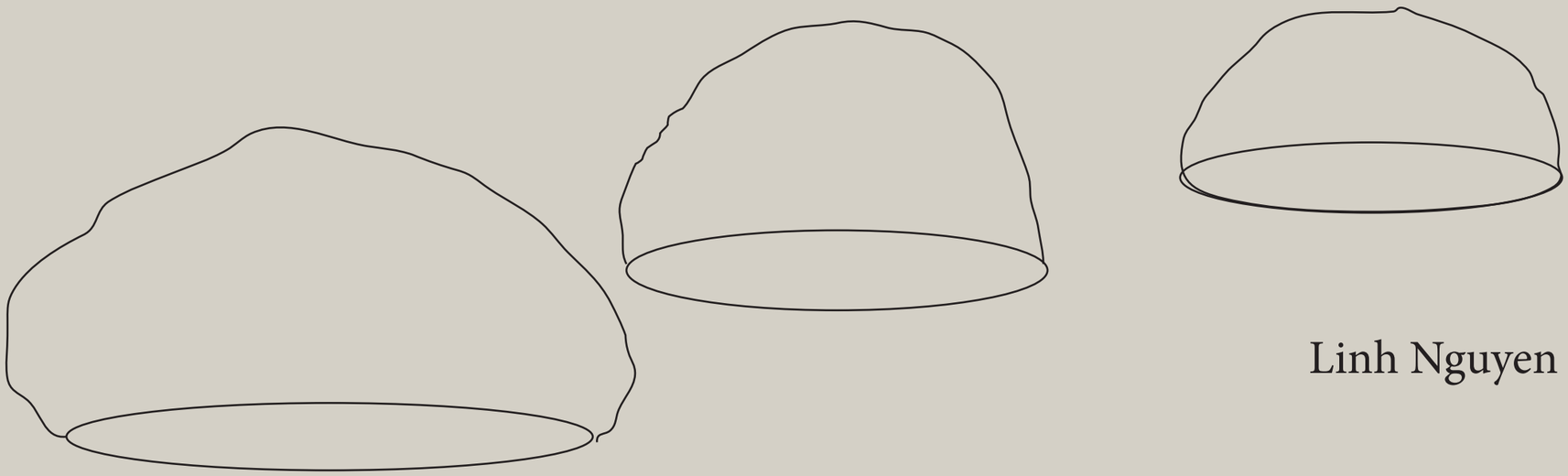
FLEETING SPACE

TEMPERATURE

BUBBLES



Linh Nguyen

Contents

INITIAL PRECENDENTS

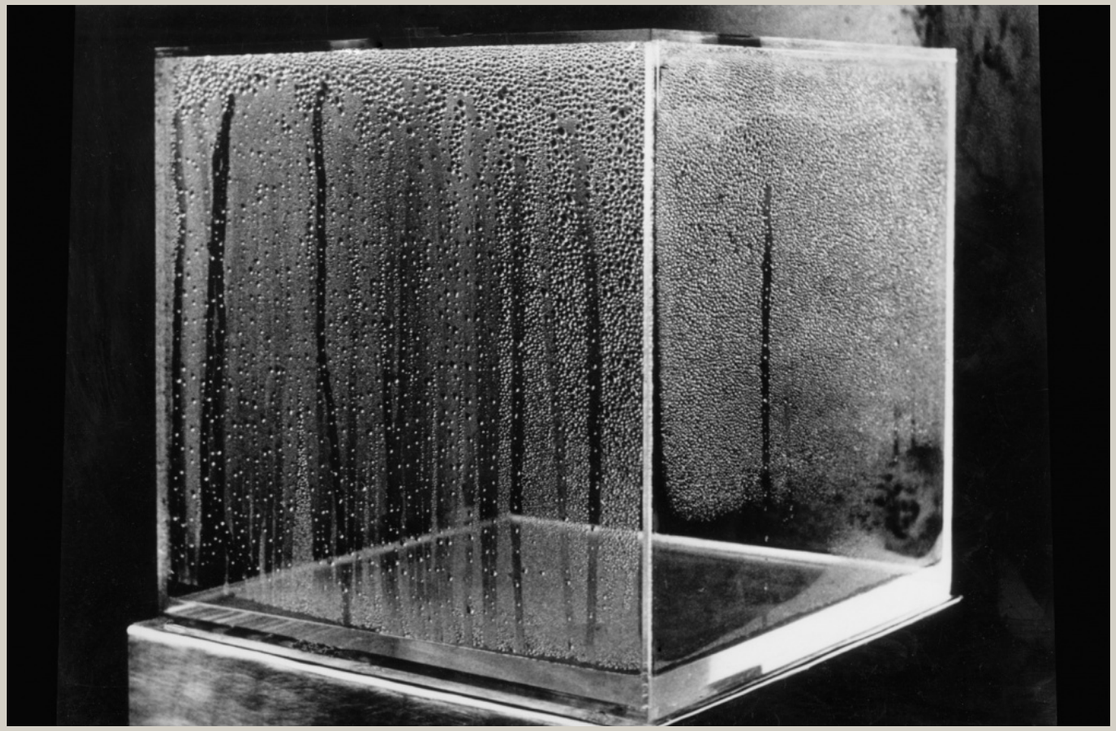
Rose Finn-Kelcey - 'Steam Installation'
Using artificial technology to create a specific spatial experience.
Steam bounded by air curtains.
Transformation of matter through energy

Anthony Gormley - 'Blind Light'
Mysterious fog that seduce human senses to explore.
Blur visual, bizaare, curiousity and imagination.
Become an immersed figured

PRECEDENTS

Onishi Yasuaki - 'Verticle Volume'
Negative space, impinges the verticle movement of the air inside the transparent plastic barrels.

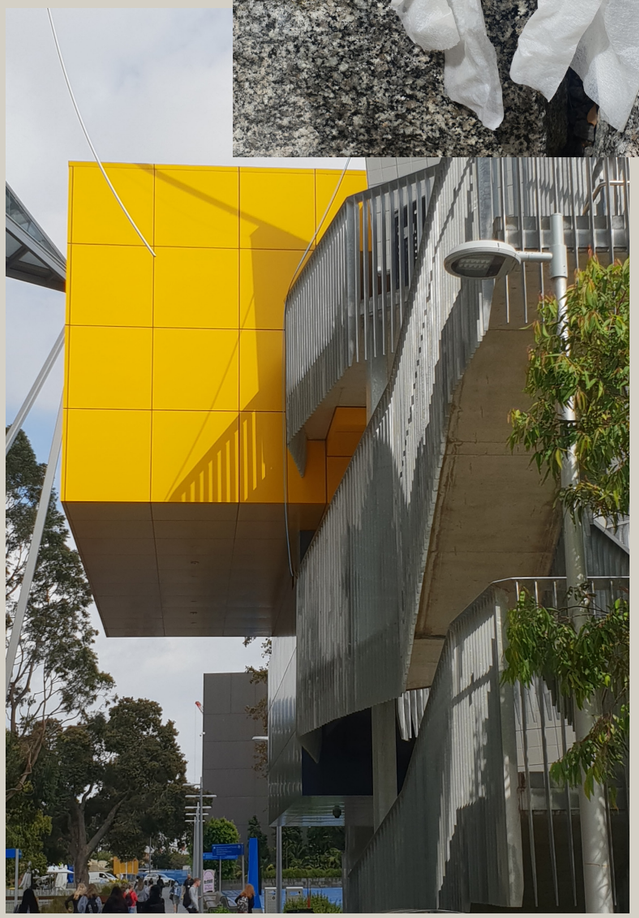
Interested in the material use

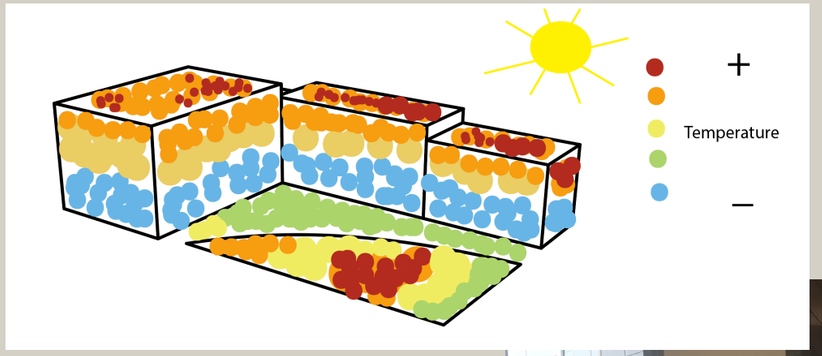


Hans Haacke - 'Condensation Cube'
Interested in the project study and exploration.
Interaction of physical and biological systems and their natural process.
Static object documenting changes of the environment

SITE STUDY 1

Testing the effect of heat created by sunlight on a wet piece of tissue measure temperature efficacy





Starting to explore the obvious sites of temperature difference, outside and inside environment in comparison.

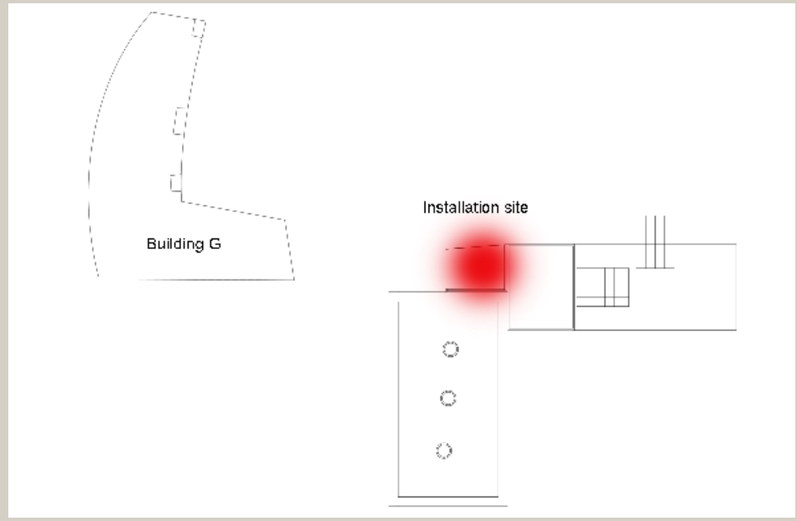
I also made an existing condition analysis mapping, illustrate higher up the building is hotter and lower ground is cooler as proximity to sunlight.

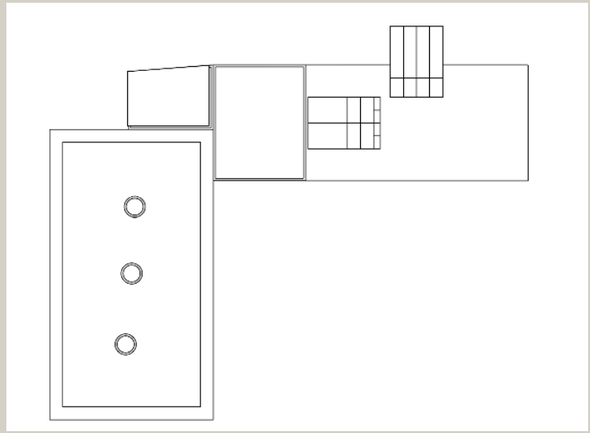
Testing physical sensation leading to emotional response, warm air in cold temperature creates warth and soothing sensation.

SITE STUDY 2

I chose to allocate my possible site outdoor, because i'm interested in the natural elements influencing temperature related emotional reaction. How do people react to changes in natural temperature e.g cold breeze, hot air, humidity, cold morning, chilly night etc

SITE STUDY 3



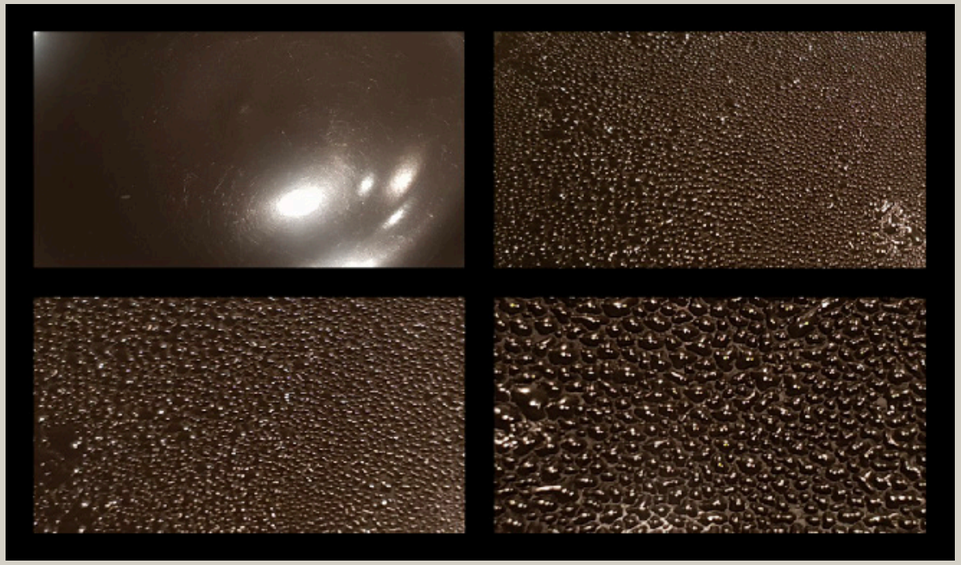


My final site is located outside of Building G, I chose this site specifically because it has a small corner of natural living organism, soil and plants. I became interested in the natural process of transpiration creating steam in greenhouses. This process resulting in dew in the morning and steam by afternoon via evaporation and condensation. There's also an interesting fleeting quality in temperature through different time of days in Autumn.

TEMPORAL MAPPING

As temperature changes inside the bubble, water vapour create beautiful pattern on the clear plastic surface. This is measured by water bubble density.

The pattern of steam changes as more water is evaporated **... Via photo series mapping**

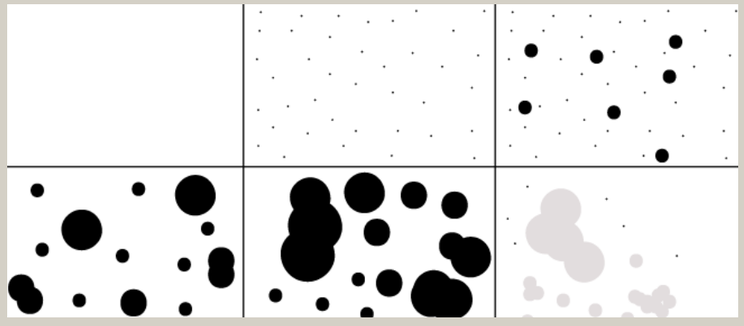


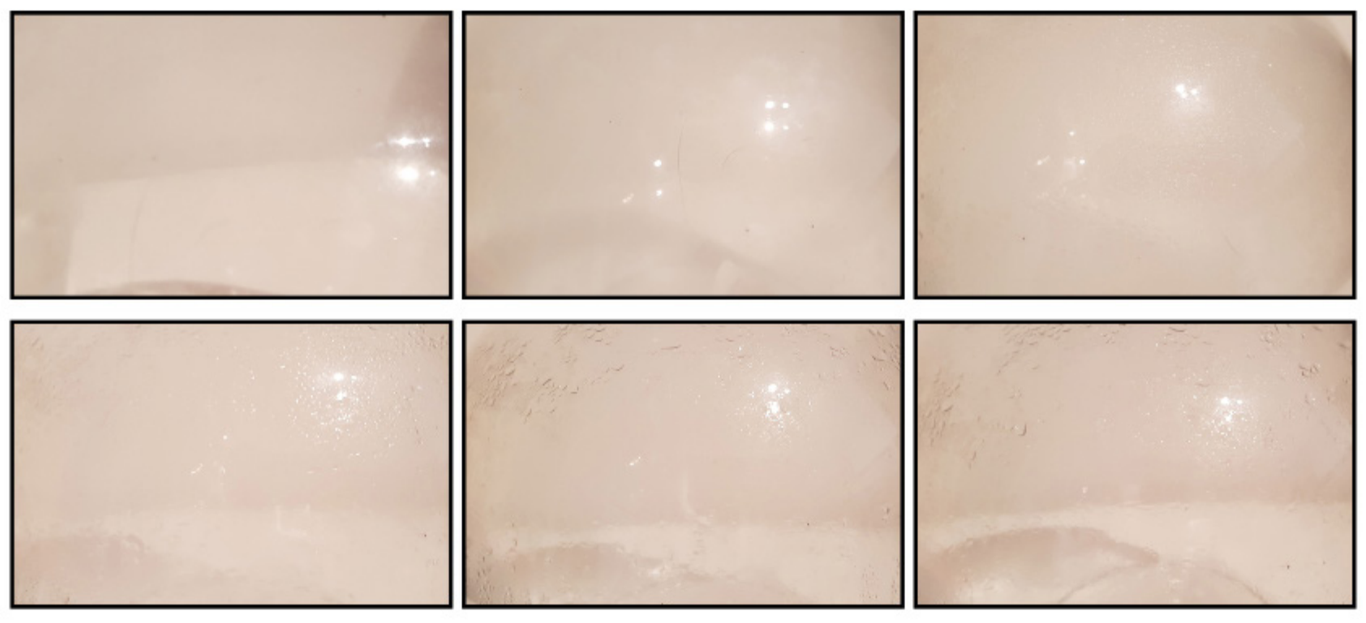
Steam Water Bubble Density Mapping

There's a possitive correlation between high temperature and density of water bubbles created via steam on polished or clear surface like glass. This helps me come up with ideas for material sourcing later on.

Fleeting steam bubble

This pattern mapping gives me ideas for ways to create specific steam-like or condensation-like environment base on its fleeting pattern.

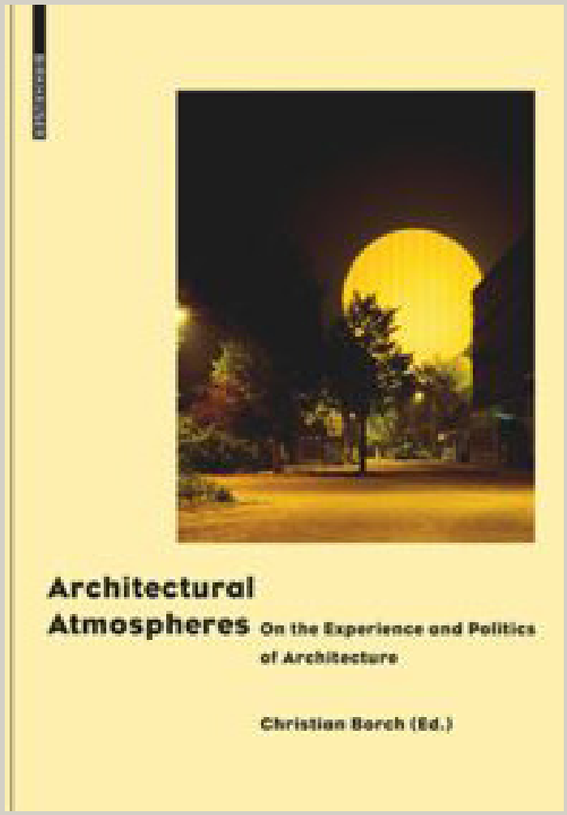




REFLECTION ON READING

PERSONAL LESSON

In the first reading by Christian Borch, 'Introduction: Why Atmosphere', I learnt that architectural qualities are conducted by elements that go beyond form and function. The designer must take into account a holistic atmospheric whole rather than its part, consisting of subjects and objects in the environment which constitute characteristic manifestation. For example, Borch explains how city lights denote a sense of safety for patrons at night time as it promotes visibility and reassurance especially for women. In addition, the author also emphasizes the importance of perceptual experience and emotional sensibility generated through the overall aura of an architecture or an interior space. I strongly agree with this point of view as I believe the first good impression of any spatial experience is always created via feelings rather than logical interpretation. Even though emotional perception varies amongst individual, a successful manifestation can still be captivated via the careful selection of individual element such as materiality, colour scheme, lighting and multi-sensory elements which help guiding patreons to specific spatial experience that is intended by the designer. In like manner, atmospheric quality can proliferate coherence of the architecture through material-haptic qualities such as sensing temperature, hearing sounds and smelling scents. Vision alone cannot encapsulate atmosphere, but using multi-sensory qualities can induce unique spatial experience and emotional reaction for the patrons. For instance, memory links to smell, sensing a familiar scent can take people back to a specific event. Hence, atmospheric qualities play a crucial role in manipulating how a person feel about a space by creating a holistic aura that make sense to the public emotionally rather than logically.



Architectural Atmosphere _ Introduction: Why Atmosphere ? by Chris-

REFLECTION ON READING

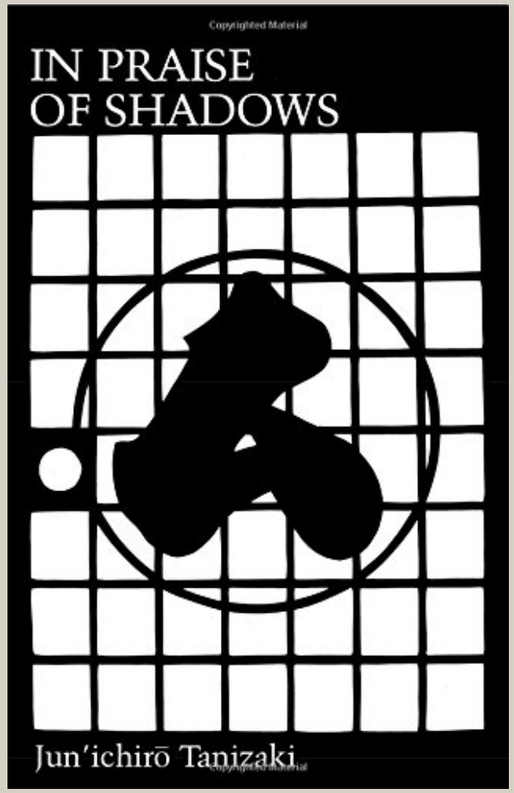
THREE FAVOURITE QUOTES:

The following quotes are most memorable to me because they elaborate on the reason why materiality, texture and color usage are so important in translating the value and identity of an object. Firstly, I learn that different types of material can manipulate emotional responses by touching and feeling, such as softness of paper latern . Secondly, texture can be a symbol of certain culture or historical identity. Japanese people prefer natural marks of grime, slightly rustic and roughly polished tableware items as they are more relevant to the everyday life instead of being frigid and elegant. Thirdly, color combination can helps manipulating the atmospheric experience, as the author explains hh-how neutral color tones in Japanese cuisine provokes a sense of calmness and tranquility which influences the eating tempo which he describes as “meditative”.

“Japanese paper gives us a certain feelings of warmth, of calm and repose”

“We do love things that bears the marks of grime, soot and weather, and we love the colours and the sheen that call to mind the past that made them”

“It has been said of Japanese food that it is a cuisine to be looked at rather than eaten. I would go further and say that it is to be meditated upon, a kind of silent music evoked by the combination of lacquerware and the light of candle flickering in the dark”



In Praise of Shadow by Junichiro Tanizaki

EXPERIMENT A

Creating steam to evident temperature changes

Elements application:

Water
Sunlight - Temperature source
Enclosed Space

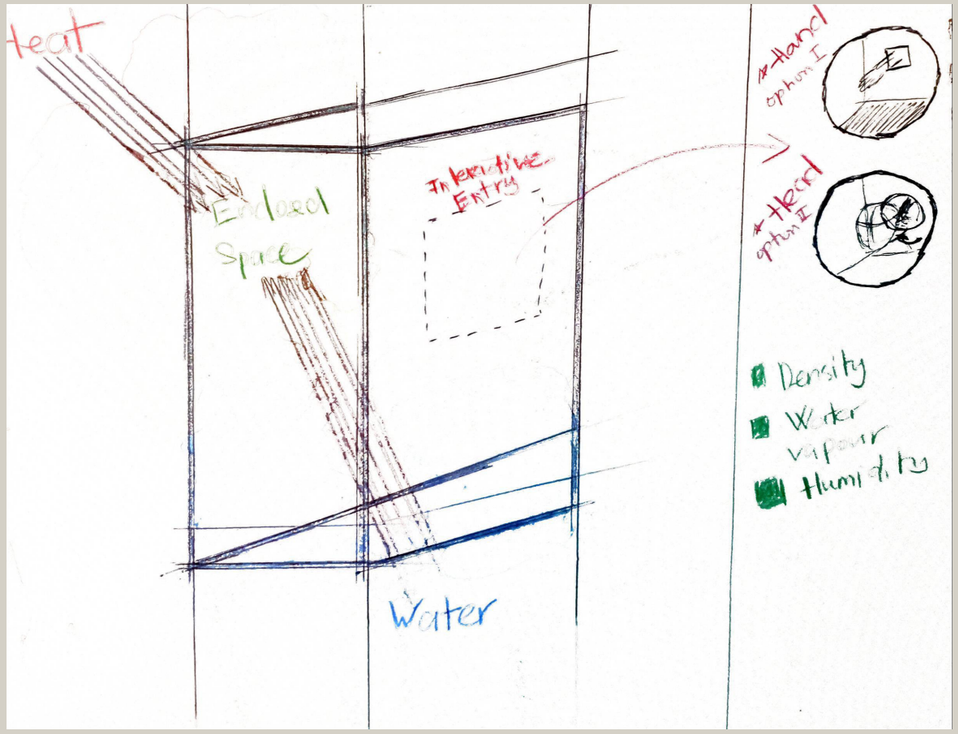
Hope to create steam on the cling wrap surface to capture the fleeting effect of steam water bubbles density. Testing the combination of natural temporal elements.

Elements application:

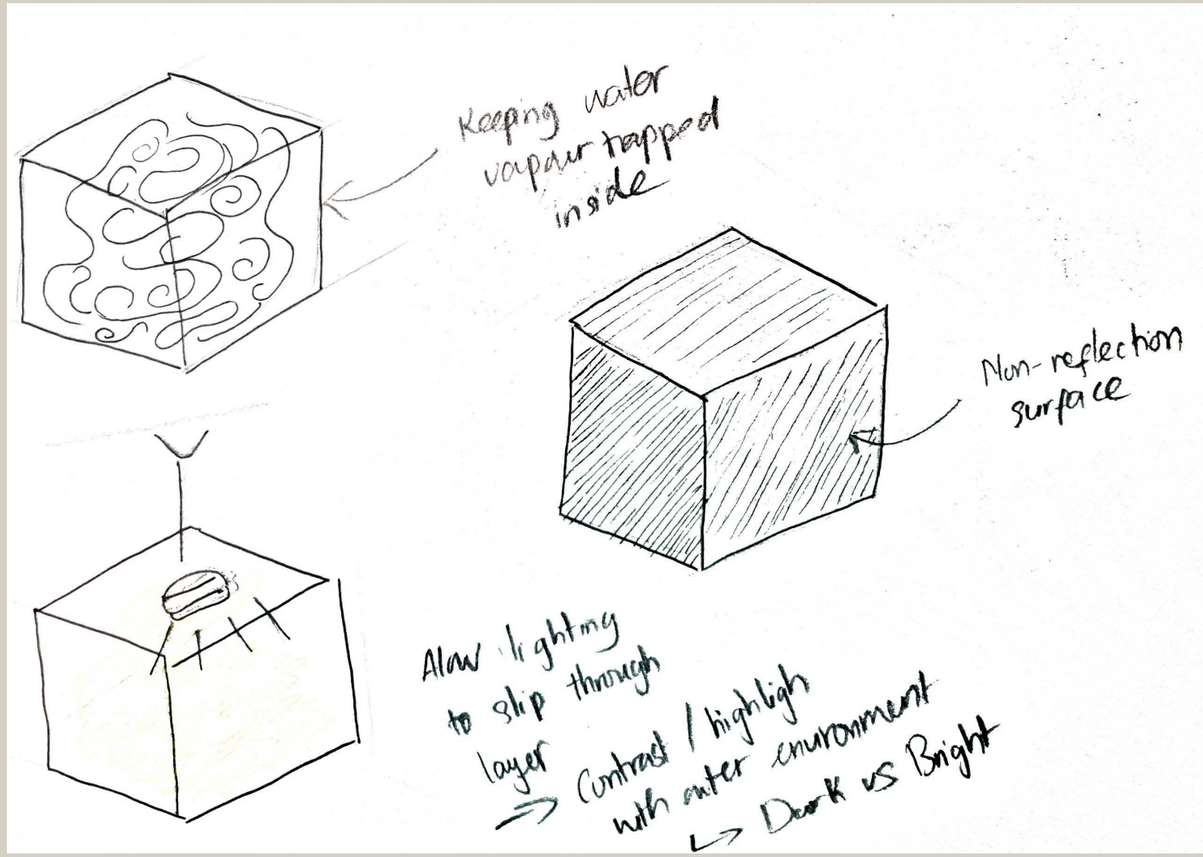
Sunlight - Temperature source
Enclosed Space

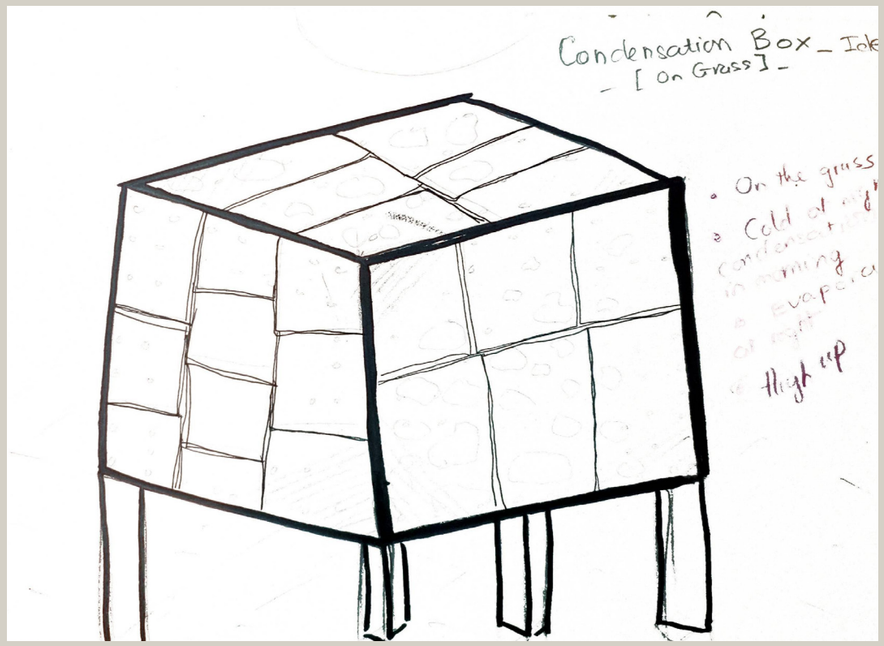
From this experiment, I know that steam cannot be created without the presence of water. This would a successful experiment if I apply some water inside the cling wrap cover.

IDEA SKETCHES 1



Inspired by Hans Haacke's Condensation cube



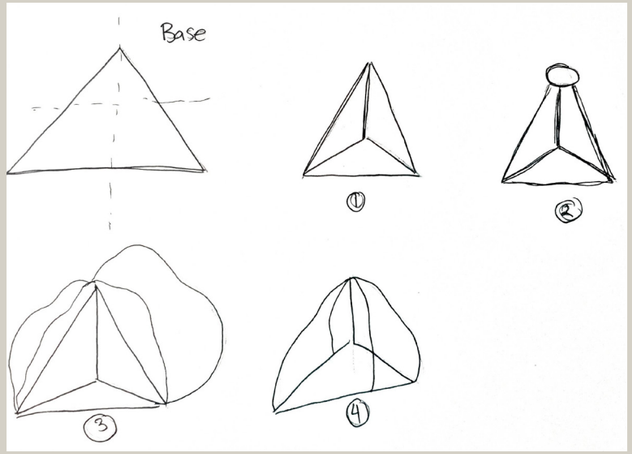


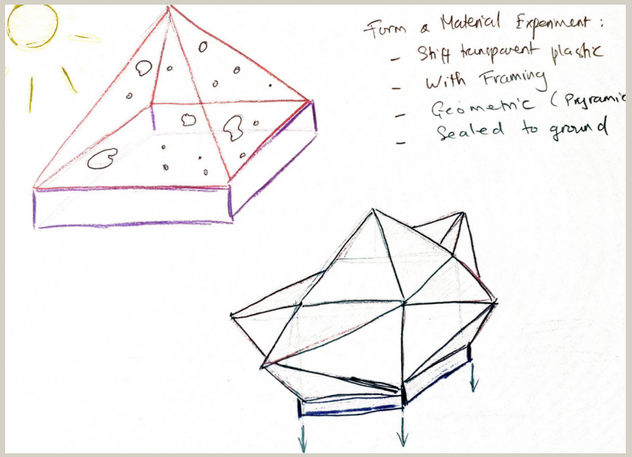
EXPERIMENT B

This exxperiment did not work because there was gaps on the cellophane layer which air can penetrates inside and stop water vapor from creating steam

However, I learnt that the mechanism used in Precent study 2, Hans Haacke's Condensation Cube', also applied for enclosed space over wet grass under changing temperature created by sunlight.

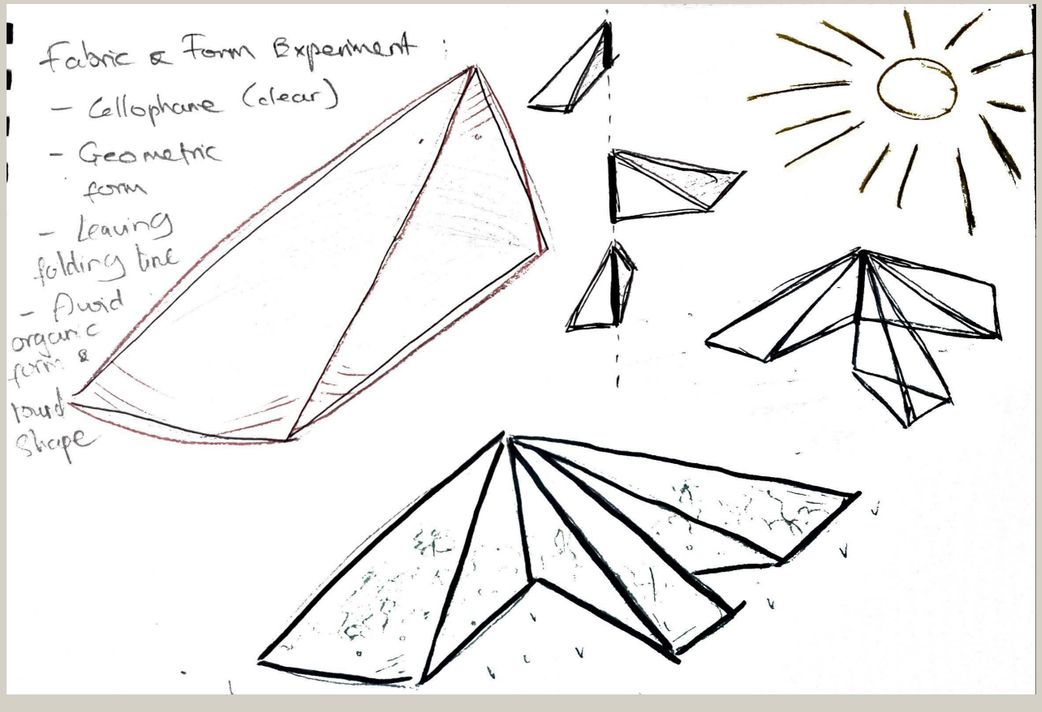
IDEA SKETCHES 2

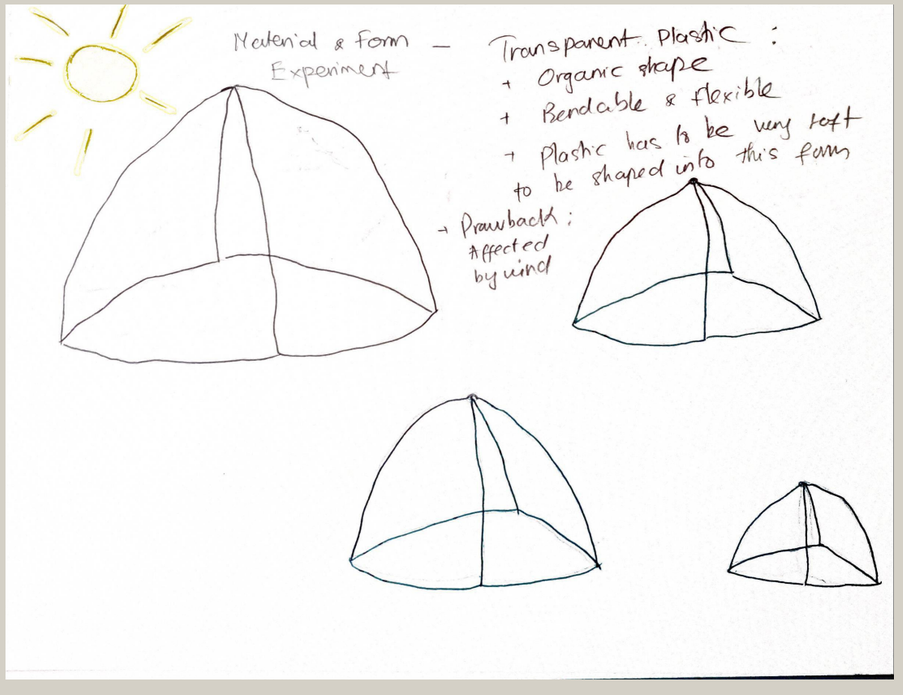




The ideas in the third and fourth sketches are precedents of experiment C. Using materials like cellophane and plastic sheets. Has to be fully enclosed.

I was not sure of how to construct similar form and shapes using intended materials like glass or transparent acrylic sheet since they're in solid form, which is difficult to create organic shape models.



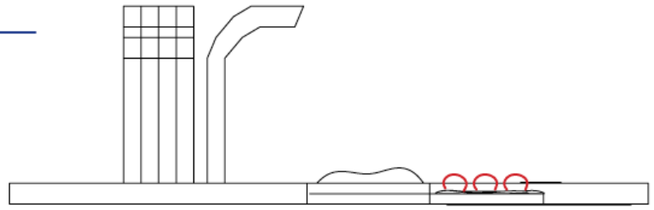


EXPERIMENT C

This experiment was used to test the probable materials and how the steaming system may work using elements of water, heat and enclosed space.

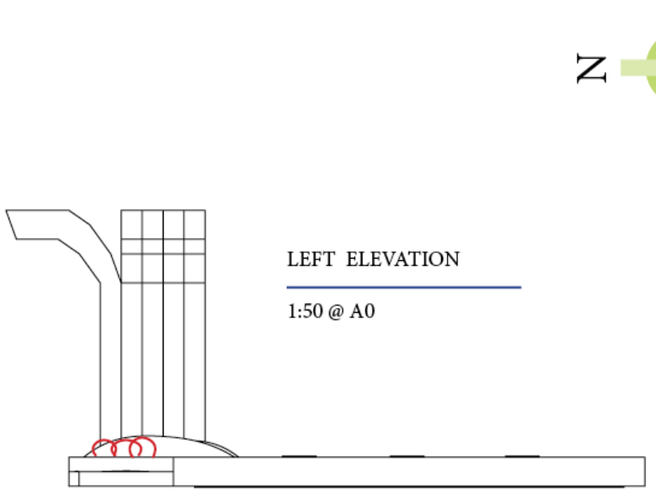
The soil cellophane bag idea was the most interesting one. It sparked an idea to use natural moisture in soil created by dew overnight to create steam bubbles.

SITE TECHNICAL DRAWING



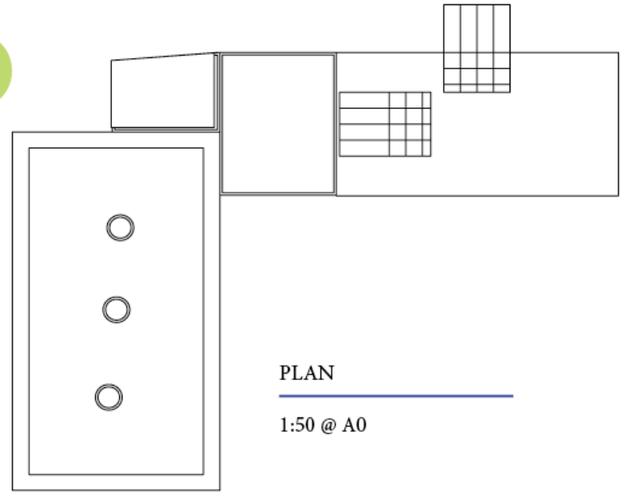
FRONT ELEVATION

1:50 @ A0



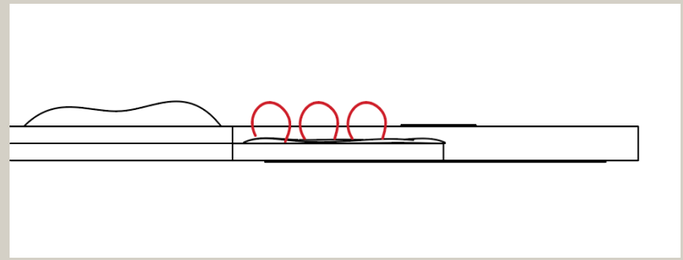
LEFT ELEVATION

1:50 @ A0



PLAN

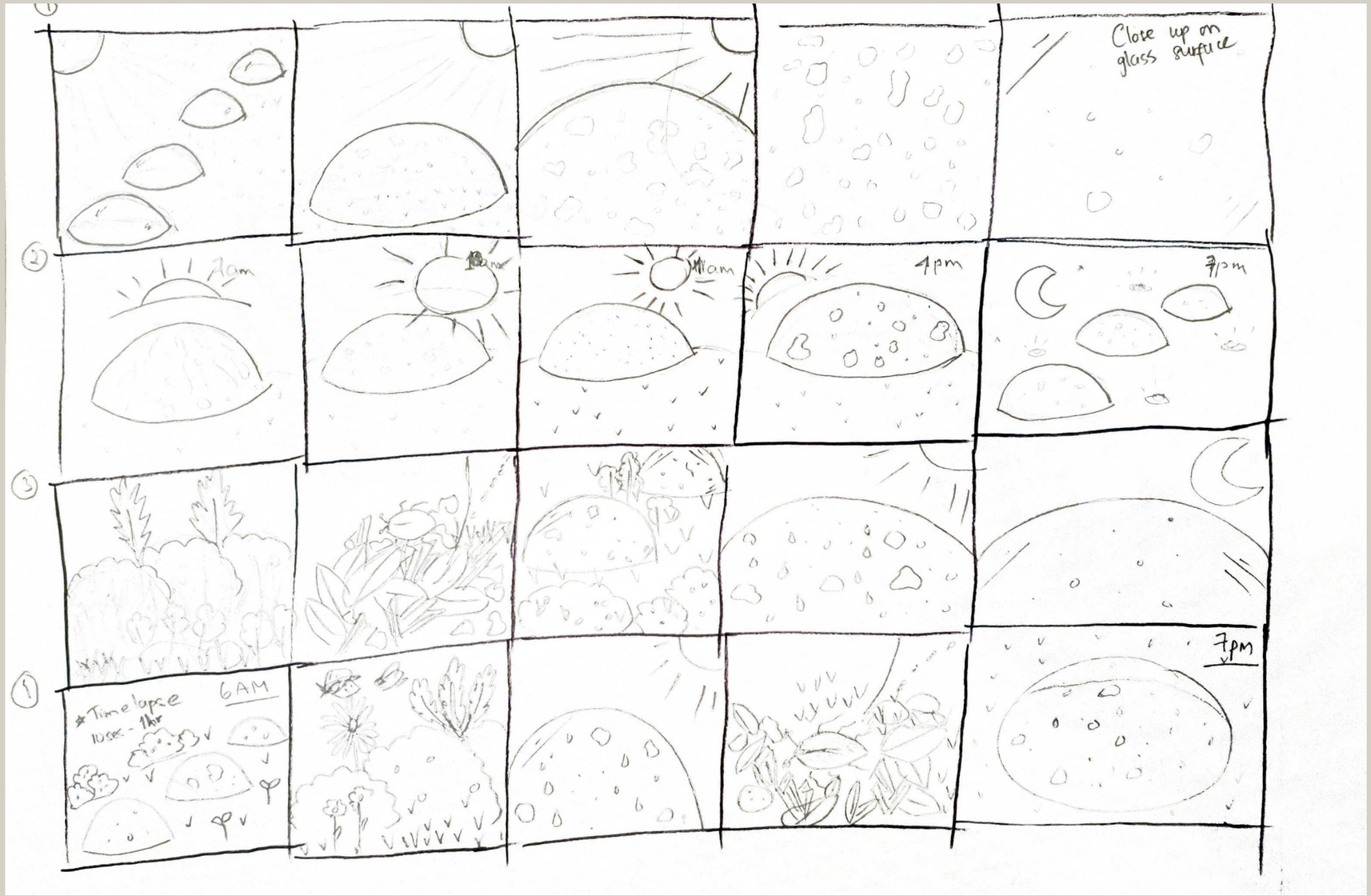
1:50 @ A0



FRONT ELEVATION

1:50 @ A0

STORYBOARD

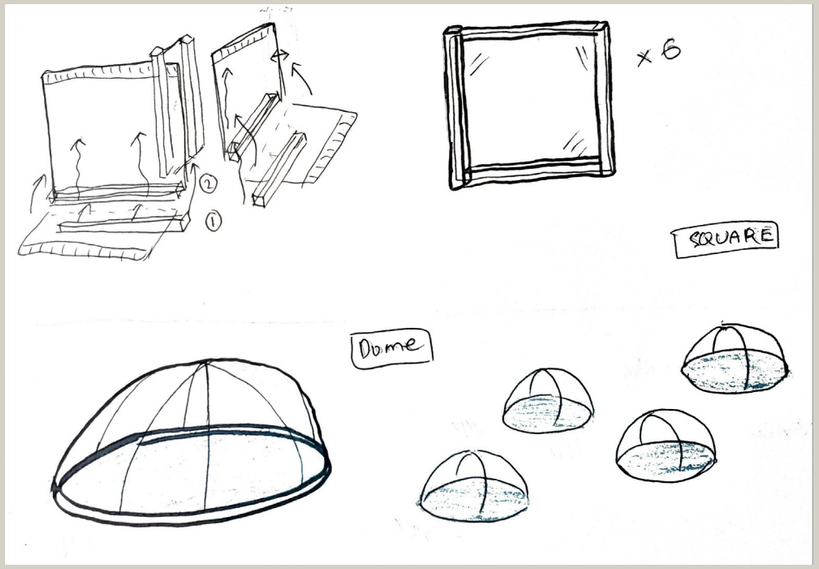

Close up on glass surface
7am
10am
11am
4pm
7pm
6AM
Timelapse
7pm

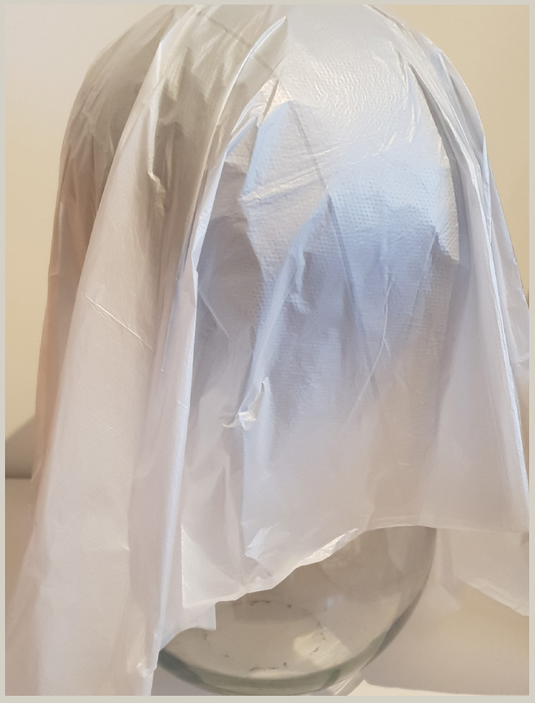
MATERIAL SOURCING

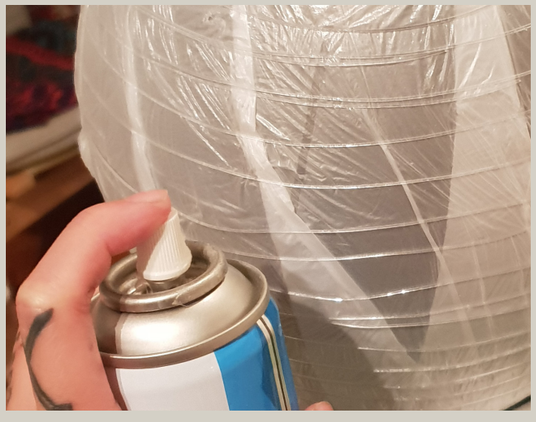
Not suitable materials : glass, transparent acrylic, cellophane.

I came up with the idea of using soft plastic sheet and nylon fishing line to create a dome shape installation. I did not want to use only plastic sheet for the installation because it captures more of the wind essense rather than temperature when swaying with the wind flow. However, I struggle to find a suitable method to shape my model into the desired form using transparent plastic or glass.

REFINED INSTALLATION

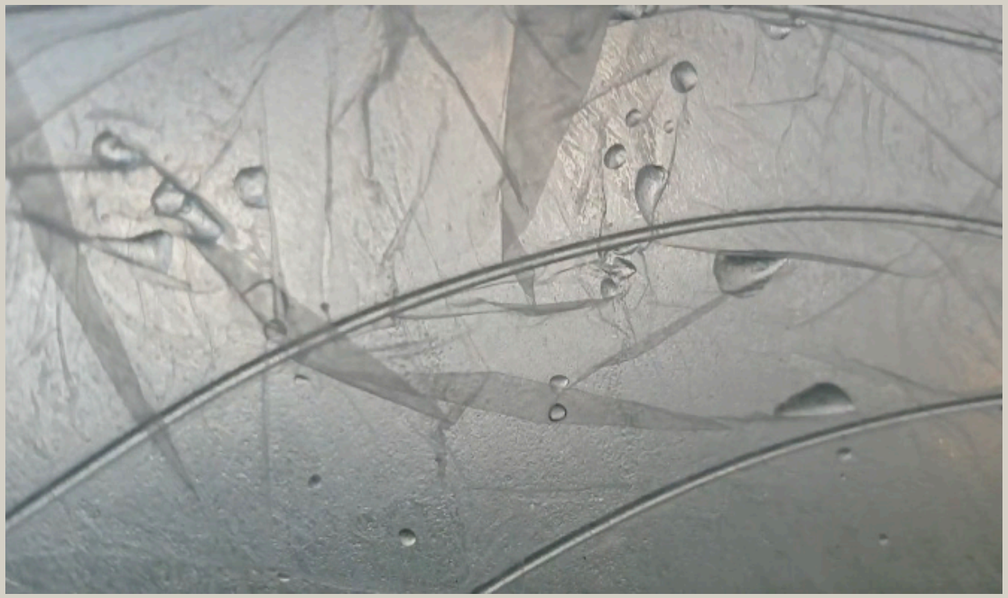




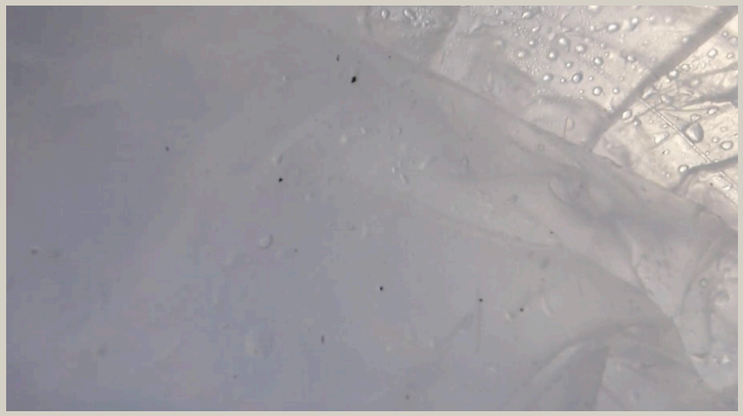


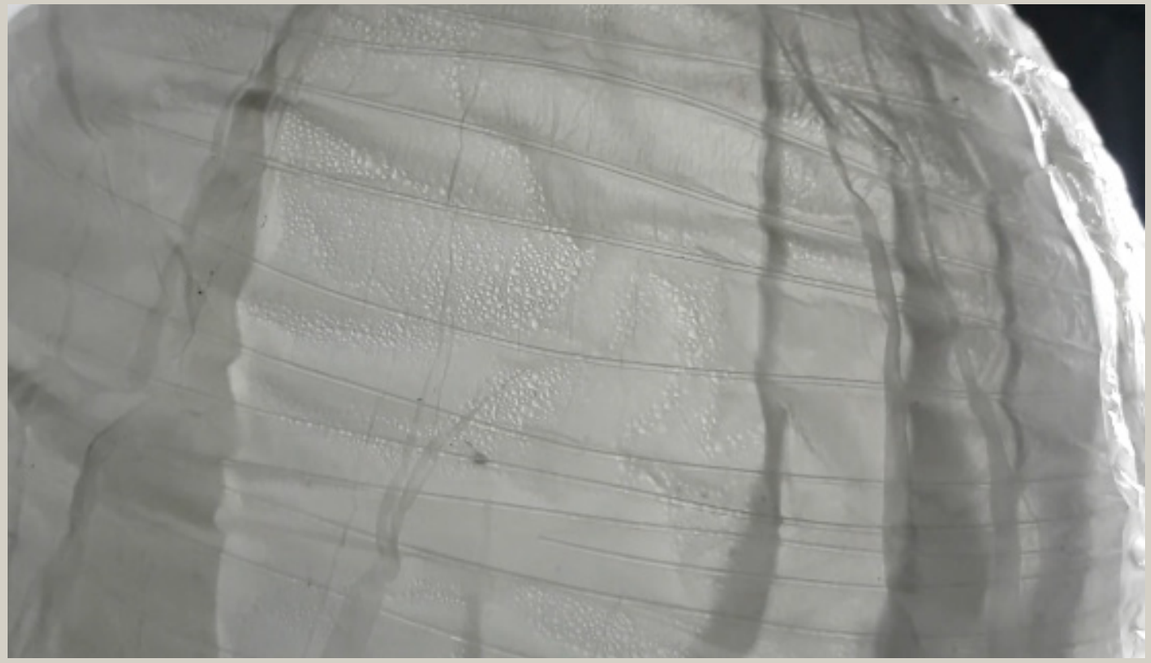
FINAL PRODUCTS

FINAL VIDEO IMAGES



These photos were captured from video time lapse of steam formation.





REFERENCE

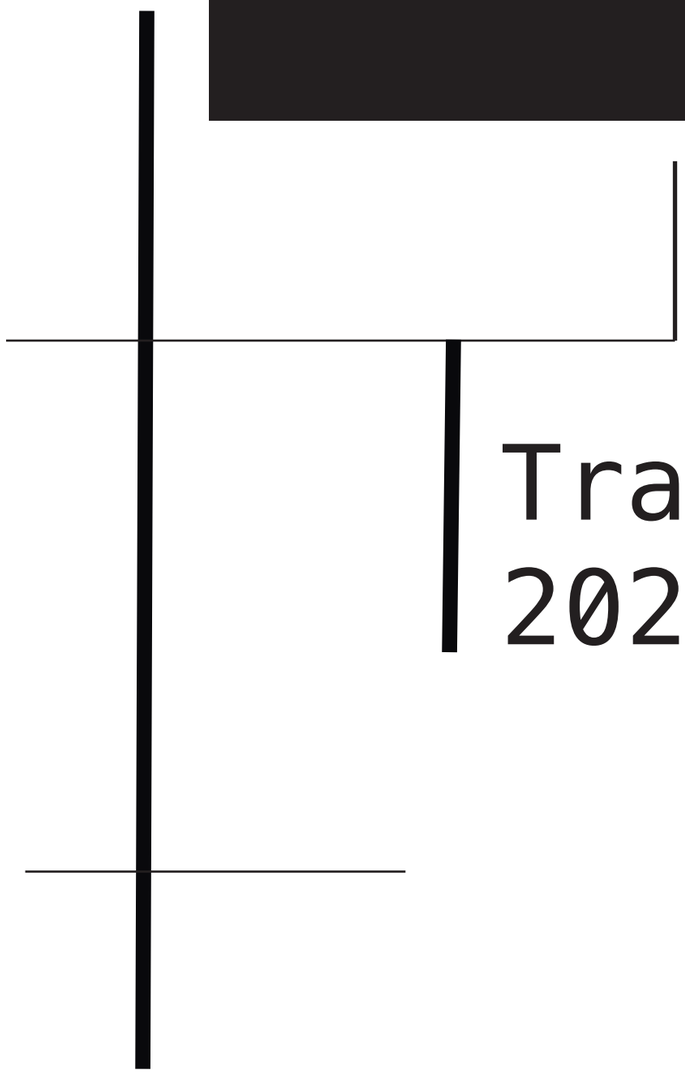
“Antony Gormley”. Antonygormley.Com, Last modified 2009. https://www.antonygormley.com/projects/item-view/id/241#p12.

Chisenhale, Last modified 2017. https://chisenhale.org.uk/exhibition/rose-finn-kelcey/.

“‘Condensation Cube’, Hans Haacke, 1963–5 | Tate”. Tate, Last modified 2015. https://www.tate.org.uk/art/artworks/haacke-condensation-cube-t13214.

DSA, Jan. “Japanese Artist Yasuaki Onishi Explores ‘Negative’ Space - Art In Dubai Abu Dhabi UAE | Travelartslife.Com With Jan D’sa”. Art In Dubai Abu Dhabi UAE | Travelartslife.Com With Jan D’sa, Last modified 2016. http://travelartslife.com/japanese-artist-yasuaki-onishi/.

BLOOMING WALL



Transformer
2021

Linh Nguyen

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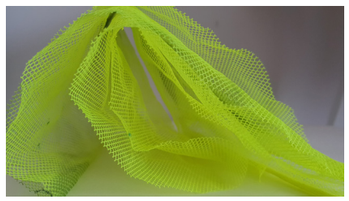
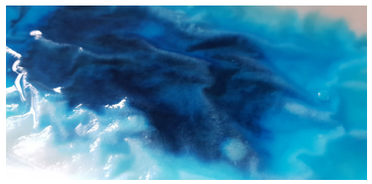
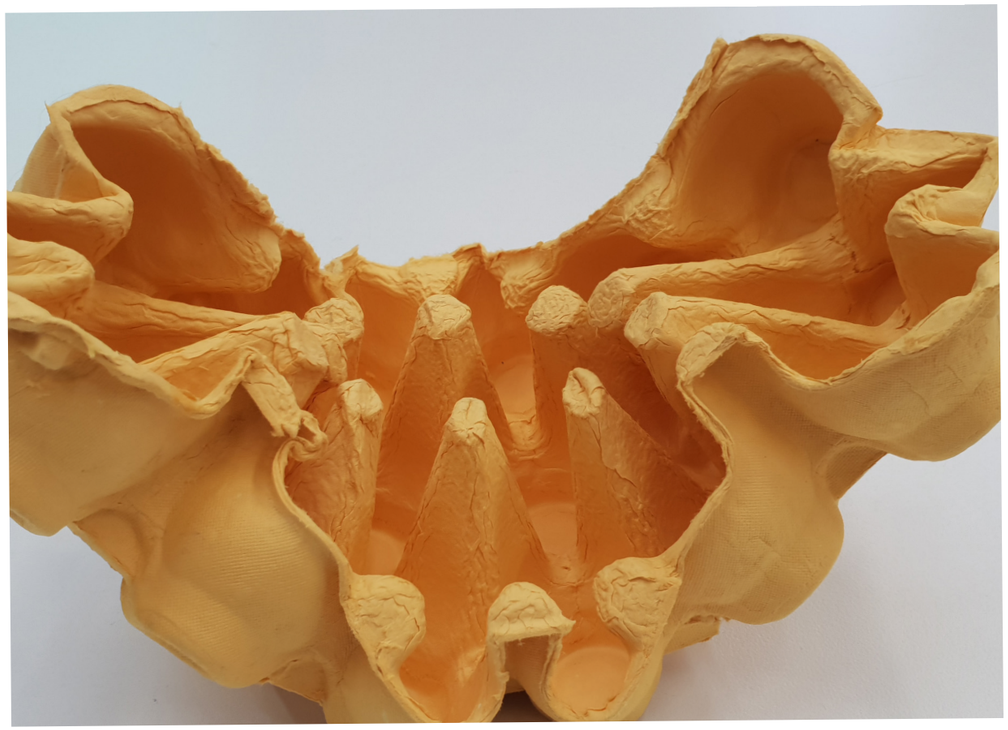




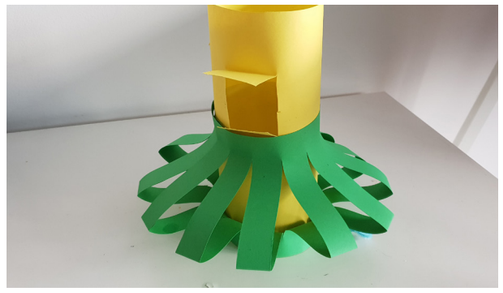
Generate ideas (Maquattes, experiments)

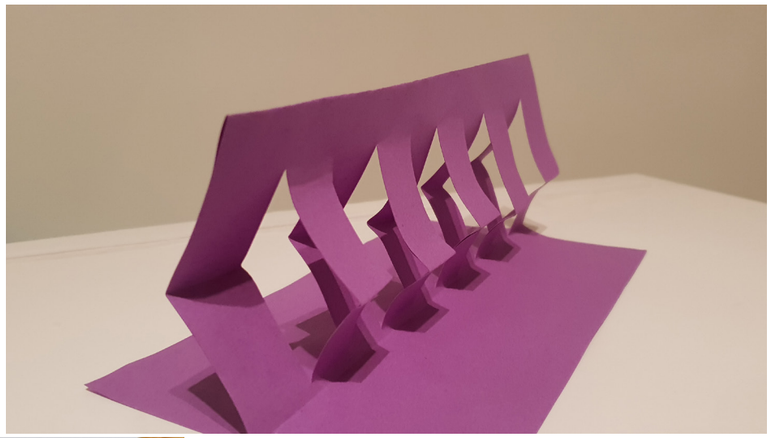
During this stage, I experiment
different directions of the design concept and
define three key words as Expansion, Converging
and Unfolding.

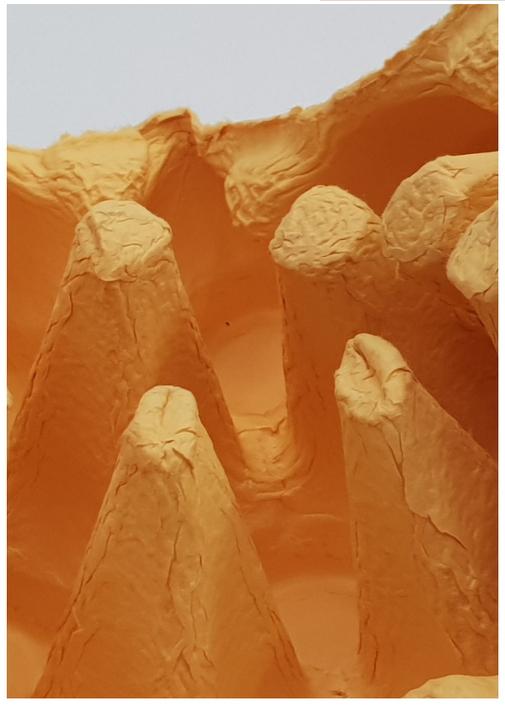
Experiment A



Experiment B







Experiment B is inpired by the eggs crate experiment (Experiment A)

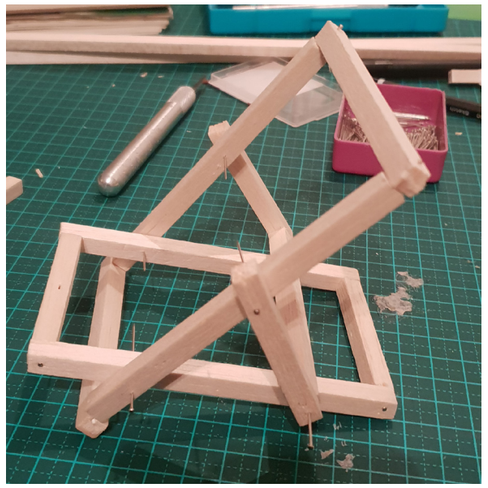
My observations of the experiments focus on how the object folds and unfolds. However, i struggled to extend this concept visually.

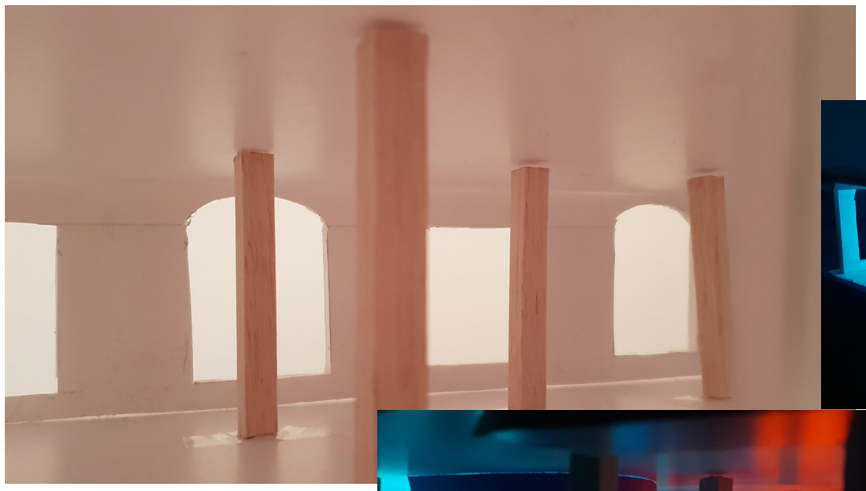
For future reference, I would try using different types of materials and crafting techniques e.g knots, joints, etc

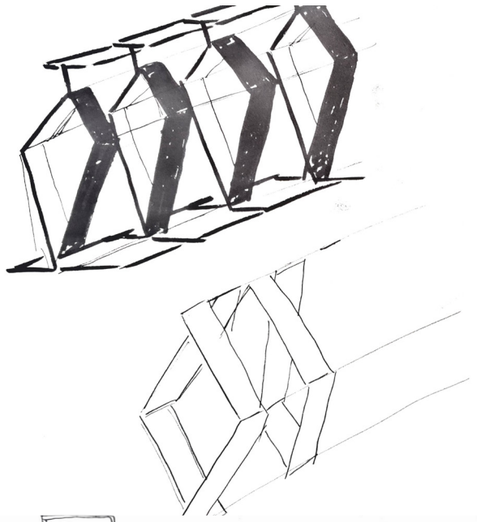
Refined physical modelling

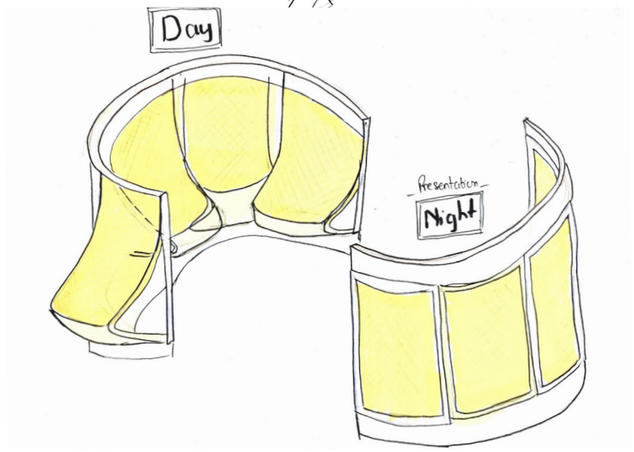
Each panel of the paper models represents one seating on the developed movable wall later on.

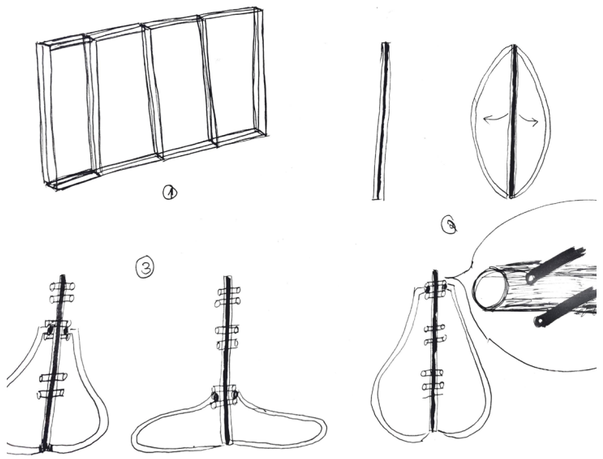
The Hansen Hall physical model really helps me to envision the layout and scaling of the Design.





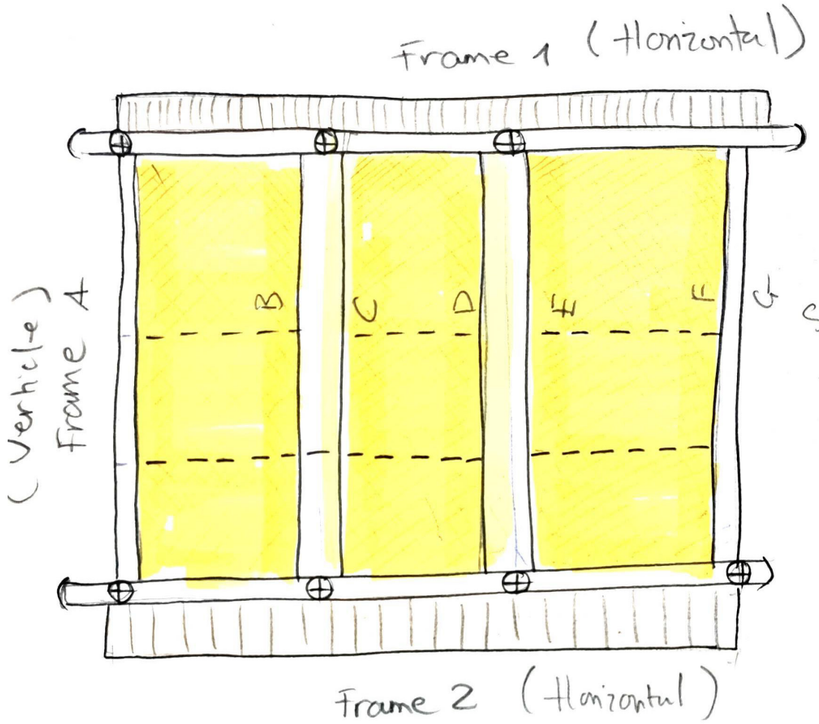


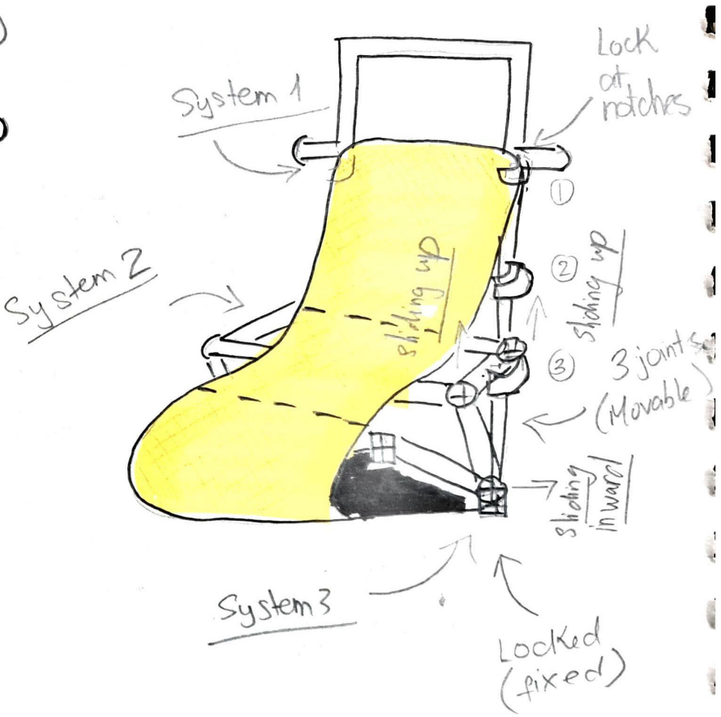


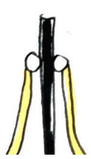


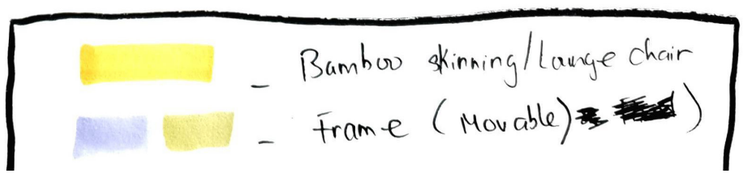
Initial Sketches

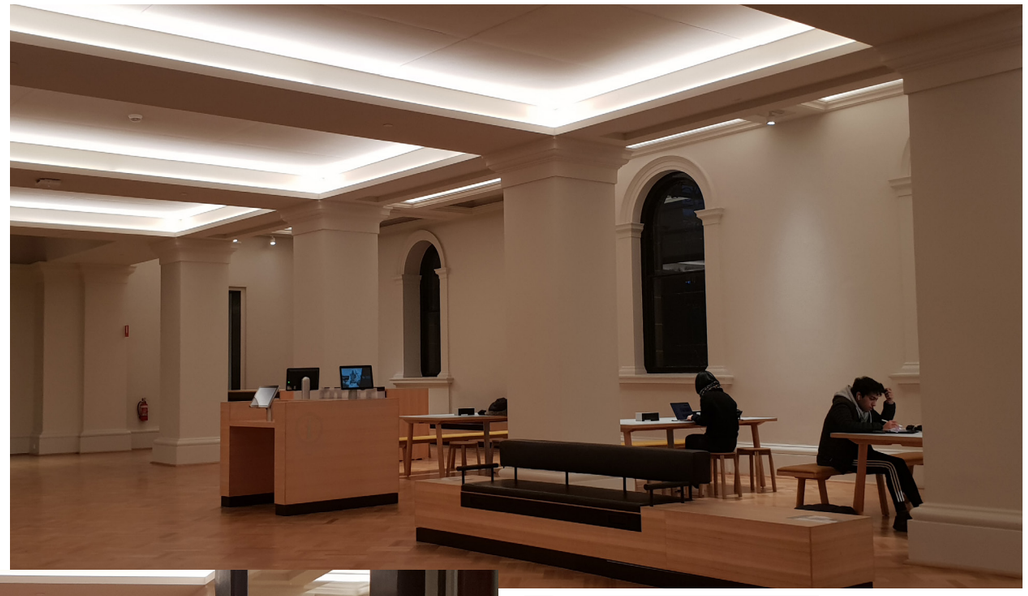
These sckteches play an imortant role in devloping the mechanism for the design.











Design intention

The meeaning of Blooming Wall in association with HRAFF virtues:

I decide to explore further on the sense of toghetherness.I think about ways to bring people toghether at the end of the day for the presentation. Bringing people to one central point denotes the cultural unity, which aligned with HRAFF's mission statement.

Site

Hanson Hall

I visit Hanson hall again to think about to format the layout of the Blooming Wall design (partition wall). Also to check for details of the space, such as the ceiling and window highlights.

Presentation drawing case study

Technical drawing: Using collage to create a context for elevation drawing - Highlighs the building's sectional drawing

Perspective drawing: I learn human sihlouette is useful to depict scale and to show the types of acitivities involved within the space.

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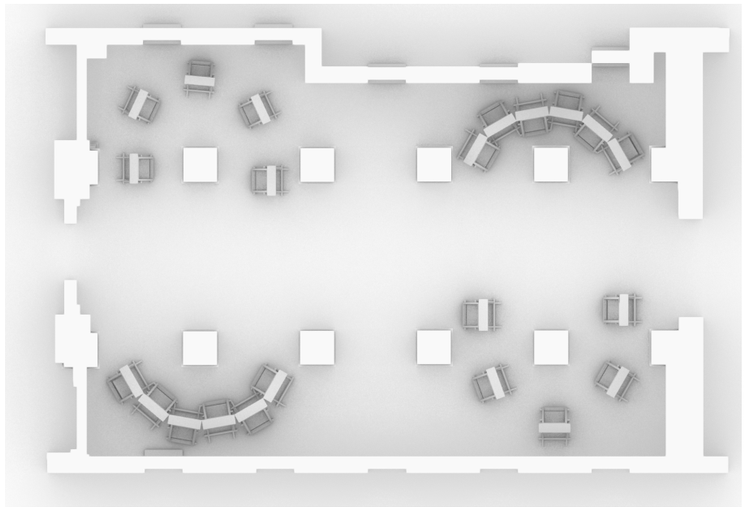
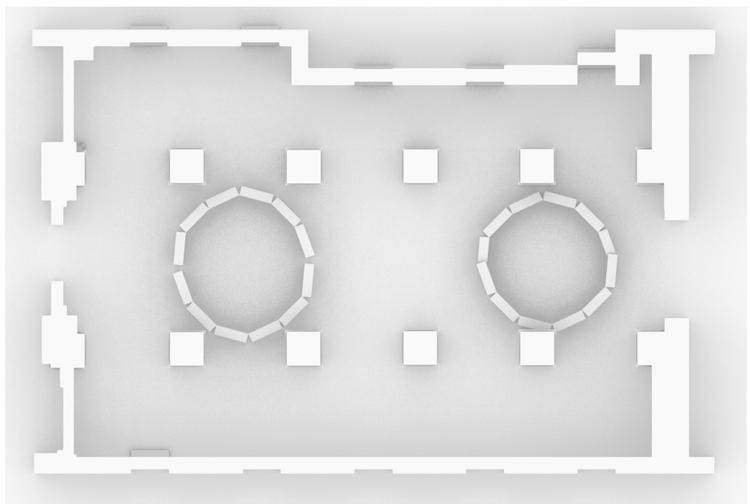
1 www. plataformaarquitectura.cl
2. www. asse.ru
3. www. namelessarchitecture.com
4. www. archdaily.com

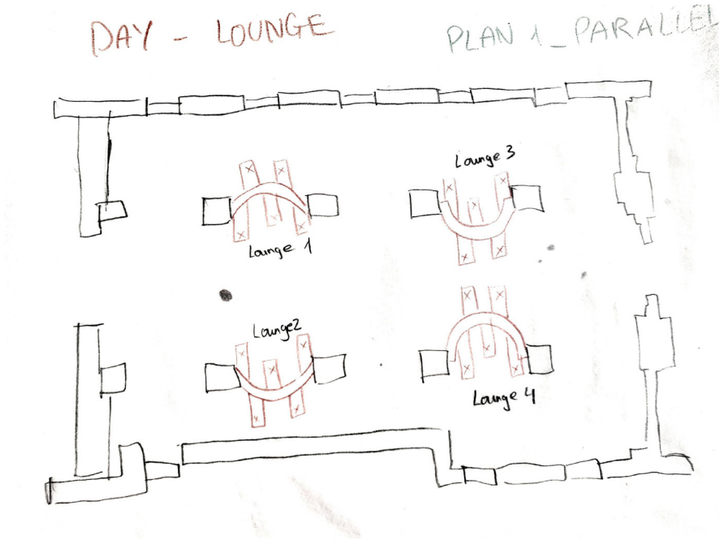
Design proposal I

Folding/Unfolding shown on the Rhino floor plan.

Restrictions include: Finding a suitable mechanism to move the booth toghether



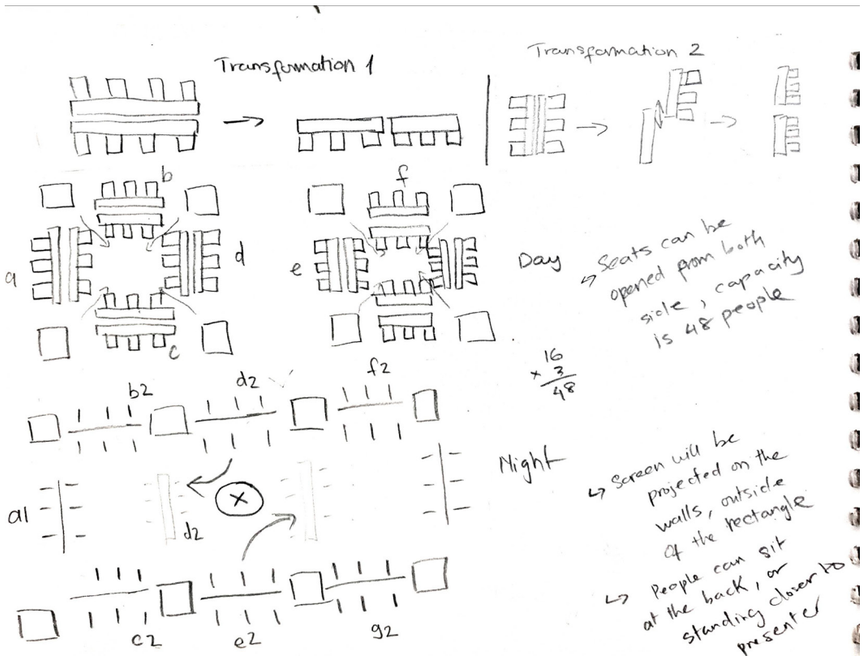


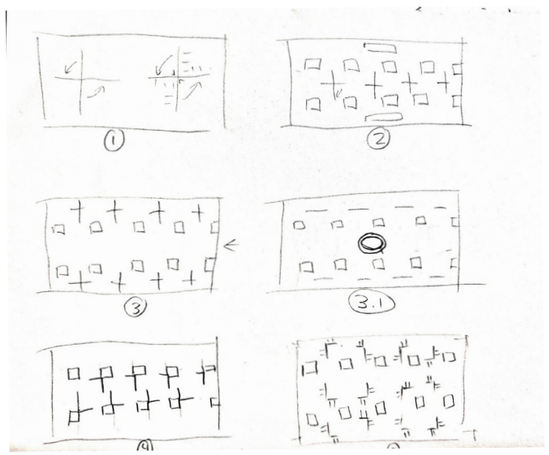


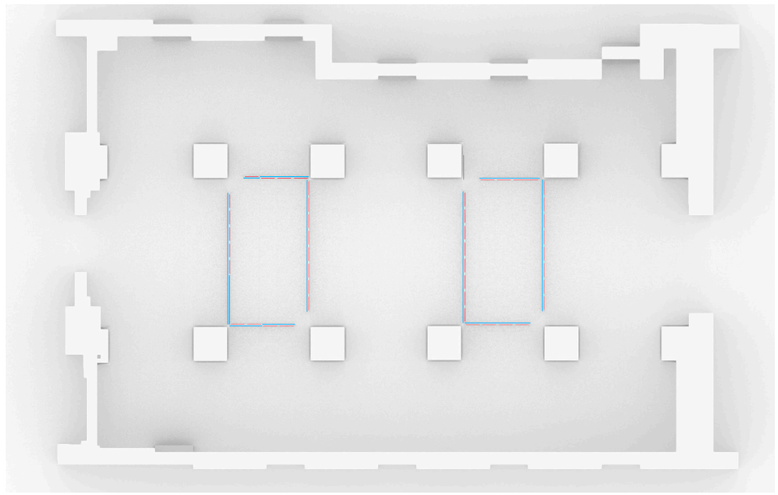
Design proposal II

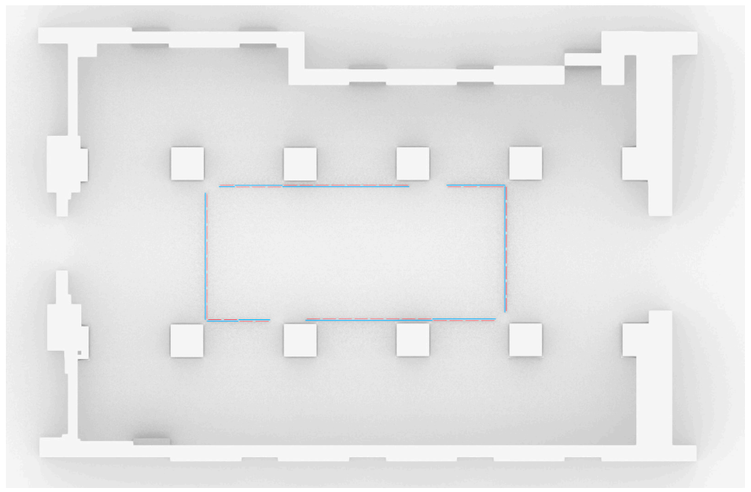
Restrictions include:

The Hinge system on teach corner of the wall is the solution to the design mechanism, but fail to creates a welcoming space physically and visually, feel like trapping the attendees inside.



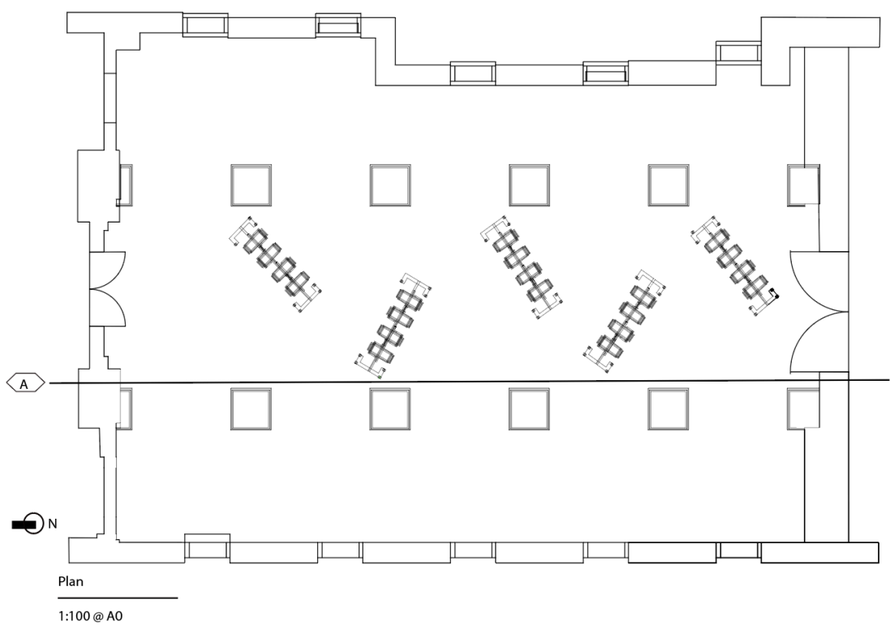


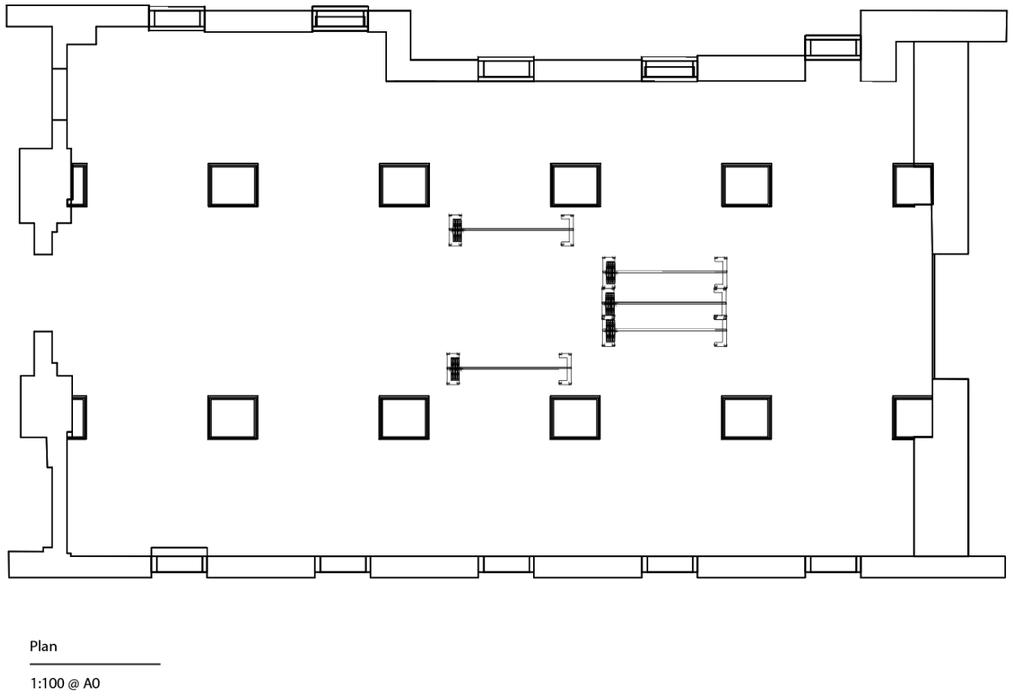




Final Proposal

This proposal is improved from the previous design, reduced the number of partition walls and adding rolling wheels system on each wall to move them toghether at night time.



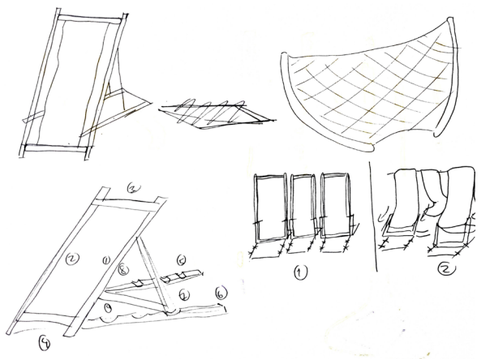


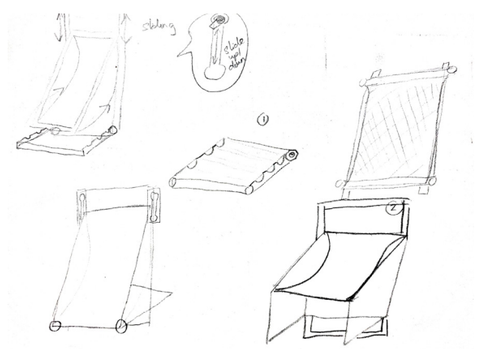
Day time - Lounge

Partition walls unfold to become chairs.

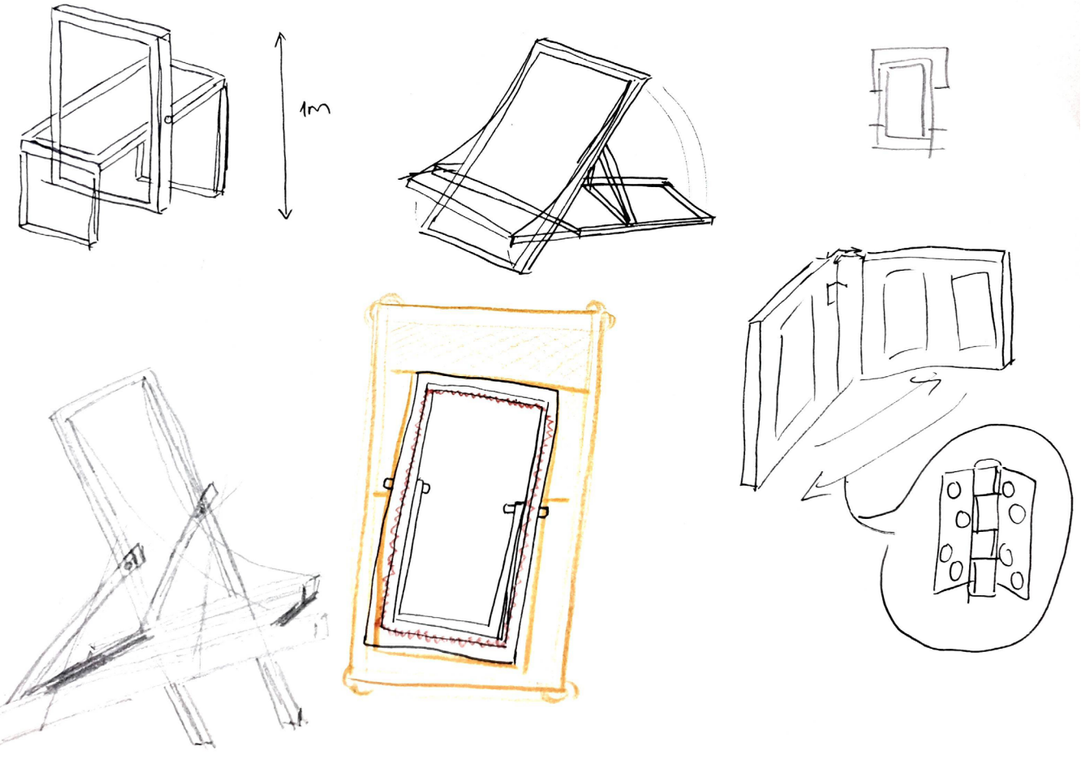
Night time - Presentation/ screening

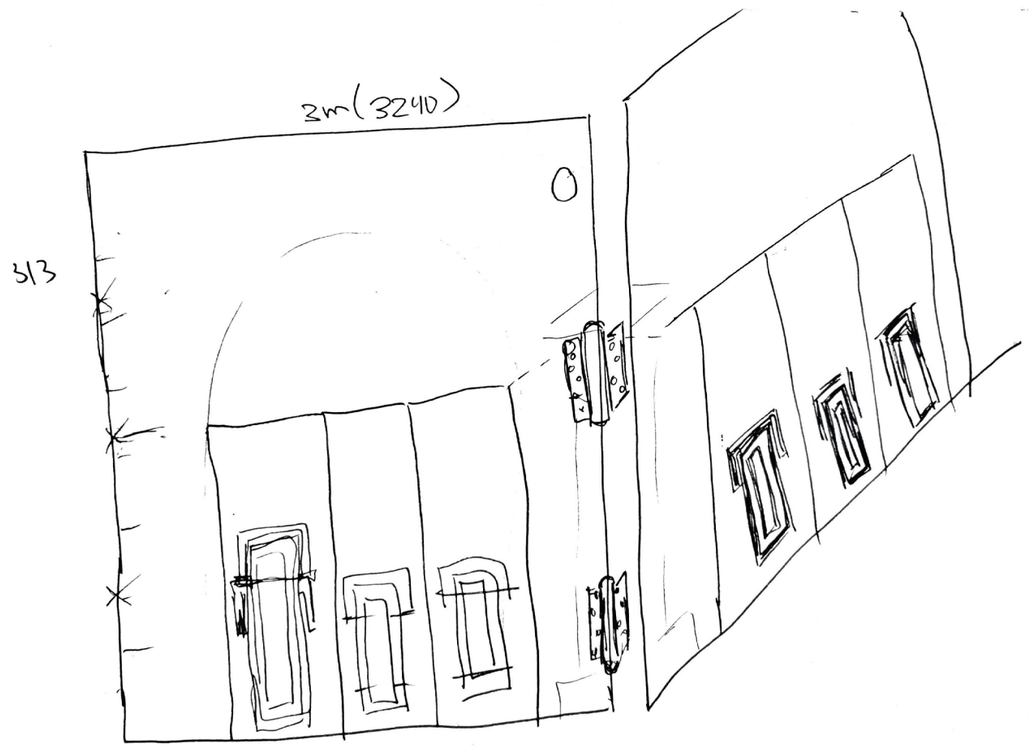
The walls create a presentation hub near the center of the hall.





Design Direction





Material & Construction

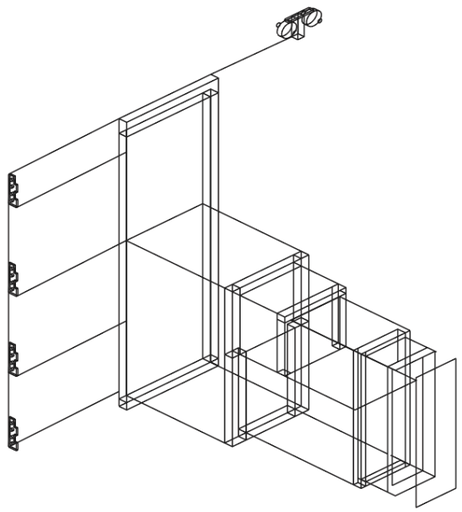
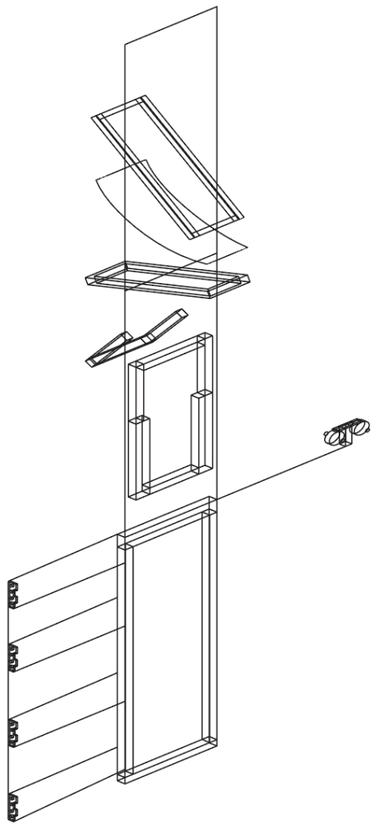
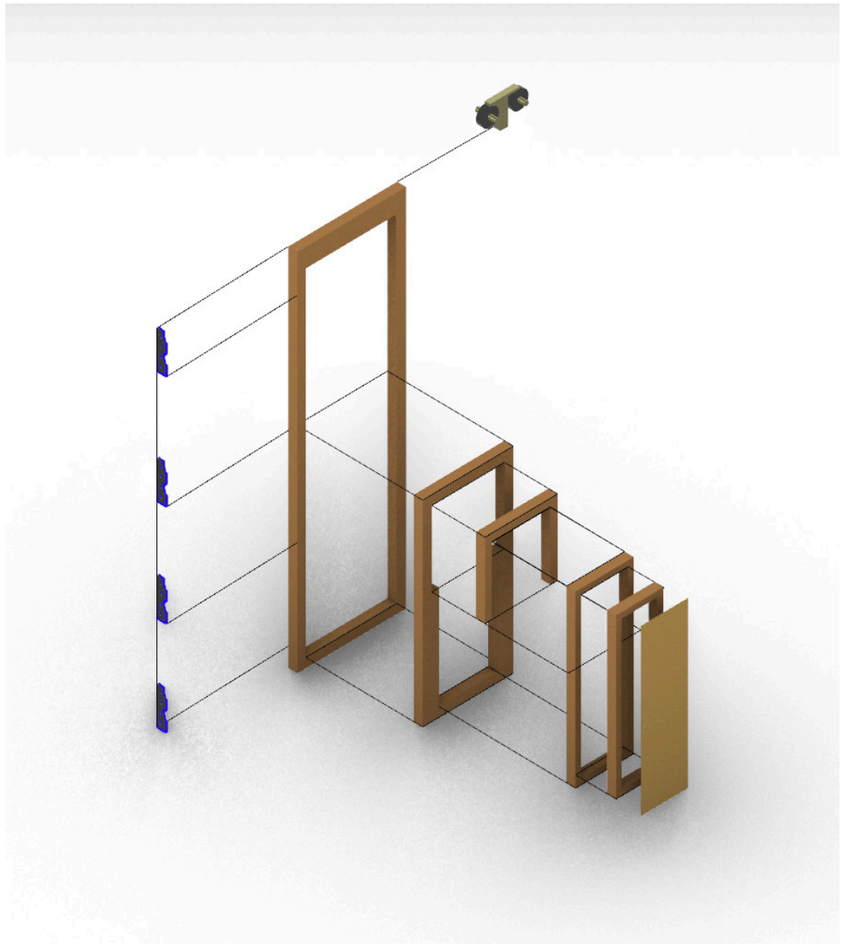
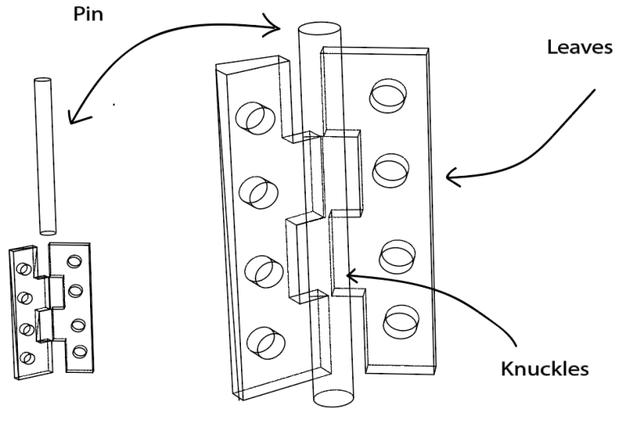


Diagram 1. Folded (Wall) axonometric view

Diagram 2. Expanded (Chair) axonometric view

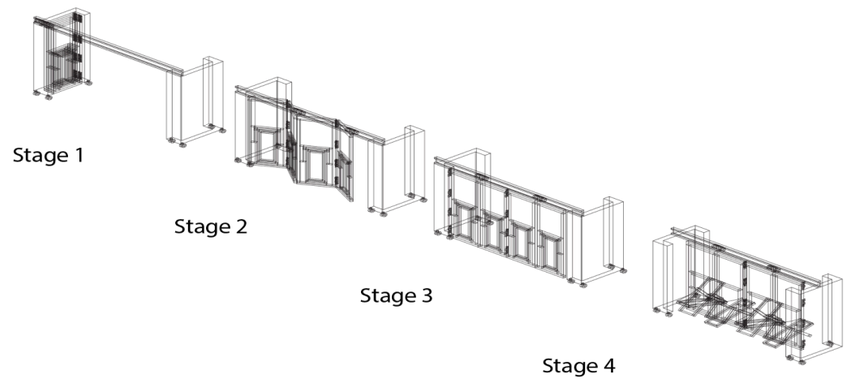




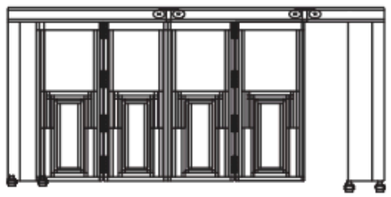


Transformation drawings

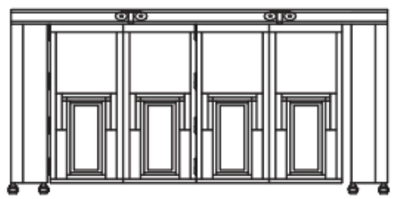
Four stage of transformation



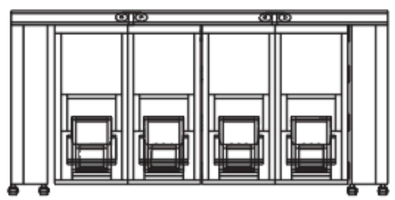
Individual panels hidden indside storage



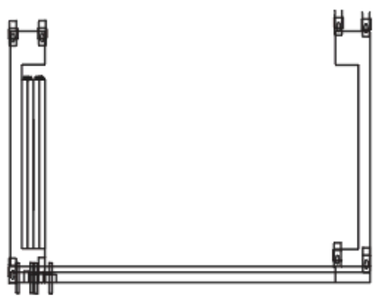
Panels sliding along the upper rail to unfold

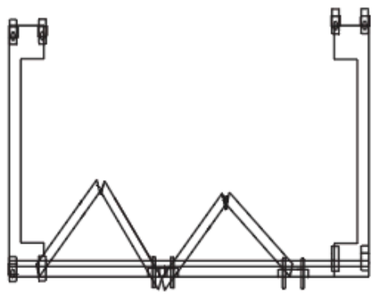


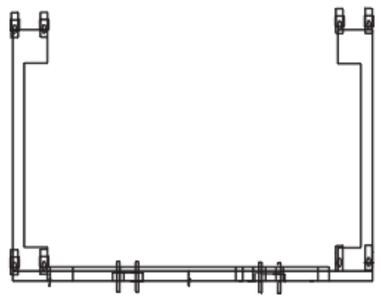
Panels are fully opened

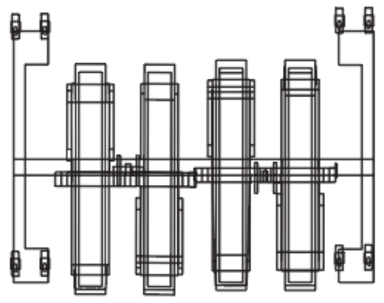


Panels unfolded to transformed into chairs





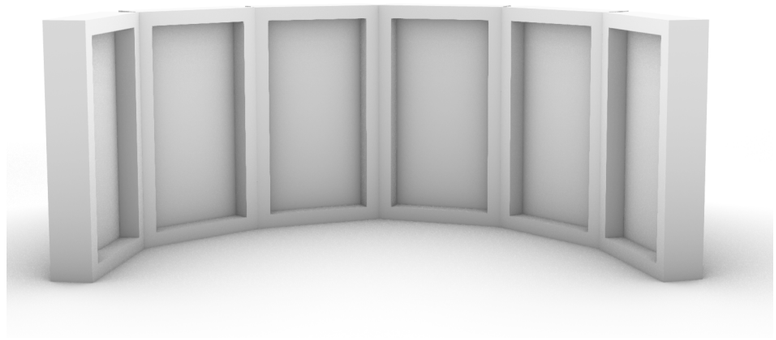


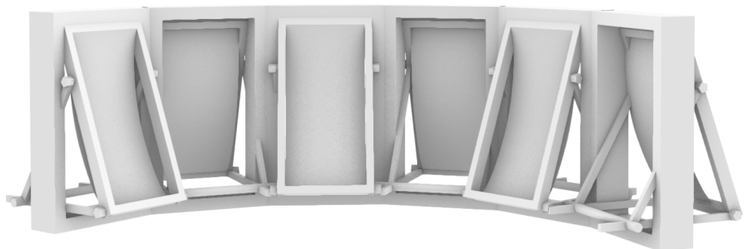


Rhino Design

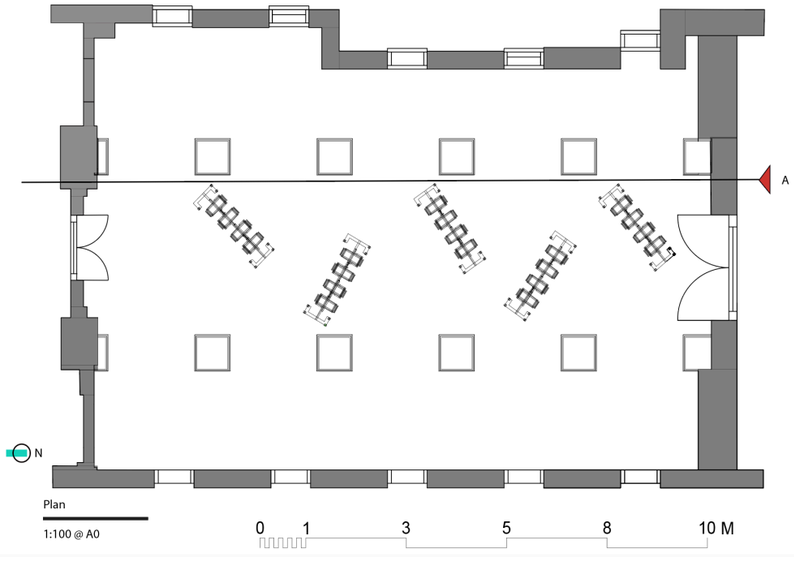
What I could have done differently:

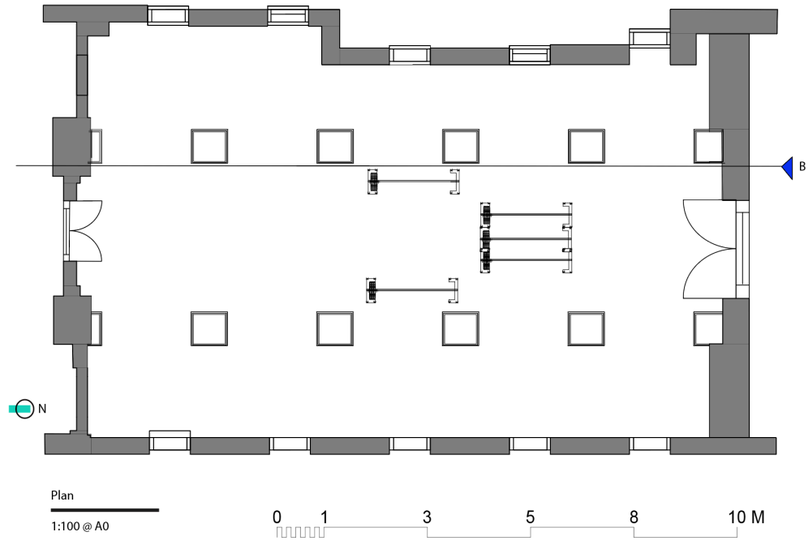
All chairs on each partition wall facing teh same direction to portray the notion of unity better.

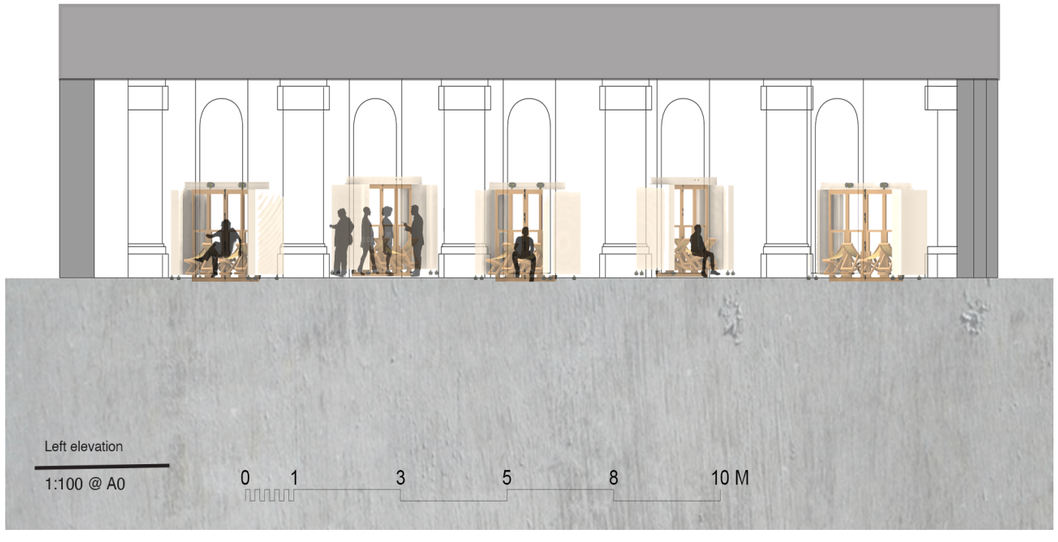


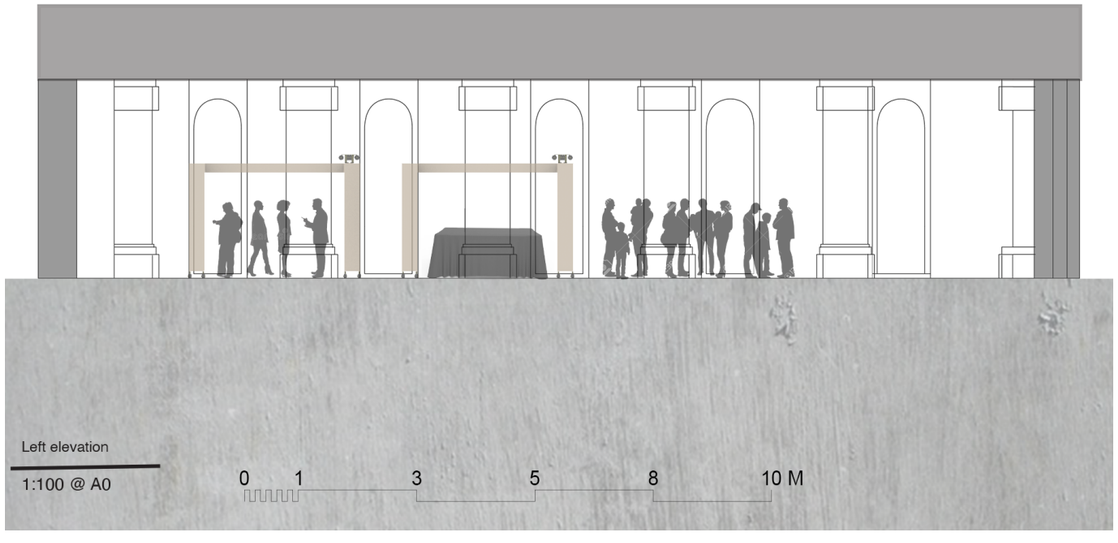


Technical drawing









Perspective drawings

Day time

Night time

Linh Nguyen
SDN2001

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