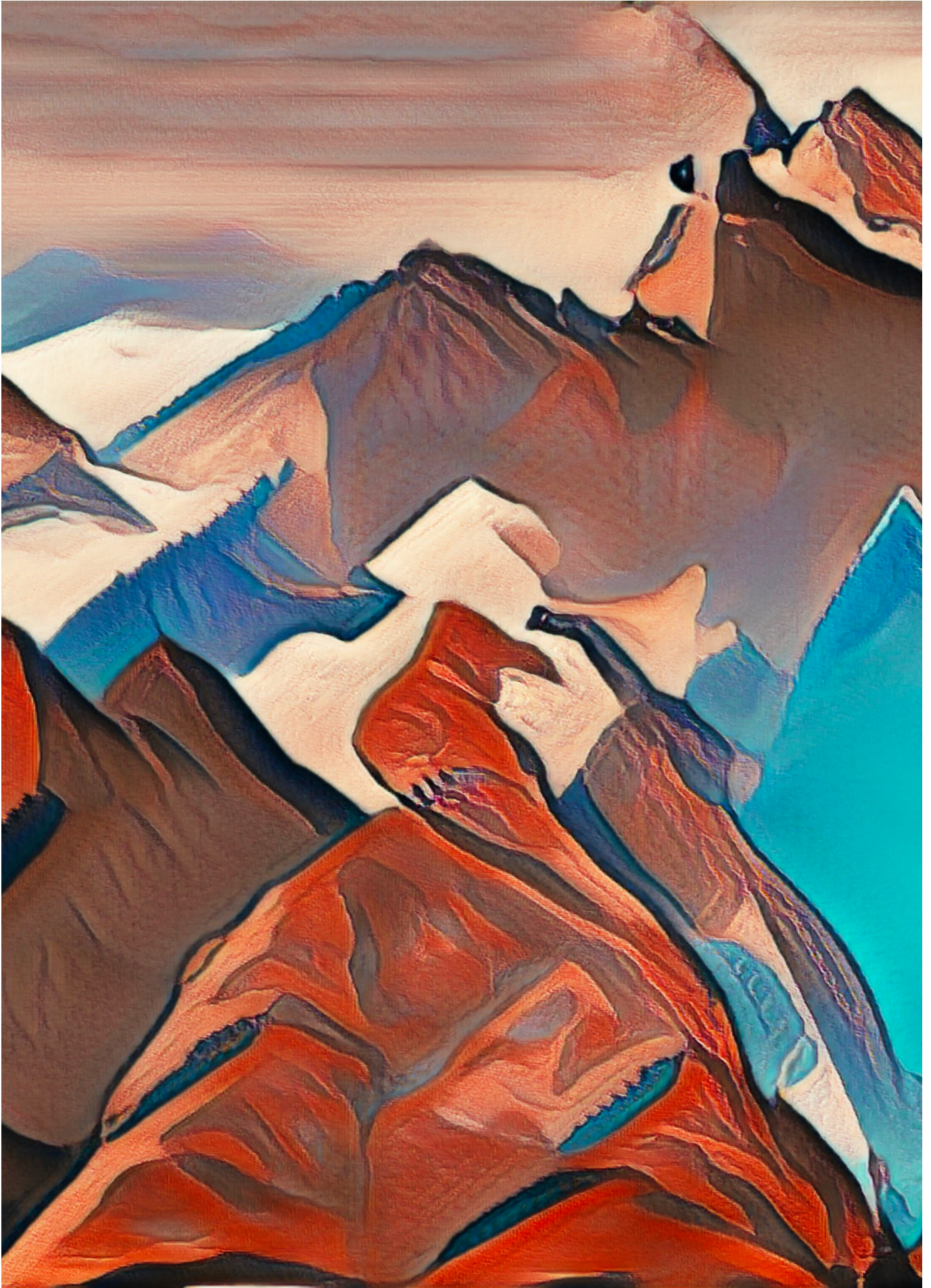
<https://wuanny.edublogs.org/2023/02/10/video-of-cardboards-and-gaffa-tape/>





February 9, 2023

End of "Cardboard & Gaffa Tape"

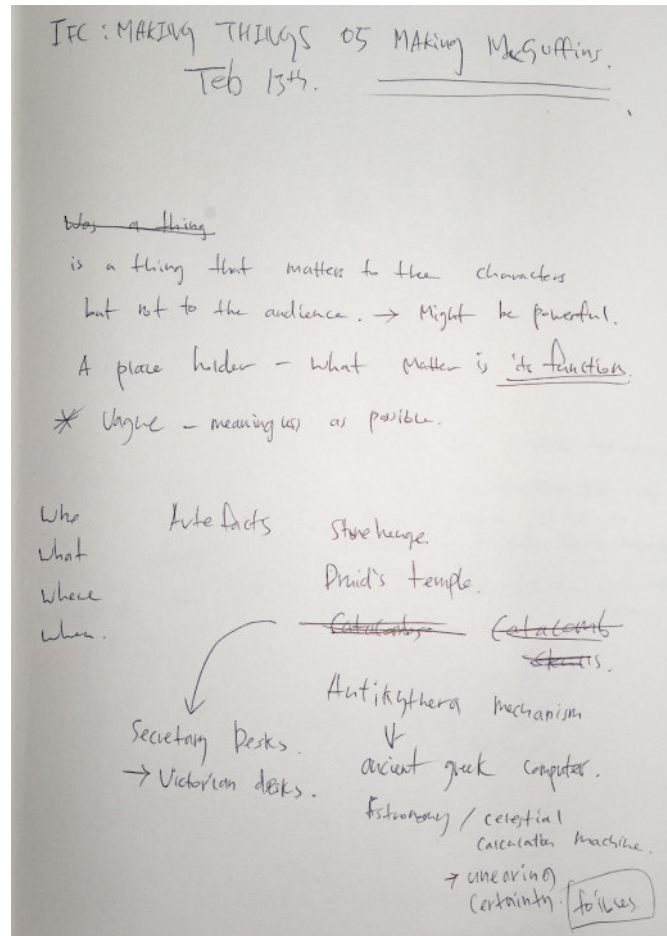




Images from the process of "Making MacGuffins"

Making MacGuffins

February 13, 2023



The first task was to be an Archaeologist. We had to find as many online artefacts that represent evidence of everyday behaviour as possible. We Drew and saved images of each one and wrote notes about the behaviour it showed and who the people were.

IFC Design

DS50002A Making Drawings,
Making Things

Making McGuffins

Tutors Edd Bagenal

Definition of a MacGuffin:

"An object or device in a film or a book which serves merely as a trigger for the plot."

Context:

Designing is, in many ways like archaeology, but in reverse. Archaeologists find objects- or 'artefacts' that are evidence for the way people lived. Good design looks at the way people live and then finds ways to create artefacts for them, or to change them.

Tasks:

With this in mind, This workshop asks you to do 2 things;

1. Find several artefacts and show how they define ways of life or everyday practices and rituals of people we can no longer observe.

2. Define and redesign ways of life and everyday practices or rituals around an imagined artefact.

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1.
FIRSTLY- Be an Archaeologist!
Find as many artefacts online that represent evidence of an everyday behaviour as you can. Draw and save images of each one and write notes about the behaviour that it shows and who the people were.
For instance- an Incan bowl that is decorated or made in a careful or beautiful way, shows that eating and drinking were particularly special and enjoyable to Incan people of the past. Find at least 4 objects. Try to find objects linked to your current studio project- make this work for you!

2.
SECONDLY- Be a Designer!
Write an in depth description of a behaviour or way of doing things that exists now, or a new behaviour that you think would be good to create or introduce. Design the behaviour first! For example-

"People should always look where they are going, not walk around looking at their phones. A possible new behaviour that could be designed to help ensure this happens is to ensure the phone must be carried in front of the head, rather than below it, whilst walking"

(the behaviours might seem odd, but new forms of behaviour always are, at first!)

Now, with this in mind, Take a cube of foam or a small cardboard box. This will be your

'MacGuffin'

Make a film (at least 1 minute long) showing the new behaviour, with the cube/box (or McGuffin) causing it to happen in some way. Upload the film to youtube or Vimeo and include a screenshot and link in your report PDF recording your work.

Remember to write up each workshop session in this course to present with photographed or scanned digital material to illustrate the work you did for each brief.

You should have, alongside images & drawings;
a. A description of what you were asked to do (the brief), where you carried it out, with whom and why.

b. A description of what YOU did in response to what you were asked to do- your particular take on the work, the decisions you made and why.

c. A reflection upon how well this worked, the examples of how it was difficult/successful/ not successful etc, as well as noting what you learned from your working out the response you gave and where you think this might be useful in your own practice now and in the future.

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Schedule

10:00 meet and brief-

10.00 - 12.00 research and collect material.

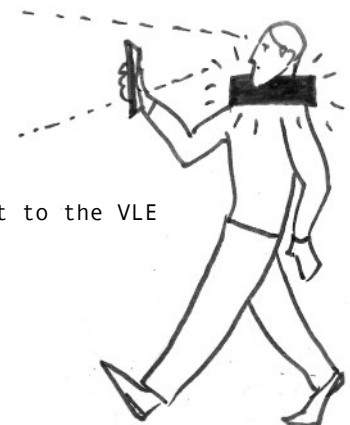
Write accounts of your designed behaviours

12:00 - 12:30 Presentation of concepts

12:30 - 13:00 Make films

upload PDF report to the VLE

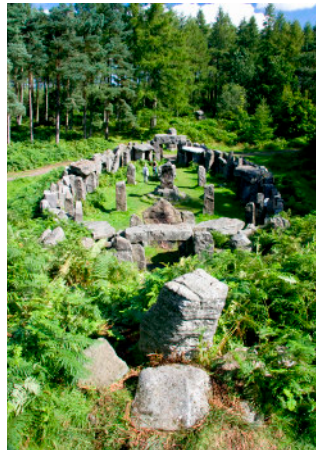
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Being an archaeologist

February 13, 2023

Edd suggested we should find four examples. My first artefact was the Stone Henge, an ancient stone with no specific information. It represents that archaic people had a deep belief in gods with behaviour and the urge to build such a colossal structure even though they had no tools. The second object was the Druid's temple. It is a two-hundred-year-old temple made to avoid local unemployment by William Danby. It proves that sometimes people build temples not for religion but for people themselves.



The third object was the secret Victorian desk. Interestingly, most of the Victorian royal desks had secret drawers in their desk and people could only estimate why they were there. It is also another unknown-purpose object. However, it is possible to guess that the period was full of deception and fraud of people.

The last thing, my favourite, is the ancient Greek computer which has changed the entire technological history. The history of computers has changed because of this discovery. It is a machine that automatically calculates astronomy and the sun's location.

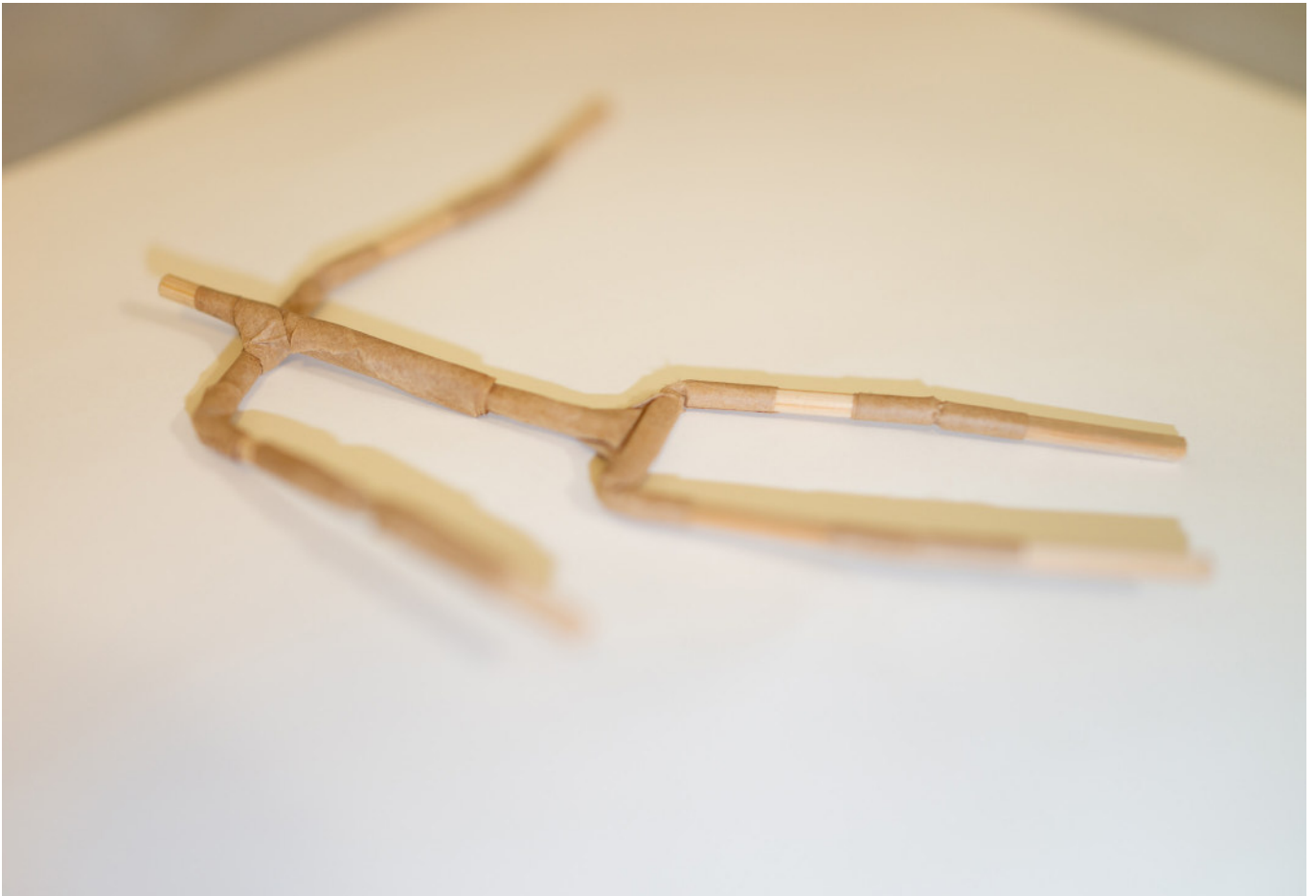
Archaeologists have discovered that includes small parts, which is hard to believe the technology back then. This computer also represents that people back then knew how to look at the stars and make a note out of them and were wealthy enough to spend their time investigating the computer's mechanism. People may have used the computer to sail or in religious worship.

This research taught us about ancient people's acts and intentions, and we used these elements in our MacGuffin project.



Understanding the “MacGuffin”

February 13, 2023



The next task was to be a designer and Write an in-depth description of a behaviour or way of doing things that exist now or a new behaviour that you think would be good to create or introduce.

To design the behaviour, before I started the project, I had to understand what a MacGuffin was. In our brief session, Alfred Hitchcock introduced MacGuffins as “a thing that matters to the characters but not to the audience”. To make

this happen, I made a simple video of using a little doll made by Edd.

The story about this video is that the main character receives a doll from his father, and the main character carries the doll everywhere

he goes and takes extra care of the doll. In this case, the doll is a vital element to the main character rather than to the audience. So this doll makes it a MacGuffin.

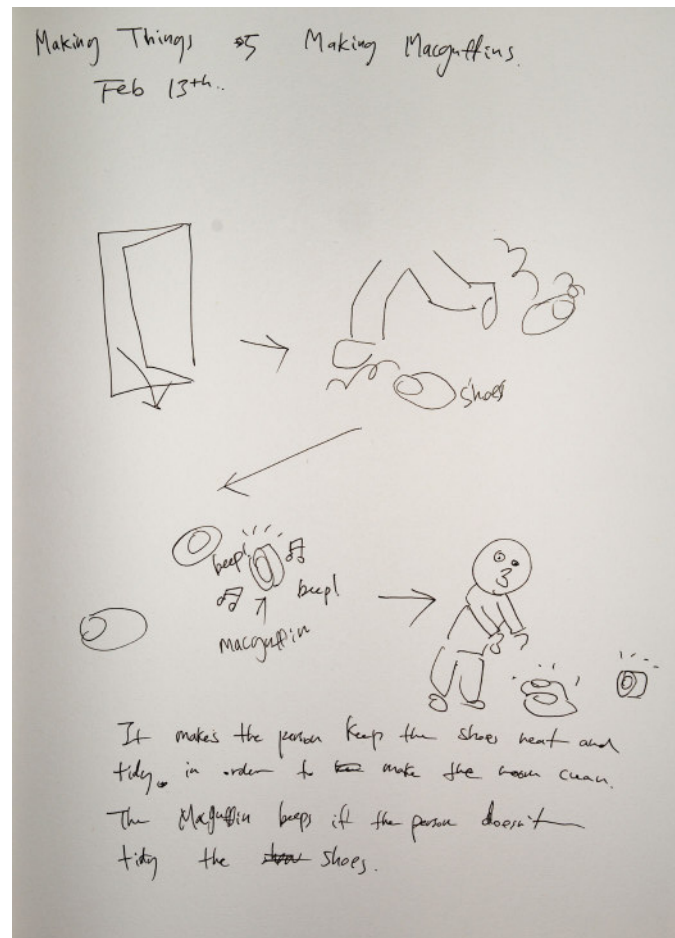


Idea sketching

February 13, 2023



The first idea was to use the MacGuffin as an artificial intelligence; however, it is a standard product today.



My decision for the task was to arrange my shoes. In Asia, people usually take their shoes off when they enter their homes, and, commonly, mothers get angry for not putting their shoes in the right place.

Placing and arranging shoes in the right place helps the house look clean and gives a positive image to the person visiting the area. In my video, the idea was to avoid this act and educate the behaviour by installing a MacGuffin.

When people enter their homes by throwing their shoes anywhere, the MacGuffin detects the situation and makes an alarm until they arrange the footwear correctly.

Making the video

February 16, 2023



I used my cork cup cover for the MacGuffin for the main video.

The video was about myself entering my room without arranging my shoes in order, and the MacGuffin made me organise my shoes by force.

This idea came from the experience of getting told off by my mother yelling at me, saying, "Hey! If you returned home, the first thing you should do is organise your shoes! Remember, your act represents who you are."

So the video's scenario starts with

me entering my room with my shoes being anywhere they want. Then the Cork-MacGuffin reacts to that behaviour and rings an alarm until I organise my shoes in order. Finally, the video ends with me arranging my loafers and the MacGuffin being happy.

With this project, I learned that MacGuffins are not only in movies or virtual realities but also in our lives.

We all have our memories and act based on them. I consider all



those memories that change our behaviours as MacGuffins, as they are most likely only meaningful to ourselves.



See both of the videos through the link and the QR code.

<https://wuanny.edublogs.org/2023/02/16/macguffins-video/>

February 16, 2023

End of "Making MacGuffins"





Images of the process from "Mould-making and Casting"



Mouldmaking and Casting

March 6, 2023

In this session, we are going to make moulds with Plaster of paris to make practice making prototypes and models.

All of the processes helped me to improve the idea of using the Plaster of Paris in many different ways.

In addition, observing the tutor's and classmates' results made me available to enjoy and study them more deeply in the project.

Mouldmaking and Casting Positive and Negative Spaces- Moulding, Casting and Reproducing for Production

There are many materials that allow us to take an impression from existing objects. This is called 'mould making'. Some begin soft and putty like, or liquid, then turn hard over time. This is called 'setting' or 'curing'. You can also use permanently soft pliable material for this. Oil Clay or Blutac are good examples. The second group of materials in this process are materials used for casting: Once you have made a mould, you press or pour a casting material into it, in order to create a model of the original object that you made the mould from. This could be an original object that you have created, allowing you to produce many repeated versions of your own designs. This is called 'small batch' production.

Schedule-30 mins:

Short seminar exploring moulds, casting and mould-making.

30 minutes: Find an object that has been moulded. Now look carefully at it- there will be a 'mould-line'. This is a fine line around the edges of the object that show where the two parts of the mould joined together. In your sketchbook, draw a 3 dimensional drawing showing what you think the mould for the object would look like.

1 hour: Now, find a small object that can easily be cast. Ensure it is a single piece of material, with no difficult 'undercuts' or holes that pierce its main body, as this will make the mould difficult. Press the object into the mould making material- 2 parts cornflour to 1 part domestic hair conditioner makes a good putty- but clay or Blutac will do. Mix a small amount of plaster and pour it into the mould. Wait for it to set. Document your process along the way. Write this up and publish it to your blog, or record it in a digital document in a desktop publishing application etc. PDF Report to be submitted to Learn.gold by Friday 09:00

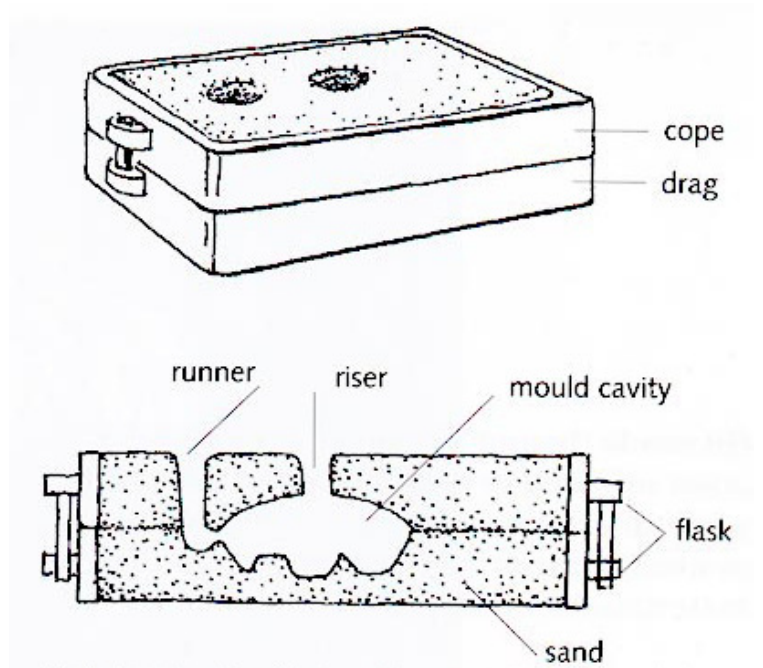


Image references (from top to bottom)

<http://www.vam.ac.uk/content/journals/conservation-journal/issue-11/sand-cast-aluminium/>

Fossil casting: <http://biocircuits.ucsd.edu/outreach/?p=741>

<https://www.tate.org.uk/art/artists/rachel-whiteread-2319/how-to-cast-like-rachel-whiteread>

References; tutor & author e.bagenal@gold.ac.uk 02079197809

To buy mouldmaking, casting materials in London:

<http://www.tiranti.co.uk/> or 4D model shop: <https://modelshop.co.uk/> (shop near Whitechapel tube station)

Mouldmaking with Plaster of paris

March 6, 2023

The first task we did for the mould-making was to draw our plans on our sketchbooks about the understanding of how moulds work and make a plan about how we should make our moulds. This step was to learn where and when people use moulds and prepare by making specific plans before experiencing the actual process.

Next, our tutor Edd gave us a large slice each to make our plaster frames. With this process, we made protection on the desk with newspapers and a little tray with a box covered with plastic wrap to avoid the desk getting messy.

Our basic was to make two clay moulds; one with the shape of anything I wanted and the second with a form of a moulded product made by pushing the product into the clay. However, we were free to make any shape, as many as we wanted. In my case, the first shape was some Cherry blossom trees, and the second was my stainless steel fork; however, the stainless steel fork was the wrong choice because it wasn't



this plastic widely for prototypes and experiments. For example, we tried using Thermal Plastic to make the face of Mr Bean in our project.

After spending twenty minutes with Thermal Plastics, it was time to take the Plasters out of the clay, and all of my results were a success; however, the tip of the Plaster fork broke as it was too thin to maintain its weight.

From this project, I learned the potential of using moulds and Plaster of Paris to make prototypes of products. This method will allow me to experiment with many designs before making mistakes and failing earlier. It also has the potential to practice carving and shaping structures in various ways.

Besides my project, my classmates tried many different kinds of exciting moulds and gave excellent results.

Videos are also posted onto my blog.



a moulded product.

The next step was to start mixing water and Plaster of Paris, which on the brief says to mix water and Plaster in a two-to-one ratio; however, different people and containers had different concentrations, so I decided my Plaster to be a one-to-one ratio. After mixing the Plaster enough, I poured the liquid onto my clay moulds and waited more than twenty minutes. As soon as I ran my liquid Plasters onto my moulds, the Plaster's temperature suddenly increased because of its chemical reaction: turning solid.

While waiting for the Plasters, we learned about Thermal Plastics, a material that melts at 63 degrees Celsius, and when it cools down, it turns harder than any plastics around us. This full-of-potential material makes it possible to use

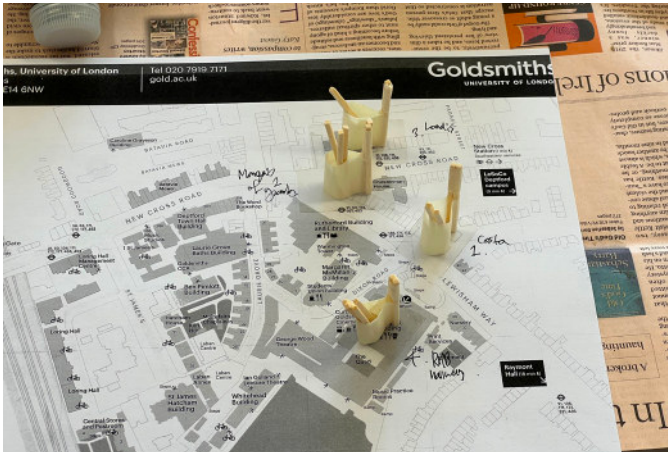


<https://wuanny.edublogs.org/2023/03/10/videos-of-mould-making/>

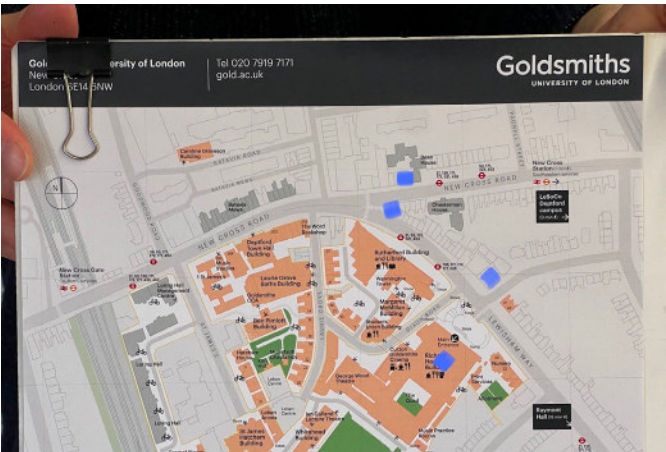
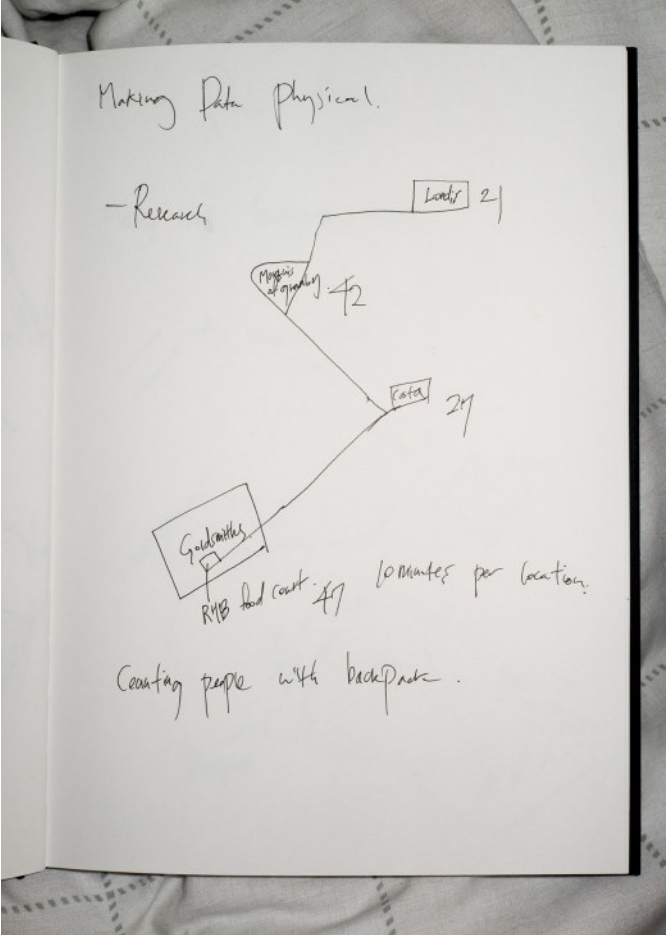
March 6, 2023

End of "Mouldmaking and casting"





Images from the process of "Making data physical"



Making Data Physical

March 13, 2023

In this session, “Making data physical,” we look through ways to survey and gather information from our primary research.

This project was to learn ways to make data visible to our eyes to make it more transparent and clean in our heads. This project could be beneficial in many different ways and possibilities.

Making Data Physical

A large part of any design project will be spent researching the context and focus sites, events and locations of your designing. How you collate and communicate the findings of research is very important & has a huge impact on the success of your project and on your own understanding of the data you collect in your research. This workshop aims to help you begin to develop methods to design new ways of showing data and patterns of data through designing and physically modelling data that you collect.

Schedule-

1 hour: Decide on a behaviour that interests you, or one that relates to a project that you are researching. Make sure it is likely to be something that you can observe people doing in the location(s) that you choose. It must be something that you can observe, counting how many times it happens, in several separate locations. Now mark *at least* 3 locations on a map of your area of research. Take a counting device and spend a precisely timed period (at least 10 minutes) in each location, counting how many times the behaviour occurs within this time. Note this down! Next move to your next location and count again, for exactly ten minutes how many times your chosen behaviour or action is performed by the people there. Repeat this for at least 4 separate locations within a given area.

1 hour: take a printed map of the area you surveyed and design a way to physically represent the data upon the map, in each location you surveyed- the physical 'data objects' that you create to populate the map must be proportional and represent the data that you have collected.

Next, make good photographs of the physical data maps and write an analysis of what you observed in the locations, what happened and try to deduce from your map and observations possible causes for increased or decreased frequency of the behaviour that you observed.

Remember to write up each workshop session in this course to present with photographed or scanned digital material to illustrate the work you did for each brief.

You should have, alongside images and drawings;

- a. A description of what you were asked to do (the brief), where you carried it out, with whom and why.
- b. A description of what YOU did in response to what you were asked to do- your particular take on the work, the decisions you made and why.
- c. Reflection upon how well this worked, the examples of how it was difficult/successful/ not successful etc, as well as noting what you learned from your working out the response you gave and where you think this might be useful in your own practice now and in the future.

To submit: A MAKING THINGS folio chapter, as a PDF, including images from sketchbook pages, models and notes, with 200-300 word reflection, uploaded to Learn.gold- <https://learn.gold.ac.uk/>

In studio and field studio

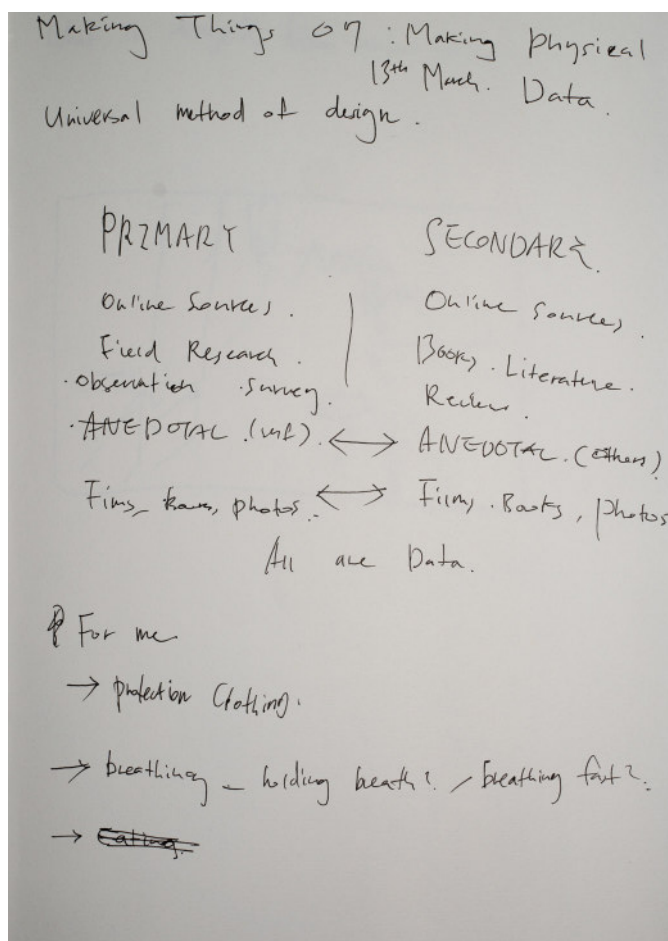
March 13, 2023

The task for the Making Things 07 was to make graphs and data in physical maps and give statistics. The charts and statistics were for the final major project. Before starting the project, Edd and my classmates did a simple brainstorm about how to research.

There were two significant ways of researching: primary and Secondary research. Primary research was about studying information from my field experience, observations, and surveys. The Secondary research was about looking up and gathering information from books and the internet, which different people have already done the research. Edd said everything is data, including films, books and photos.

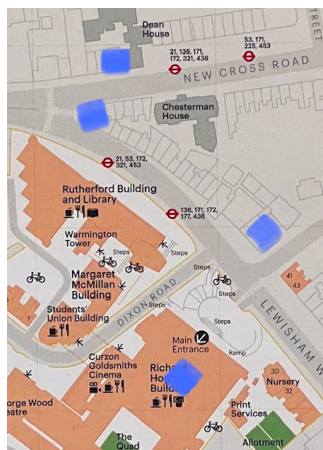
For my project, I chose to make data about people wearing backpacks. I chose this topic because my brief was about going to Mars at that time: my brief has changed.

After planning how and where to gather information by checking it on the map first, we went into the field we chose and started counting people.



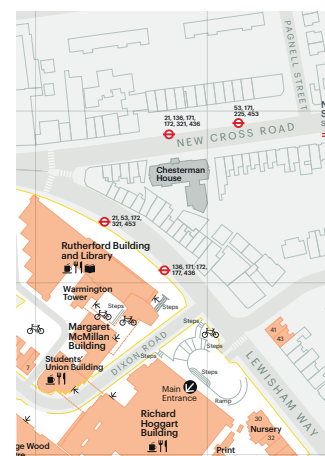
could spot many kinds of people. So Marquis of Granby was the second best place to spot people with bags.

The photo on the top is an image of the data I have made after the search.



The first place I went was Costa coffee in front of our school. In the cafe, I was able to find out that almost everybody had a backpack. I have counted everyone with a bag, even people coming in and out. Costa coffee had 27 people with bags.

The following location was Marquis of Granby across the Goldsmiths Library. I couldn't go in then, so I stood before the place and counted going by with bags. Because Marquis of Granby was at the road's intersection, I



Sketchbooks and records

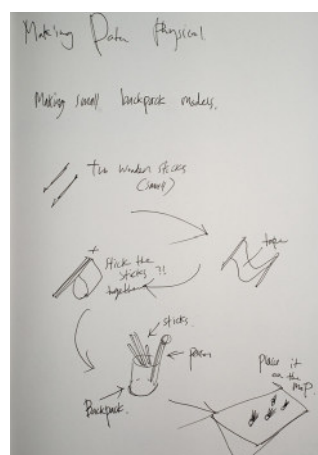
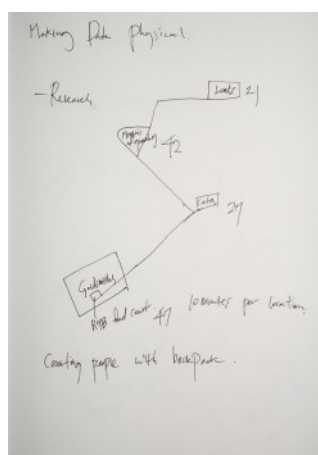
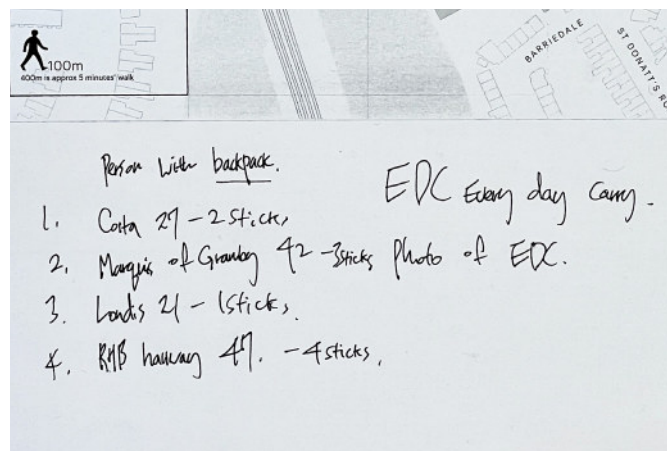
March 13, 2023

The third place I went was the Londis convenience store across from Marquis of Granby. Because it was a little far from the university, they had few people with bags. I was only able to observe 21 people in this area.

The last place I went was the school's food court which had many people, and all were students. Because they were all students, they all had bags, making the food court the best place to spot people with bags.

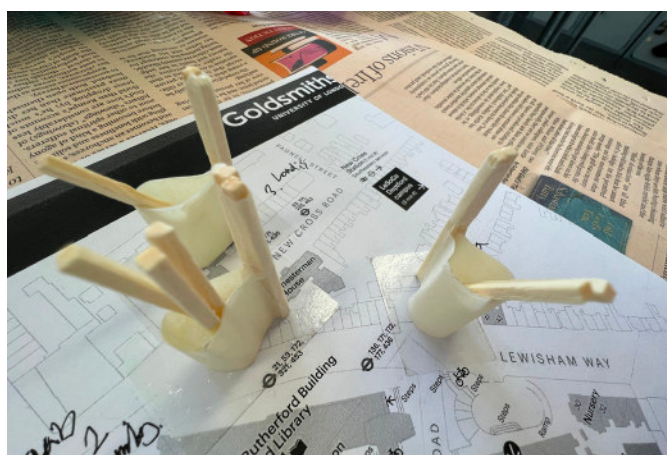
I saw that the closer I got to the school, the more I could see people with bags.

After returning to the studio, our task was to make little models of our research; my one was a backpack. I used two little wooden sticks and masking tape to make a little bag: the picture on the bottom left. I have made four of them, which match the places I went to. I placed four wooden sticks into the bag with the most people with backpacks. I put three for the second, two for the third, and one for the last.

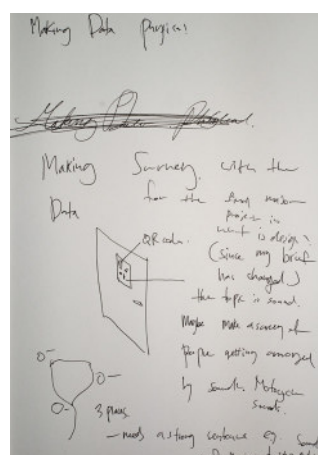


From this project, I learned that experiencing the information on my own is more helpful in understanding the situation. This project also has many potentials to gather valuable information for the final major project, which is very important. For example, using this project, it would have been great to make a survey about EDC which means Everyday Carry. Putting up surveys on the streets with QR codes and knowing different people's ideas will help develop the experiments about the mars project; however, my final project's title has changed to sound problems of apartment people.

For the Final major project, trying surveys about road sounds; for example, loud motorcycles and sports cars, will help develop the ideas for the final major project. This survey will also help build sound experiments in many ways.



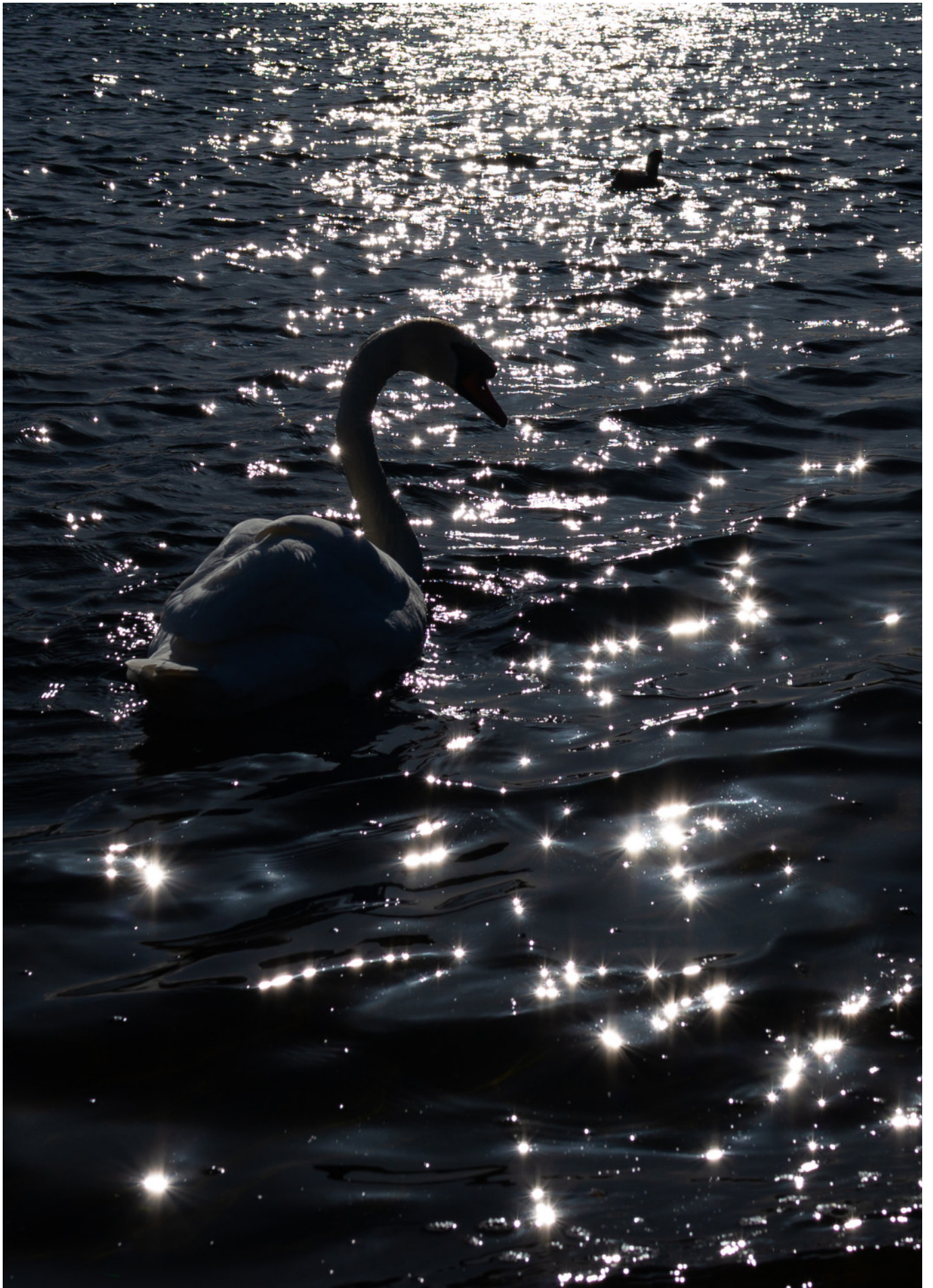
The models of the miniature backpacks I made with little wooden sticks and masking tape. The models are stuck with a double-sided tape on to the Goldsmiths map.

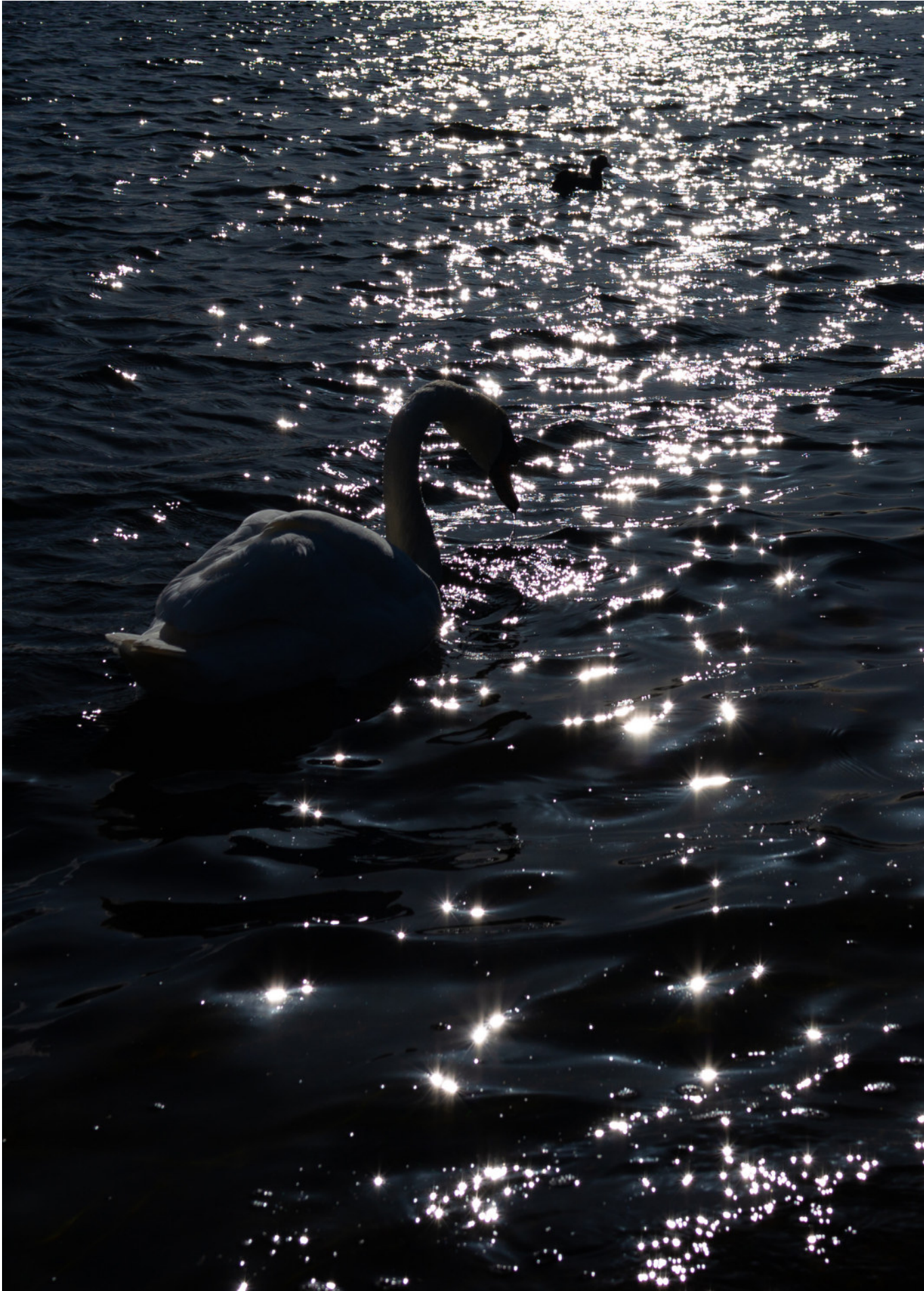


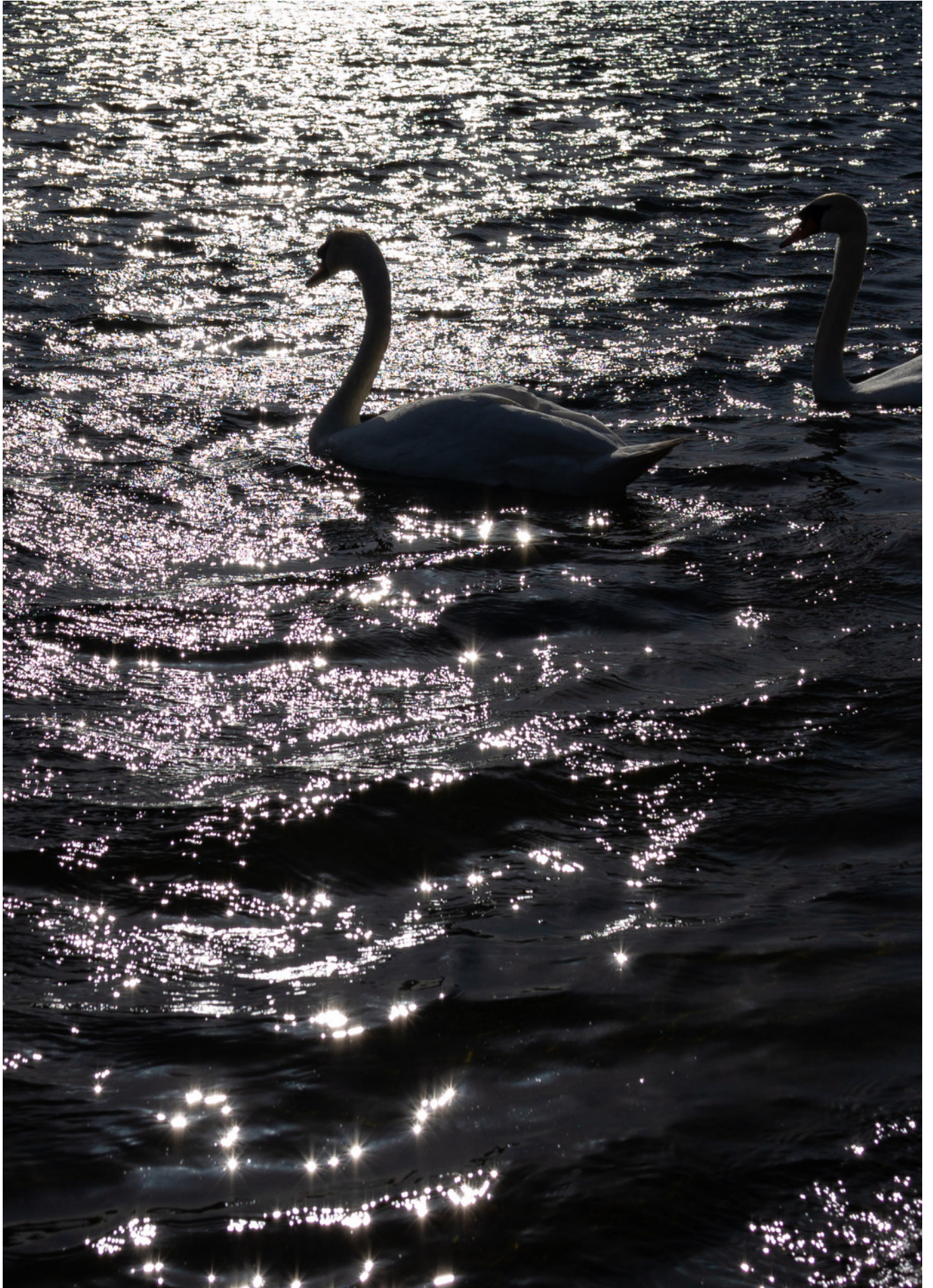
March 6, 2023

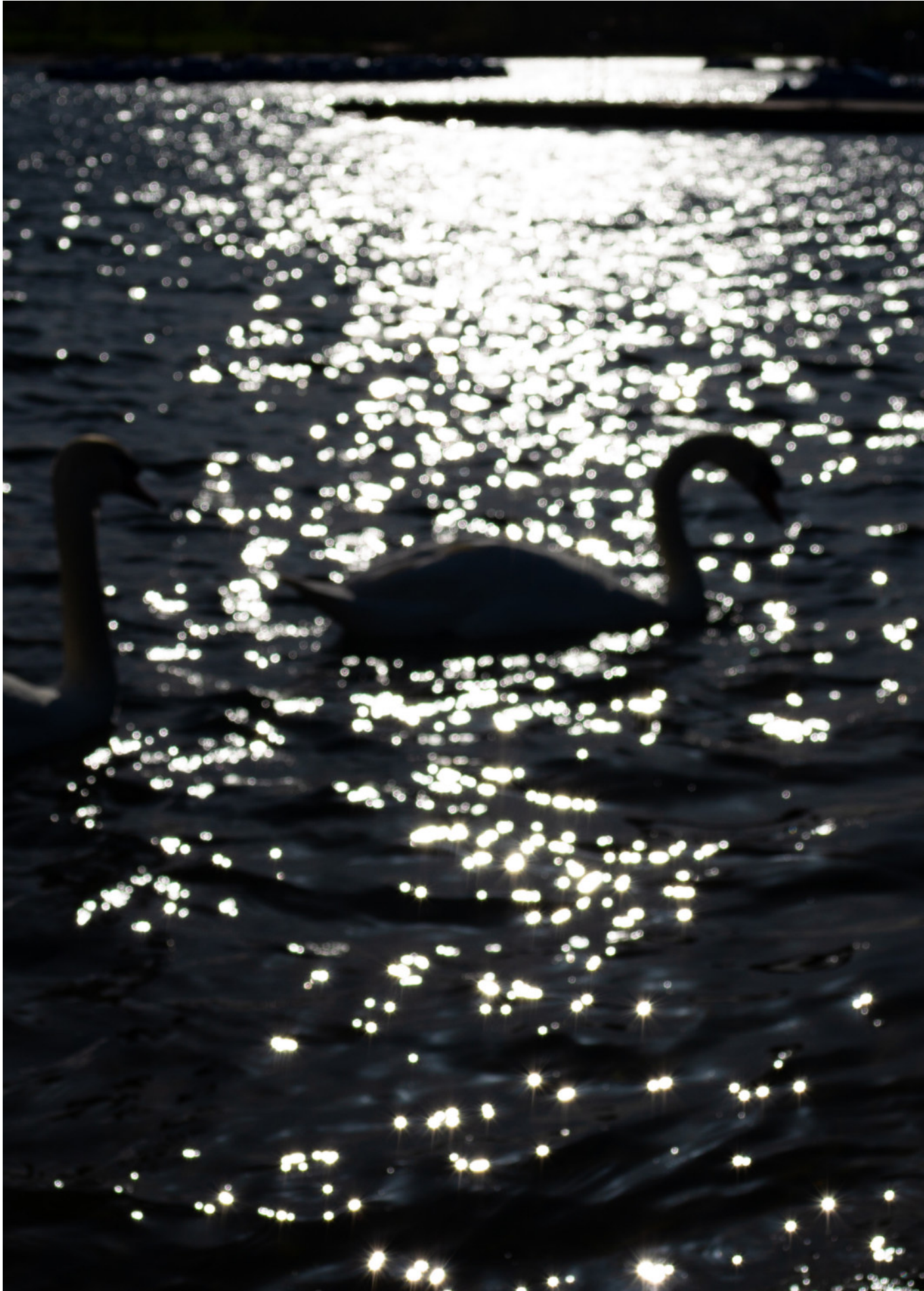
End of "Making Data Physical"



















April 13, 2023

Tutor of this programme: Edward
Bagenal,

Book by Wonhee Lee,

End of portfolio book.

July 24, 2022



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