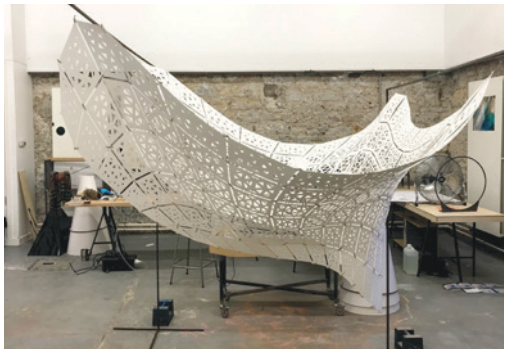
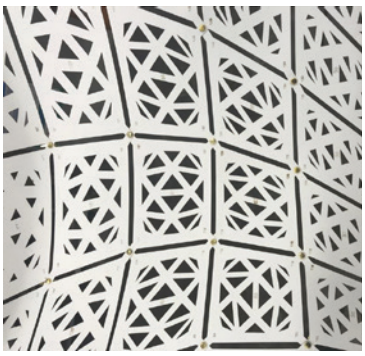
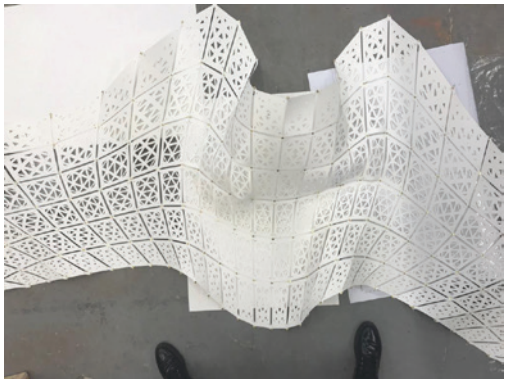
P O R T F O L I O

andrea hawley harjanto
MA [Hons] Architecture

I N D E X

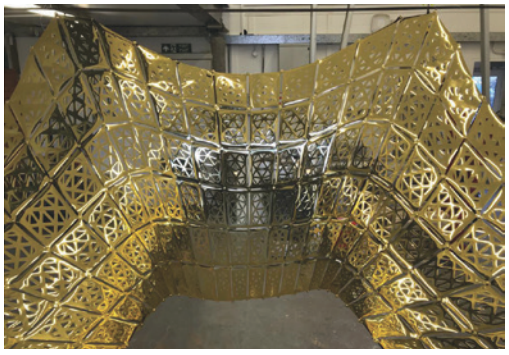
LE PAPILLON D'OR - 1:3 Scale Model for RAFT Exhibition

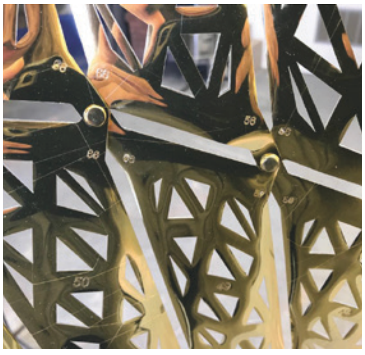


1:3 Scale model made from 220 gsm paper through laser cut and attached with paper fasteners. This was made as a test model / prototype in order to see the form of the design when fabricated. We were able to see how the structure behaved and figure out what material would be best to use for the final structure.

LE PAPILLON D'OR - 1:3 Scale Gold Vinyl

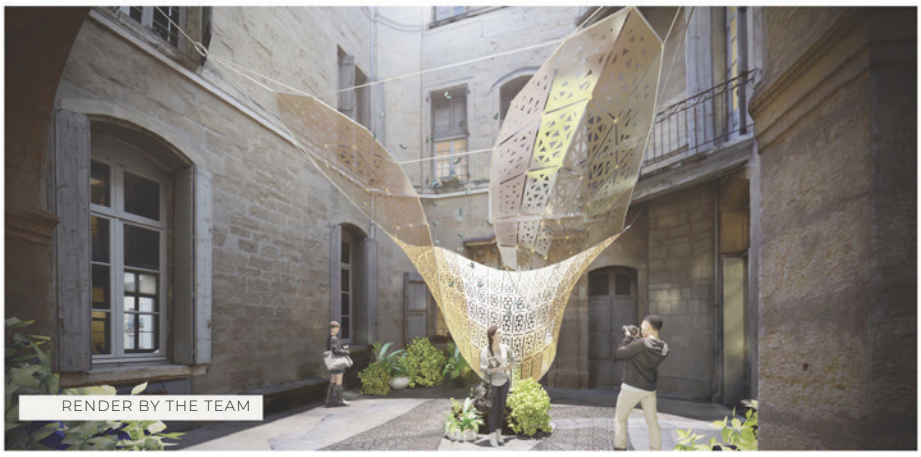





This is another 1:3 scale model made for a feasibility study. Through research, we settled on PETG Sheets [for Sub Layer] and Gold static Vinyl [for Top Layer] as the base material for this parametric installation. Paper fasteners would be used for joining these individual individual sandwich components. The installation will be suspended from 4 points using thick piano wires [2mm] as testing at the university has demonstrated that piano wire can easily hold a weight of 10kg.

LE PAPILLON D'OR - Render VS. Reality

IMAGES BY : INES MARTINEZ RODRIGUEZ;
https:www.wild-design-studio.com/le-papillon-d-or

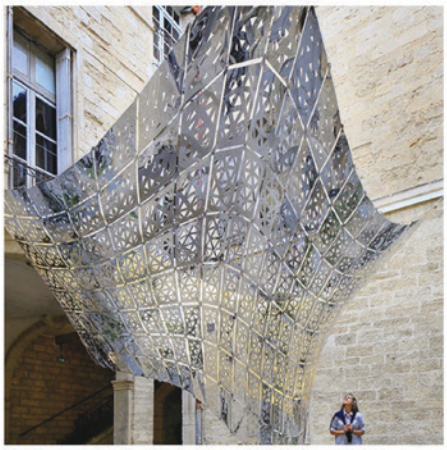


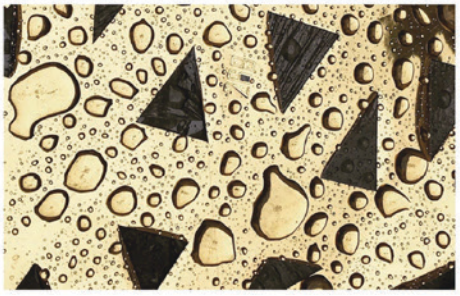
We finally installed this project at the courtyard in Montpellier, France for the Festival Architectures Vives [FAV] Competition. Le Papillon D'or won the People's Choice Award.

2019

LE PAPILLON D'OR - Render VS. Reality

IMAGES BY : INES MARTINEZ RODRIGUEZ;
https:www.wild-design-studio.com/le-papillon-d-or





LE PAPILLON D'OR / FAV COMPETITION

DREAM LIBRARY - Architectonics

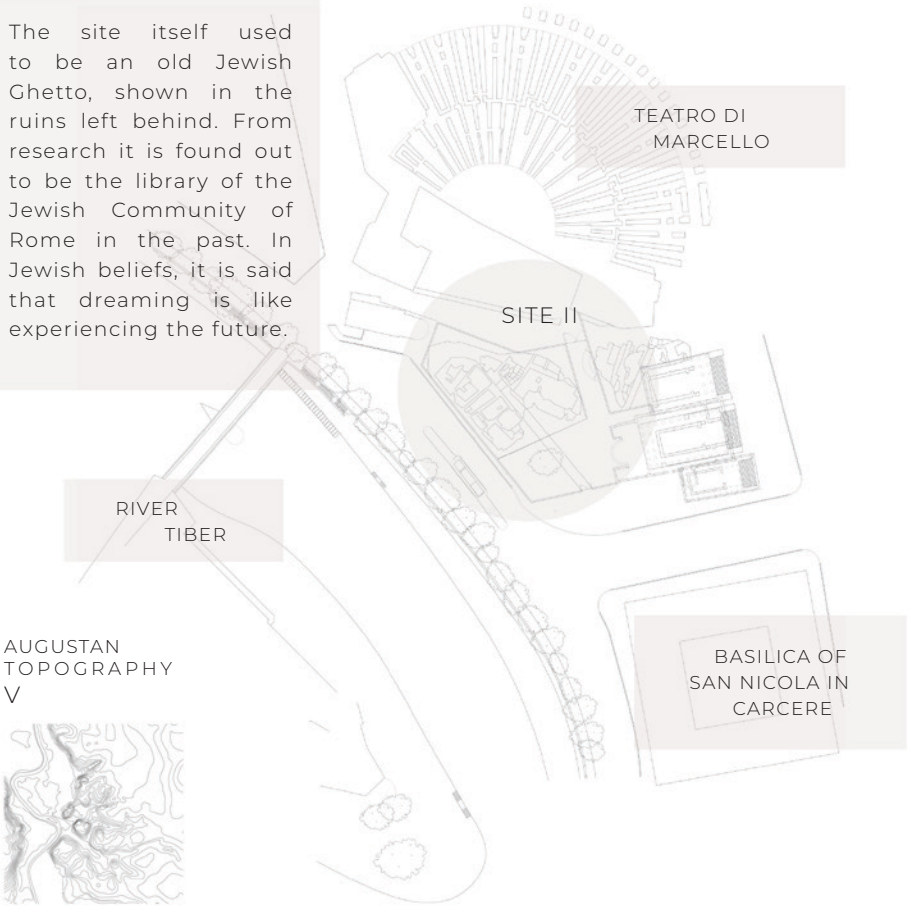
This is a collection of my work from my 2nd year project. The theme here is architectonic. It is about exploring the possibilities of making space and architecture from anything. This project was inspired by the Japanese architect Sou Fujimoto's exhibition "Architecture is Everywhere" at the Chicago Architecture Biennal. I explored these models using different materials from paper, clay, metal to plastic.

DREAM LIBRARY - Model Concept + Sketchbook Pages

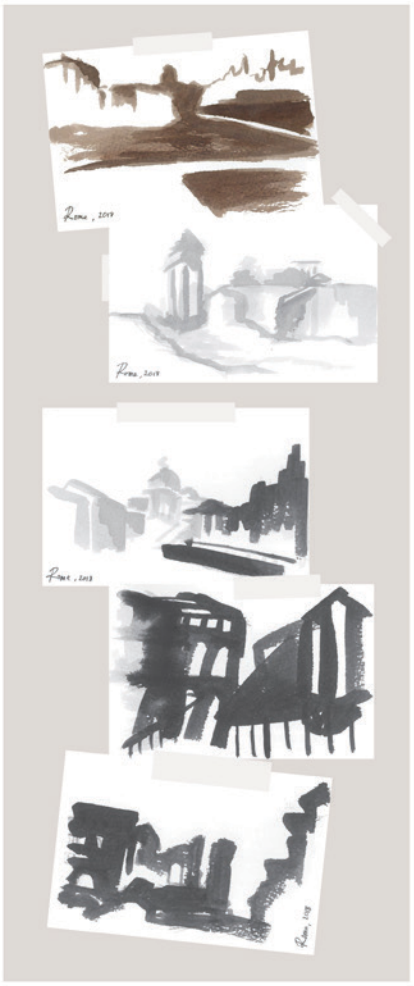
Through the exploration of architectonic models, I arrived to these concept models for the 'Dream Library' Project. I tried recreating a dream catcher to a more 3D sense, which I simplified and later used as a basis of the design structure.

DREAM LIBRARY - Site Plan + Ink Drawing

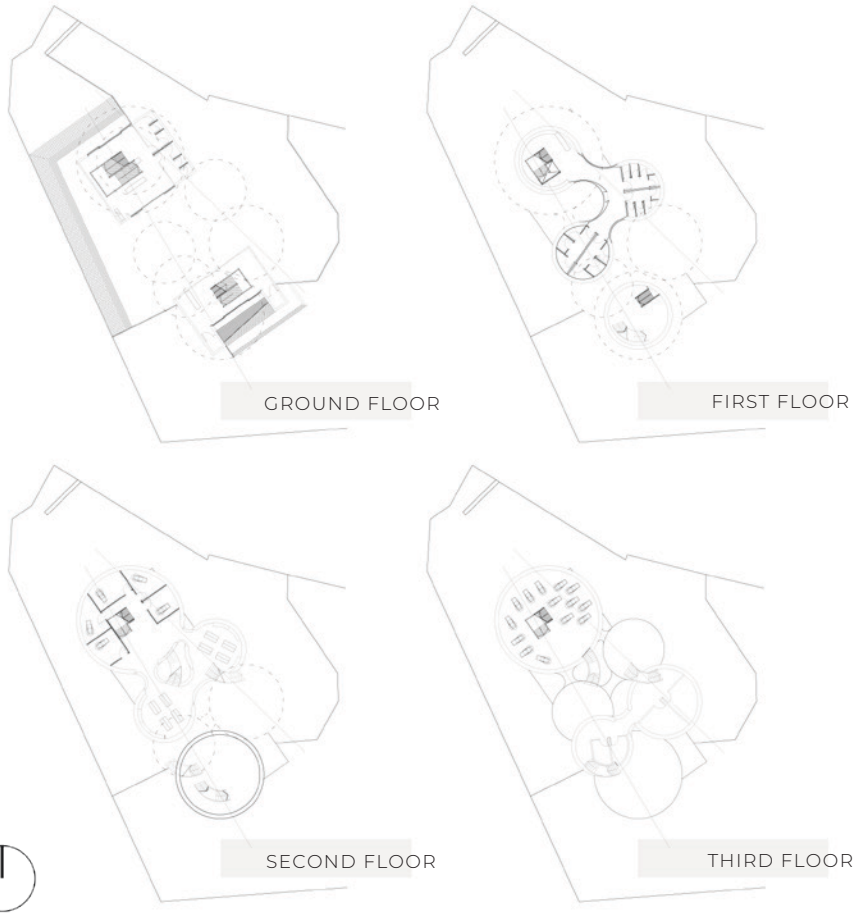
The site itself used to be an old Jewish Ghetto, shown in the ruins left behind. From research it is found out to be the library of the Jewish Community of Rome in the past. In Jewish beliefs, it is said that dreaming is like experiencing the future.

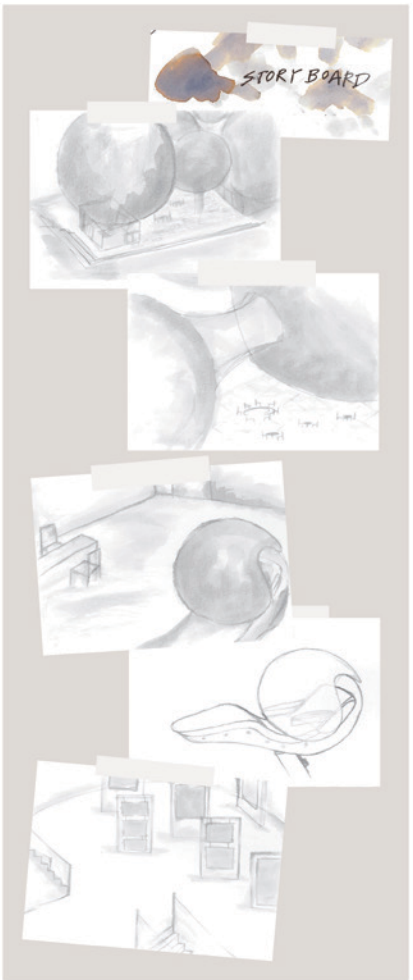


AUGUSTAN TOPOGRAPHY V



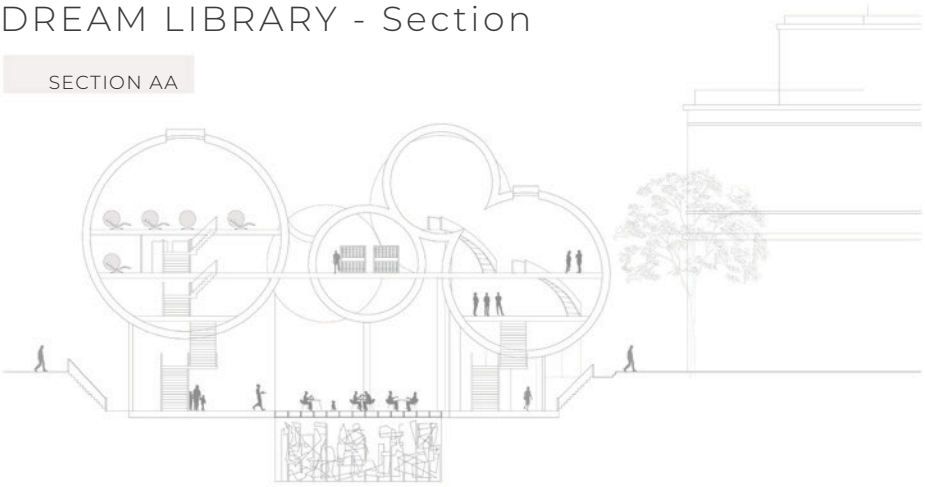
DREAM LIBRARY - Plan + Storyboard



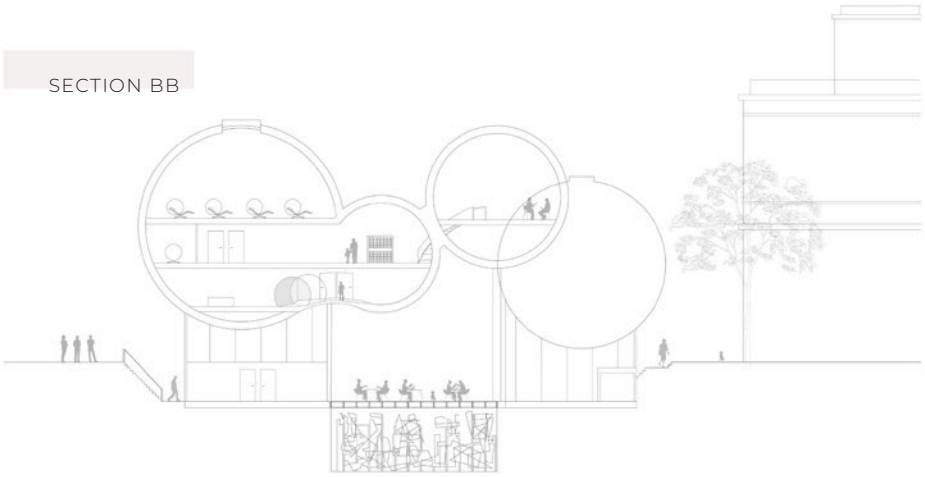


DREAM LIBRARY - Section

SECTION AA

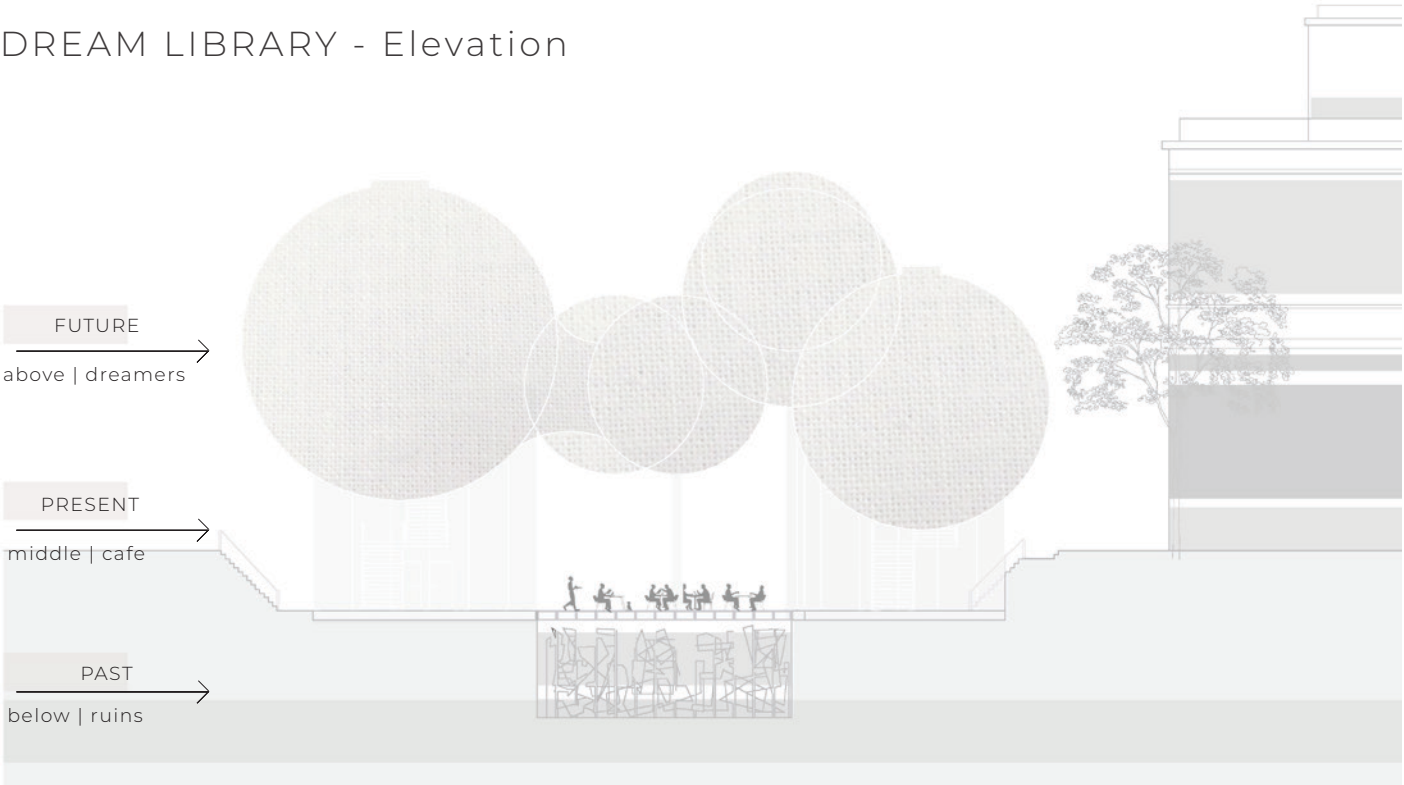


SECTION BB



The library of dreams is a library in a conceptual framework that stores dreams and allows users to experience them. This was created through the idea of a library in a more metaphorical sense, in which they are a place of storage. Set in a futuristic utopian society where the digital age have advanced vastly, the final design of the library somewhat resembles an inverted dream catcher, which interestingly was my initial exploration of form.

DREAM LIBRARY - Elevation

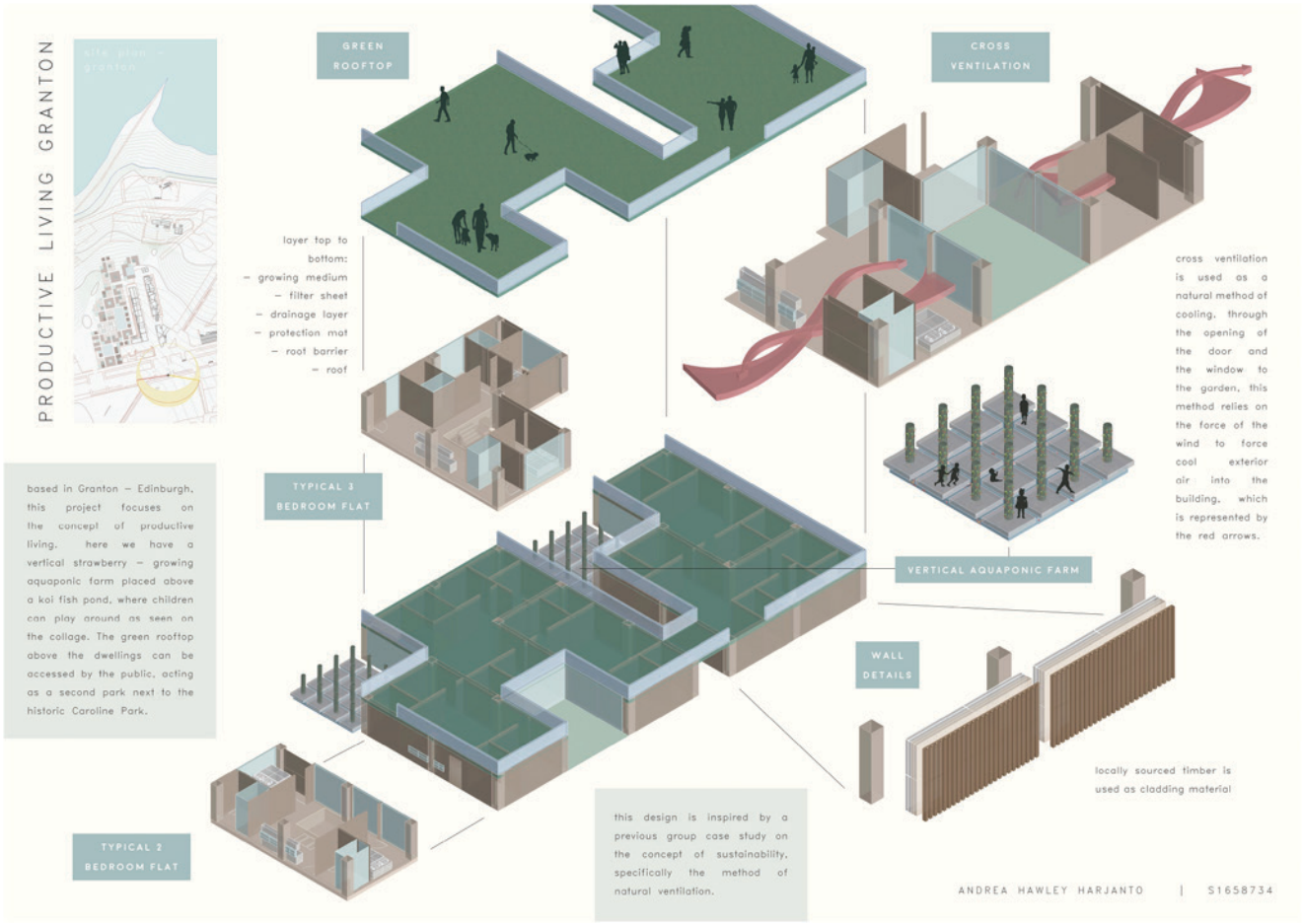


The design of the library was aimed to look very ethereal and light. Therefore, I decided to lower the library so it will create a floating effect. This is because I wanted to express the idea of dreams and its sublimity in design. Furthermore, I want my design to convey and illustrate modernity and a futuristic approach. It is very interesting to see from the design of the library where people sit in an open cafe area under the 'bubble space' where users are experiencing the dream above. In a way, it is like the people above are 'experiencing the future', the people in the cafe area are in the present time and the ruins beneath them represents the past.

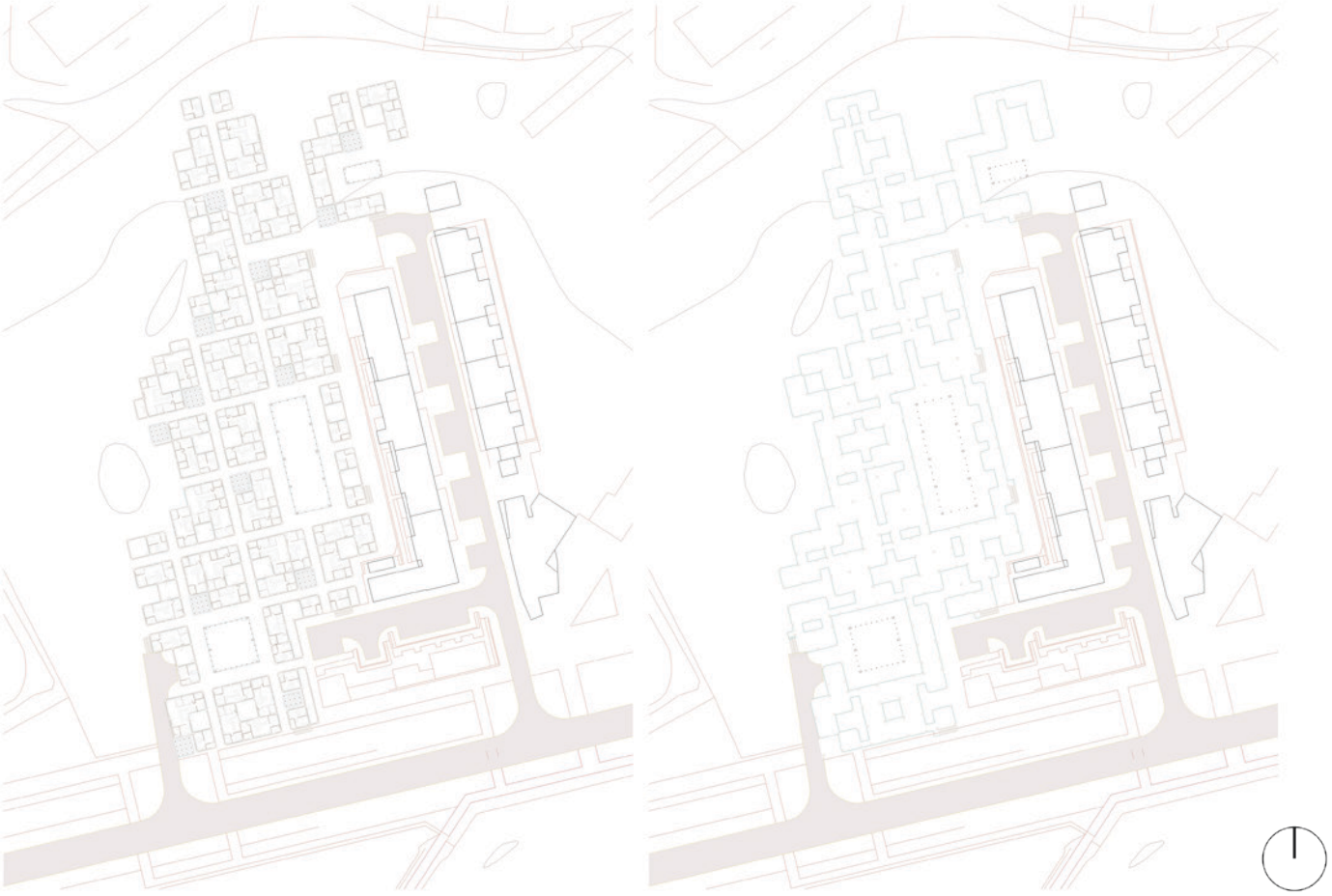
PRODUCTIVE LIVING - Concept Poster + Group Poster [with Natalie Chan + Tiffany Kwong]

Group poster [right image] visually curated by me, 3D axonometric base by me, credits to Tiffany Kwong for visualization of section and to Natalie Chan for visualization of plan and axonometric. All work is done by author [me] unless specified otherwise.

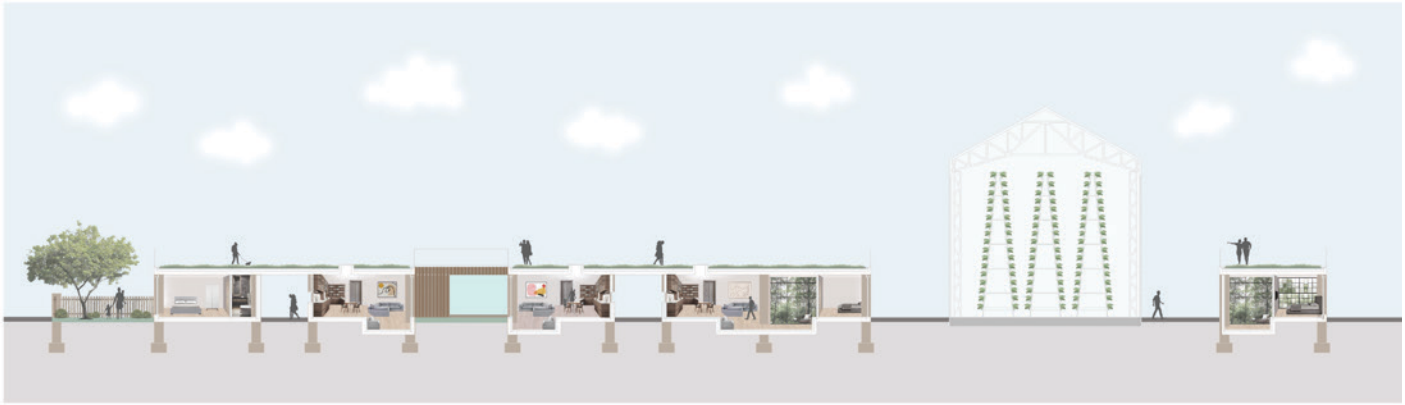
PRODUCTIVE LIVING - Dwelling Prototype + Environmental Poster



PRODUCTIVE LIVING - Plan

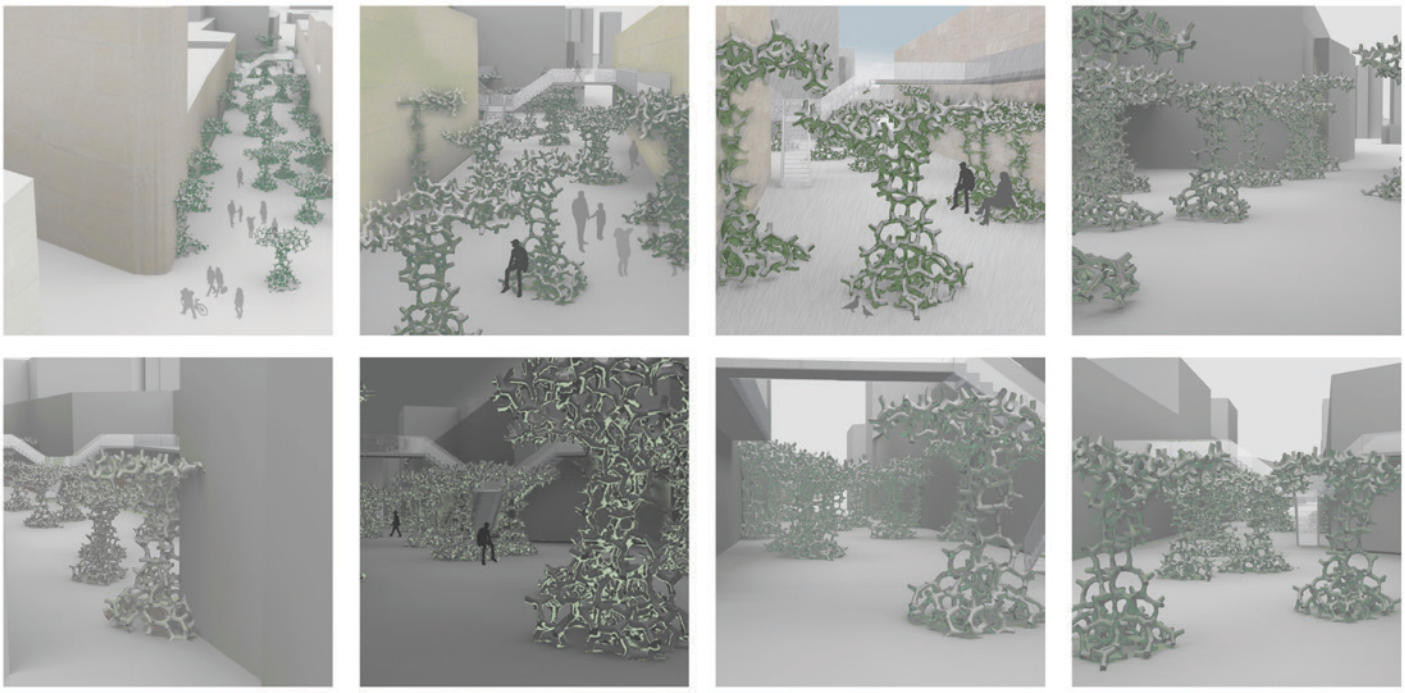


PRODUCTIVE LIVING - Section + Elevation



The detailed section collage shows the relationship between the architecture spaces, to the production process, people and to the environment.

THE ANTHROPOCENE - 3D Model [Atmospheric Scene]

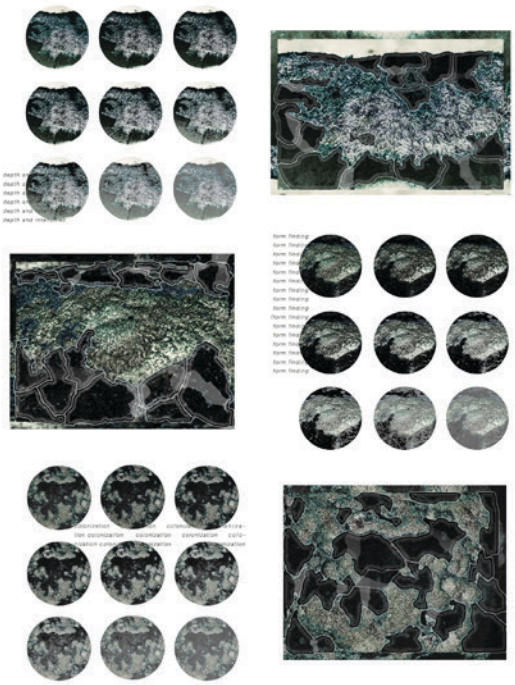


This project surrounds the topic of anthropocene which discusses human becoming so dominant that they have become a geological force of nature. From mappings and observations, mosses were particularly interesting to study because although small they have quite a huge impact on society. Growing in niches and crevices, mosses act as an urban sponge, filtering air and water, also vital for carbon management. Our project aims to create a structure that will act as intervention machine and urban sponge that would be the base for these mosses to grow on. Our aim is to create green spaces within the city. Through these interventions, we hope to see it grow and metapopulate around the city similar to how mosses behave.

THE ANTHROPOCENE - Research Stage [with Enrico Luo]

< slime mould growth observation*

* Collaboratively designed and experimented together, curated by me



^ moss growing experimentation on different medium and material **
< form finding exploration based on colonization of mosses ***
> grasshopper simulation of moss growth with slime mould-like behaviour ****

** Collaboratively designed and experimented together; *** Visualization of moss image by Enrico Luo and curated & edited by me; **** Grasshopper simulation by Enrico Luo and visualization by me; All work is done by author [me] unless specified otherwise.

THE ANTHROPOCENE - Mappings + Model [with Enrico Luo]

1:1000 Flood Map

To prevent flooding threatening the whole area of Leith, the three proposed sites (in red) demostrate Water retentation, distribution and flood prevention strategies which could be repeated across the larger area.

Acting as sponges, the sites identify open spaces in the city.

1:1000 Wind Map

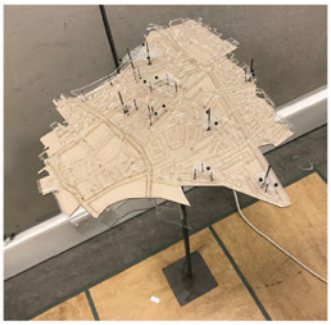
Incorporating wind flow and channeling, the selected three sites would effectively enhance the spread and growth of moss into the surrounding areas, to emerge towards large bodies of water and areas of high rate surface water accummulation.

Connecting the sites and extending beyond in a parasitic nehaviour, through gaps and open spaces, even into the Water of Leith and the Sea, this would enhace algal growth as precendented in moss' evolution to algae in the Ordovician period.

1:1000 Pollution Map

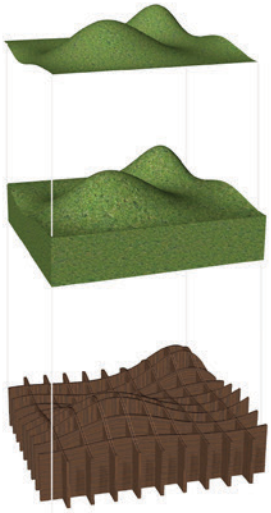
Drawing a close connection between human and nature of the Anthropocene, implementing the growing and spreading of moss to resolve the air pollution of central Leith.

Use moss as bio-indicators to purify air conditions and encourage the spread to penetrate the whole high polluted areas.



Map design made together and final visualization made by Enrico Luo; 3D model was collaboratively designed and assembled together. All work is done by author [me] unless specified otherwise.

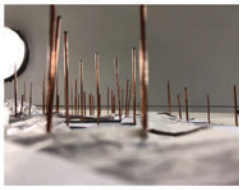
THE ANTHROPOCENE - Model Experimentations [with Enrico Luo]

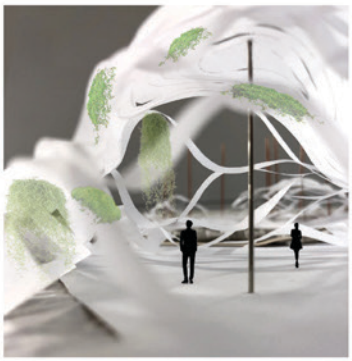


< 3D axonometric of waffle structure

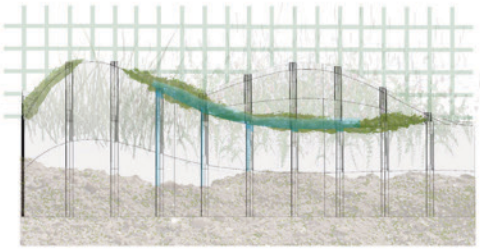
> * model-making of moss-inspired structure

V ** visualization of moss on the waffle structure

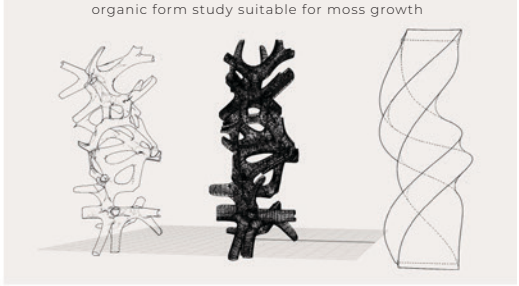




* Visualization by Enrico Luo and model by me;
** Visualization by Enrico Luo and base section by me;
All work is done by author [me] unless specified otherwise.



organic form study suitable for moss growth

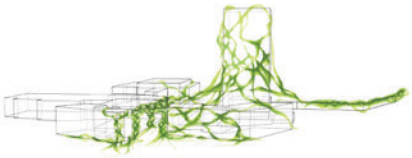


Moss will be integrated to a building structure as an architectural intervention in the city of Edinburgh to raise awareness and create a symbiotic relationship between the human, non-human and inhuman.

THE ANTHROPOCENE - Moss Components [with Enrico Luo]

primary components of organic structure V

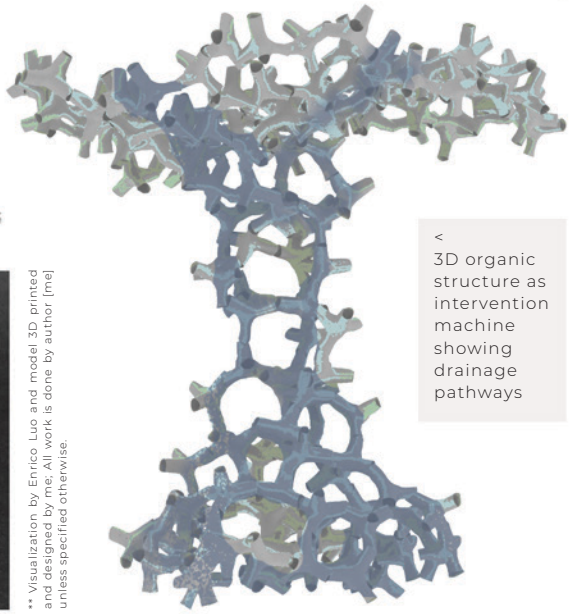
initial idea sketch of moss colonization



* Visualization by Enrico Luo and model collaborative made together.

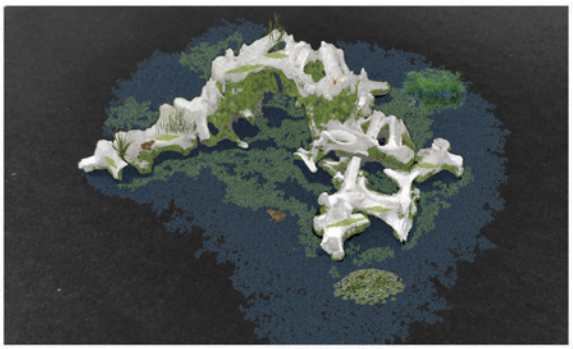
^ zoomed in component *

3D render V



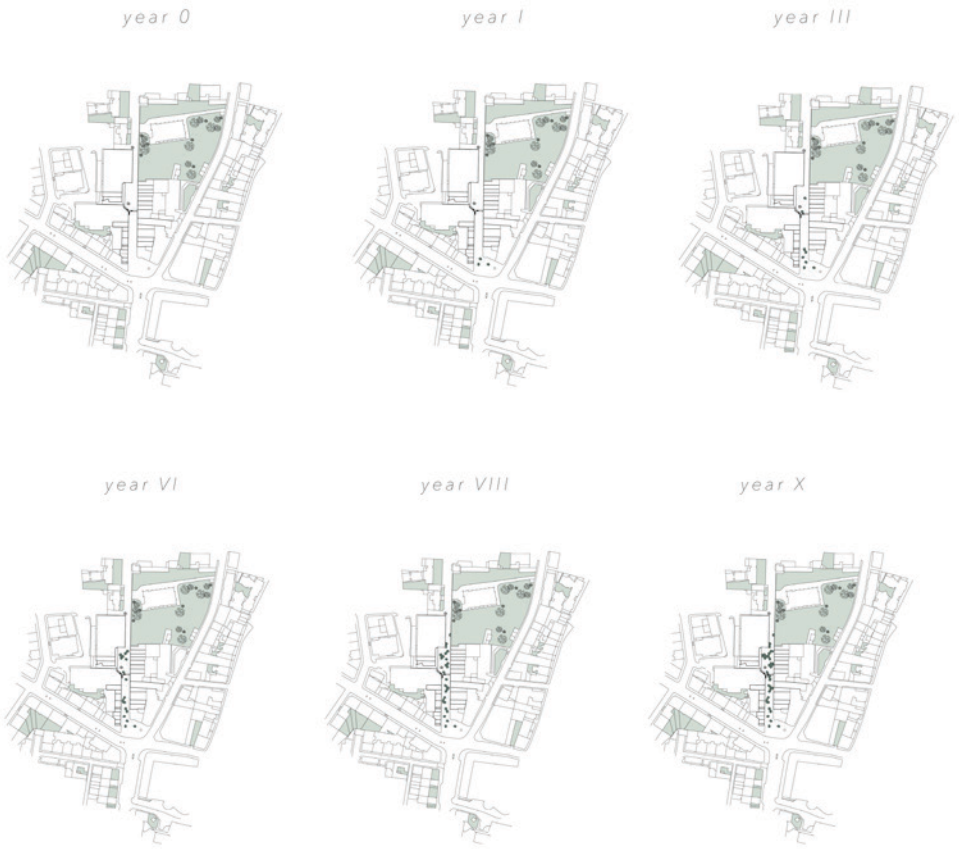
< 3D organic structure as intervention machine showing drainage pathways

** 3D render of moss growth on organic form for human-nature co-existence V

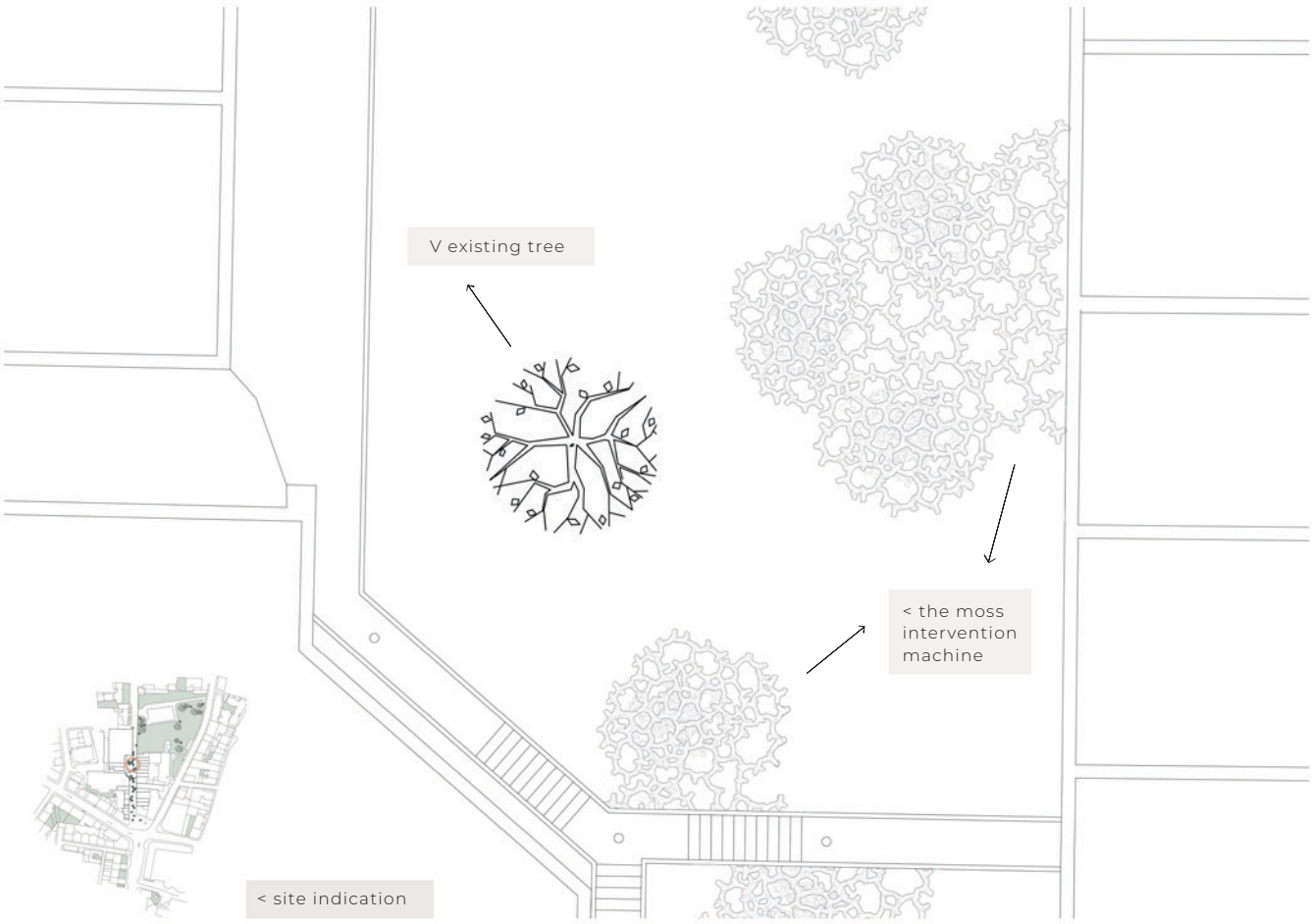


** Visualization by Enrico Luo and model 3D printed and designed by me. All work is done by author [me] unless specified otherwise.

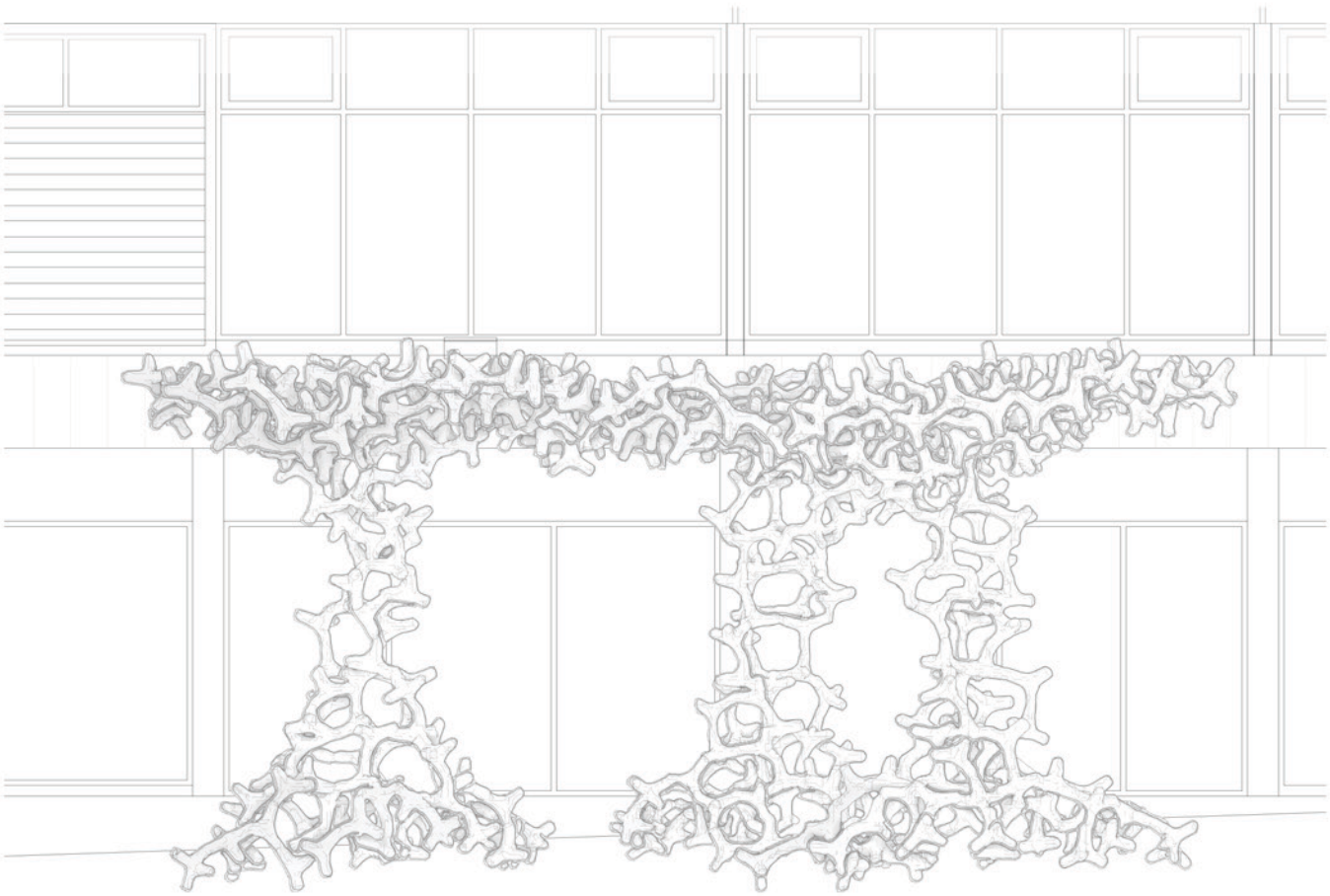
THE ANTHROPOCENE - Progression Timeline



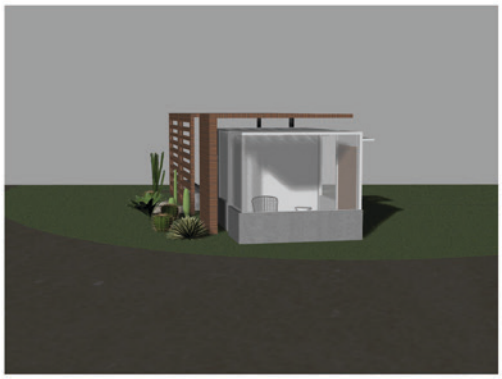
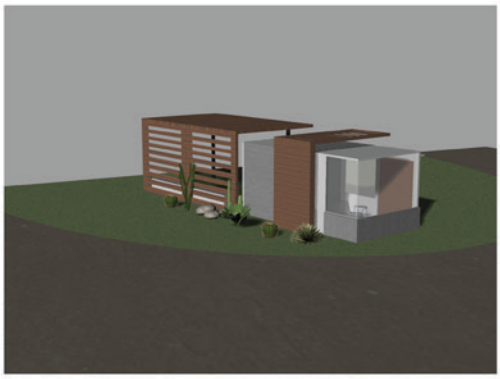
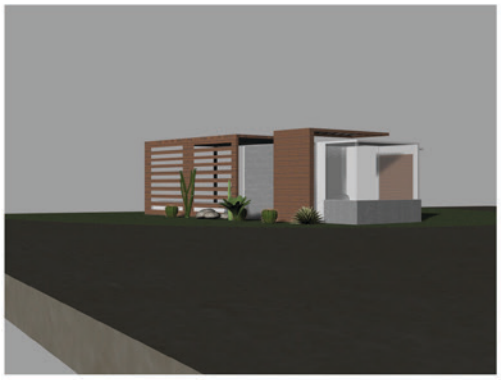
THE ANTHROPOCENE - Plan



THE ANTHROPOCENE - Section



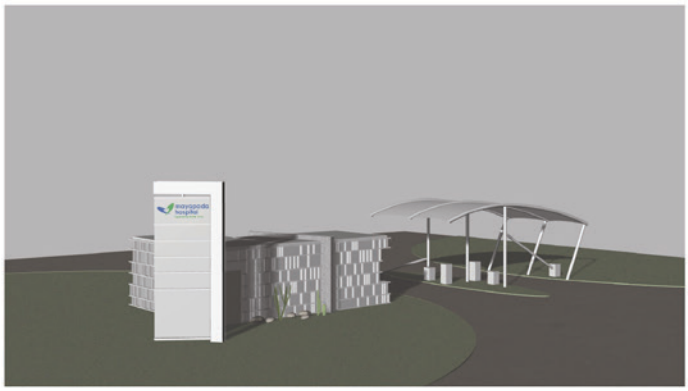
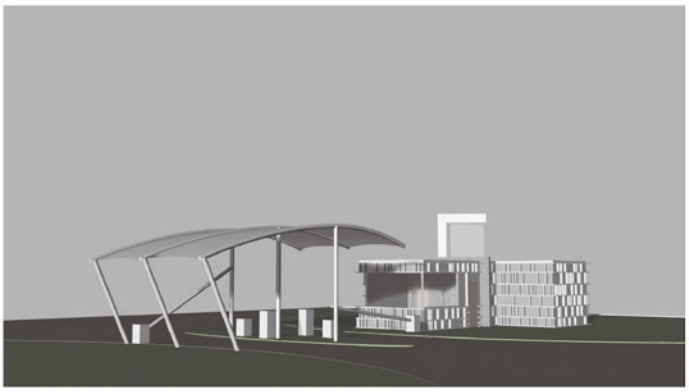
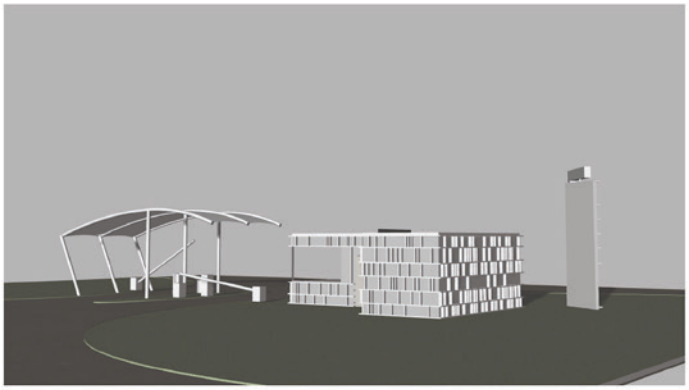
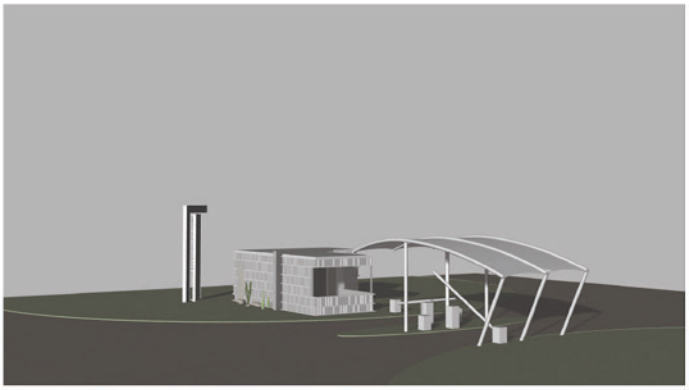
TETRA DESAINDO INTERNSHIP - 3D Studies [Hotel Entrance Gate and Resting Area]

^ top view
> rendered 3D models

During my internship at PT. Tetra Desaindo, I was tasked to do 3D studies of a Hotel and Hospital Entrance Gate using the 3D modelling program Rhinoceros. Moreover, I also helped produce graphics for presentations, did furniture research and organize & loyout the interior design of the hospital design space. I got to visit site projects too during my internship there.

TETRA DESAINDO INTERNSHIP - 3D Studies [Hospital Entrance Gate]

This entrance gate has a canopy over the driveway area to protect cars or motorcycles when they enter to get the parking tickets from the machines. Unlike the previous 3D study, as a hospital have quite a strict protocol, this entrance gate does not have a resting area for passerby or drivers.

HYPED EDINBURGH PROJECT - Mission Patch Logo Design

OLD PATCH DESIGN

DESIGN DEVELOPMENTS

MISSION
PATCH III

MISSION
PATCH IV

APPROVED FINAL DESIGNS

HYPED EDINBURGH PROJECT - Apparel Design + Pod Launch Event

TEAM SHIRT
WITH SPONSORS

< Minimalistic design (left) emphasizing the simplified HYPED logo for new approach in HYPED Society branding

> Railway train ticket (right)* is used as inspiration for Pod Launch Event invitation (below). The barcode on the invitation works as a link to the HYPED Society website.

* Image of UK railway train ticket is taken from pinterest.com