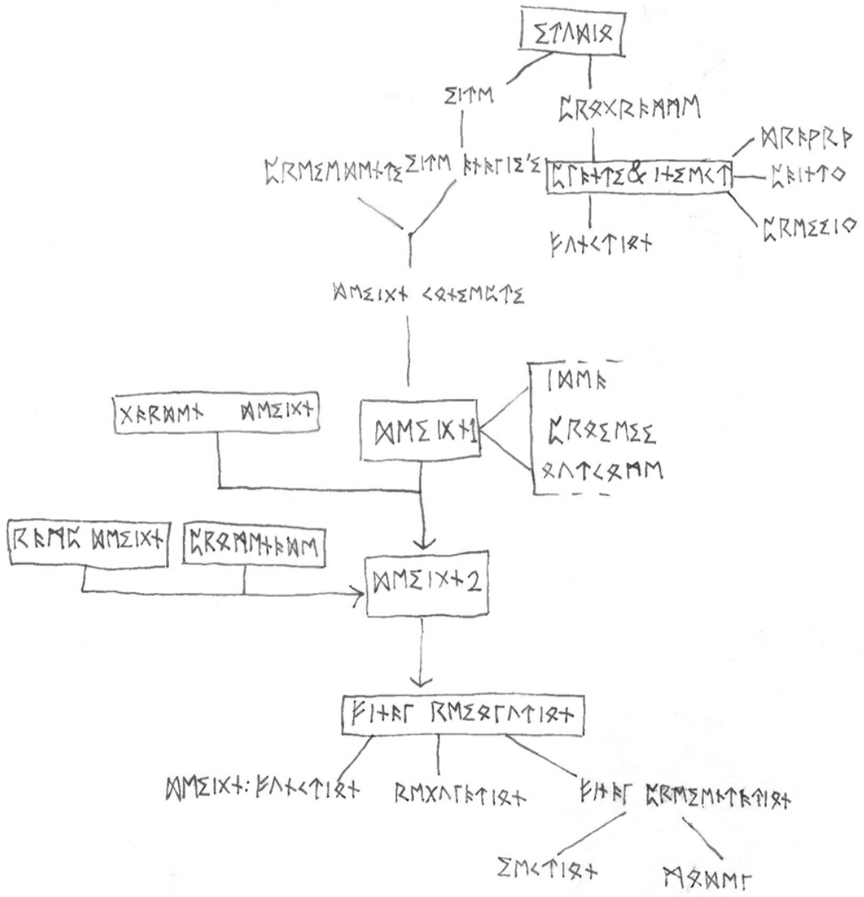
CROSS THE GOYT

Studio 2.2_Da Lan

OBJECTIVES

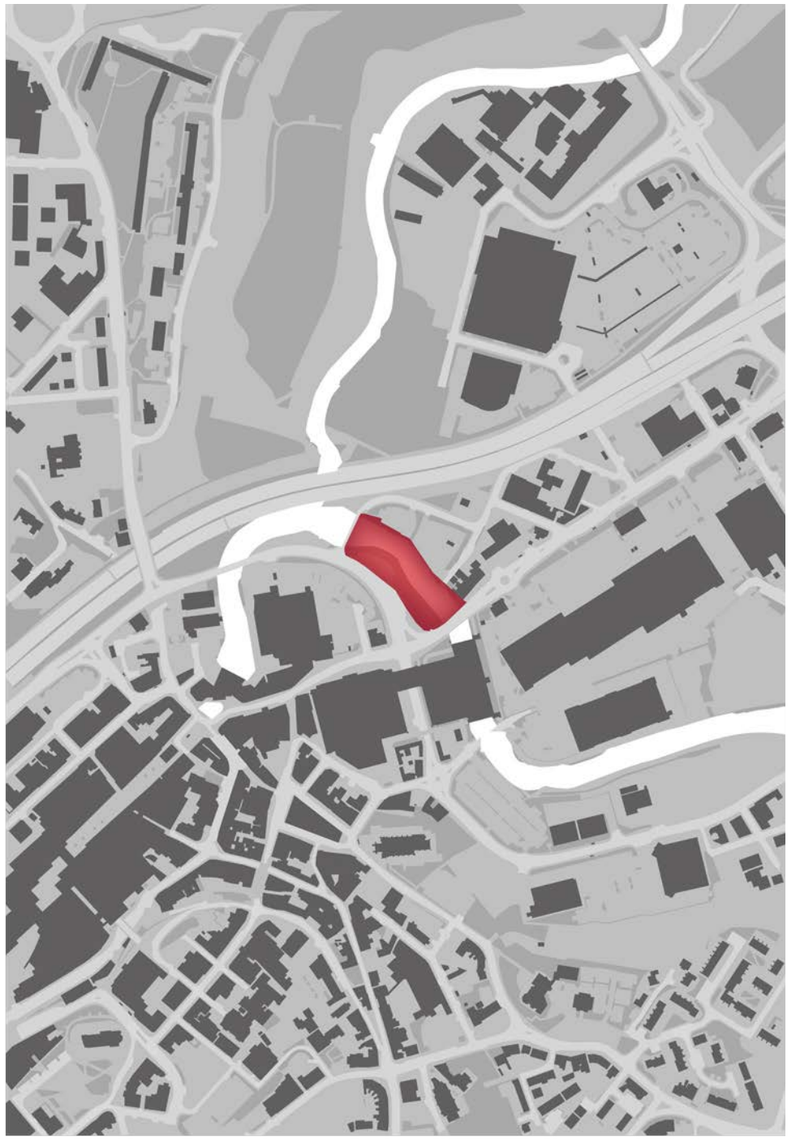
Main objective: Produce an architectural design in stockport which allows a small team of scientist to carry out environmental works, and promote the importance of environmental awareness to the public.



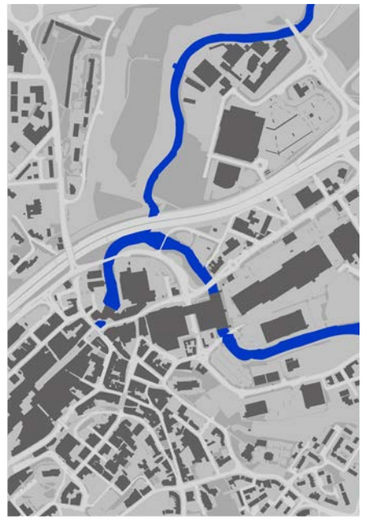
Mind map re-written in auld nordic rune *Younger Futhark* alphabet.

CONTENT

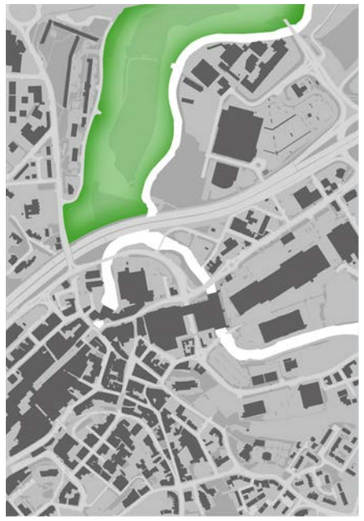
SITE



The site locates at Stockport Borough in Greater Manchester, near the confluence of Goty and Tame river, forging Mersey River at the end.



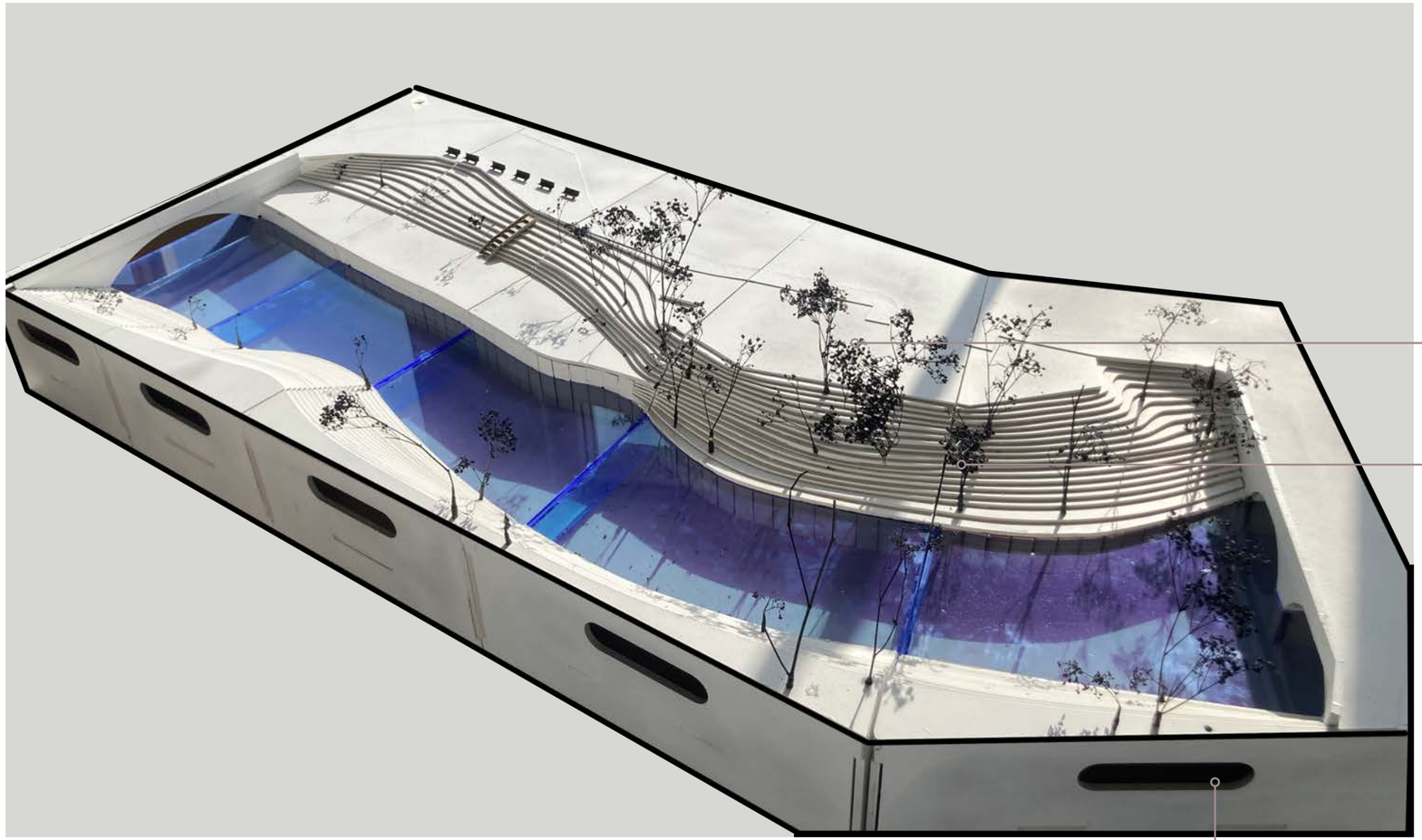
River Tame and Goyt originate from wetland national parks, brings great biological diversity to the site, it also act as local landmark in stockport.



Reddish vale natinoal parks sit on north of our site, beside River Tame, the park is mainly green space, comprising woodland, flat riverside meadows, sloping fields and providing habitant space for various creature and plants.

It is also a great leisure space for the city, great oppotunity lies between connecting the city centre and the park.

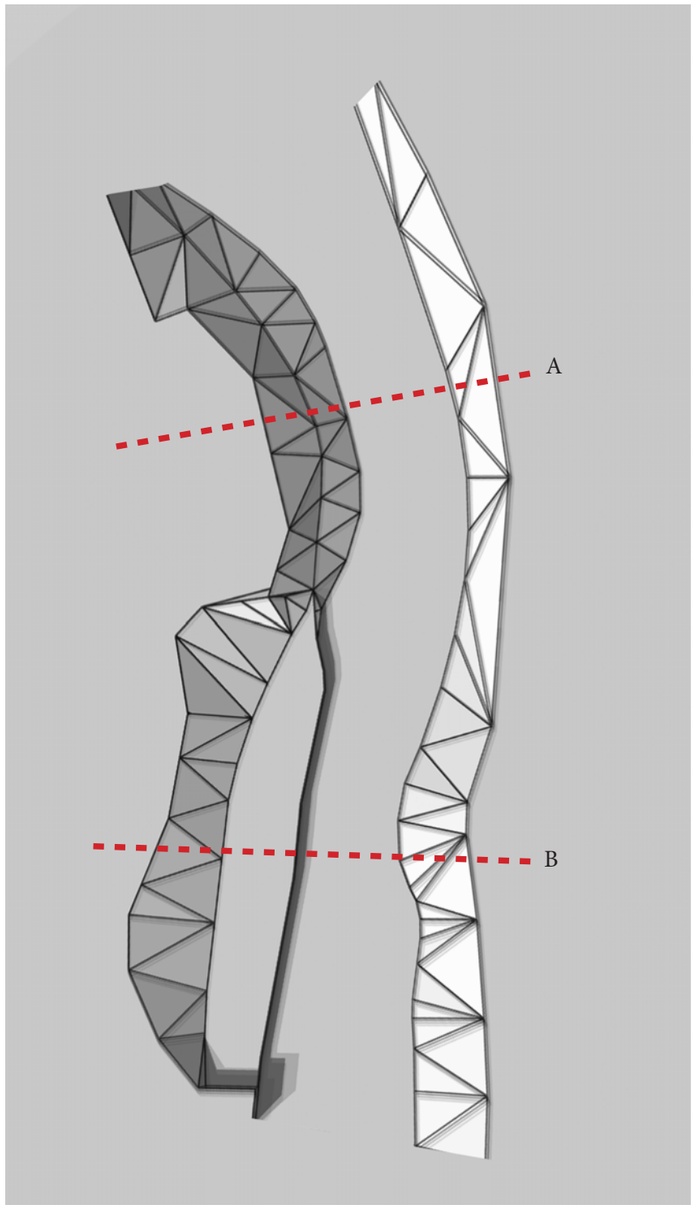
SITE MODEL



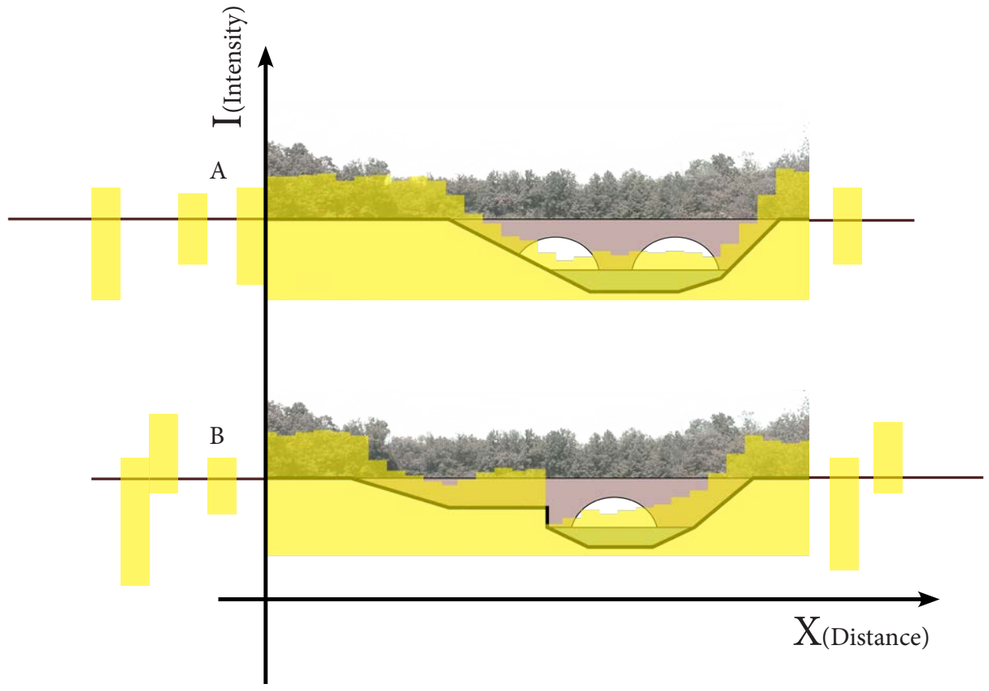
1:100 GROUP SITE MODEL

The construction of site model has greatly helped us to design out project much faster and with a more engaging experiance, every studio member joined this project andc ontributed a collecteive of more than 100 hours.

SUNLIGHT

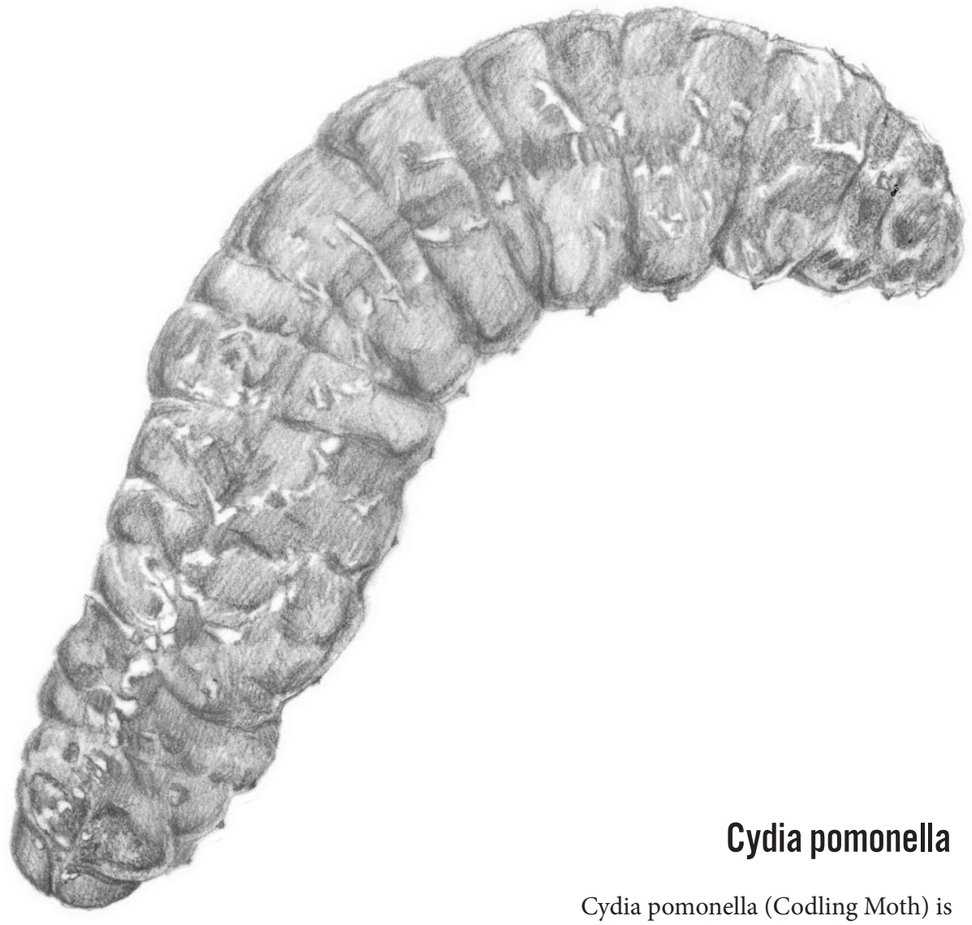


Overlay of sunlight intensity in a year



The Average solar radiation in stockport is around 1000kWh/m^2/yr, a bit lesser than world average of 1361kWh/m^2/yr, and due to the humid oceanic climate, clouds blocks off sunlight, thus making stockport a non-sunlight intensive region.

The Sketchup model has simulated average sunlight received throughout a year and we could deduce where has the most sunlight. From the section we can observe that on top of the carparks it provide a vast land with sufficient sunlight across the year, and as it is already a flattened land, makes it a ideal location for gardens to grow plants.

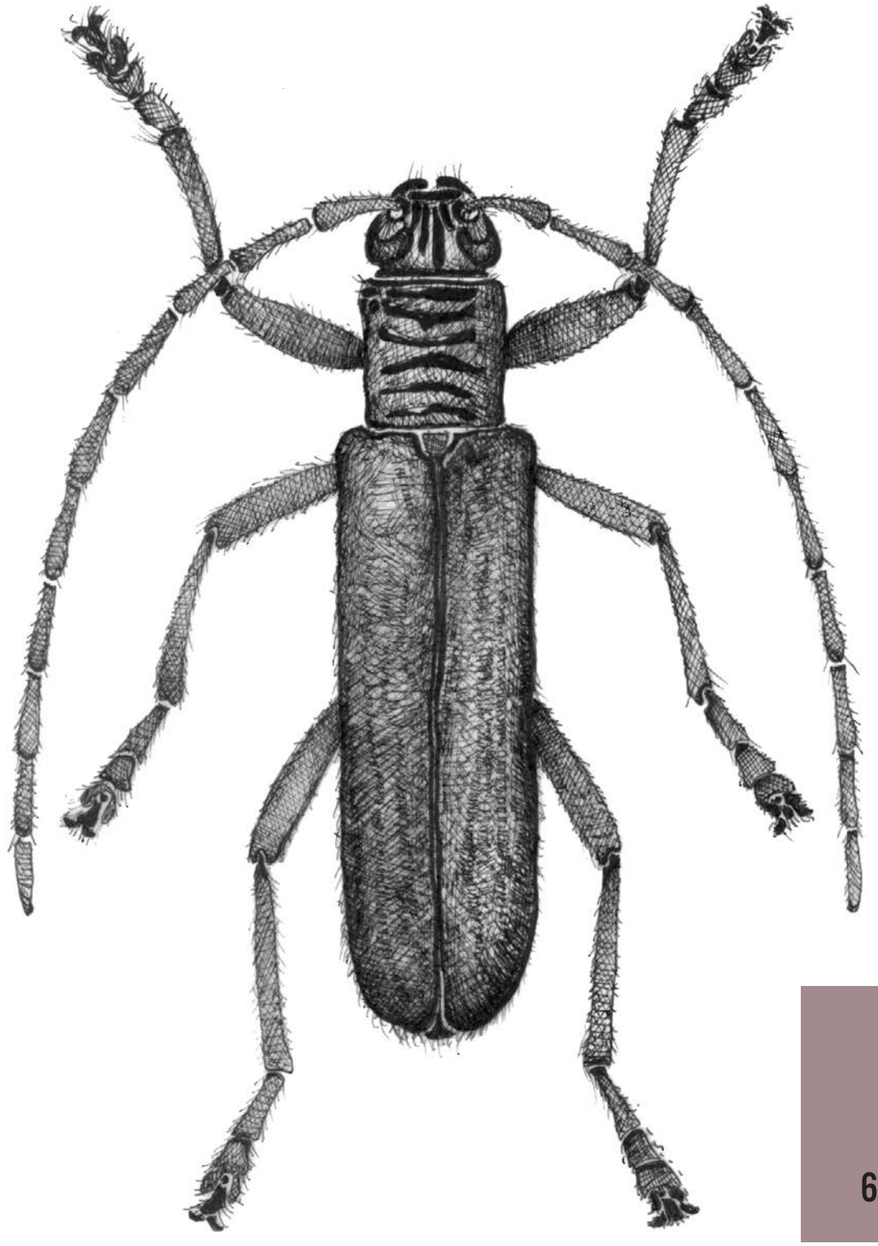


Cydia pomonella

Cydia pomonella (Codling Moth) is a moth that infest apple and pear trees, study of them can help us to minimize damage to fruit crops, and also help us to develope effective pest control strategies.

Oemona hirta

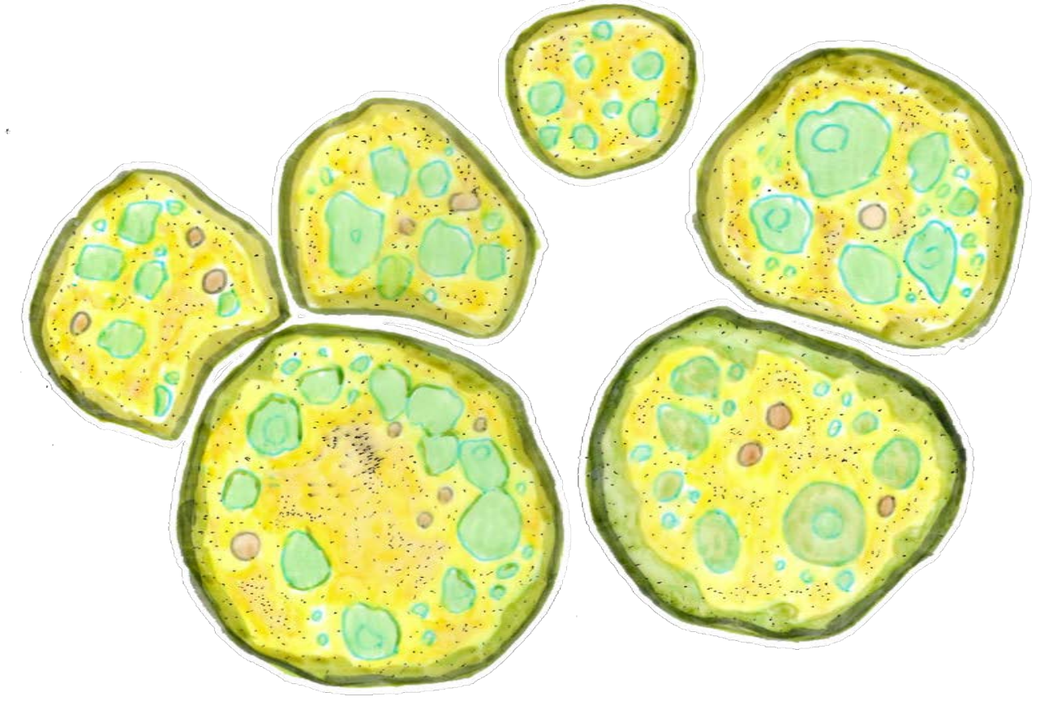
Oemona hirta (The lemon tree borer) is a species of red algae found in marine environments, conducting research on them gives us information of local environmental health and can provide us insight of marine biodiversity, and ecological interactions,



Algae

Algae are a diverse group of photosynthetic organisms that can be found in aquatic environments, it plays vital roles in ecosystems, it is responsible for oxygen production, nutrient cycling, and providing habitat and food for other organisms.

Studying algae helps us understand ecosystem dynamics, inspection of the population of algae or other microbes in the river, calculating the relative total viable count(TVC), allows us to understand the significance of pollution in the river.



Spotted lanteternfly

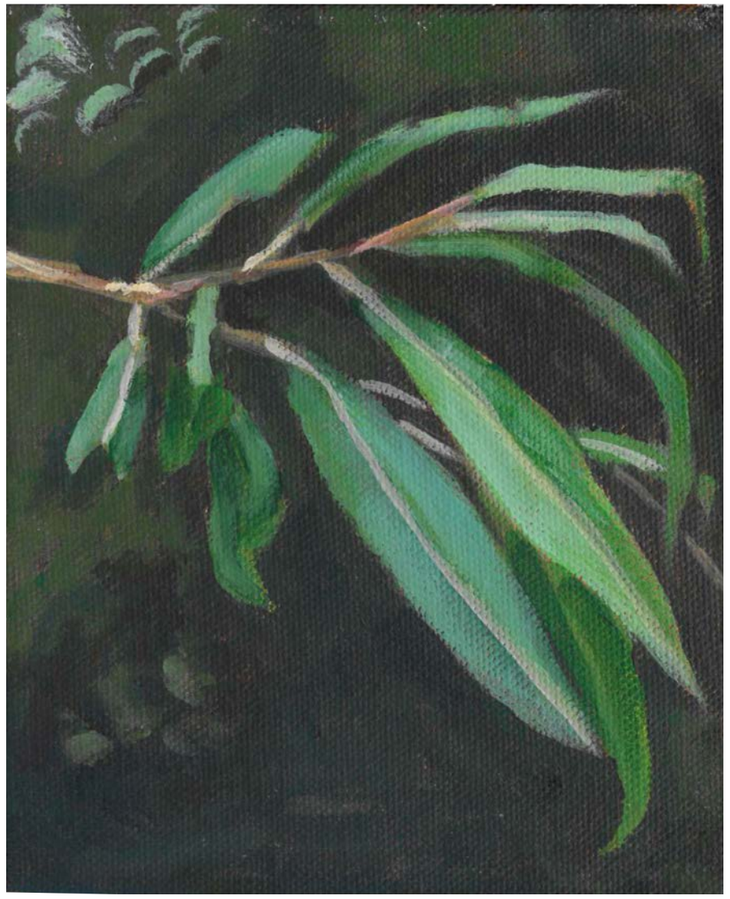
Spotted Lanternfly (Lycorma delicatula) is an invasive insect pest native to Asia, causing significant damage to various plants, including fruit trees and ornamental trees.

Studying the spotted lanternfly is usufull for developing effective pest-management strategies to control its spread and minimize its impact on agriculture, forestry, and ecosystems, studying of spotted lanternfly also contribute to the study of integration of invasive and native species.

White Willow

White Willow (Salix alba) is a deciduous tree native to Europe and Western Asia, it is usually seen in landscaping and often planted for ecrosion control along riverbanks and in wetland restoration project,

Other than thatm some chemical content in the barks of the white whillow has been claimed to have Medicinal use, it is similar to aspirin and has been traditionally used to relieve pain and reduce fever.



Amanita muscaria

Amanita muscaria (Fly Agaric) is a species of mushroom found in temperate and boreal regions of the Northern Hemisphere, it has a long history of cultural and religious significance in various indigenous cultures, it has been used in rituals and shamanic practices.

the study of Amanita muscaria and other fungi species provides insights into human-fungi relationships, new-material, and post-humanism.

Guelder Rose

Guelder Rose (Viburnum opulus) is a deciduous shrub native to Europe, Northern Africa, and Northern Asia. it is usually used for ornamental porposes, its snowy white flowers and bright red berries makes it a popular choice in landscaping and garden design.

The berries of Guelder rose attract birds and small mammls, contributing to biodiversity and providing food source for wildlife.

There is also claim that Guelder rose have been used in traditional medicine, although scientific evidence is limited.

Lily of the Valley

Lily of the Valley (Convallaria majalis):
is a perennial herbaceous plant native to temperate regions of the Northern Hemisphere, it has a significant ornamental use since it is prized for its fragrant, bell-shaped flowers and is commonly cultivated in gardens and used in floral arrangements.

While it is toxic if ingested, Lily of the Valley has been used in traditional medicine for its cardiac glycosides, which have been studied for their potential pharmaceutical applications in treating heart conditions.

BUDDLEIA

THE DOG ROSE

BRAMBLE

BUTTERFLY BUSH

FIREWEED

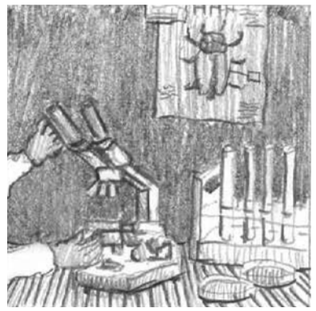
Plant pressing

One of the most important way to showcase plant species is herbarium, from the process of plant pressing, human were able to maintain the fibertissue of the plants and at the same time remove water molecure to mitigate the change of rotten and pest infection.

During one of the trip to the site, me and my friend collected the local speicies on the site and did plant pressing ourselves, and made samples of plants accordingly.

PROGRAMME: CLIENT

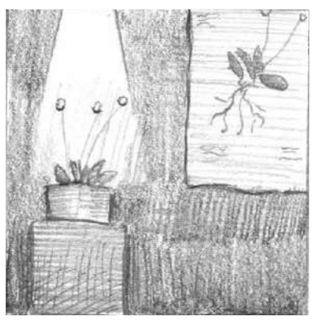
OFFICE



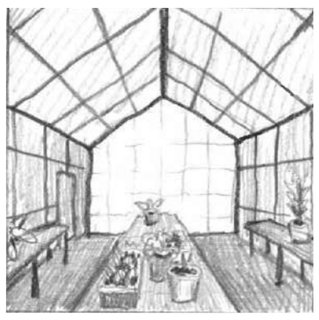
LAB

FLOWER SHOP

PROMENADE



MUSEUM



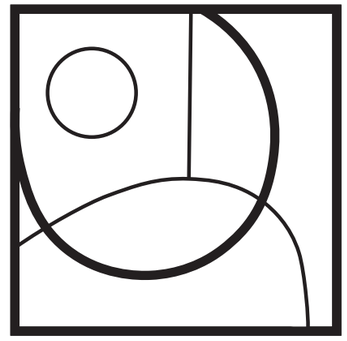
GARDEN

The Environment Agency (EA) is a non-departmental public body in the United Kingdom, sponsored by the Department for Environment, Food & Rural Affairs (DEFRA). Established in 1996, its primary mission is to protect and enhance the environment in England. The EA plays a crucial role in regulating water resources, managing flood risks, and controlling pollution to ensure a cleaner and healthier environment.

The EA wants to establish an workstation in Stockport, investigate and document the local environmet, and conduct general-ordinary research and experiment.

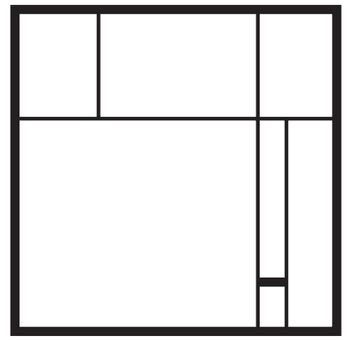
EA found the eco-geological adantage of our site, it sit at the confluence of the river Goyt and Tame, near the Reddish vale park, and close to the city center, providing all essential conditions for EA stuffs to base here.

Thus The Stockport Plant Protection Agency is established, it is dedicated to document and archieve local species, grow plants and conducting experiment on harmful pest, doing office works to report to EA, and promote social and environmental awareness to the public.



Disorder

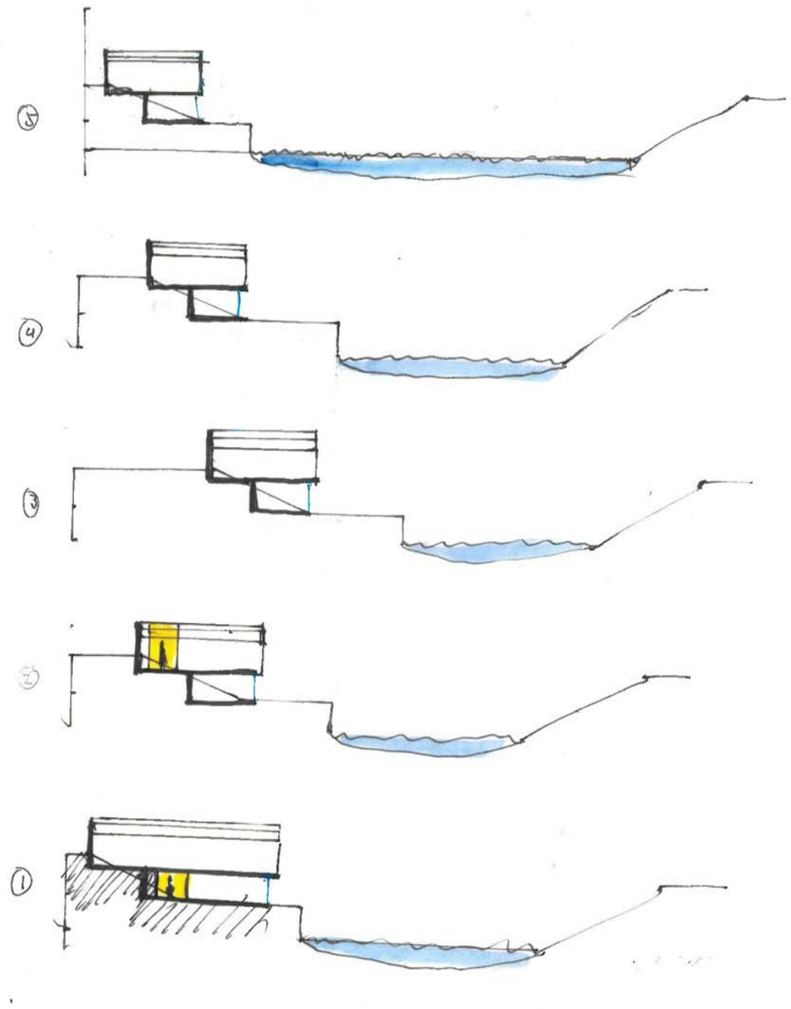
-Creative
-Adaptable
-Uniqueness
- Organic
-Natural
- Subjective
-Inclusive



Order

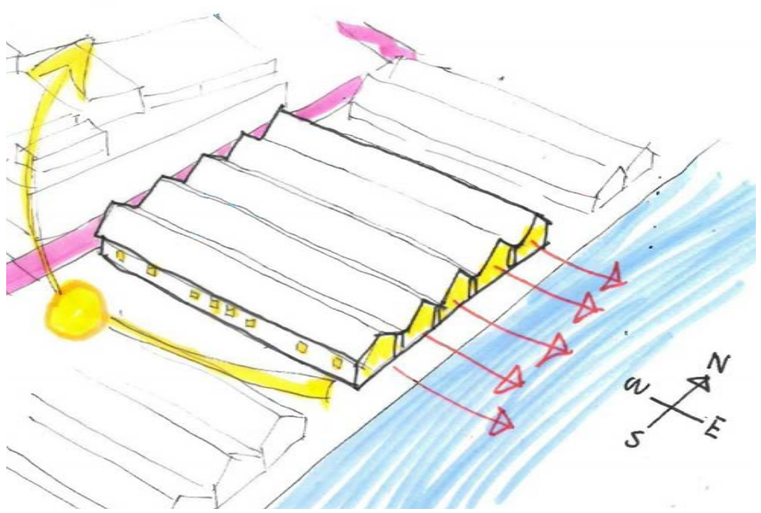
Efficient-
Durable-
Tradition-
Authoritarian-
Formal-
Simplicity-
Coherent-

CHAPTER 1: FIRST ITERATION



INITIAL INSPIRATION

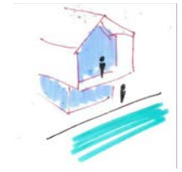
The design of this project is heavily influenced by the office building of 3XN, an architectural firm located at Copenhagen Denmark, during my visit to their office i found the natural beauty and harmony of its simple shape, a traditional Home shape.



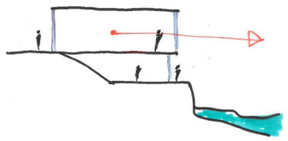
The design of the office building allows big working space, open plans allows direct view from one side of the building to the scene of the river, and as the building is close to the river, allows reflection on the river surface.

DESIGN IDEA

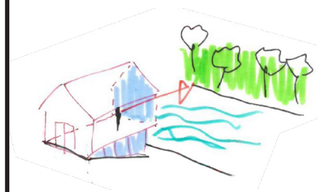
Double floor hight and big glazing window allows more visual space of the river.



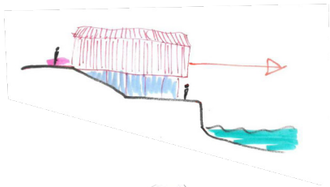
Open space floor plan provide more visual freedom on observing outside



Vegetaton on the other side of the bank to increase nature elements around the space.



Office building facing toward the river, concentrating the view on the other side of the bank and the river.

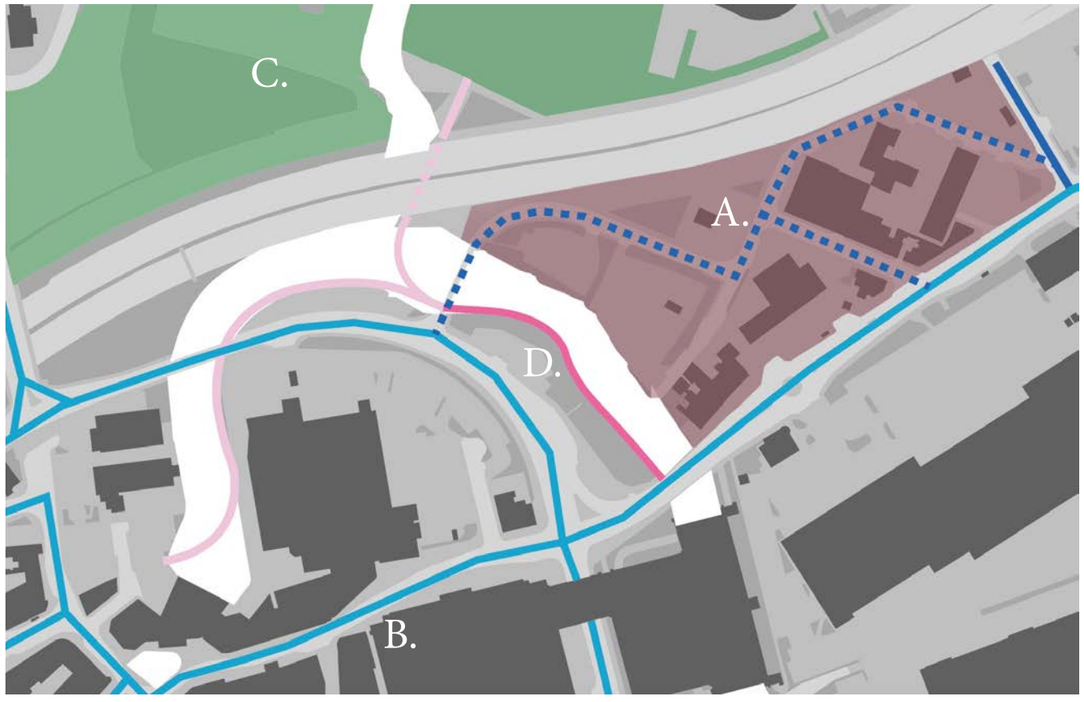


Building orientation is dictated by the view to the river, gaps between individual building to permit view from the public.

INITIAL PLAN DEVELOPMENT

The initial plan indicate that all office building built at the southern part of the site, use the advantage of flat surface and office buildings face toward the river, maximise the natural beauty. Garden are built on the original carpark, utilizing its flat land and sufficient sunlight, the form of the garden follows the same geometry as the office building, to ensure the continuety of the design logic throughout the project.

REVIEW OF THE SITE: URBAN DEVELOPMENT PERSPECTIVE



Non essential roads

Useful road

Low residential area with little traffic need

Proposed promenade to diverge people form city center to the Reddish park

Proposed promenade beyond the site boundary

STOCKPORT METROPOLITAN
BOROUGH COUNCIL

FUTURE STOCKPORT

SUPPLEMENTARY PLANNING DOCUMENT FOR THE TOWN CENTRE MASTERPLAN

The urban developmet master plan of Stockports has indicated a few strategic planning principles directly linked to our site:

A:This less populated area lack sufficient urban development regulation, presenting an unpleasant architectural view from the manchester highway and the surrounding neibourhood.

B: The city centre is crowded, and the new urban development is focued on expanding its business district, eg: north.

C: The council wants to increase the bond between the city and the park, thus boost a healtheir and more sustainable way of life.

D: Our studio site may act as a stratigic linkage point between the urban development of the city, connecting the Reddish Vale park and the city centre.

DEVELOPMENT:CONNECTIVITY

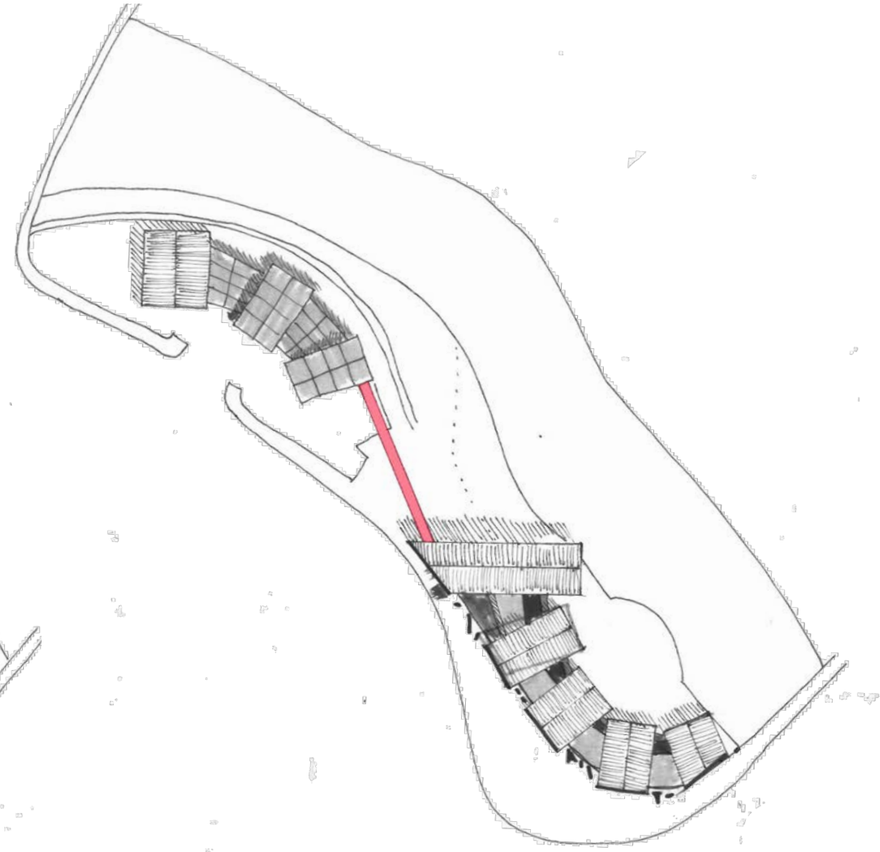
Flexible promenade

To encorage public access to the site to contemplate the natural beauty of the nature, the promenade is designed to start at the busy junction of the Knighsbridge and Warren streets, and potentially directly guide people to the heart of the park.

the promenade was design to cut throught few buildings to promote the idea that public right over property right, also makes a interesting architecture. (discarded in latter design)

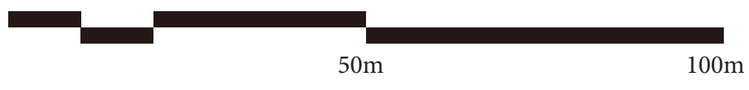
Connecting spaces

Glass office hallways is proposed to connect each office buildings to allow free movement within the office area.

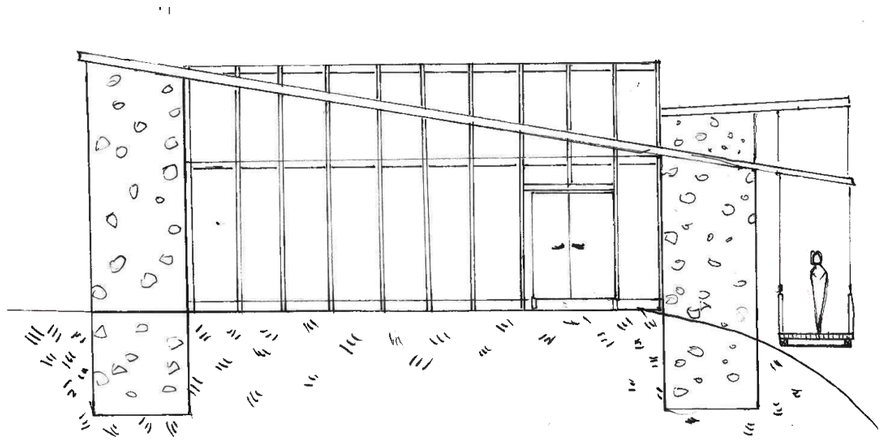


Skybridge

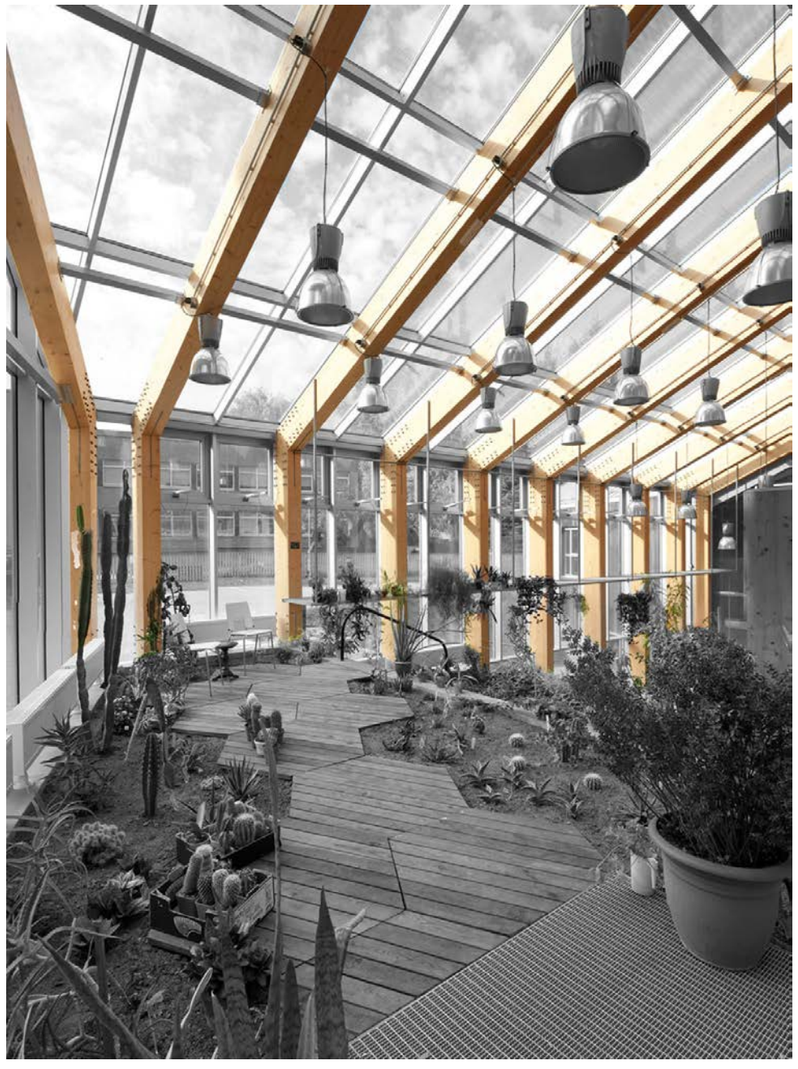
A skybridge is proposed to link the garden space with the laboratory, for the covenience of transporting plants and equipments.



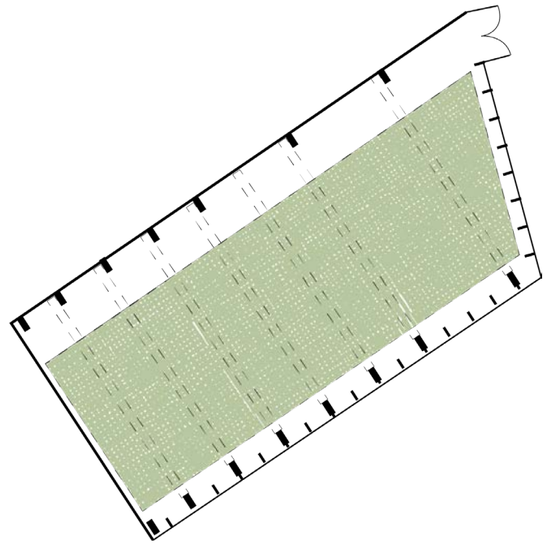
CHAPTER 2: GARDEN DESIGN



PRECEDENT:STRUCTURE-TIMBER



Tartu Nature House / KARISMA Architects

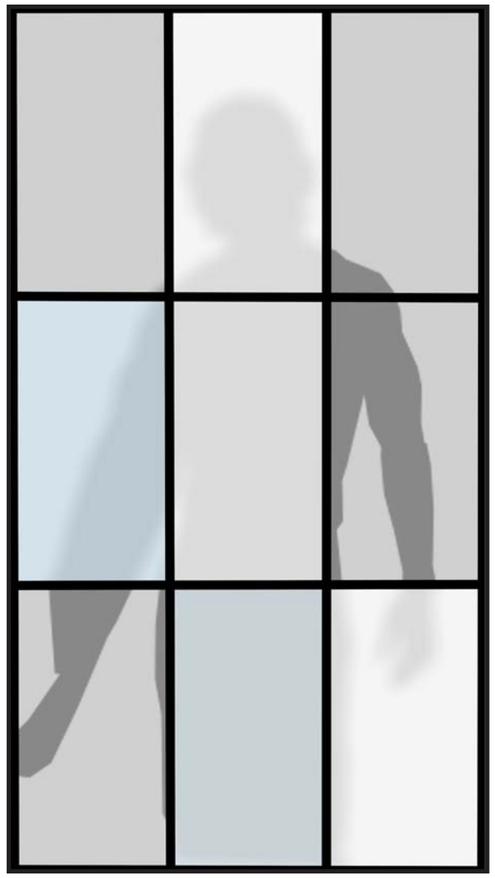


The structural system of the garden will be timber structure, thick timber bean stands at each side of the wall, trusses goes below the roof and transfer the load onto the beam, with bracing in between furthur strengthning the structure.

in comparison timber produces 30% less carbon footprint than steel structure, however class 4 wood treatment is needed on the wood to prevent erosion, fungal and insect attack.

PRECEDENT:MATERIAL-GLASS

The Cité de l'Océan et du Surf by Steven Holl Architects, Biarritz, France



Frosted glass

The mix use of frosted glass and regular glass allows an exchange of both clear and blurry visual, creating a mysterious, curious, and unpredictable scenery.

Polycarbonate sheet can achieve the same effect however due to the unsustainable material nature and low-recyclability, glass is comparably better.

Installing frosted glass not only permit natural light in, but also increase the privacy of the garden.

INSPIRATION:DESIGN

Collage of Stonewall in front of CAMP and Tartu House.

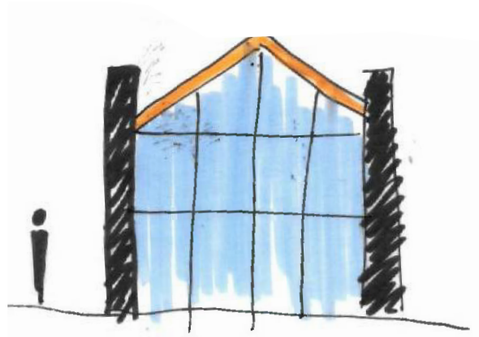
The use of concrete in greenhouse/garden designing is usually seen as as incongurent, but in this project i propose a innovative design principle to promote sustainable awareness.

Combining the design of the concrete wall in front of the Centrum architektury a městského plánování, and the body of Tartu house garden, creates a very intriguing visual effect.

Prague Czechia/ Centrum architektury a městského plánování

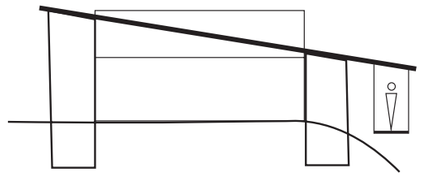
DESIGN IDEA

constrast of glass and concrete, light of heavy, create a sense of discomfort, and emotinally driven people to think.

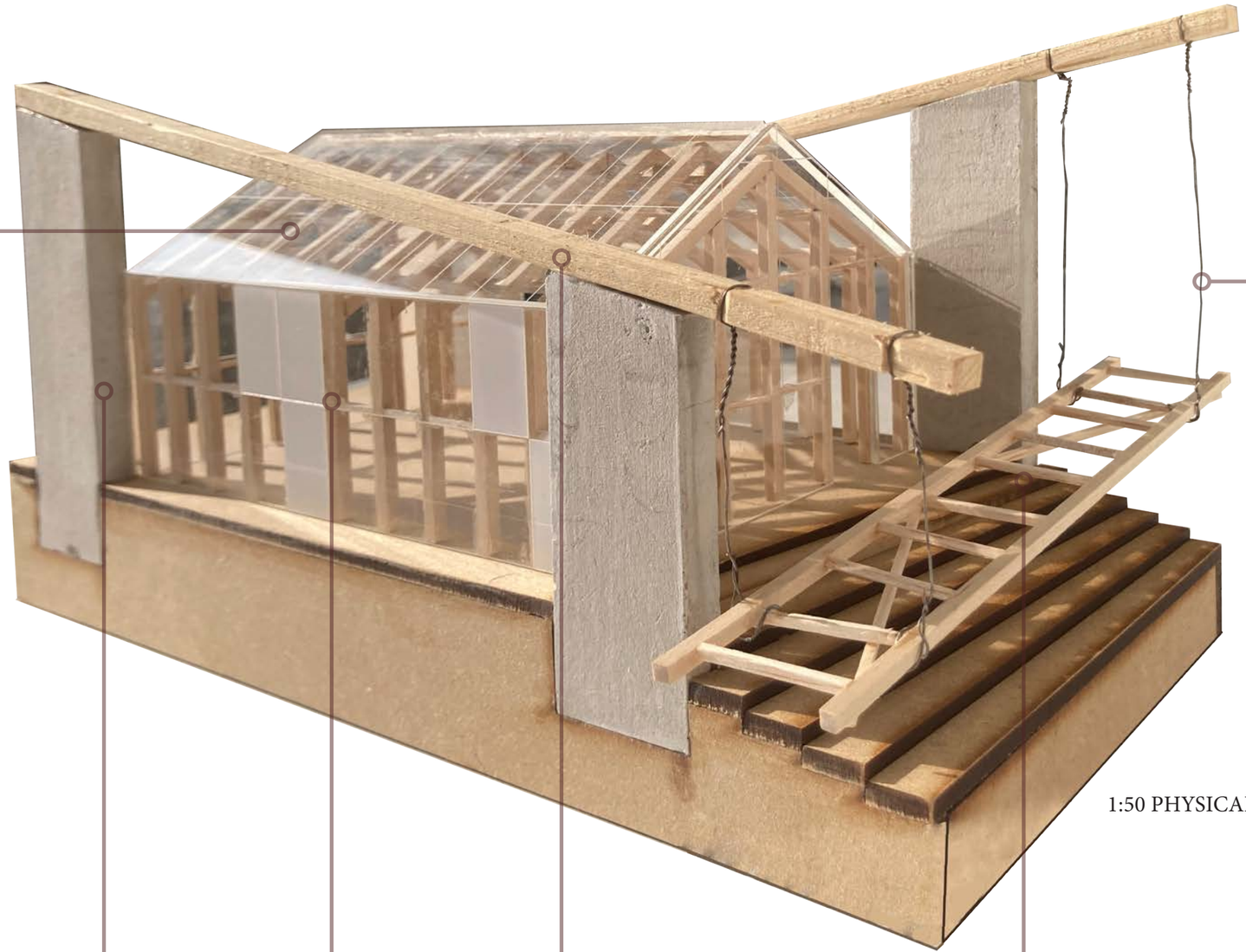


Concrete sits in between the green house, create a sense of division in space and function.

The use of the concrete is not only used for visual purpose, it also act as a structural system which suspend the promenade which goes around.



GARDEN DESIGN MODEL



The garden uses timber structure.

Steel rope, maximizing the visual lightness of the promenade.

Reinforced concrete act as both visual decoration and structural system for the suspended promenade system.

Both frosted and clear glass, single glazing, provide privacy, double glazing is not needed as most of the plants are local species.

Timber beam that hangs on the promenade/

Suspended promenade goes between the green area.

1:50 PHYSICAL MODEL

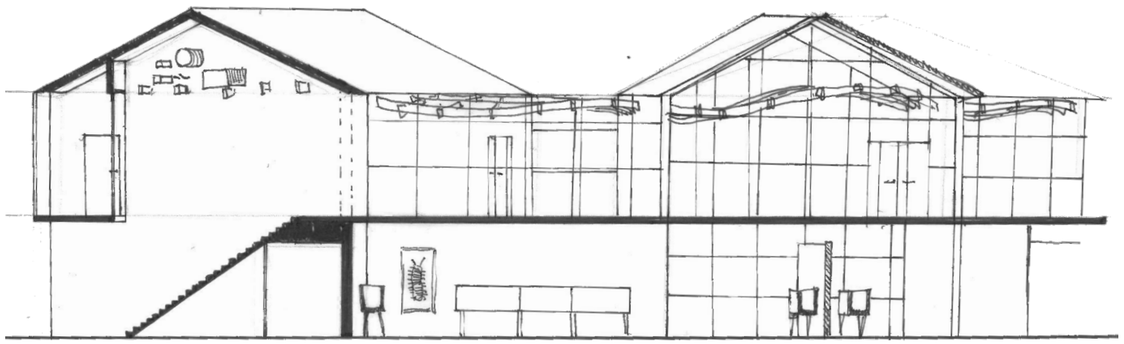
Sustainable & Non-sustainable

Greenhouses and indoor gardens stereotypically symbolize growth, nature and sustainability, representing a harmonious relationship between humans and nature. In contrast, the architecture of concrete is typically associated with rigidity, industrialization and carbon emission, symbolizing an era of utilitarian design.

When these two elements are presented in the architectural design, the strong contrast manifests a tension between organic and inorganic, natural and artificial, sustainable and unsustainable, order and disorder. this contrast stimulates a range of emotions from the blending of such distinct elements, it creates a sense of discomfort and reflects on people's thinking of modern construction and practises.

This incongruence brutally created a dialogue between the architecture and perceiver, inducing us to reconsider the perception of building material, promoting social awareness of sustainable development.

ITERATION 1 RESOLUTION



Section indicate the entry of promenade cuts through the office building, followed bt stair cases at the end.

ITERATION 1 MASTER PLAN:BIRDVIEW

Hint: Upper floor/Lower floor

ITERATION 1 ELEVATION FROM THE STREET

Concrete colomn

Concrete wall which allows passive solar gain, (discarded in the later design)

Ornamental concrete wall, provide privacy for the hallway behind, (discarded in the later design)

Shou Sugi Ban

10m 20m

REGIONAL PLAN:FIRST FLOOR

Non contaminated laboratory

Reception

general office space

Storage room

Promenade that cut through the building

Contaminated laboratory (requires additional disinfection before and after enter)

Kitchen

Meeting room and Manager office

Technicien space

10m 20m

REGIONAL PLAN:SECOND DESIGN

Cafe

Storage room

Promenade that cut through the building

Reception of the musem

Exhibition rooms

Suveniour shop

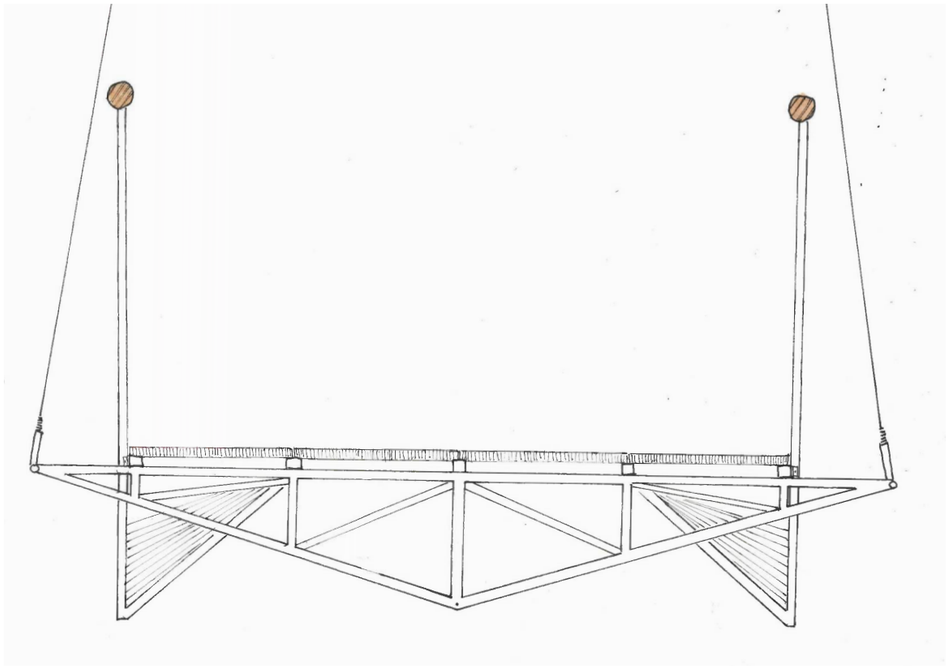
10m 20m

CHAPTER 3: SECOND ITERATION

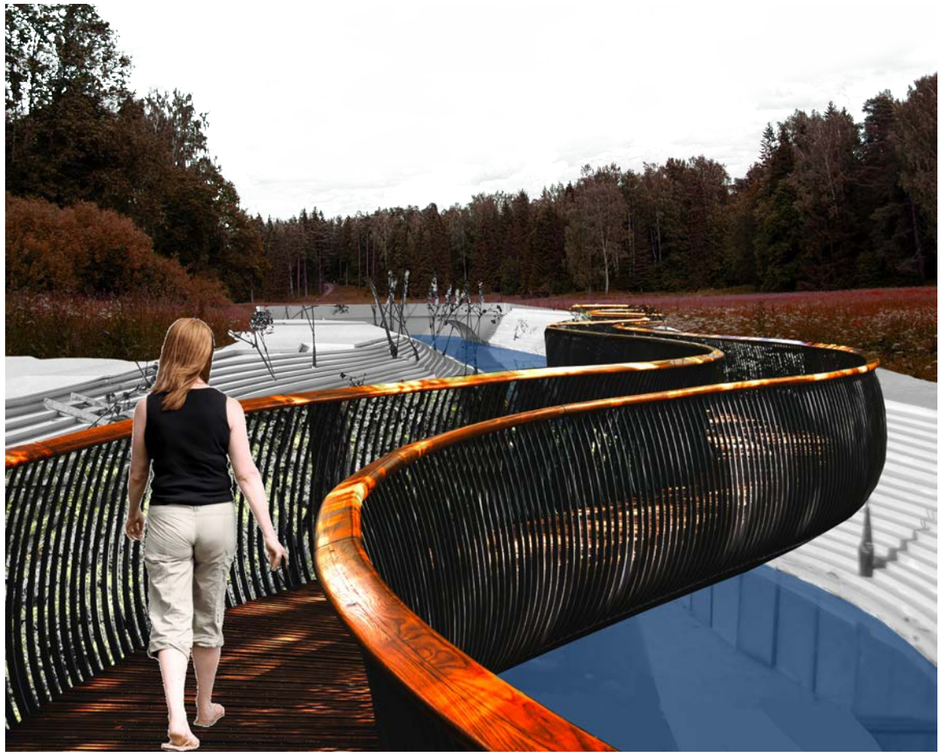
PROMENADE DESIGN

Changchun Culture of Water Ecology Park / W&R GROUP

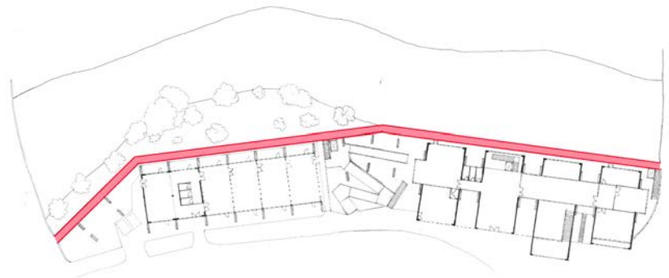
The structure of my design evolved from iterations of the promenade in Changchun culture of water Ecology park, instead of being supported by colonm i took an opposite approach, as promenade is suspended by colonm and proclaiming the non-ground touching, zero intereference with local nature principle.



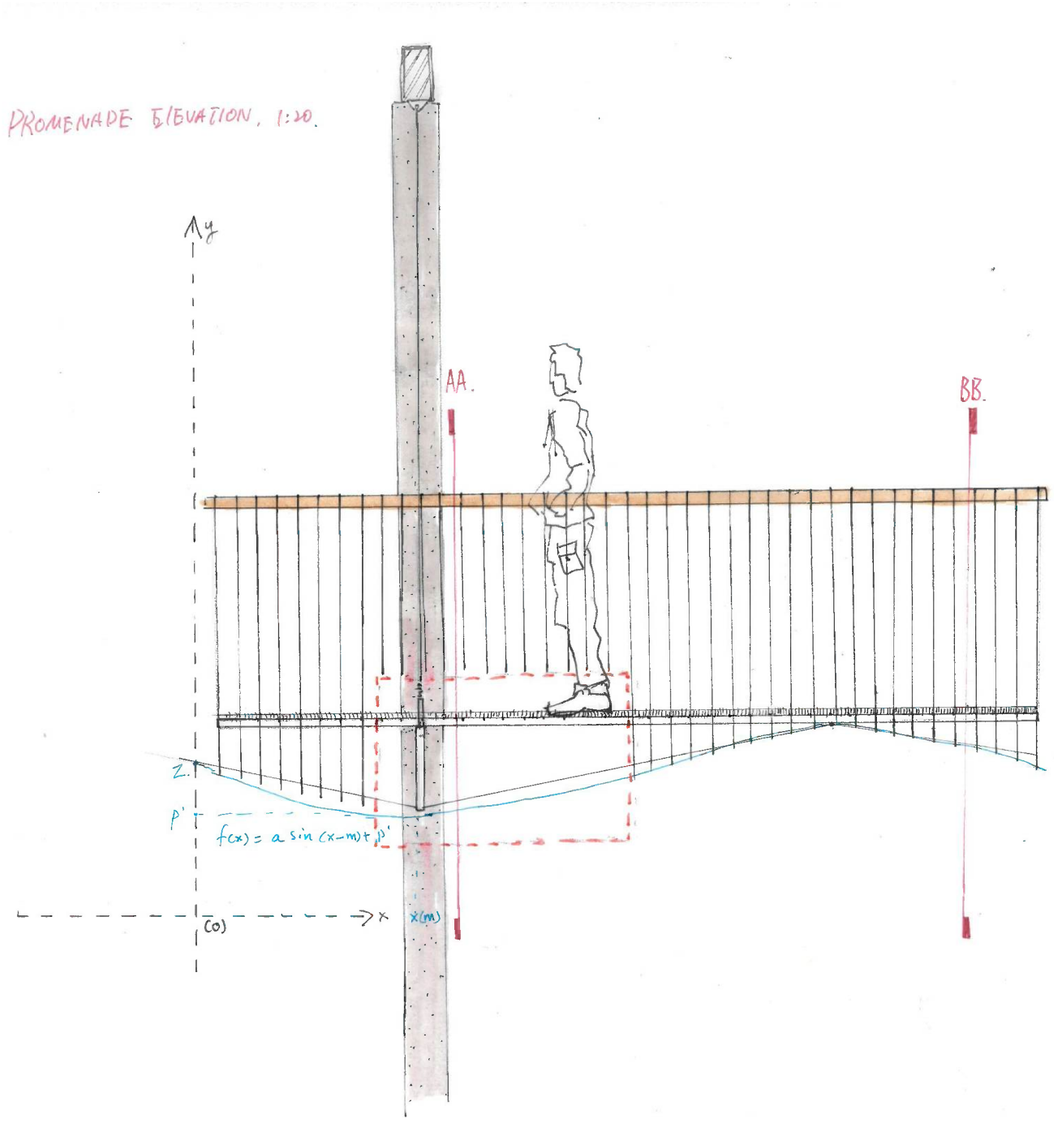
DANCE WITH NATURE



The Story of Gardening Museum/ Stonewood Design



Proposed location of promenade.



Curveliner geometry formed by the railings is inspired by the promenade from the story of gardening museum in the UK, the growth of the path adopted to the local trees. the wavey shape of the bottom of the promenade effectivly hids the structural system, as well as coinciding with mathmatical formula y=sin x, rhyme with the pressence of sacredness in nature.

FINAL PROMENADE DESIGN

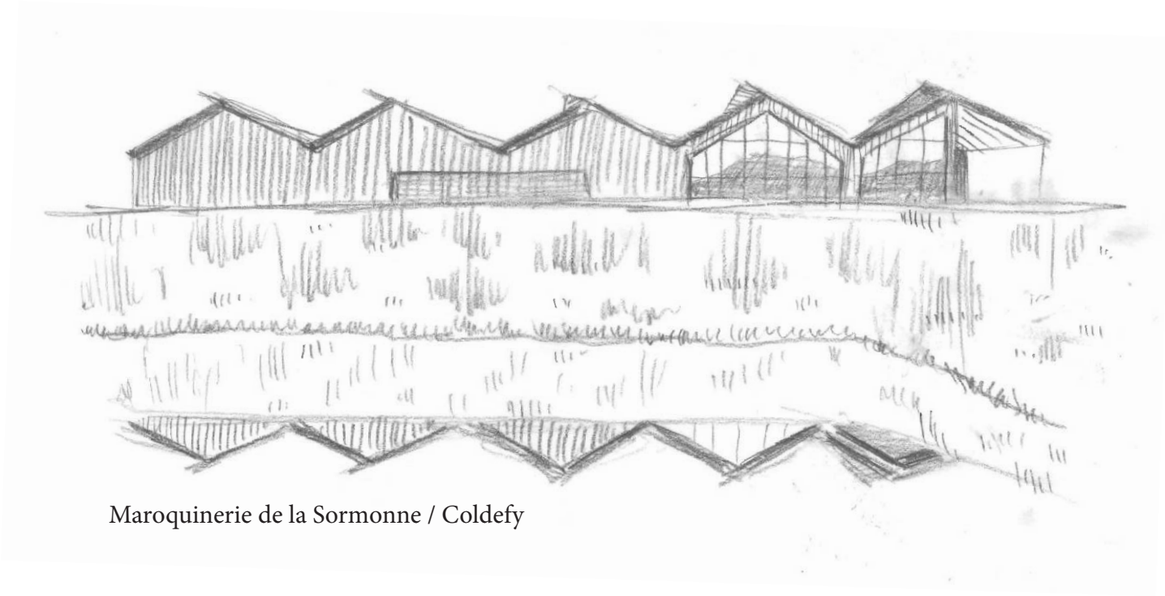
Steel railing

Wood handle

1:20 PHYSICAL MODEL

Live load → Steel mesh → "I" Bar → Joints and Steel rope → Timber beam → Reinforced concrete

PRECEDENT_MATERIAL_STRUCTURE

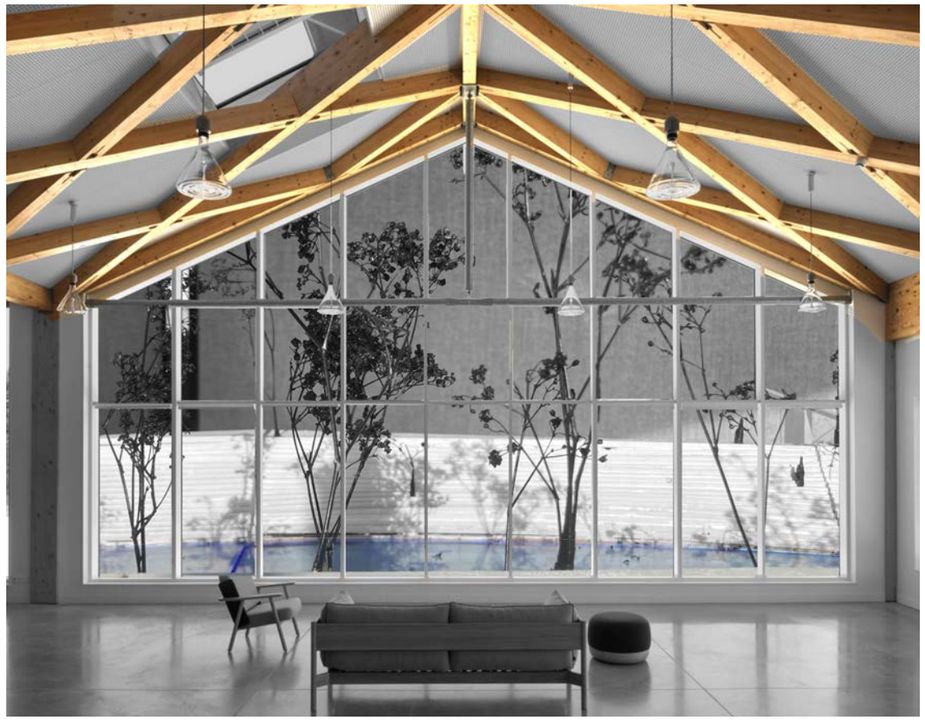


Maroquinerie de la Sormonne / Coldefy

The building of Hermès workshop in France built in its simple house style, comprise 5,700 sqm, providing spatias working area.

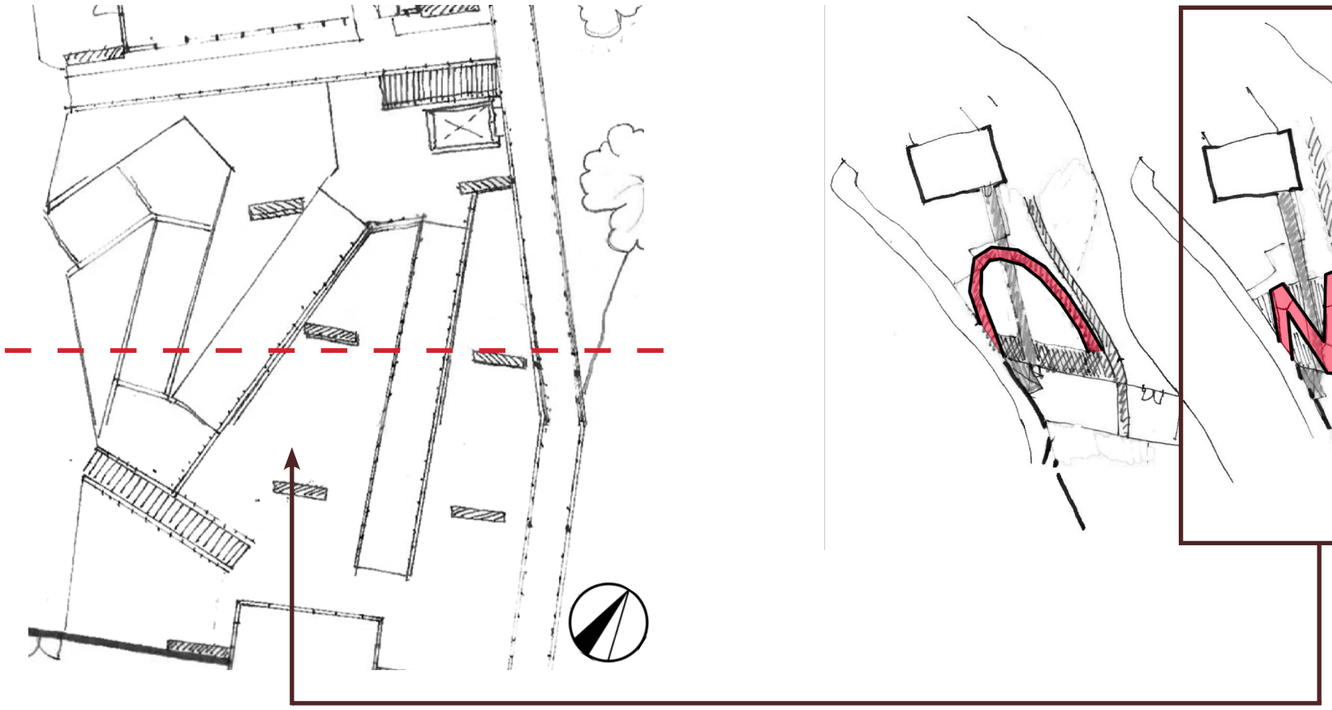
The building is cladded in burnt wood making the envelope waterproof and fire proof, improve chemical resistance such as weak and acids.

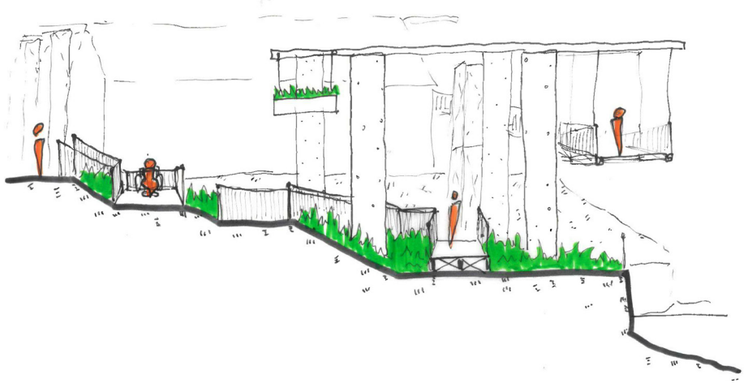
Inside the “diagrid” timber frame symbolise the subtle domestic atomsphere, providing comfortable environment for the staff



The “diagrid” timber support the roof system.

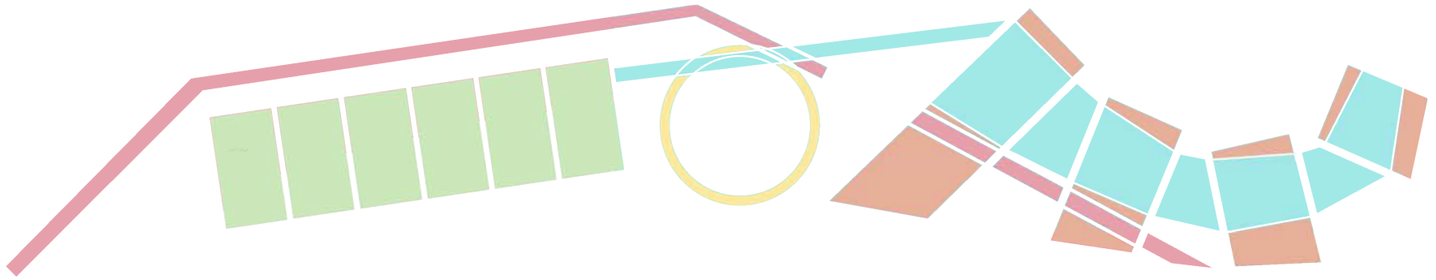
RAMP DESIGN





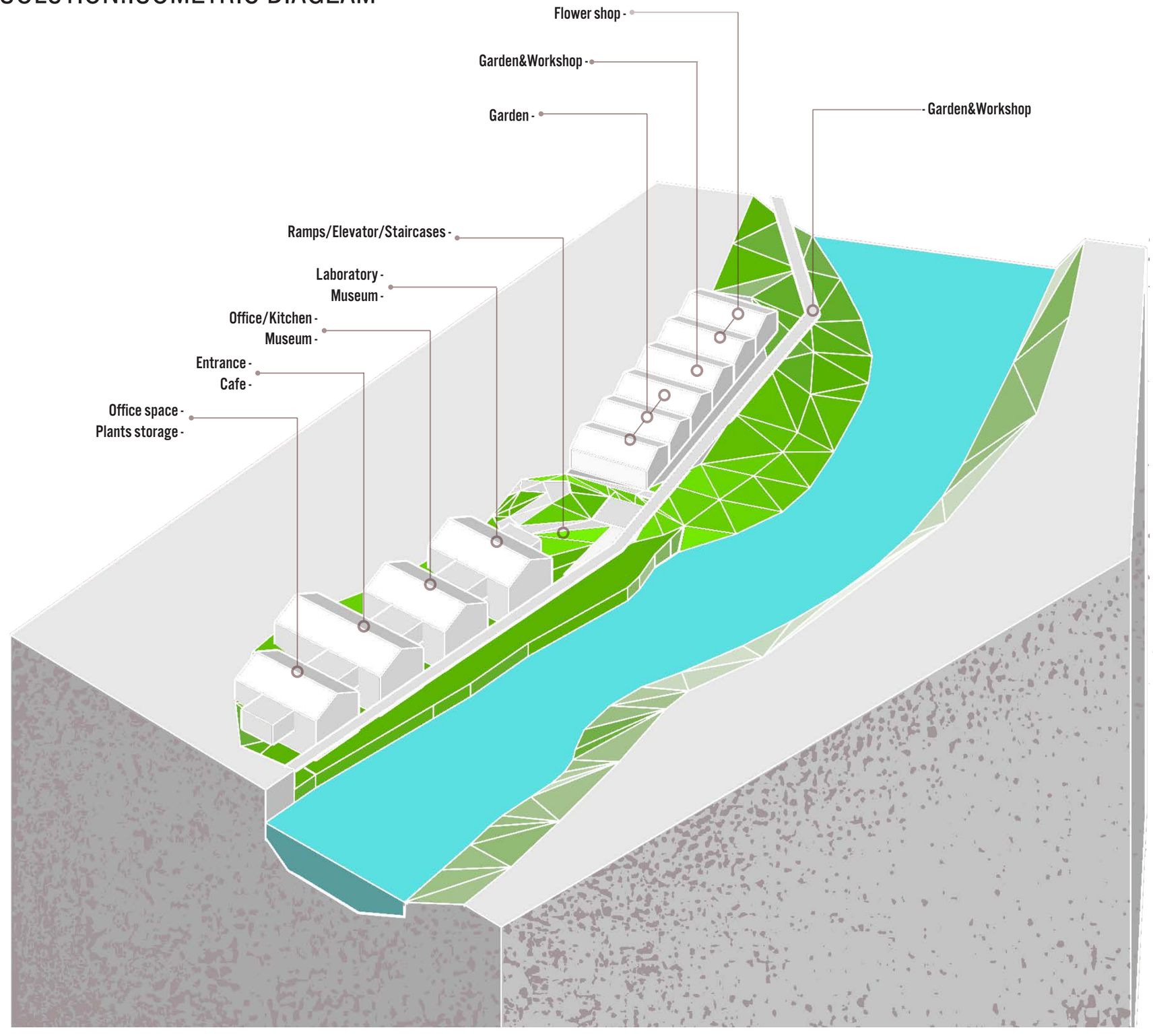
A circular ramp has been chosen for the first iteration to reinforce the disorder elements in the design, in the second iteration to comply with the general straight and formal design geometery and principles, a Zig-Zag staircase is chosen for the design.

SHUFFLING

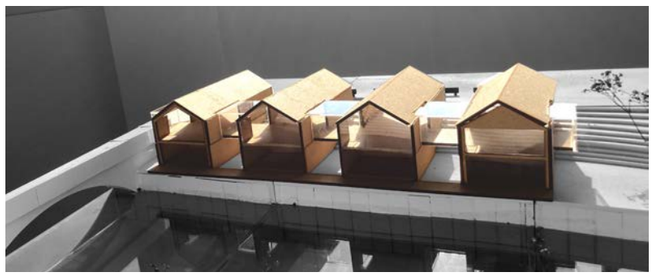


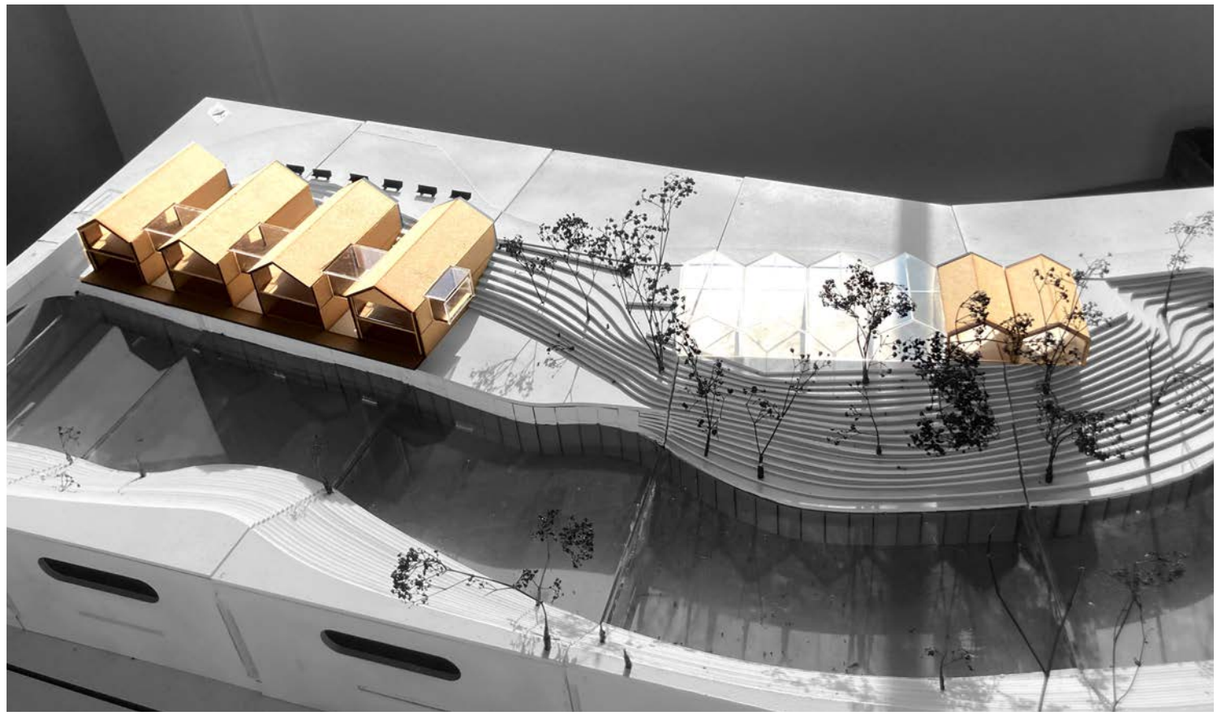
The geometrical form of functional space has changed from disorder to ordered, reducing construction dificulty and introduce social harmony and formality to the site. The original idea od sky bridge is merged with the hallway, as the skybridge act as a hallway that sits on the sky.

FINAL RESOLUTION:ISOMETRIC DIAGEAM



FINAL RESOLUTION:MASTER MODEL1:100

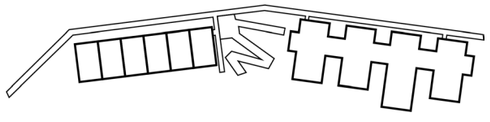




1:100 PHYSICAL MODEL

FINAL RESOLUTION:MASTER PLAN-FIRST FLOOR

1: Flower shop
2: Flower shop
3: Garden&workshop
4: Garden/Greenhouse
5: Garden/Greenhouse
6: Garden/Greenhouse
7: Accesable ramp
8: Promenade
9: Ordinary laboratory
10: Contaminated Laboratory
11: Reception and Kitchen
12: Office space
13: Technician space
14: Manager office
15: Meeting room

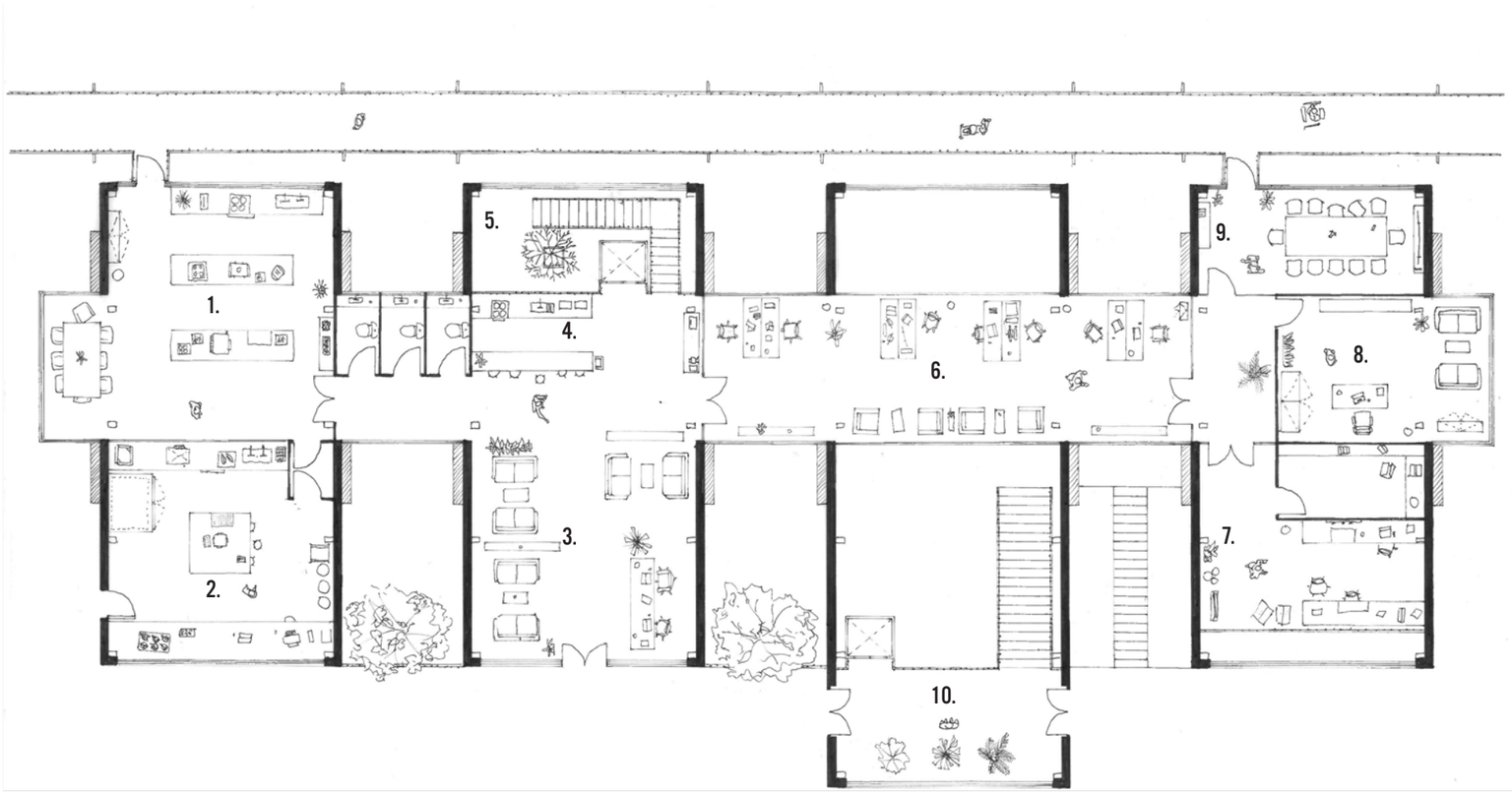


10m 20m

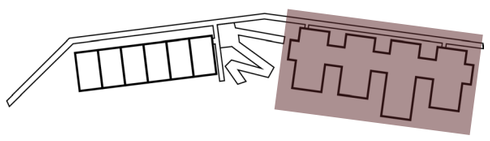
FINAL RESOLUTION:ELEVATION

10m 20m

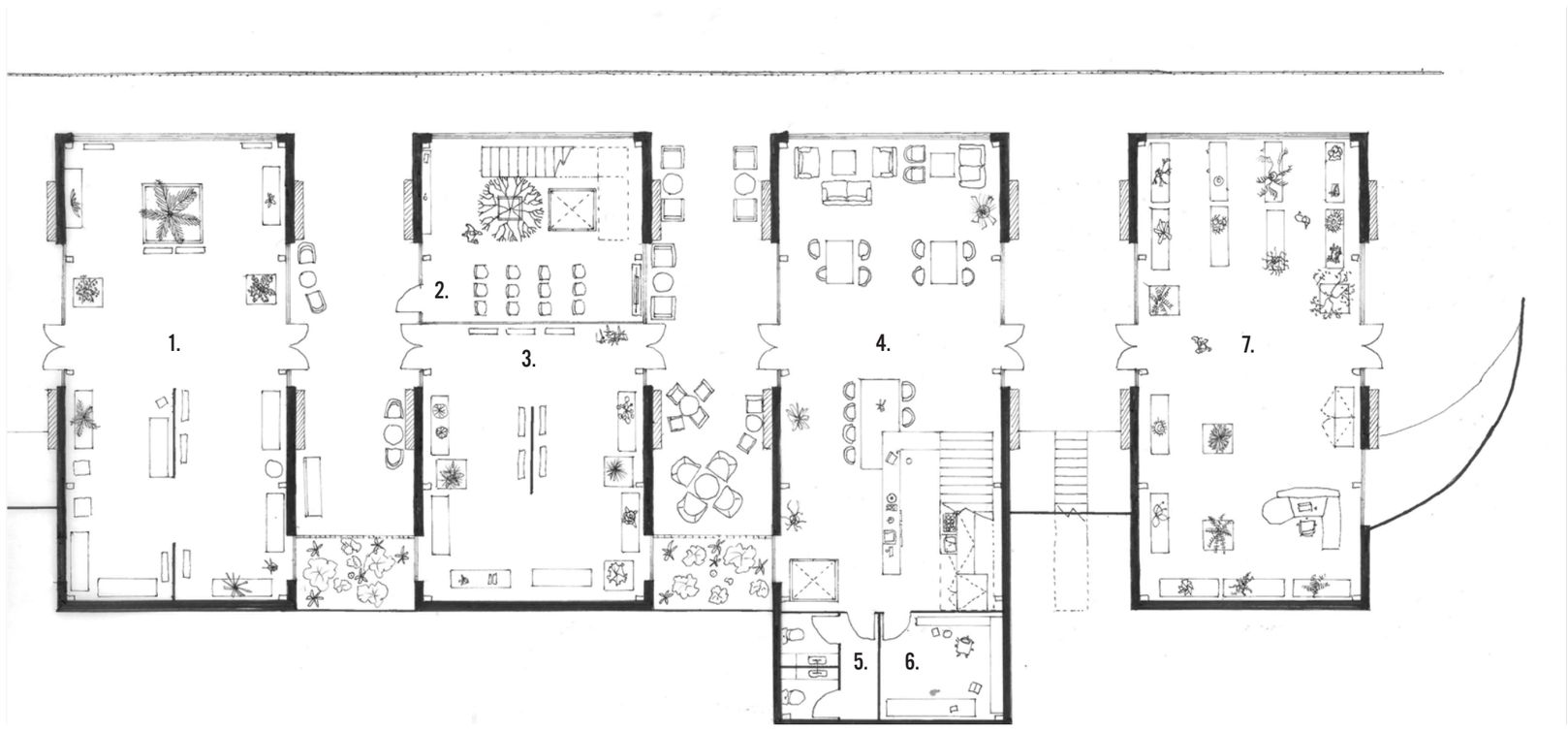
FINAL RESOLUTION:1ST FLOOR PLAN



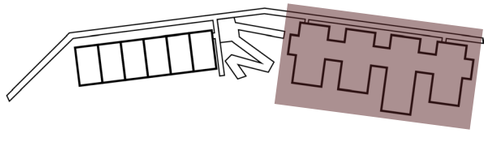
1: Ordinary laboratory
2: Contaminated laboratory
3: Office reception
4: Kitchen
5: Altrium/accesable to lower floor
6: Office space
7: Technicien space
8: Manager room
9: Meeting room
10: Entrance to the cafe



FINAL RESOLUTION:GROUND FLOOR PLAN

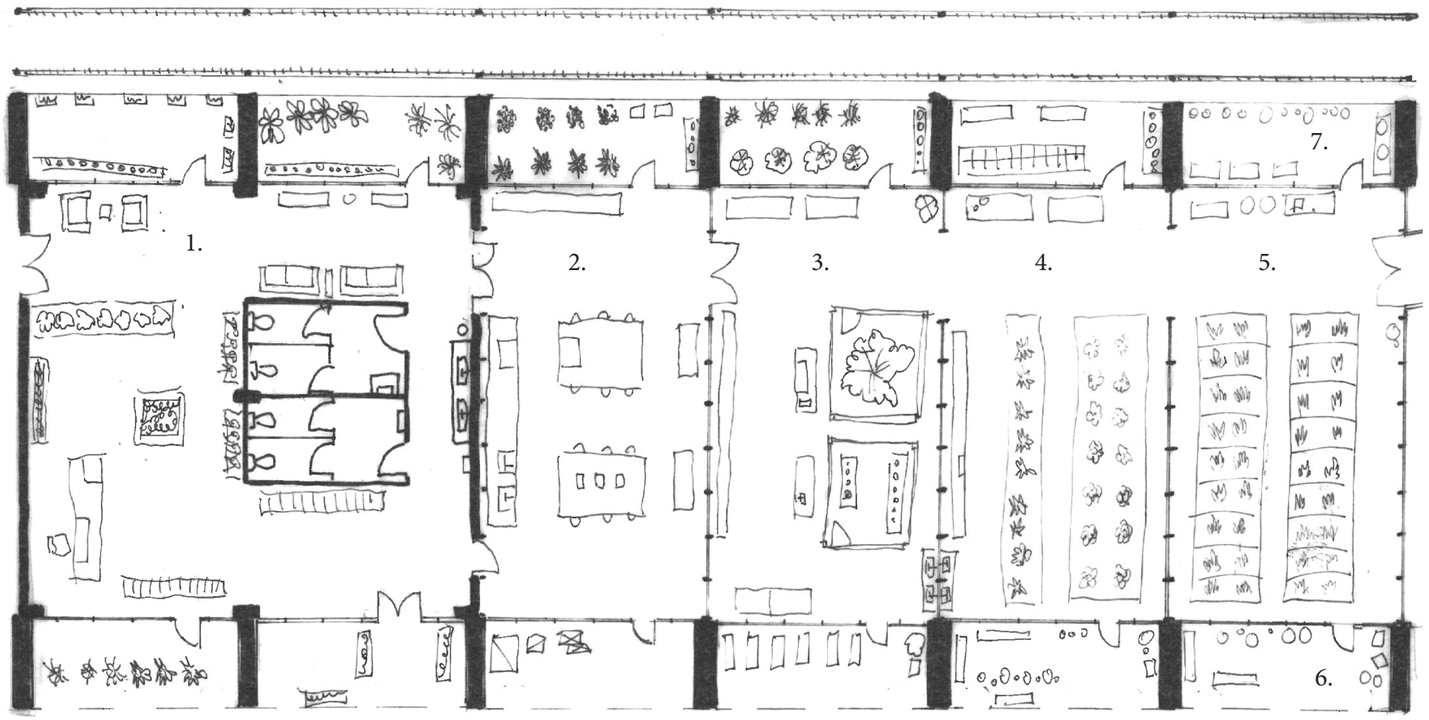


1: Museum
2: Presentation space of the office
3: Museum
4: Cafe
5: Toilet
6: storage room of cafe
7: Plant sitting space

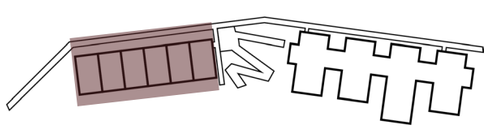


10m 20m

FINAL RESOLUTION:GARDEN PLAN



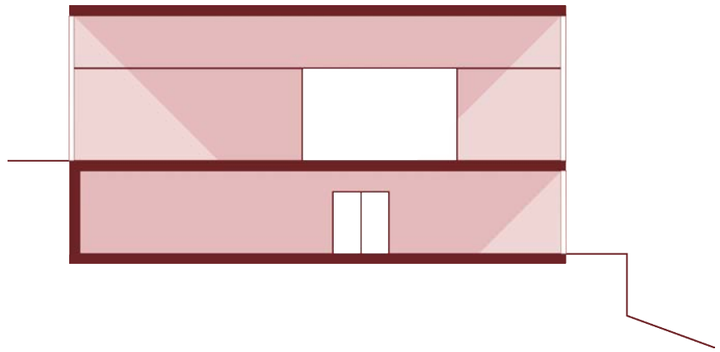
1: Flower shop
2: Flowercraft workshop
3: Indoor arden with thermostat chamber
4: Indoor garden/greenhouse
5: Indoor garden/greenhouse
6: Front door platform
7: Back door platform



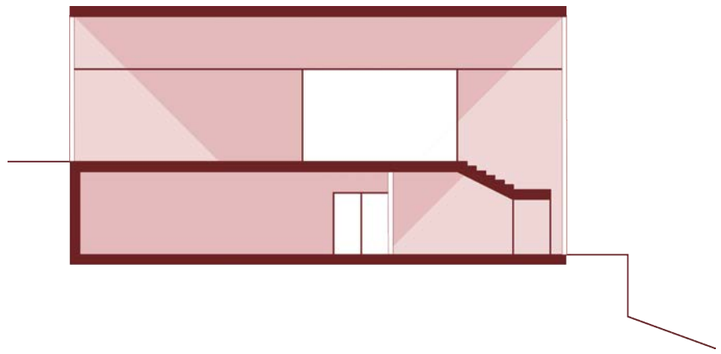
5m 10m

FINAL RESOLUTION:SECTIONS

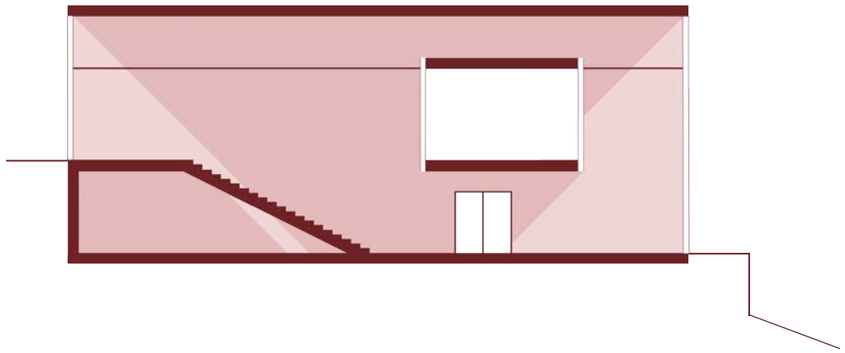
A.



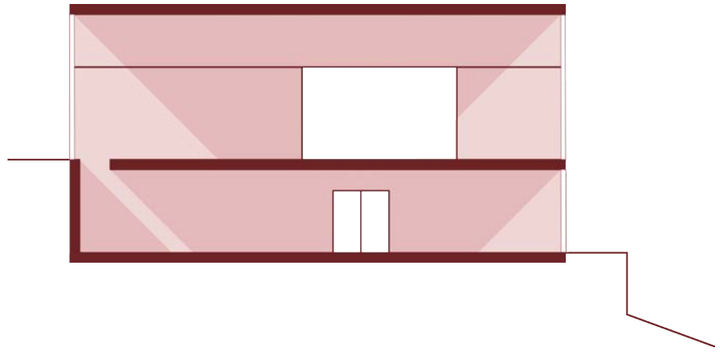
B.

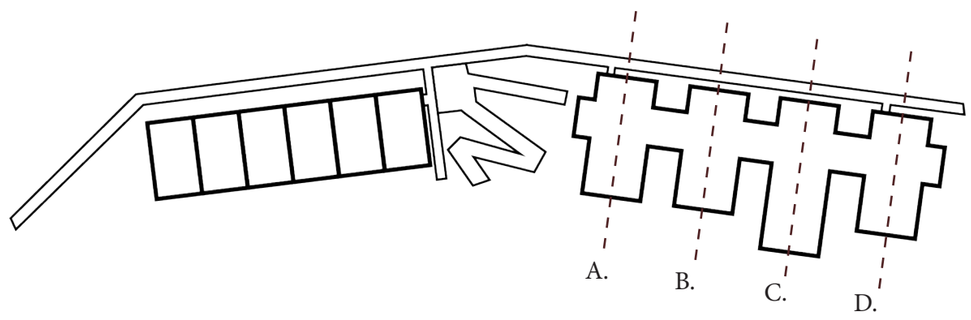


C.

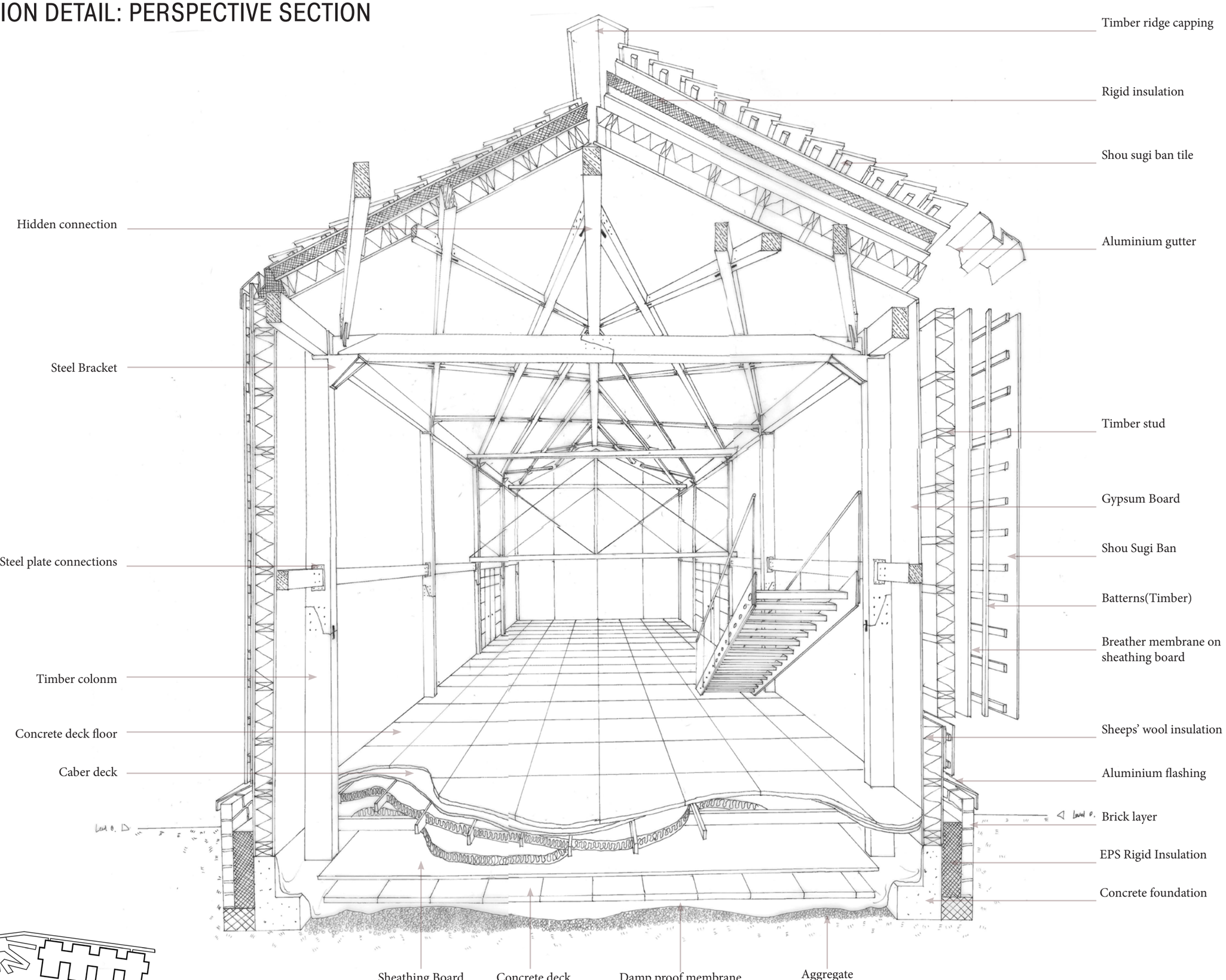


D.

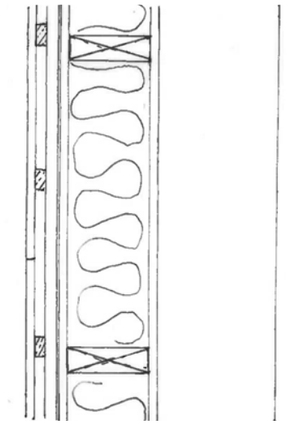




CONSTRUCTION DETAIL: PERSPECTIVE SECTION

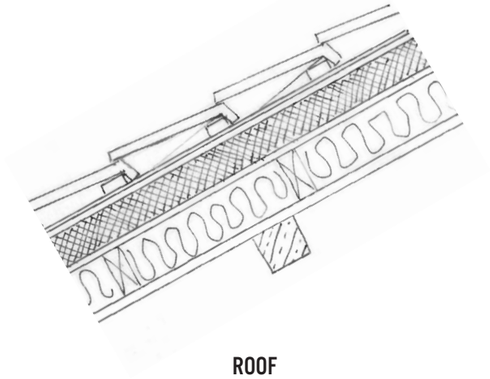


CONSTRUCTION DETAIL: ENVIRONMENTAL ACCESSMENT



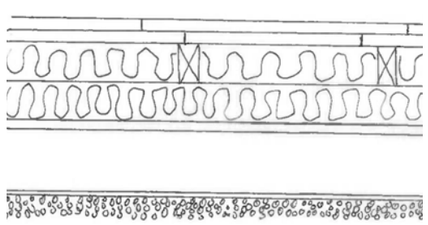
WALL

-20mm Shou Sugi Ban (Burt Cladding)
-Two 25mm x 38m.m timber battens
-0.4mm Breather membrane
-10mm sheathing board
-200mm sheeps' wool insulation(with two 100mm x 50mm timber stud)
-280mm x 180 timber colomn.



ROOF

-23mm shou sugi ban tile
-25mm x 20mm roof timber battens
-0.4mm Breather membrane
-10mm theathing board
-100mm EPS Rigid Insulation
-10mm Theathing board
-100mm sheeps' wool insulation
-10mm gypsum board
-120mm x 120mm cross timber beam



GROUND

-15mm concrete deck
-18mm caber deck
-200mm sheeps' wool insulaiton
-10mm theathing board
-150mm air gap
-20mm concrete deck
-0.25mm DPM
-Aggregate

$$U-Value = \frac{\lambda_g}{0.457B+d} \quad (m^2k/W)$$ ONLY APPLICABLE FOR GROUND.

$$U-Value = \frac{1}{Rso+Rsi+\sum Rn} \quad (m^2k/W)$$ FOR WALLS AND ROOF.

$$\lambda_g = Thermal\ conductivity\ of\ unfronzen\ ground(taken\ as\ 2.0\ m^2k/W\ in\ the\ UK)$$

$$B = \frac{2A}{P}\ \ Rsa+Rse+\sum Rn$$

w = thickness of the wall around

P = parameter

A = Area

Rso = 0.04 W/mk

Rsi = 0.013 W/mk

Rsa = 0.17 W/mk

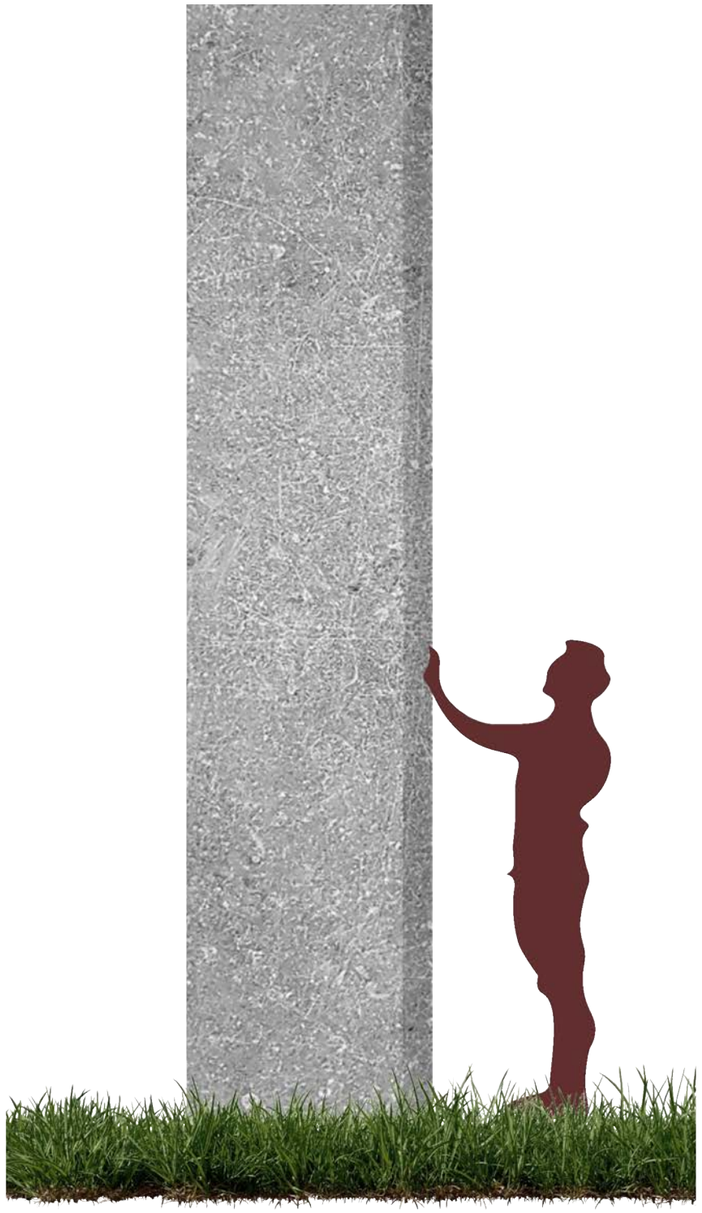
Rse = 0.04 W/mk

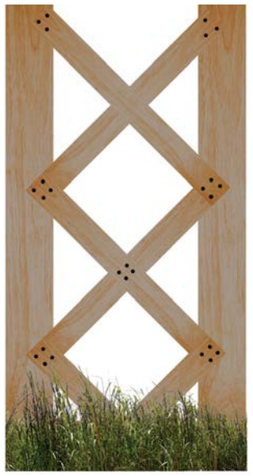
UK insulation regulation based on document L:

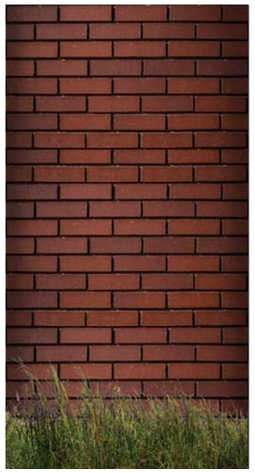
External walls including semi-exposed walls	U = 0.18 W/(m²·K)
Party walls	U = 0
Floors	U = 0.13 W/(m²·K)
Roofs	U = 0.11 W/(m²·K)

After series of calculation, the U-value of wall, roof and floor in my design representatly are: 0.108, 0.134, and 0.33 m^2k/W (3dp), partially complying with the UK regulation, but i am certain i didn't do my ground floor calculation right, as more i dig into the detail i have realized it gets a lot more complicated and went beyong my area of knowledge.

MATERIAL CHOISE



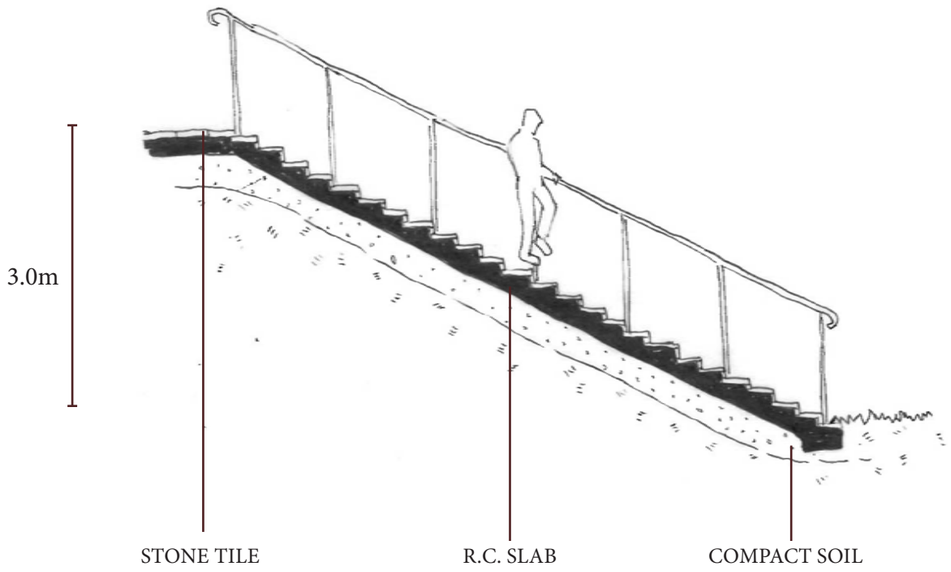


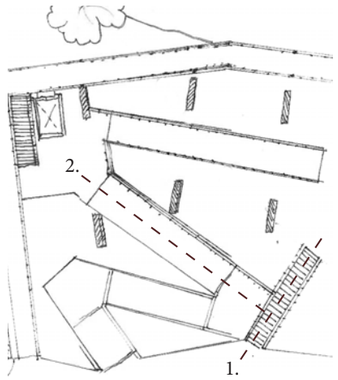


There were alternative proposal for the material choices for the supporting colonms of the promenade, different materials present different visual effect and results on different psychologicla response, however the quality of concrete serves the best to illustrate the contrast between sustainable and unsustainable.

REGULATION: ACCESSABILITY

1.





External steps forming part of an additional route

2.11 To enable a wide range of people to use steps safely, a stepped approach should comply with all of the following.

a. Steps are uniform with a rise of between 150mm and 170mm and a going of between 280mm and 425mm (for tapered steps measured at a point 270mm from the 'inside' (narrow end) of the step).

b. Steps have suitable tread nosings.

c. No individual flight has a rise between landings of more than 1800mm.

d. Every flight has a minimum clear width of 900mm.

e. Top and bottom and, where necessary, intermediate landings are provided and every landing has a minimum length of 900mm.

f. Every flight with three or more risers has a suitable grippable handrail to one side, (or to both sides where the flight is wider than 1000mm). This grippable handrail is 850-1000mm above the pitch line of the flight and extends a minimum of 300mm beyond the top and bottom nosings.

External and internal ramps forming part of an approach route

2.10 To enable people to use a ramp safely, the ramp should comply with all of the following.

a. The gradient is between 1:20 and 1:12.

b. The length of each flight at a given gradient meets the provisions of Diagram 2.1.

c. Flights within a private approach route have a minimum clear width of 900mm.

d. Flights within a communal approach route have a minimum clear width of 1200mm.

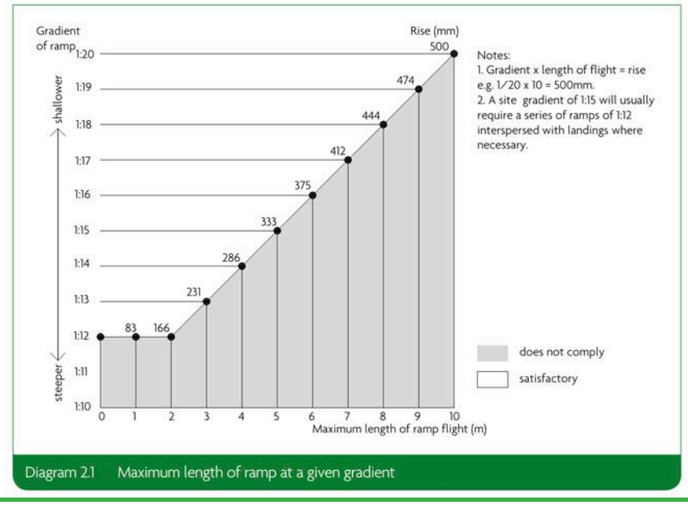
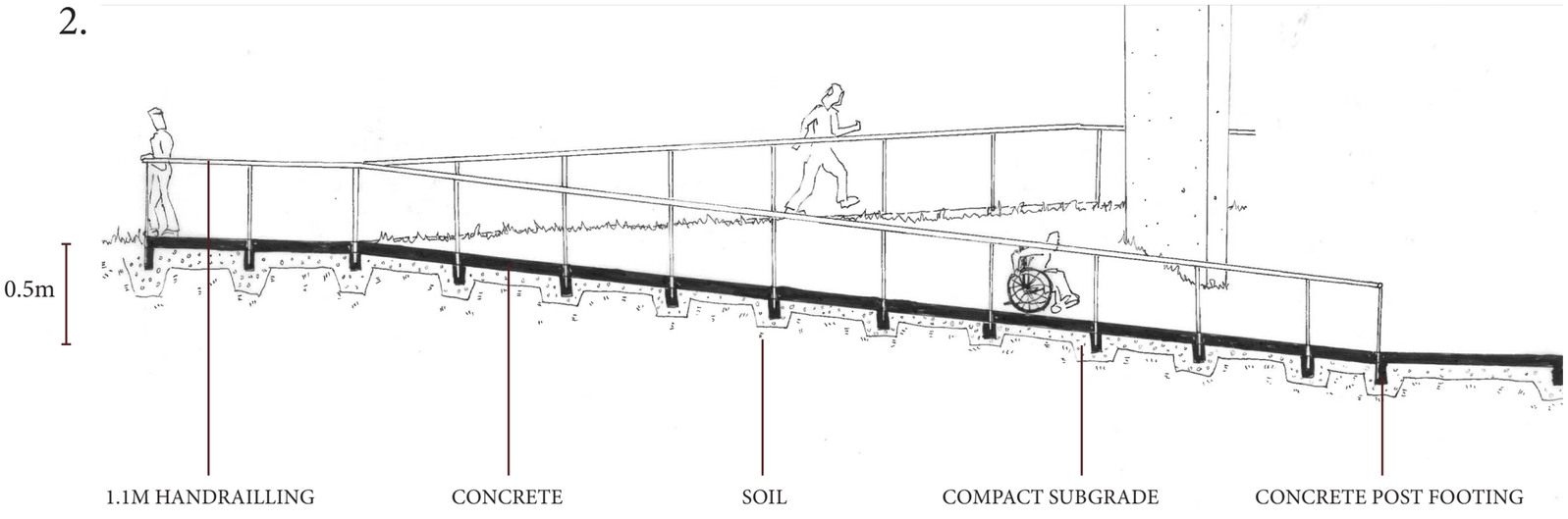


Diagram 2.1 Maximum length of ramp at a given gradient

2.

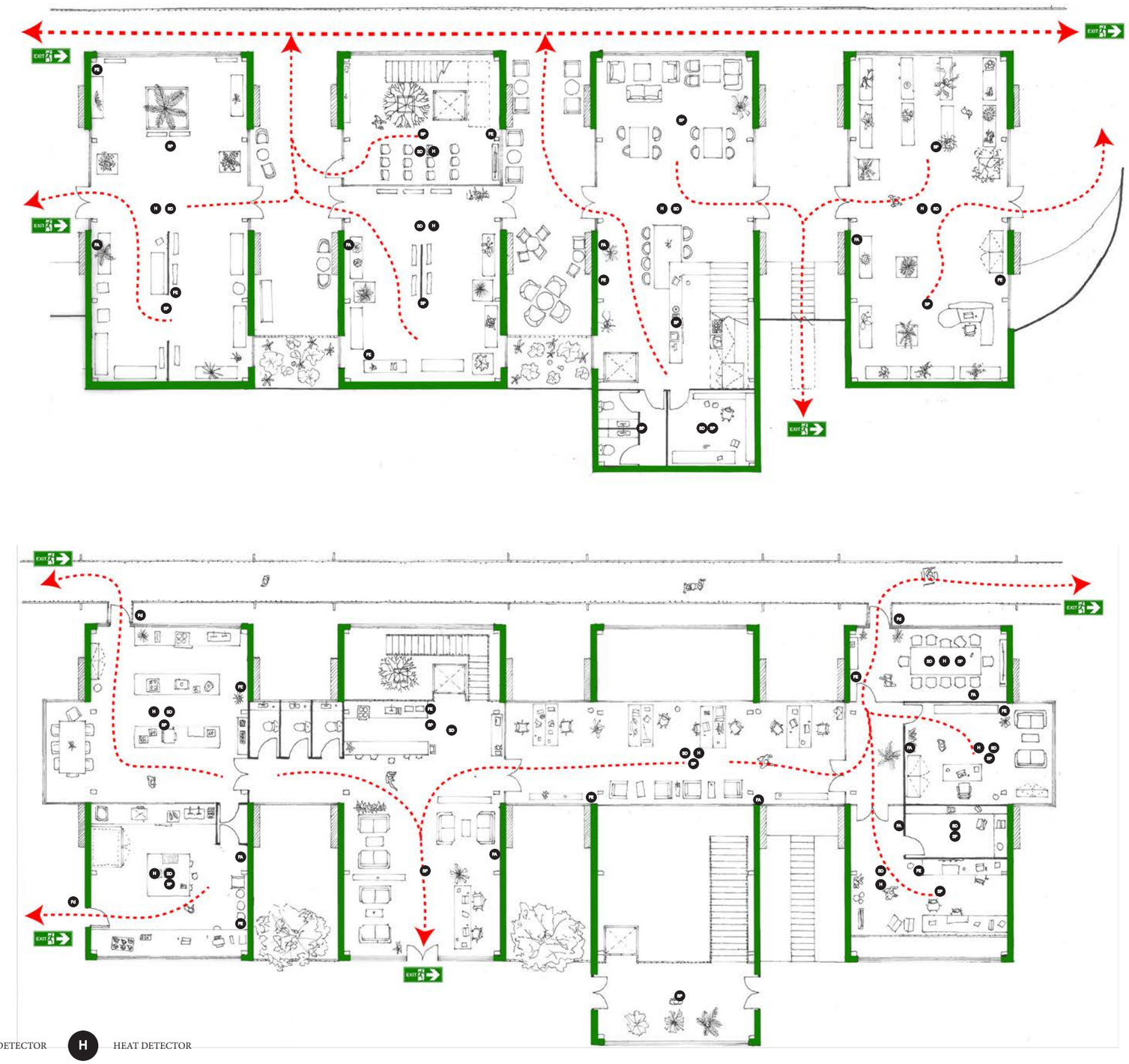


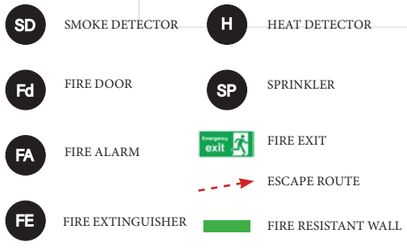
All the stairs and ramps are designed with neccessary railings and dimension, according to the UK accesability regulation document L:

Stair: 3m high, 6m long, dimension of each stair: 15cm by 30 cm.

Ramp: 12:1 ratio, platform present at each end of the ramp.

REGULATION: FIRE SAFETY





BUILDING REGULATIONS PART B

1.3 Other than for some small buildings/premises, an electrically operated fire alarm system should be provided. In some situations, the alarm should be operated by a fire detection system. The detailed specification should be compatible with the fire strategy for the building.

1.5 Automatic fire detection and alarm systems should be provided in non-residential occupancies where a fire could break out in an unoccupied part of the premises (e.g. a storage area or a part of the building that is not visited on a regular basis) and prejudice the means of escape from occupied part(s) of the premises.

Response: Alarm systems and detection system will be installed into the office.

BUILDING REGULATIONS PART M:

B1, table 2.1: the regulation suggest a minimum 45 meters travel distance for offices with more than 2 direction of escape.

Response: Since the the design is open spaced, reject ideas of parti walls, alternative escape routes is needed to enable more flexible escape routes.

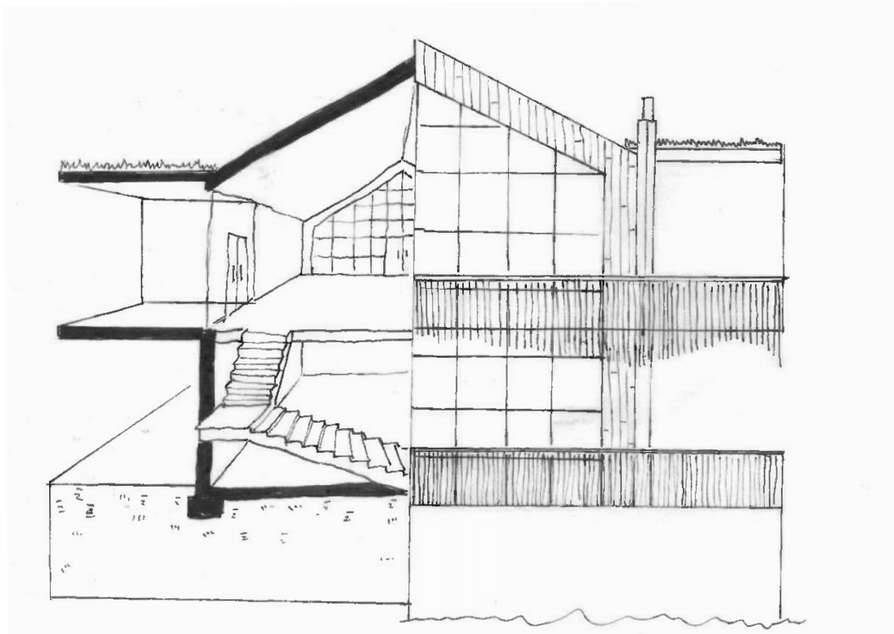
2.10 Alternative escape routes should satisfy one of the following criteria:
a. They are in directions 45 degrees or more apart
b. They are in directions less than 45 degrees apart, but separated from each other by fire resisting construction.

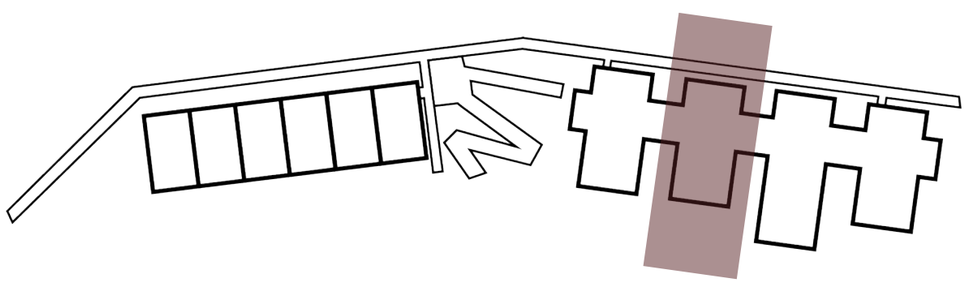
Response: Alternative escape route, is designed on the glass facade to diverted escape route direction.

2.30 Where an External escape route is beside an external wall of the building, the external wall should be of fire resisting construction in both of the follwoing zones:
a. Withing 1800mm of escape route.
b. Up to 1100mm above the surface of the escape route.

Response: Triple glazing fire resistant is possiple, thus complying with the regulation, also, since the cladding is burnt wood cladding, which further prevent potentian external fire spreading damage.

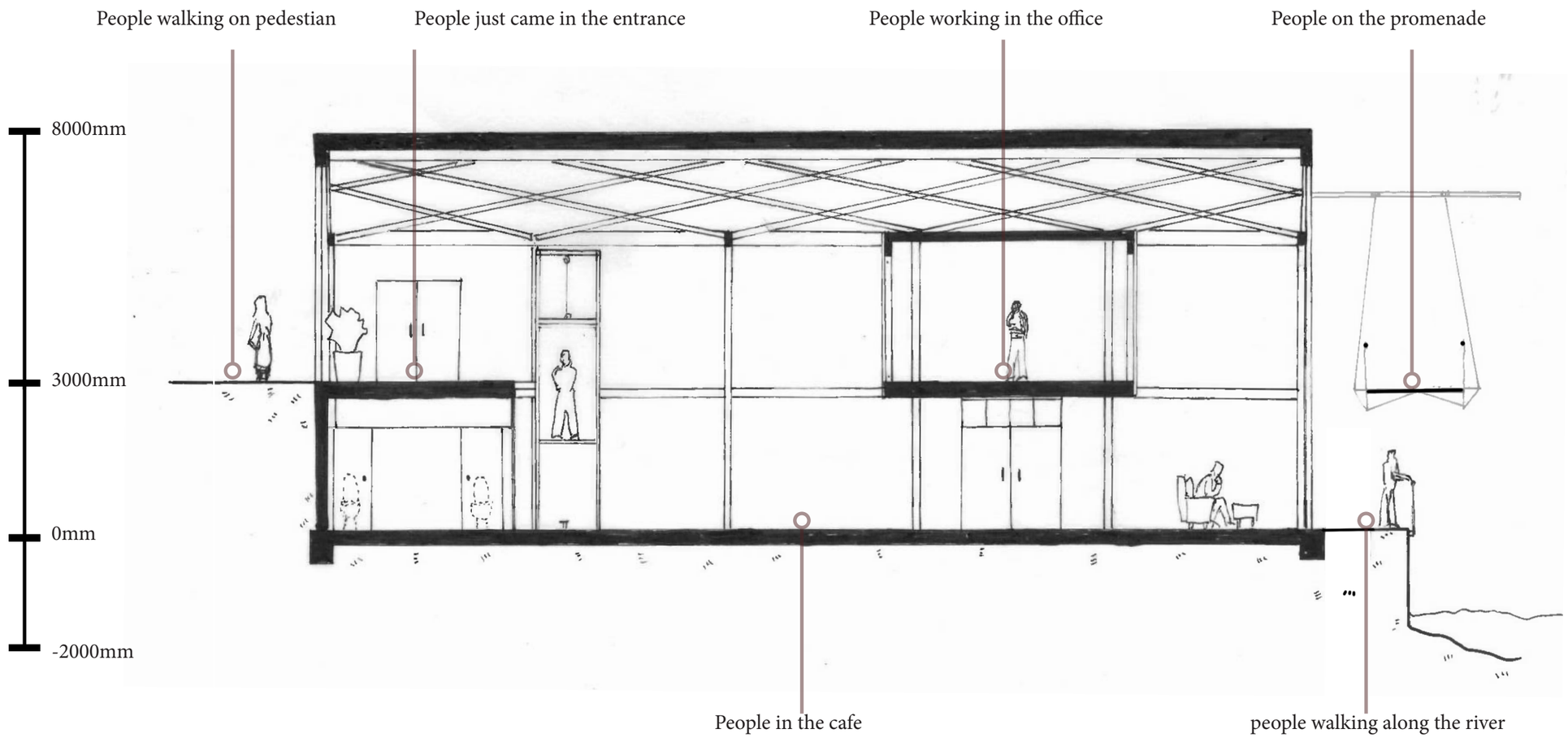
RESOLUTION: CREATIVE DRAWINGS

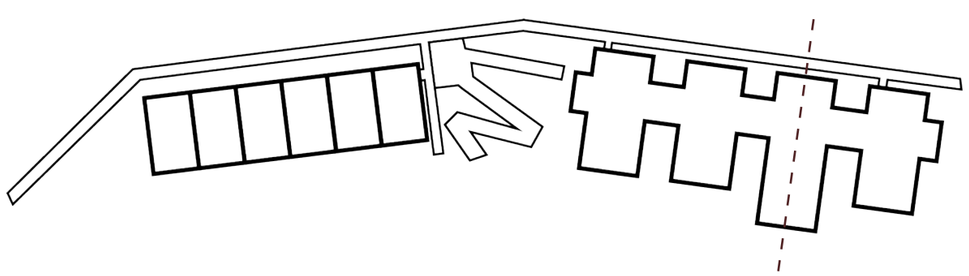




Here i present a drawing style mixed of both perspectve and elevation, showing case the facade, and the interior spatial arangements.

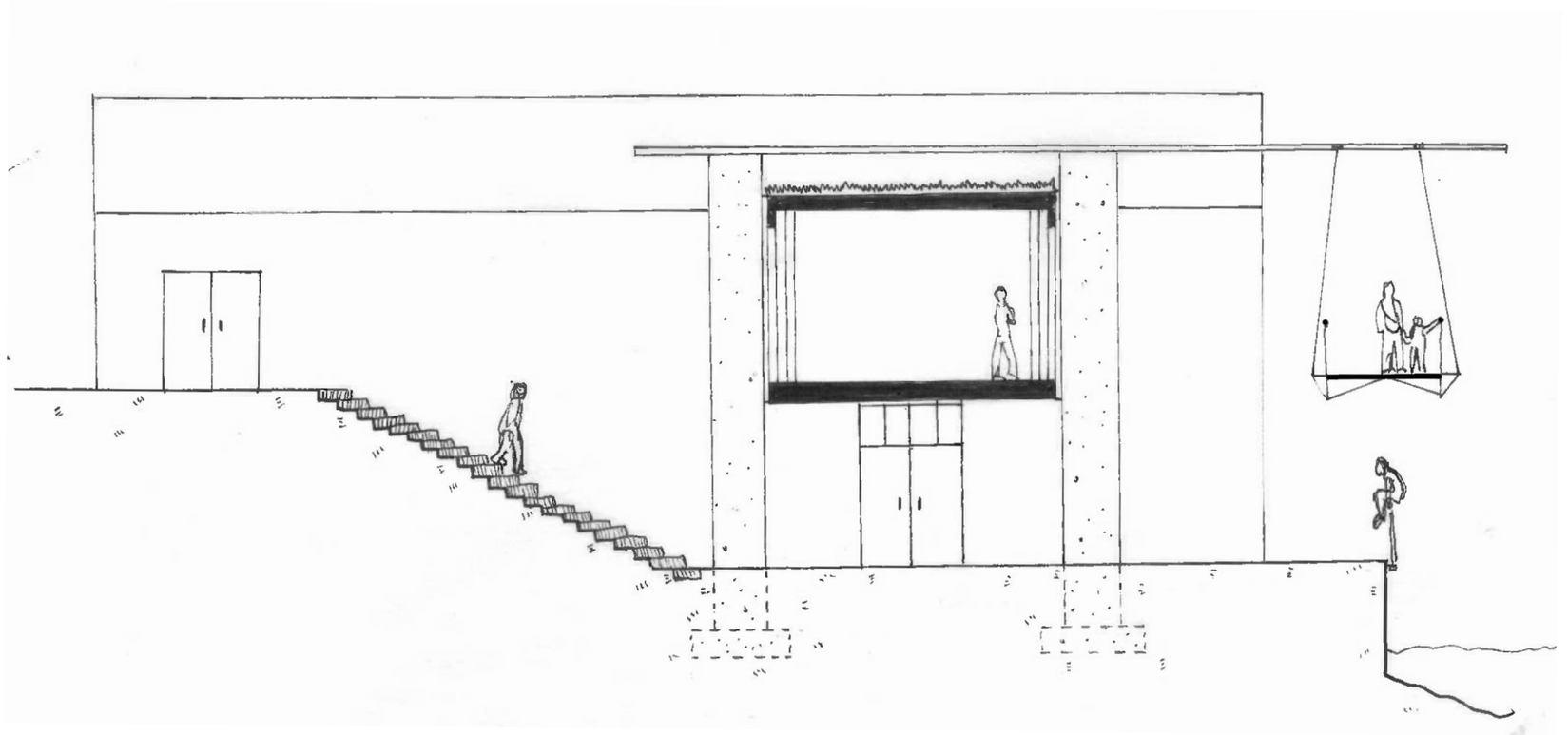
RESOLUTION: SECTION: VISUAL EXCHANGE



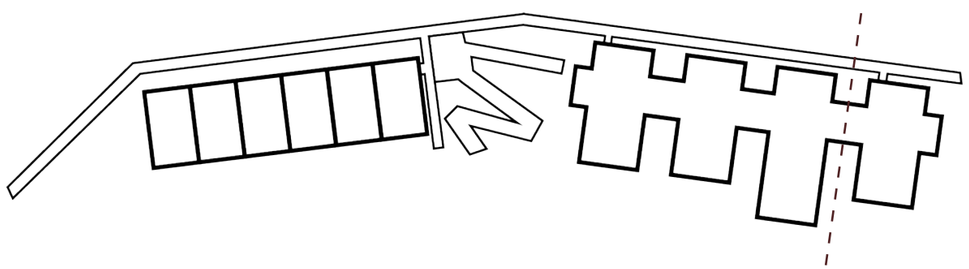


Despite there is only 2 floor level, the amont of visual exchange relations from different part of the building is enormous, people could have just walked in the cafe saw a guy taking a napping in the office space, at the same time downstairs couples are arguring, then a teenager just ran across the promenade.

RESOLUTION: SECTION

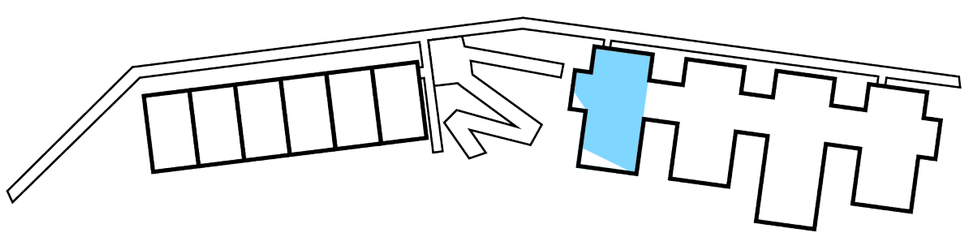


This section suggest the dynamic level changes in the transition from the pedestrian to the river bank.

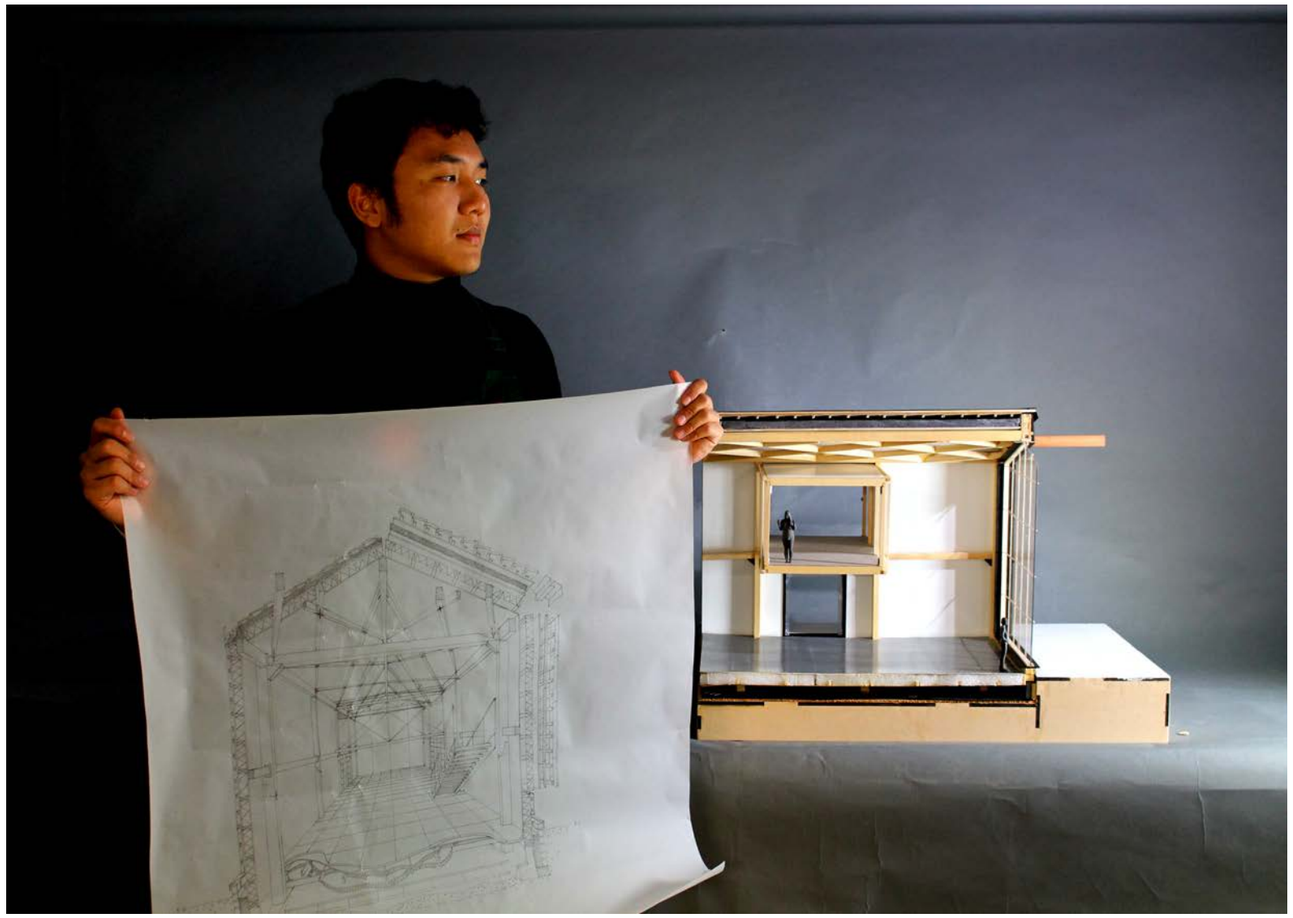


RESOLUTION: PERSPECTIVE DRAWING

Free hand perspective drawing at the lab space



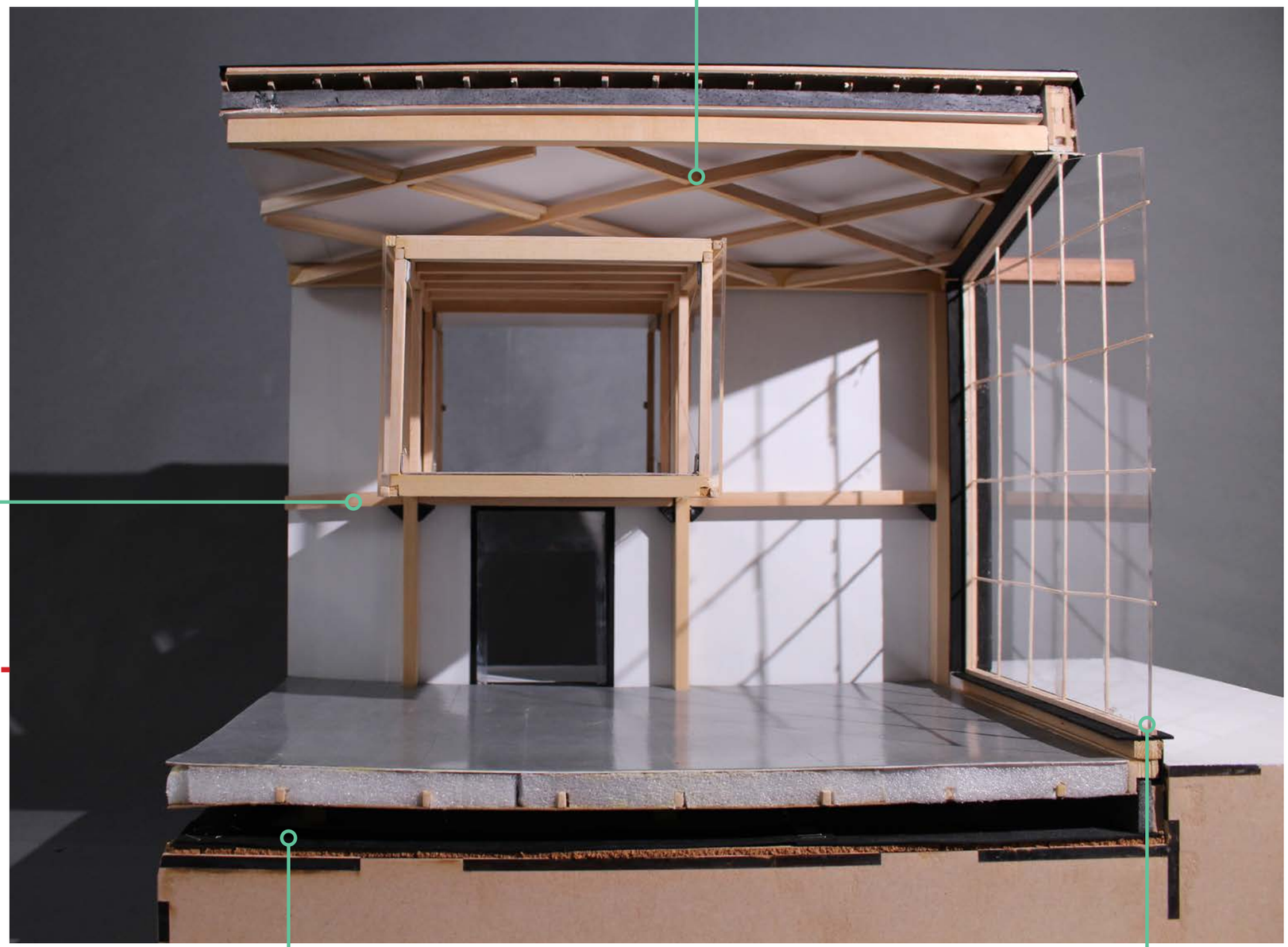
RESOLUTION: FINAL MODEL



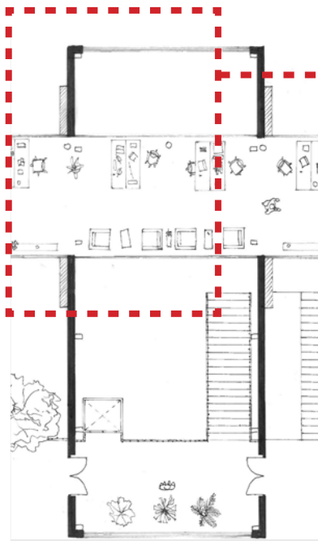
1:20 PHYSICAL MODEL

RESOLUTION: FINAL MODEL

Diagrid Timber Beam Structure



Skybridges' load is transfered to this beam then onto the timber colomn

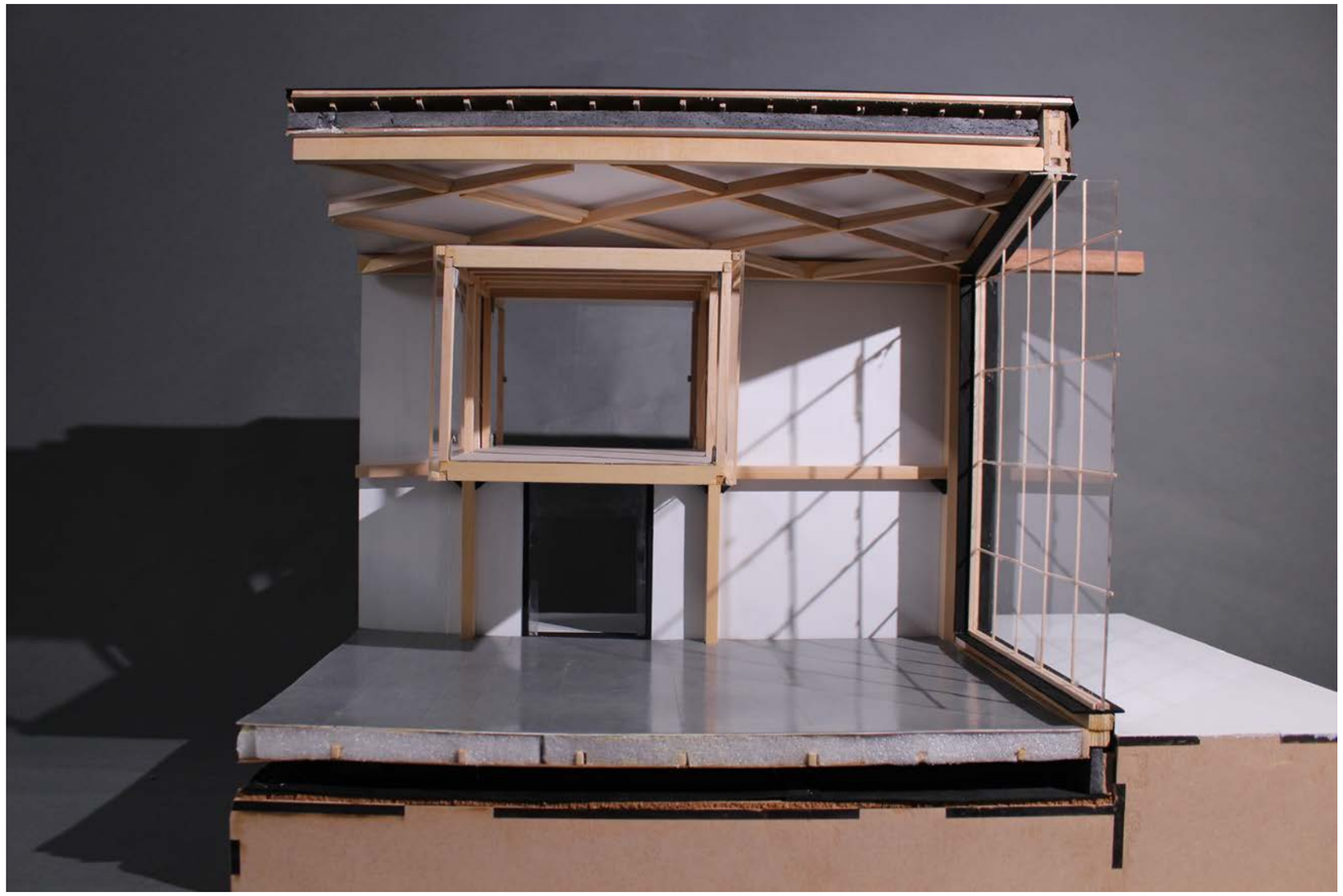


DPM and Aggregate

Triple glazzing curtain wall

RESOLUTION: ANIMATION

The roof and floor of the model is removable to allow inspection into the construction detail.



RESOLUTION: ANIMATION

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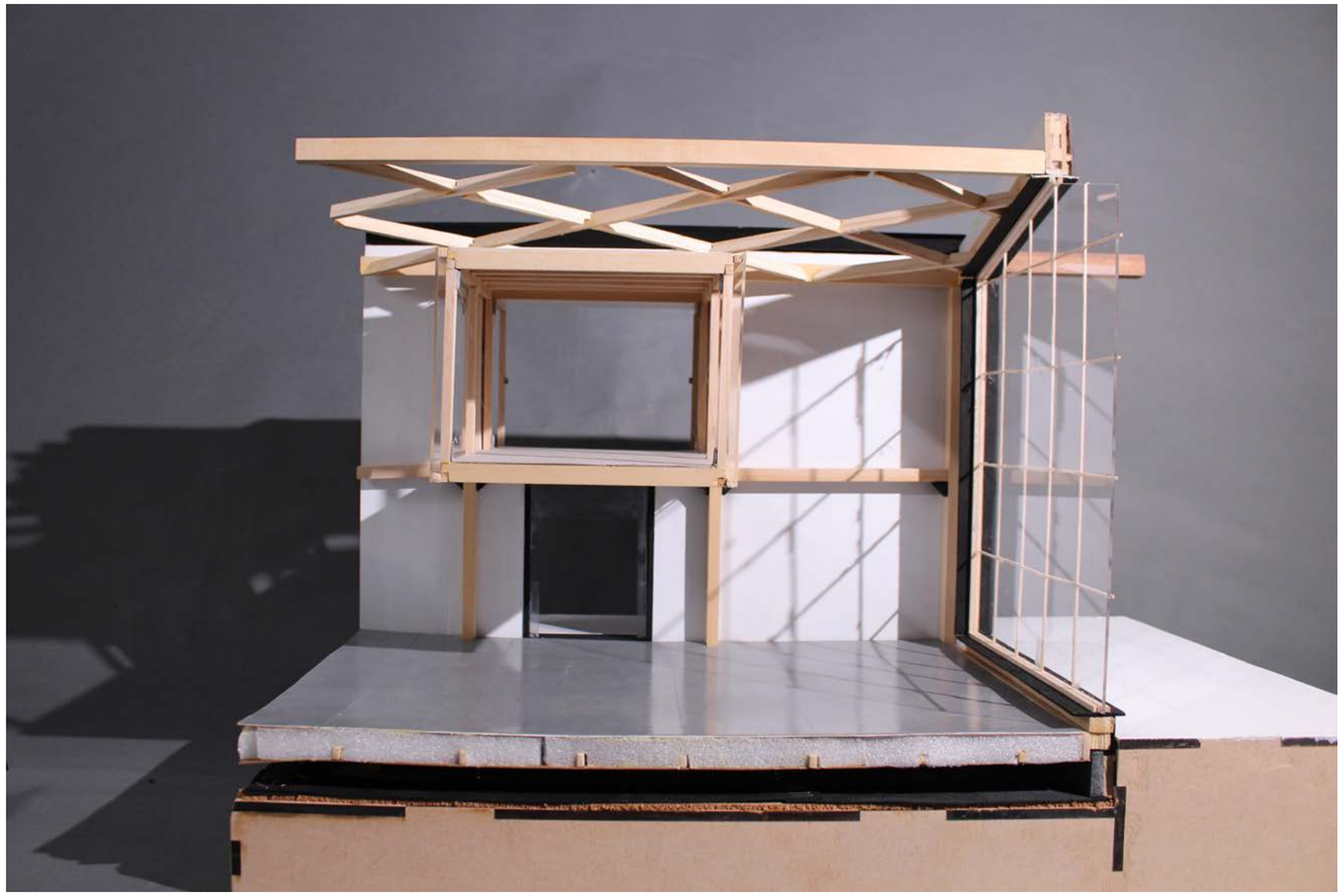
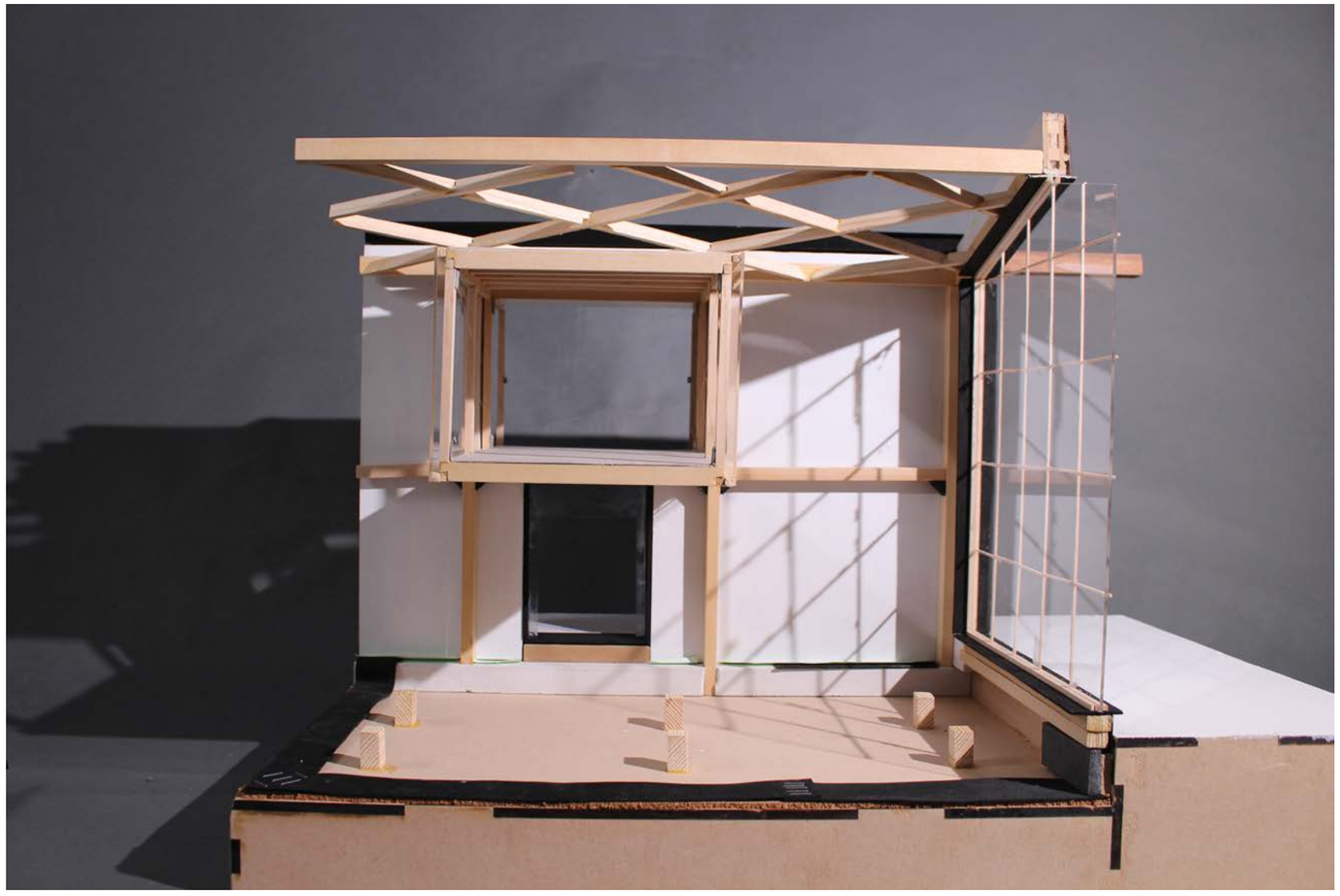


RESOLUTION: ANIMATION

The roof and floor of the model is removable to allow inspection into the construction detail.



RESOLUTION: ANIMATION

The roof and floor of the model is removable to allow inspection into the construction detail.

RESOLUTION: ANIMATION

The roof and floor of the model is removable to allow inspection into the construction detail.

RESOLUTION: ANIMATION

The roof and floor of the model is removable to allow inspection into the construction detail.

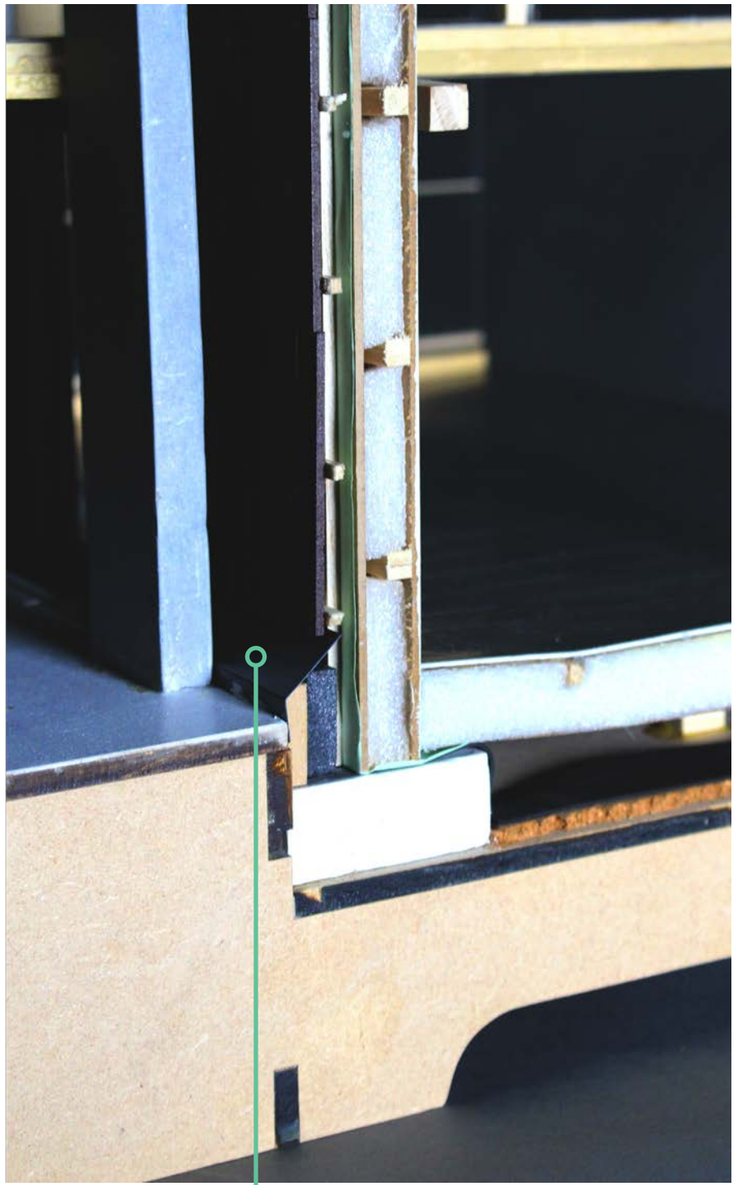
RESOLUTION: DETAILS

Activity in different floor level

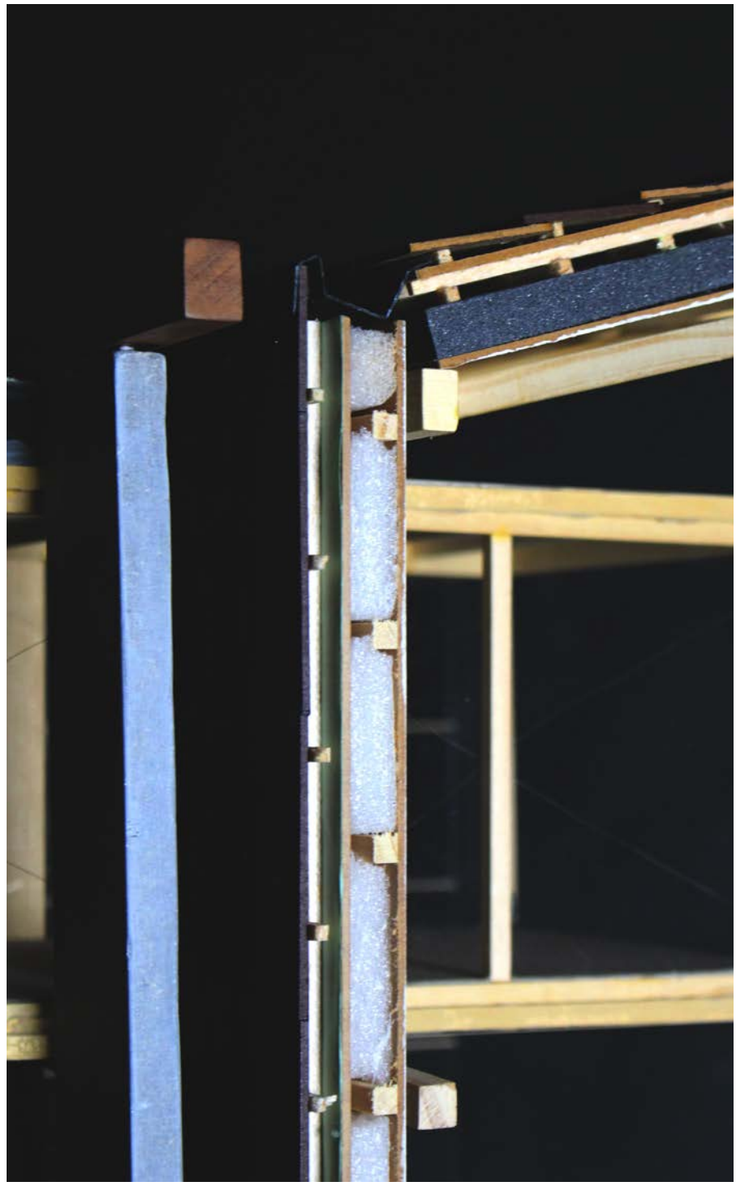
Greenroof to reduce sunlight radiation

Fully insulated skybridge.

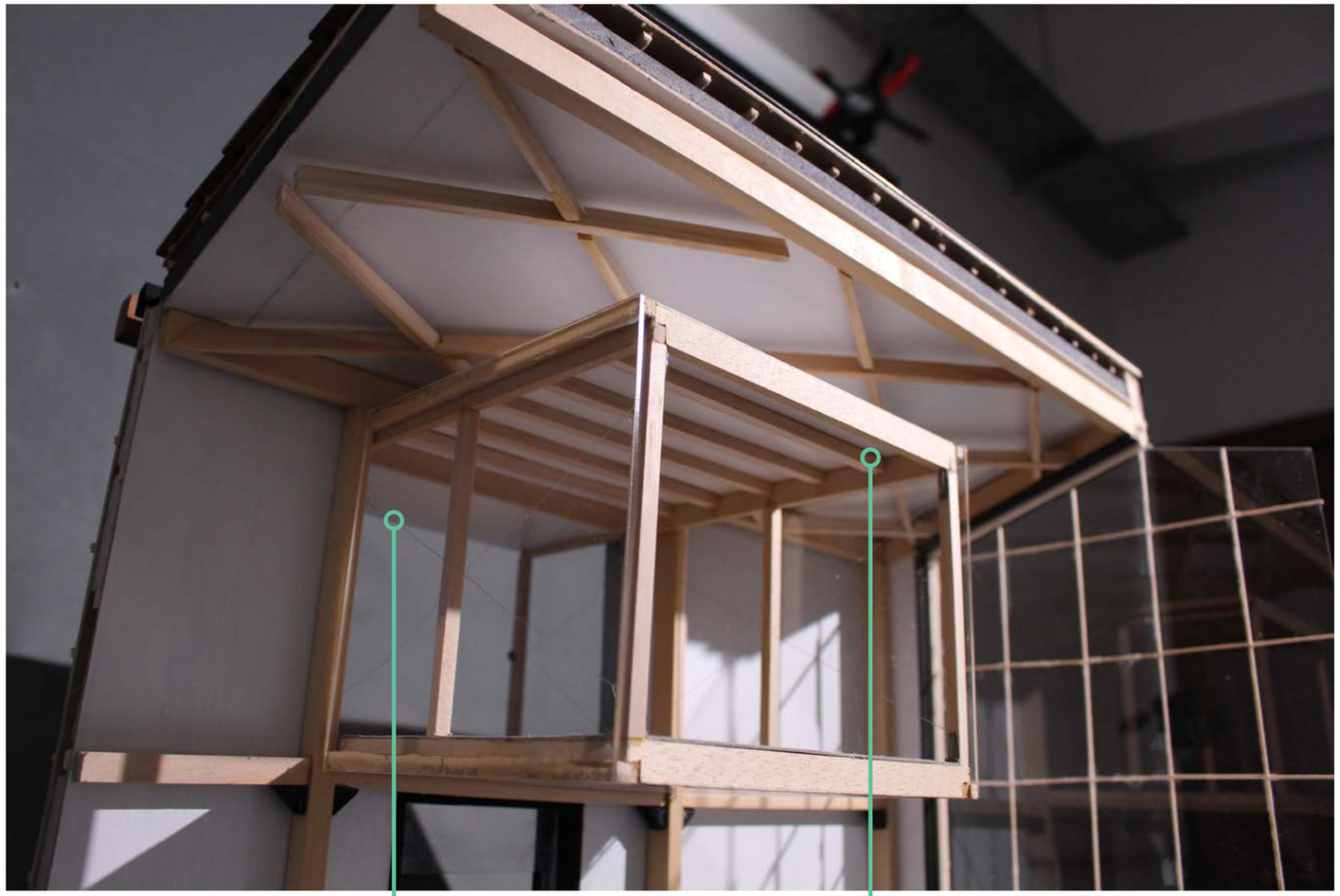
RESOLUTION: MODEL CONSTRUCTION DETAILS



Alluminium flasihng that goes under ground

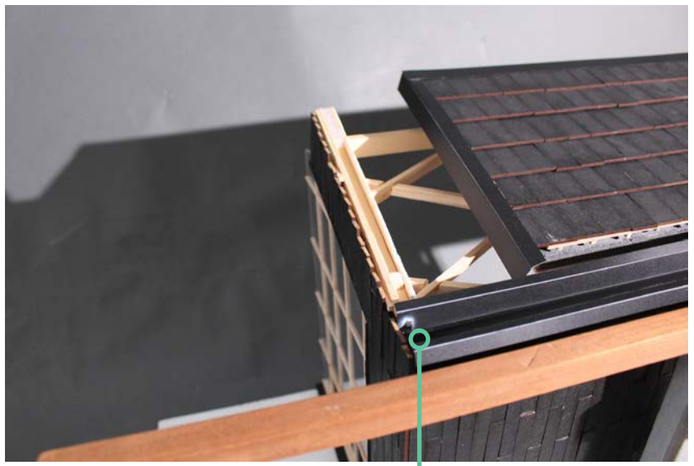


RESOLUTION: DETAILS



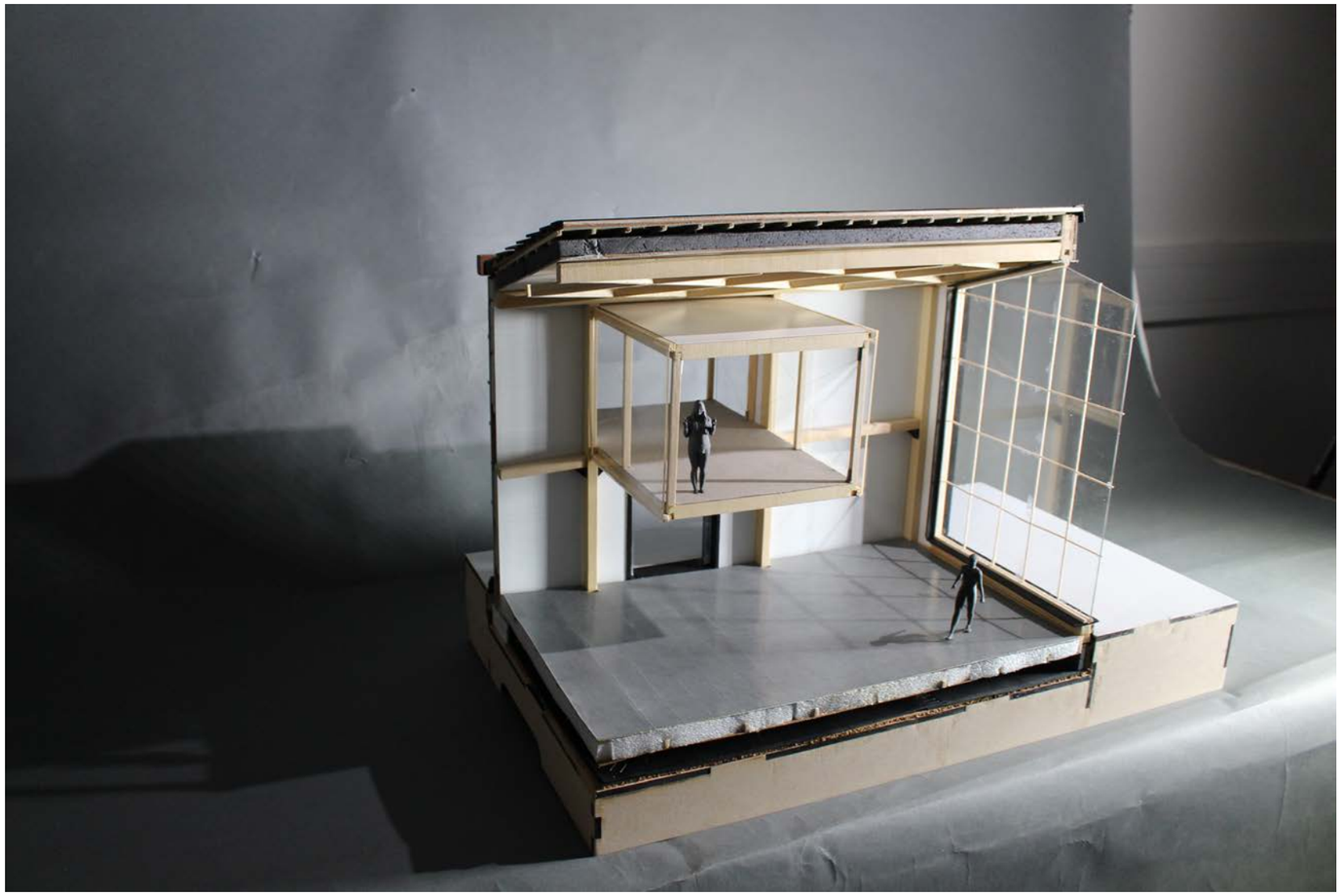
Steel robe bracing maintaining good structural performance on the skybridge

Only sound proofing layer present, no insulation is needed as the skybridge is contained within the cafe building



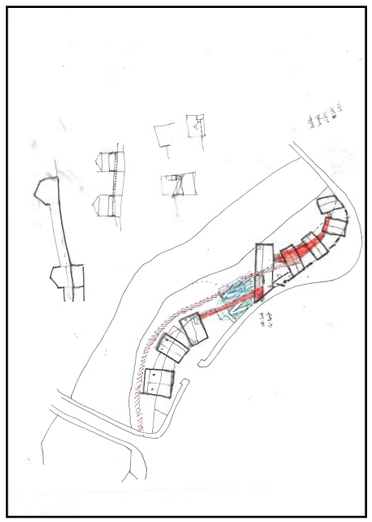
Invisible gutters is installed allows a sharper, smoother roof ending.

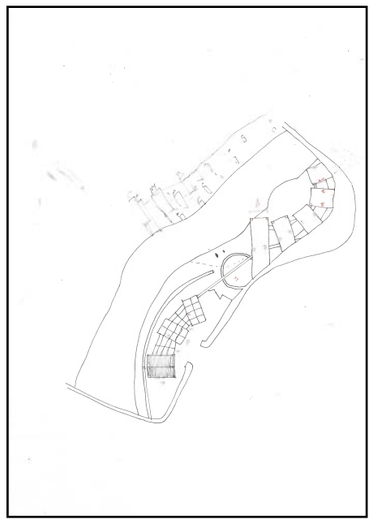
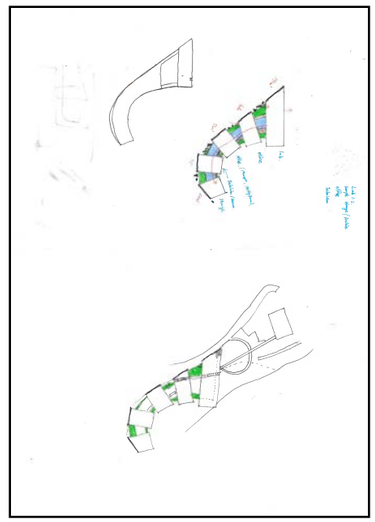
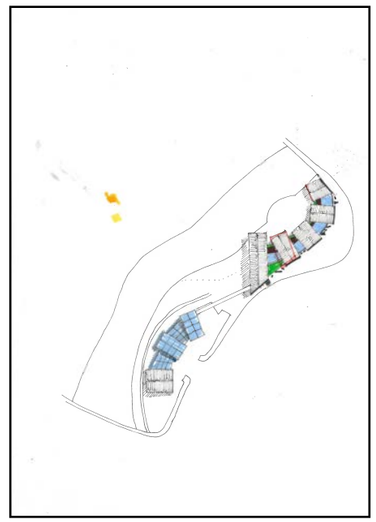
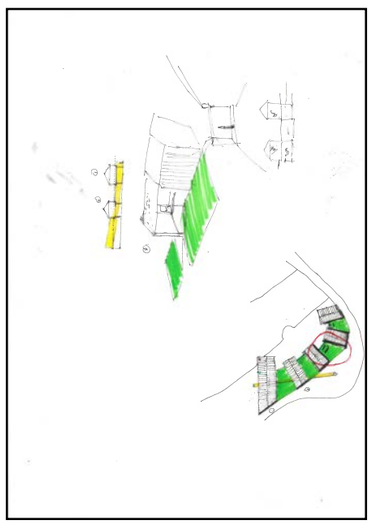
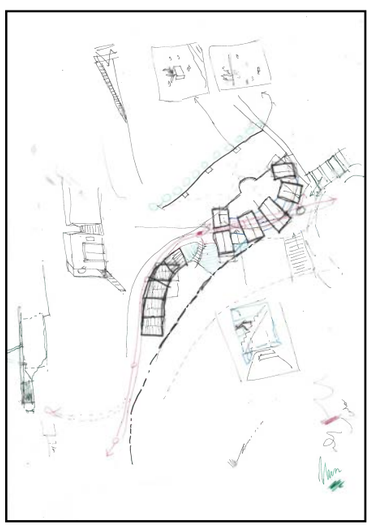
USER INTERACTION

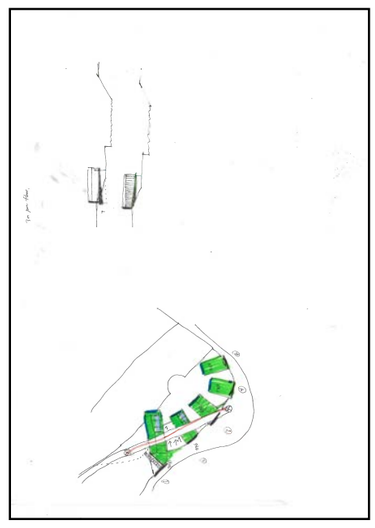
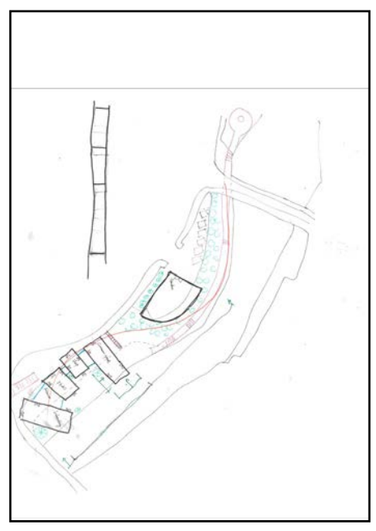


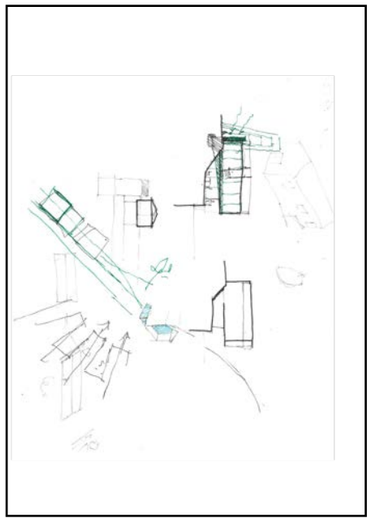
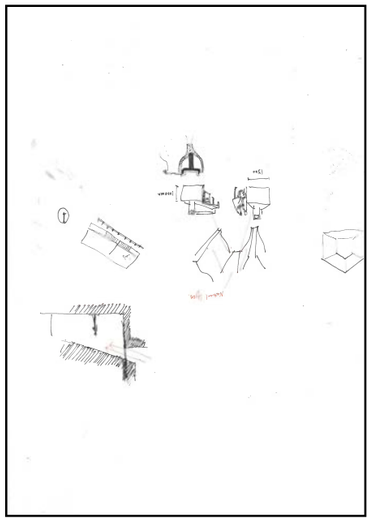
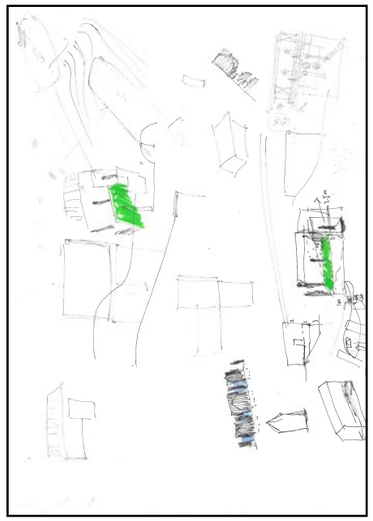
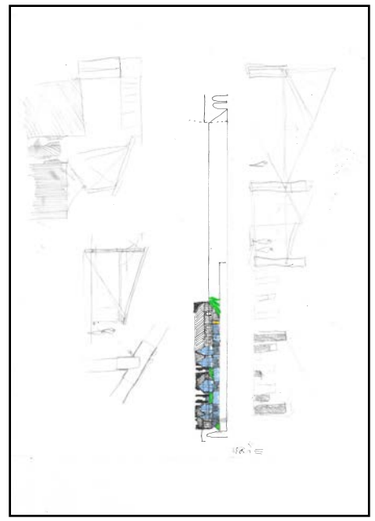
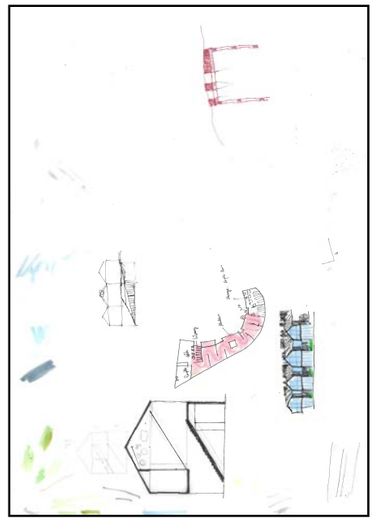
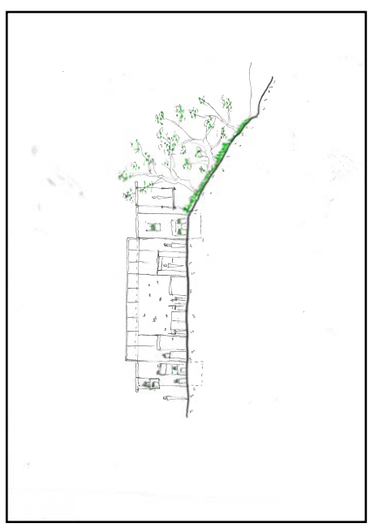
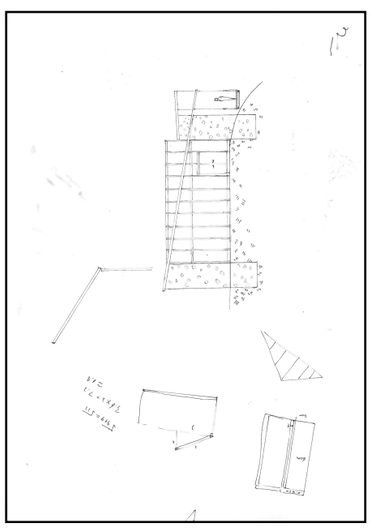
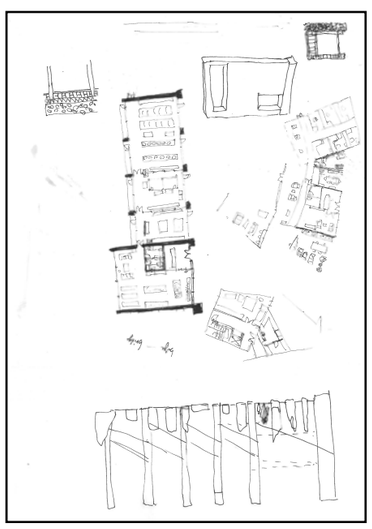
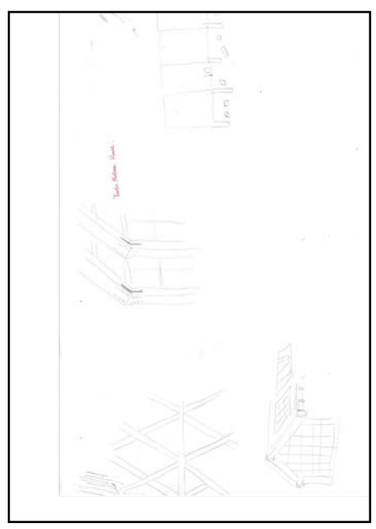
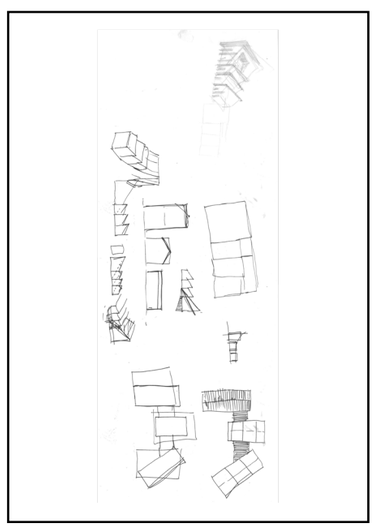
In conclusion, this model demonstrate the floor levels of my design and the interaction can be very interesting, the architectural space the skybridge cuts through the main building simbolizes bravery to break the wall and to be somthing different, be something unique.

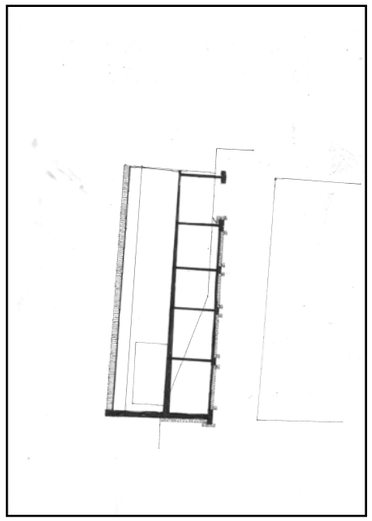
DESIGN JOURNAL

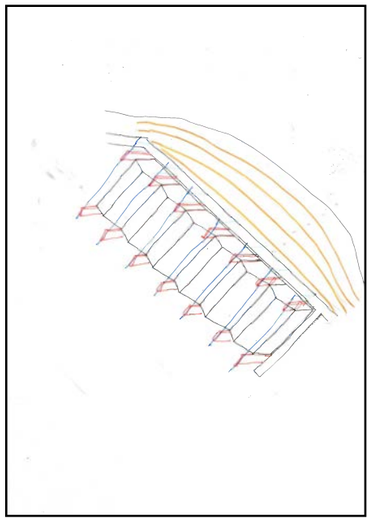


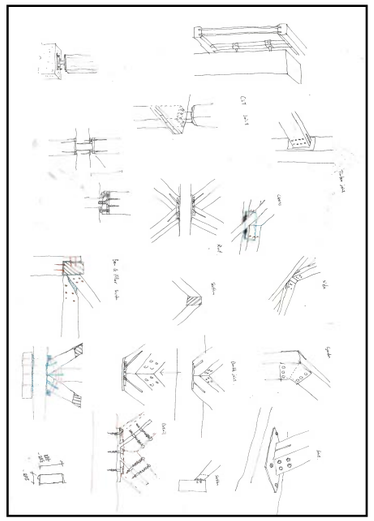






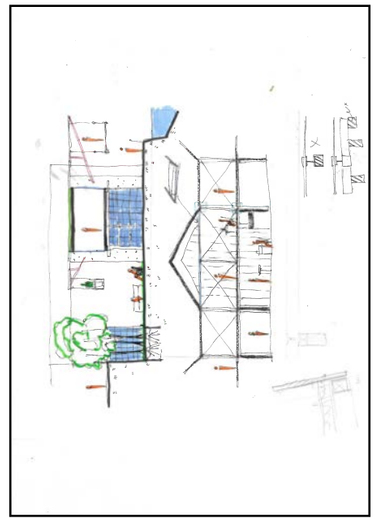



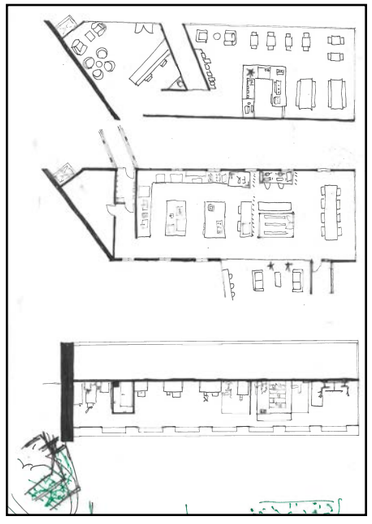











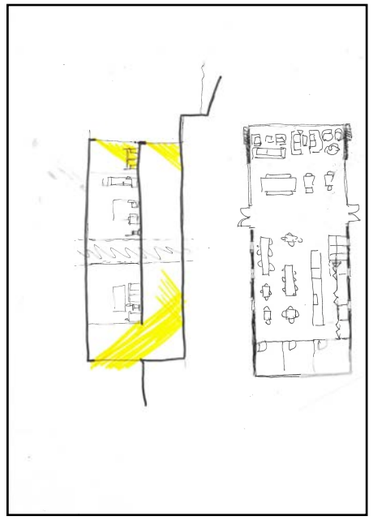


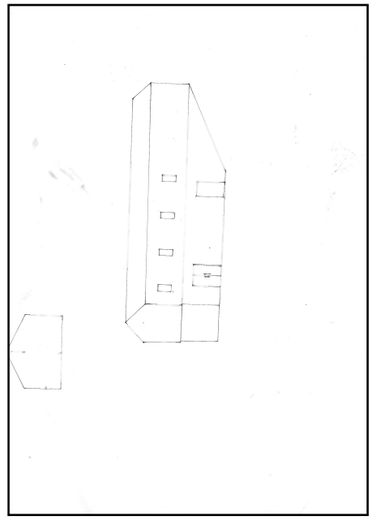


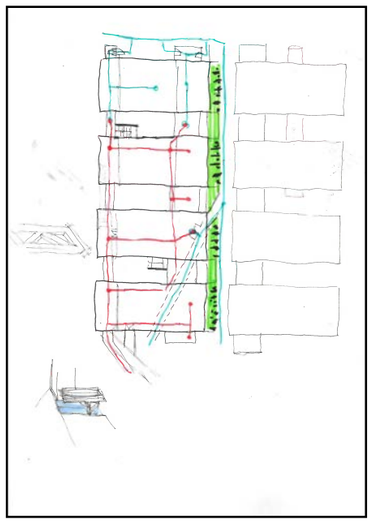


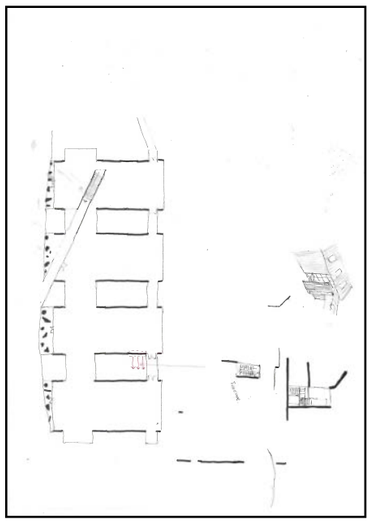


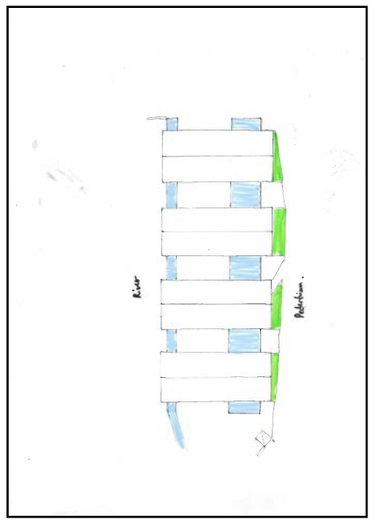


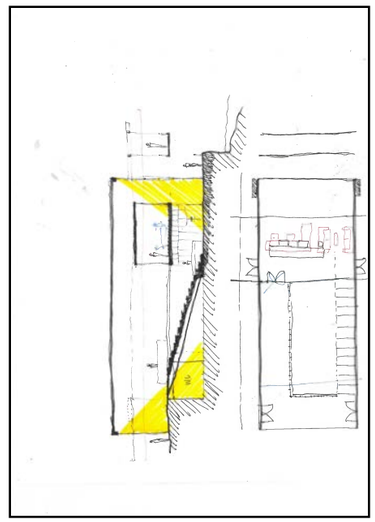


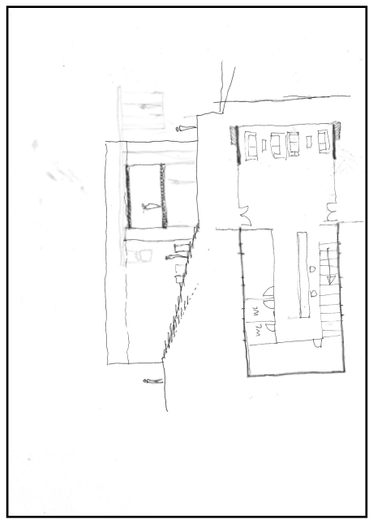


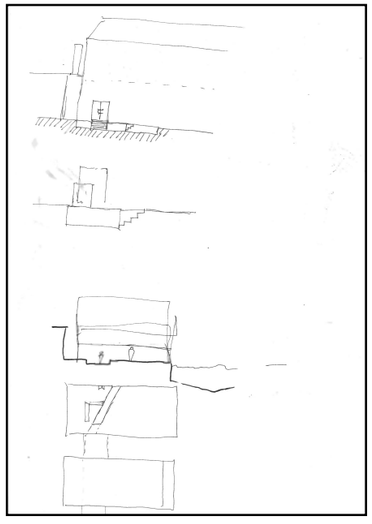


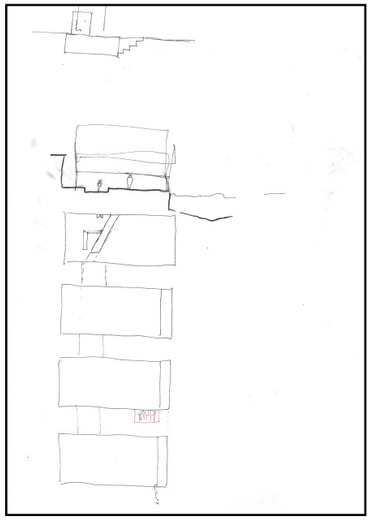


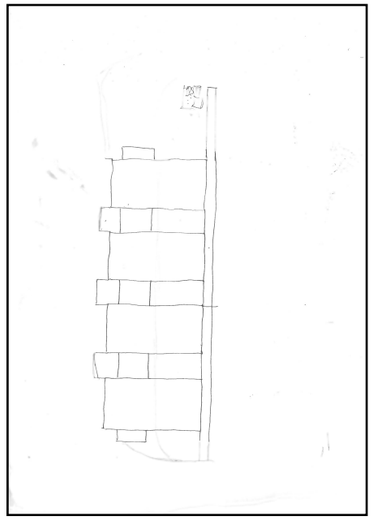

River
Pedestrian

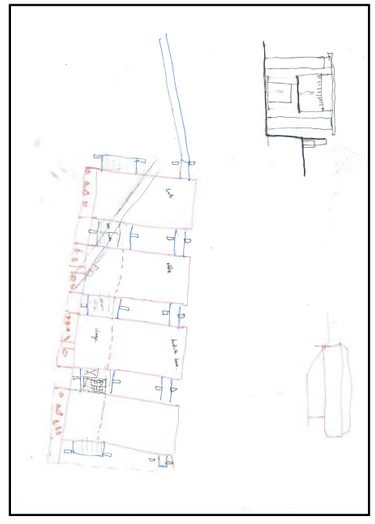


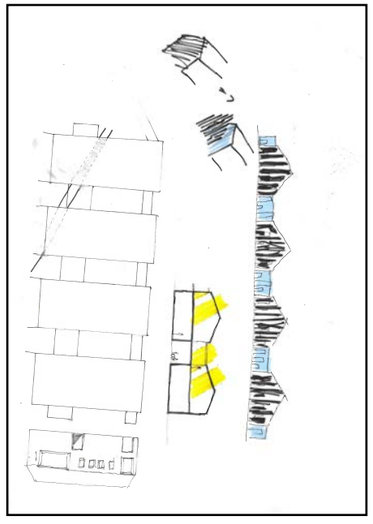


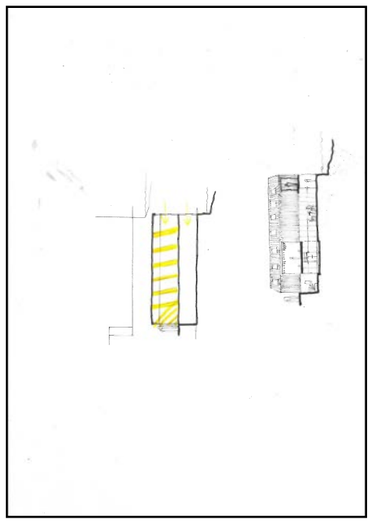


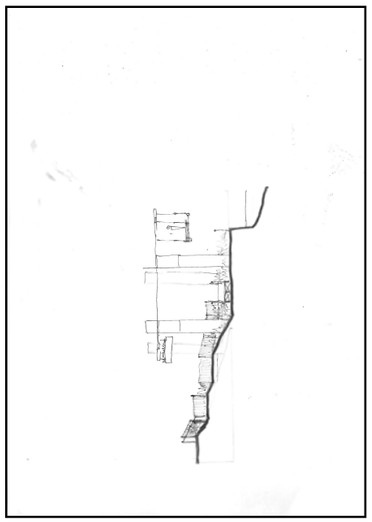


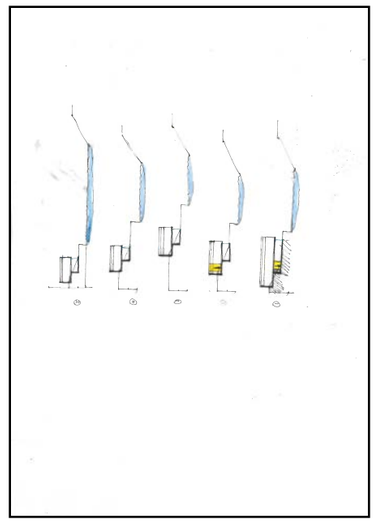


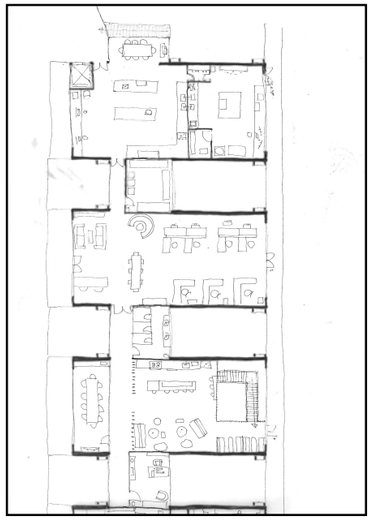


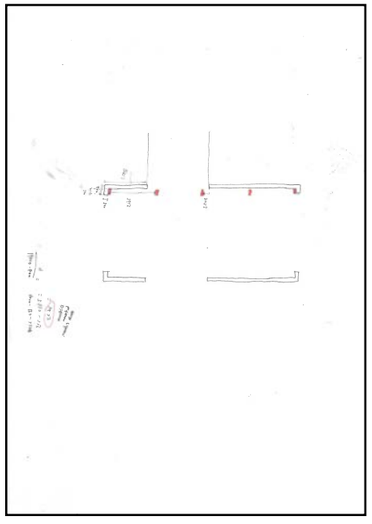


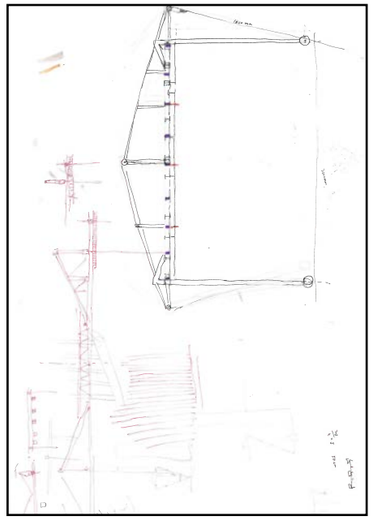


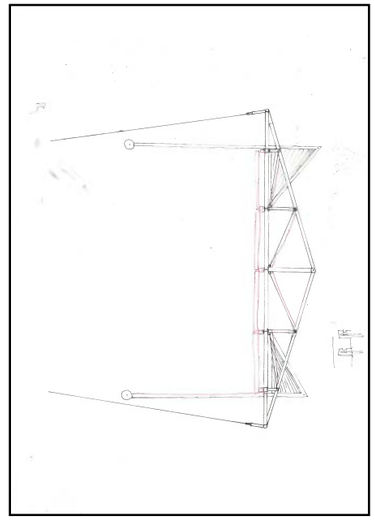


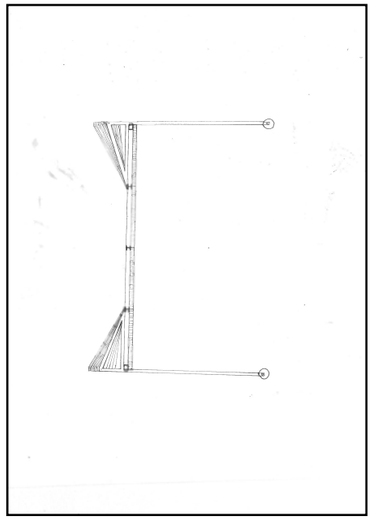


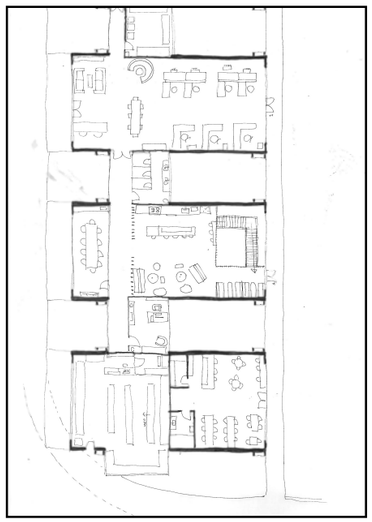


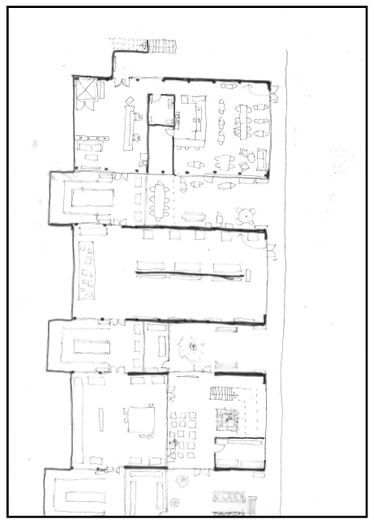
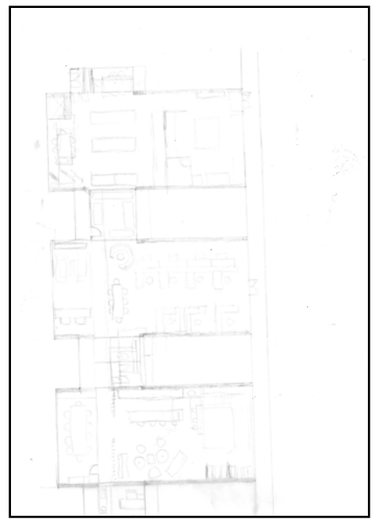
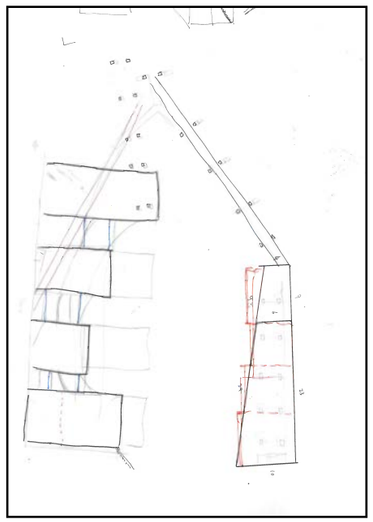


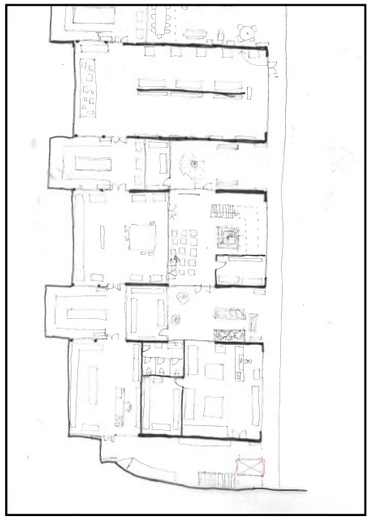
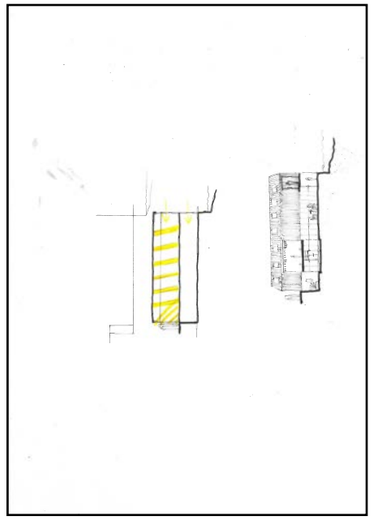
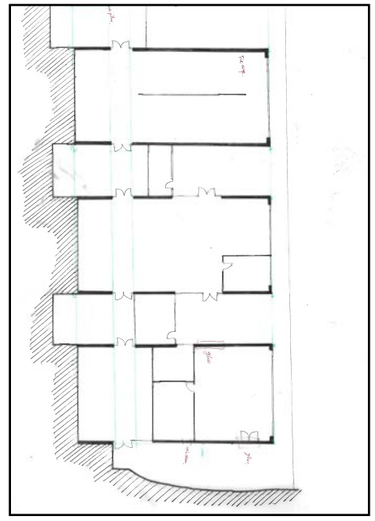
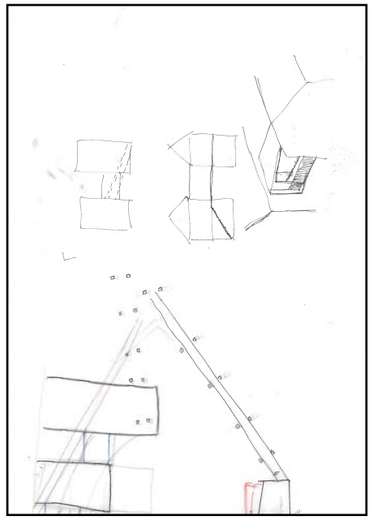


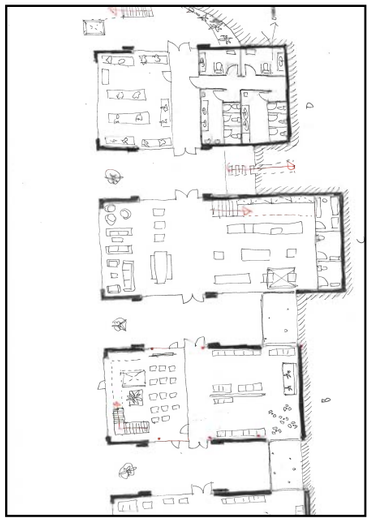


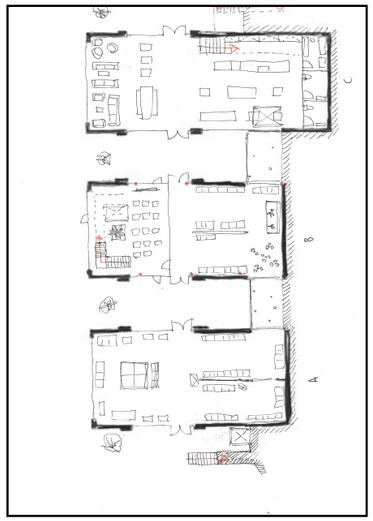


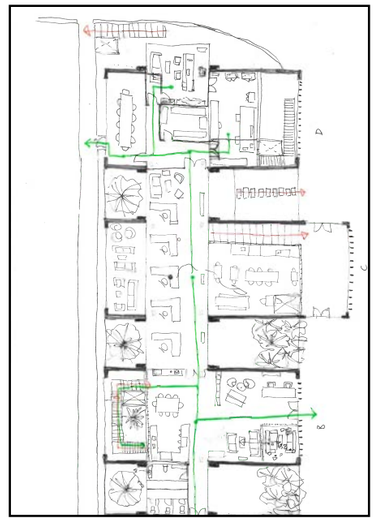


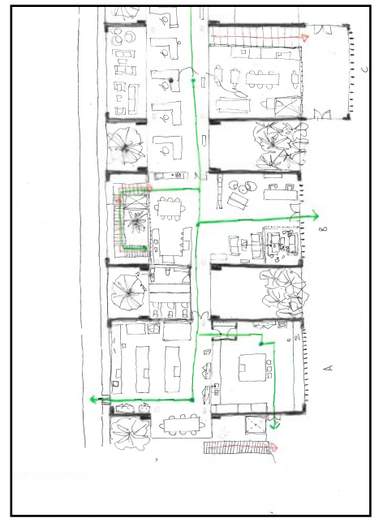












MSA LIVE: GROUP 22

BRIEF

SHOP Preston CIC serve as a backdrop of local activities, hosting various events including art exhibition, musical events or yoga session. the space demands multi use spce, so our task is to create a set of multi-functinal furniture allowing more functions in a 20m^2 space.

MSA LIVE:TEAM

Name: (from left to right)
Akhshay George Ninan (MArch1)
Alina Iskrytska (MArch1)
Charlotte Dunn (FDN)
Saul Bunyan (MArch1)
Da Lan (BA2)
Tomas Ford (BA1)
Alexander Da Cruz (BA2)
Orhan Can Bozyel (BA2)
Duru Doruk (BA1)
Gwyneth Chan (MArch1)
Shahd Alansari (MArch1)
Tze Kei Tan (BA1)

Absent from the picture:
Ella Painter (BA1)
Syed Nadif Zaheer (BA1)
Talia Guyll (BA2)

Countless ideas has been expored in both digital and physicalling modelling methods.

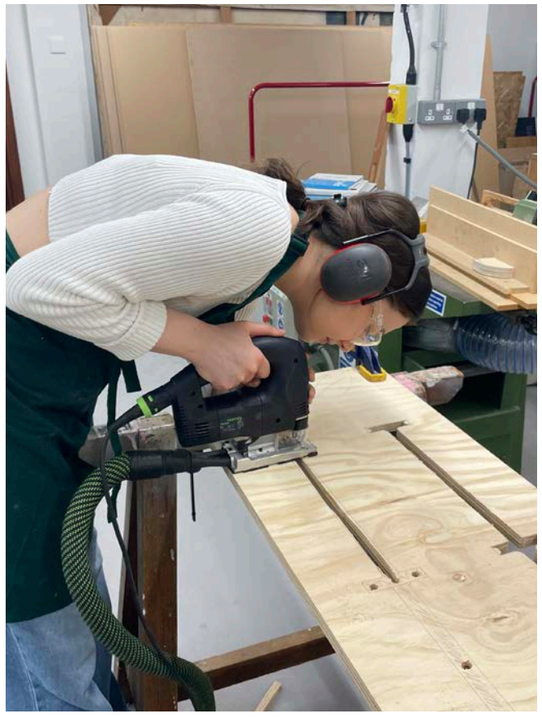
Final design chosen by the client (Rendered picture)

DESIGN

The design phase was splited into 3 days, first day every two people cames up with one design, then deisgn and designers are categorized toghether into small based on their similarity, and the next day each group comes up with a more refined, integrated design, so on so forth.

the final day we delivered the final design to the client along with optional design and they were happy about it.

MSA LIVE: WEEK 2 - MAKE

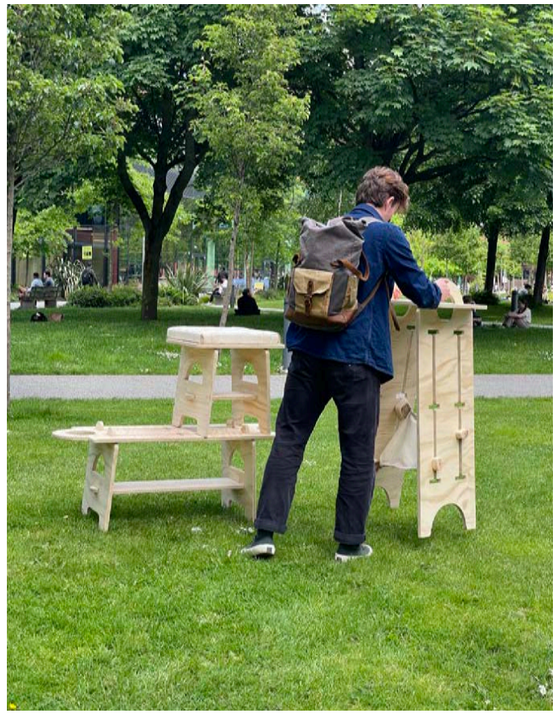


PROCESS

Material were processed in B15 workshop, to make each piece into the shape we want we have to cut out slots in on the wood plants.

ADJUST

After the 1st stage wood planks are humanly adjusted to the exact shape to allow maximum performance. more detailed stuffs are added on aswell including squizzable nots which clamps bandage.



ASSAMBLY

When everything were make perfectly, assambly takes less than a minutes, photograph shooting was taken shoon after.

MSA LIVE: WEEK 2 - FINAL OUTCOME

THE END