

CHAPTER I

ASCENDING LEVELS

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Chalmers University of Technology



THIS IS US

Elsa Jansson

I see this course as a chance to explore and challenge what we as architects define urban planning to be. My goal is to hopefully create something new that can still be connected to what is today and let myself be creative.

Julianna Smith

My approach towards this design challenge is to explore knowledge, development and skills through design in different scales. To be able to view the minor consequences and challenges within the bigger picture. My aim is to let my creativity free whilst adapting my own touch to the design work.

Lionel Torres

Olle Bergström

Could we rethink the way we look upon cities and how we interact within them? Whether it is small details, a facade or plaza, large connections where people meet bus, bike or car, they all define the places around us. I intend to challenge these places and form new ideas from which cities could build upon.

BACK TO NATURE

I love to dwell in forest wild,
Where giant pine trees pierce the sky;
A beauty spot where Nature smiled,
A fitting place to live and die.

- E. F. Hayward

PART I HUMANS, NATURE & WATER

Today's urban planning is all about the humans. It is made by and for people. In the world, and especially in Gothenburg, nature is making itself noticeable more and more between these human structures through the increased amount of water entering both from the river and from the sky. Can we as architects create a city that is not only planned for humans, but for nature and water aswell? Can we let humans live in nature, in the "natural" landscape, once again?

Chapter 1 aims to introduce hydrosocial systems we have established to deal with water overflow and flooding in Gothenburg. 3 different existing systems inspired us: water terraces, veins and the levelled system within the rainforest.

WHAT INSPIRES US?
SYSTEM OF SUBAK & WATER TERRASSES



Ricefields in Bali

Subak is an ancient irrigation system, developed in Bali during the 9th century. The system consists of five terraced rice fields and water temples covering nearly 20 000 hectares. The water is used to construct a complex, pulsed artificial ecosystem.

We are inspired by the system of slowing down the water flow and directing the water as well as adapting it to farming purposes.



Pongour falls in Vietnam

The Pongour falls in Vietnam demonstrates the difference in water mass while rainy periods contra dry. This, more natural system, exposes how the water chooses its way down through the falls. The transparency of water mass is a system we want to use and adapt to our terrain.



Pongour falls in Vietnam



Interpreted sketch of system

In conclusion, the terraces let people work with water as it finds its natural way down in the most effective path. Using it for irrigation can even make the water at the bottom cleaner where it's then given back to nature.

WHAT INSPIRES US?
SYSTEM OF VEINS - HORIZONTAL & VERTICAL



River Aire by Georges Descombes and Atelier Descombes & Rampini

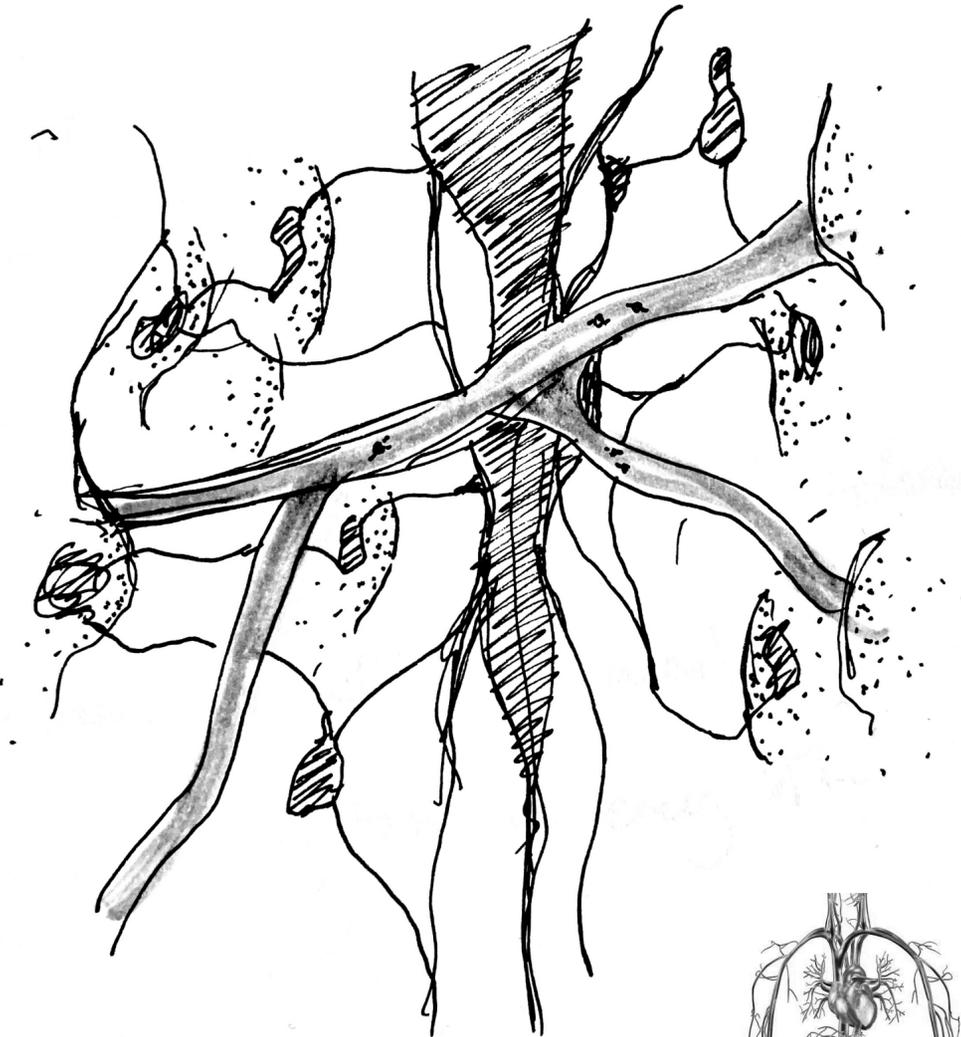
The project River Aire, 2017, aimed to redirect the river in order to create public spaces as well as slowing down the water stream and in that way taking control over the water flow.



The project in Yanweizhou Park by Turenscape became an inspiration in the way that the horizontal bridges are always accessible even though the area floods vertically. This creates a system between vertical and horizontal elements.

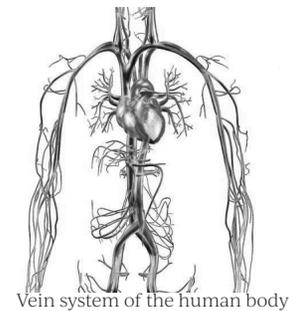


Yanweizhou Park by Turenscape



Interpreted sketch

In conclusion, the proposed water system may relate to the system of veins within the human body. Controlling the water ways by leading it through streams downhill to become hydrosocial attractions.



Vein system of the human body

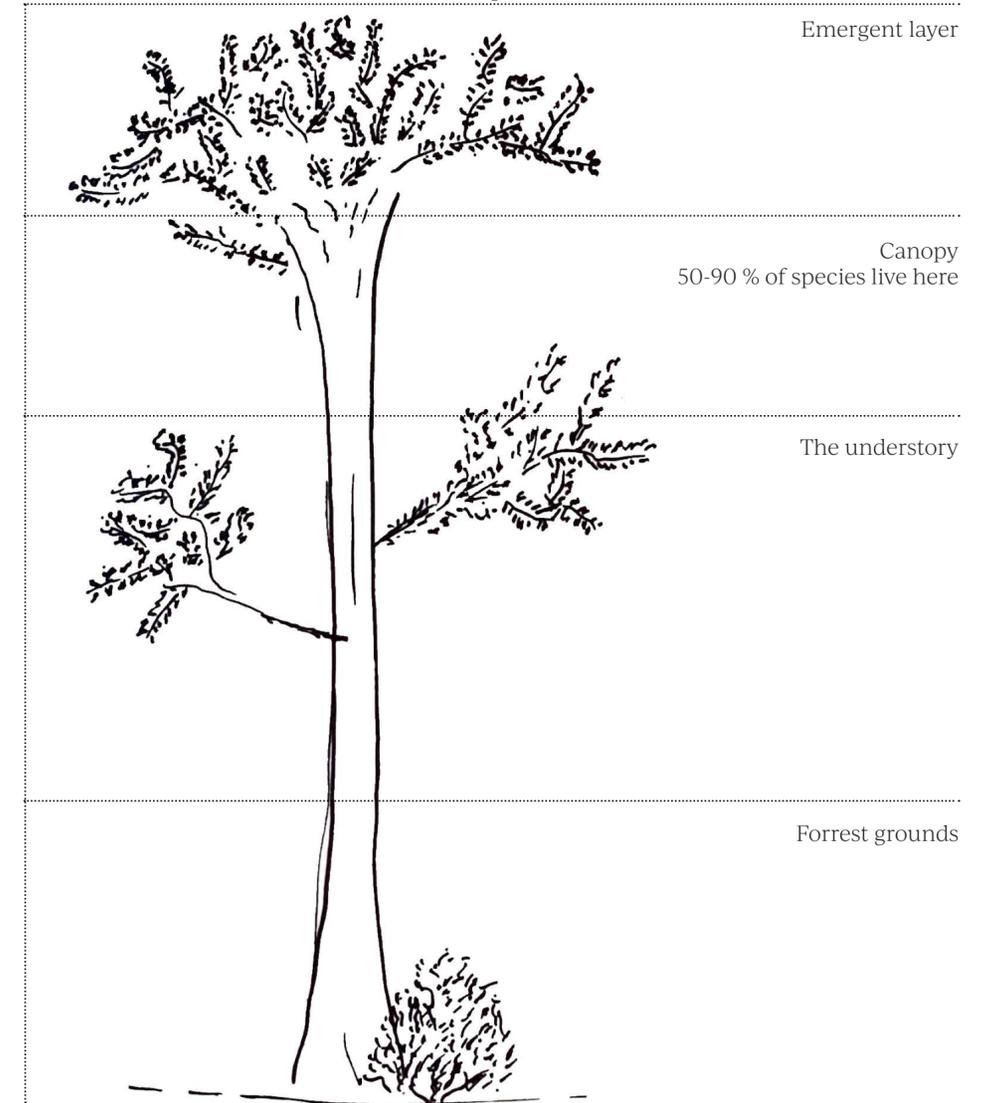
WHAT INSPIRES US?
SYSTEM OF RAINFOREST LEVELS



Amazon rainforest

A natural system within the rainforest is that it is divided into different levels vertically - every level suitable for different species. This type of natural system is something we want to adapt to our terrain - the aim is to create different climates within the verticality of our terrain.

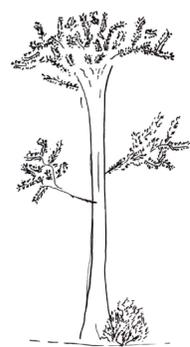
The tallest rainforest tree (Borneo) is 100m high



Interpreted sketch of rainforest levels

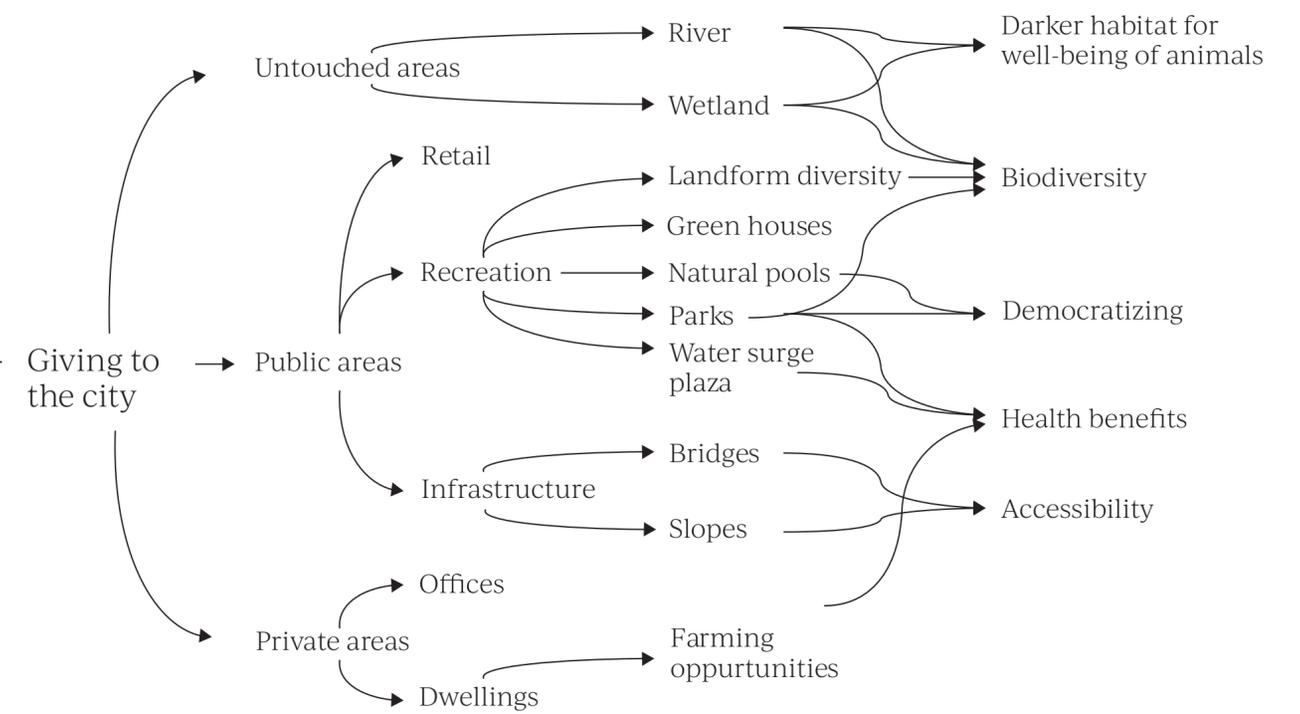
In conclusion, the different levels vertically can give and let us create different conditions. Levels can be more or less private, more or less

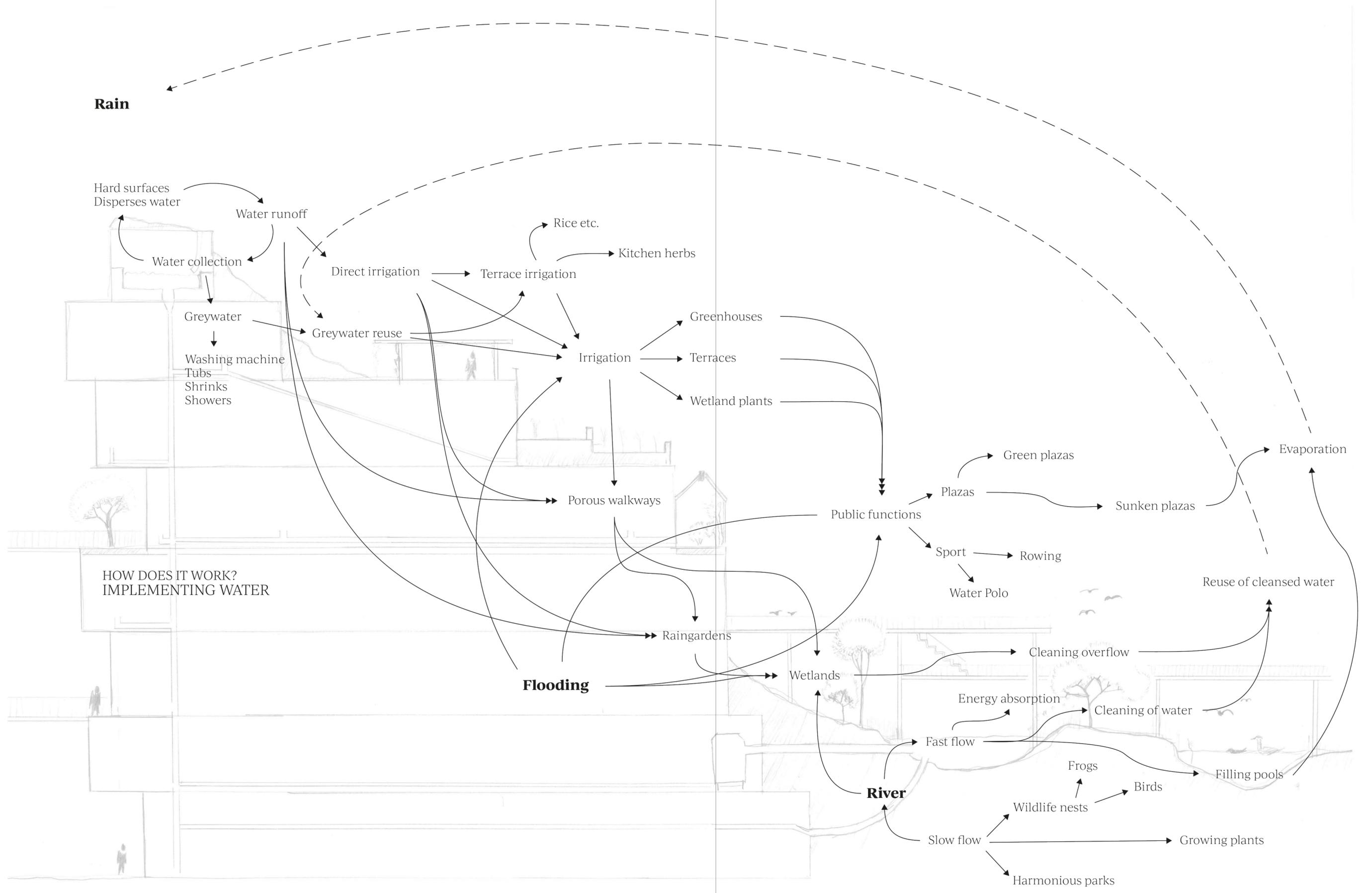
HOW DOES IT WORK?
SYSTEM DIAGRAM WIDER CONTEXT



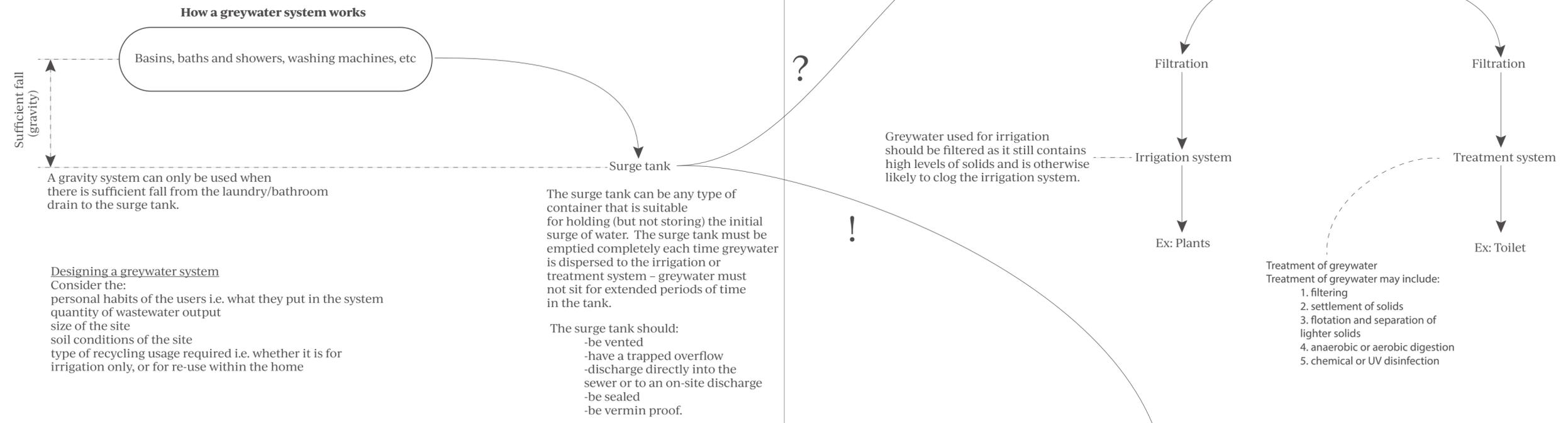
Interpreted sketches of water systems

These three hydrosocial systems can together contribute to the city in many different ways.

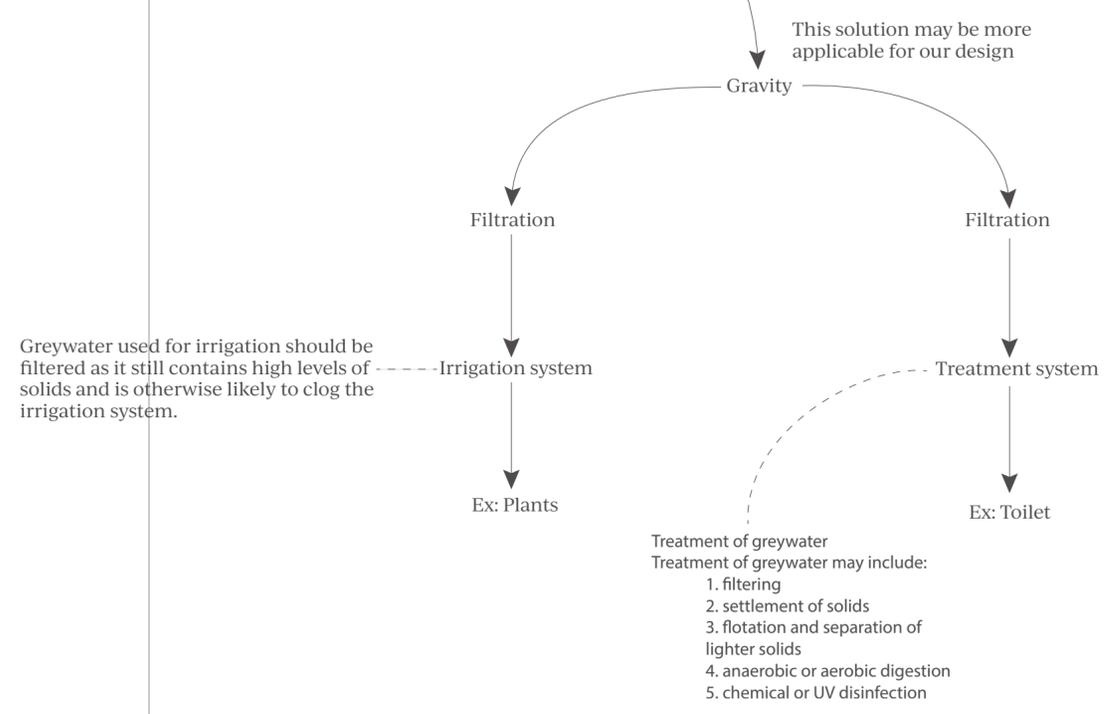




HOW DOES IT WORK?
IMPLEMENTING WATER



HOW DOES IT WORK?
POTENTIAL GREYWATER REUSE

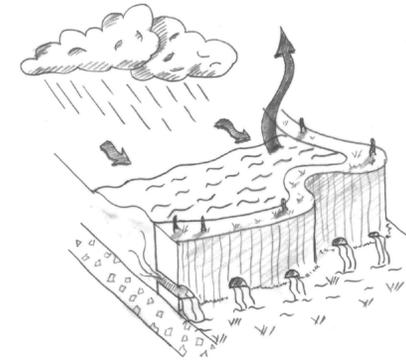


HOW DOES IT WORK?
A FILTERING WATER SYSTEM



Hydrosocial Construction, Mizubune (Riverwater Collection), Gujo Hachiman, Japan

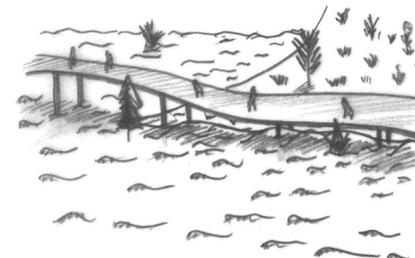
The hydrosocial water system is inspired by using filtering of water. This reference of a simple construction for doing dishes in Japan we see as a feasible reference as a small scale project. We aim to adapt a simialr solution to our larger scale project.



Capturing rainwater within pools or reservoirs in order to slow down waterflow and make use of rainwater.



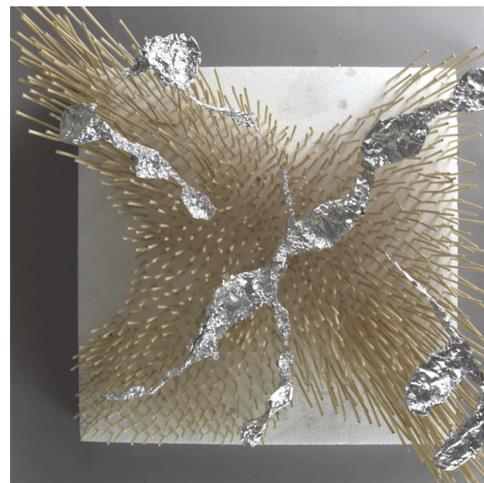
Another part of the system is related to the rainforest. Creating a horizontal public access that will be accessible even when flooding of the area.



Sketch of water system

The system of wetlands creating a natural barrier for flooding and increasing greenery on site.

CAN IT WORK?
SYSTEM/CONCEPT MODEL 1:1000



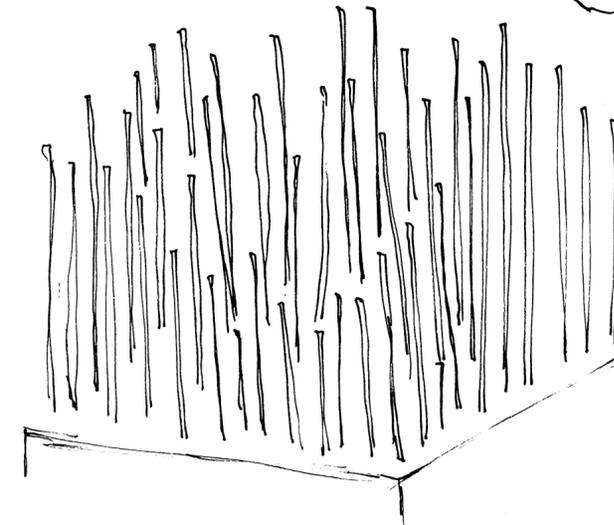
Model test of water system

Interpreted water pattern

The purpose of this model was to explore and illustrate water-ways and behaviour. After testing the model using a plastic bag and pouring water over it, we managed to illustrate the water ways using tinfoil.

Similar to the Subak - paths are created for the water to travel through in order to control pace and direction.

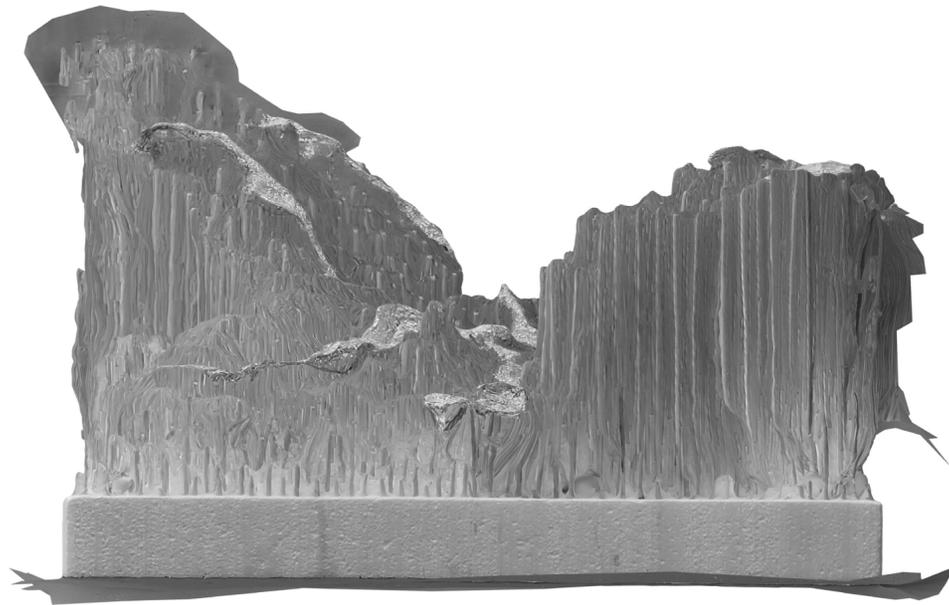
Size of terraces as well as direction and water pace will be controlled by the terrain.



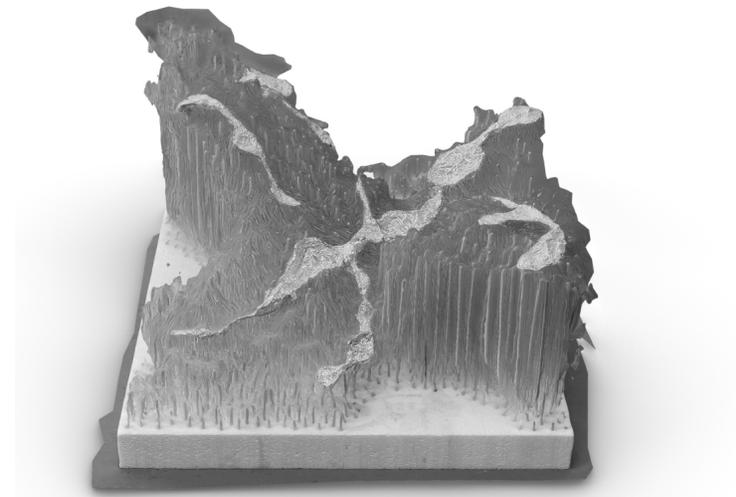
Exploded sketch of water system concept

CAN IT WORK?
DIGITAL VERSION OF SYSTEM/CONCEPT MODEL

Testing the method of photogramming our model to potentially use it in a future phase of terrain exploration.



Photogrammatic version of physical model



Photogrammatic version of physical model

PART I CONCLUSION

Through inspiration from existing hydrosocial systems, humans, nature and water can live more harmoniously than we are today.

Our three main water systems are:

- The use of levels in life and water-collecting similar to the rainforest.
- The running water flows (and pathways) acting in a vein-like pattern.
- The terraces affecting the speed of water flows.

The scheme aims to make use of the rainwater and greywater on our future site as well as deciding what activity can occur on what level. By doing so, the system may contribute to the whole of Gothenburg in terms of water management. Furthermore, contribute to a local system within our site boundaries where the water can be used, for example, as a source for watering farmland, create social swimming pools and ponds within public parks.

PART II NOT ONLY ABSTRACT

When discussing harmony between humans, nature and water we must dare to take the leap from theoretical into practical by existing in a real context.

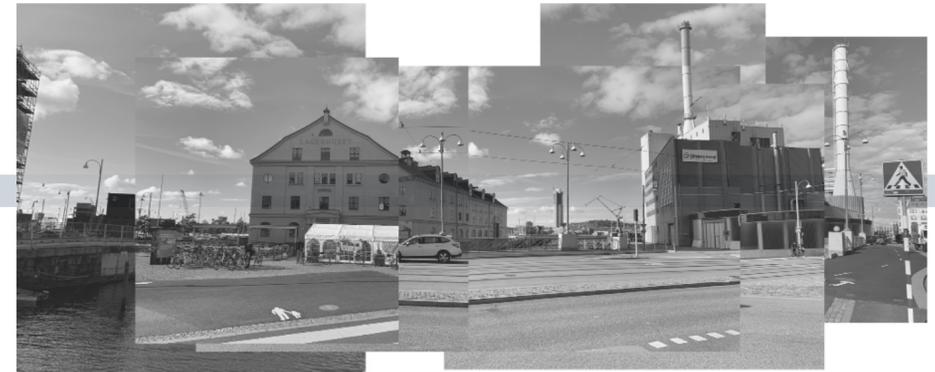
Part 2 aims to explain and explore our given site for the project. The site is located in outflow by the coastline of Gothenburg. A relevant fact about the area is that it is predicted to be severely affected by flooding due to climate change in the next 100-150 years. This relates well to our scheme to deal with the increased water levels and rainwater increase.

WHERE ARE WE?
THE SITE PUSTERVIK

The area plays a key role in Gothenburg regarding culture, history and communication. Järntorget is one of the bigger travelling centres in the city.



Airview of Pustervik area



Montage of outlet area

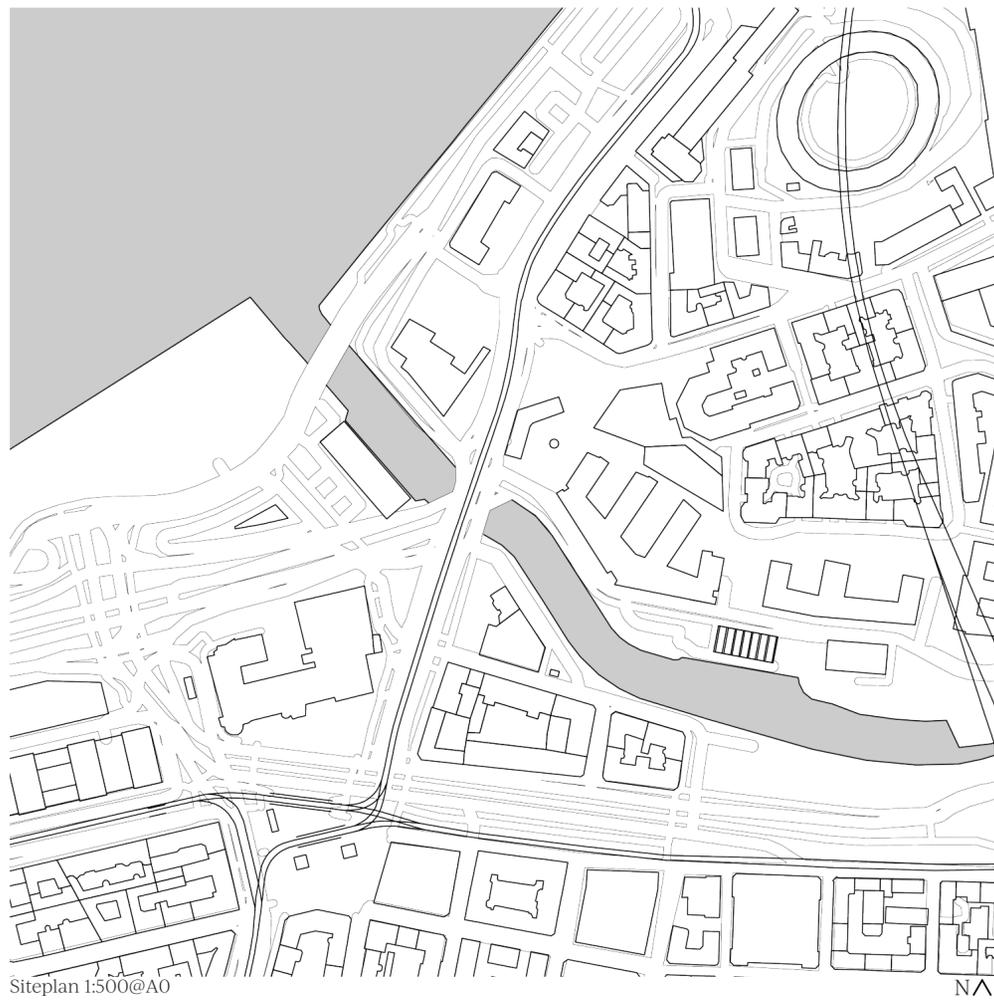


Montage of Esperantoplatsen



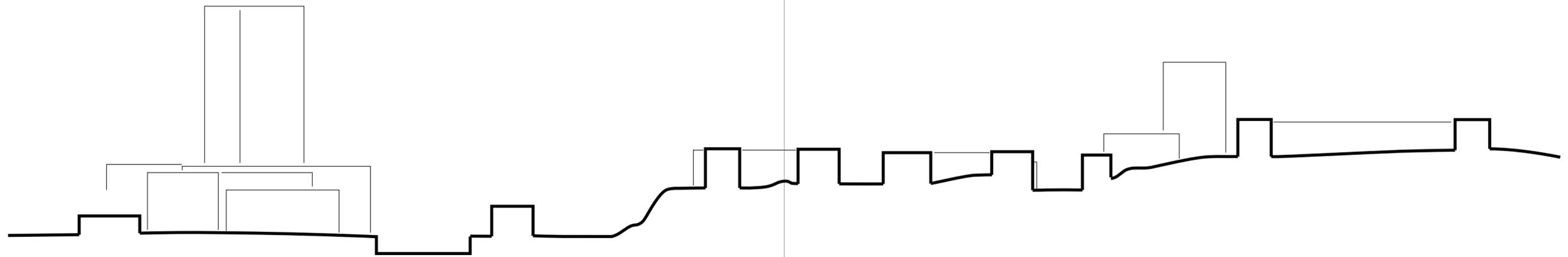
Montage of pedestrian connection

WHERE ARE WE?
THE SITE PUSTERVIK



Exploded siteplan

WHERE ARE WE?
THE SITE PUSTERVIK



Site section 1:500@A0

WHERE ARE WE?
HISTORICAL ASPECTS

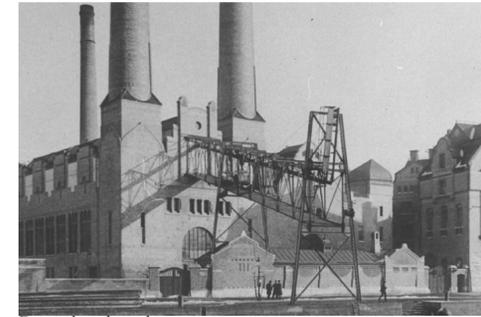
Pustervik has been an important spot for trade, especially with for the fishin industry. Feskekörka was built 1874 in order to provide a space for the ongoing business.

Typology-wise the area was wetland until ca 1850 when the Pustervik block was drained and built upon.

Conservation-program:
Valuable environments 1985: the whole area.
Conservation program 1987: the western part.
Protection according to NRL ch. 2 National interest: the entire area.
Protection according to KML ch. 2 Antiquities: the whole area.



Historical and contemporary map of Pustervik



Rosenlundsverken



Feskekörka



Järntorget



Esperantoplatsen



Draken

1. Rosenlundsverken
The industry started in 1845 as a gas industry but since 1952 the purpose of it has changed to produce district heating by burning waste materials. It has been discussed lately if the building should be torned down in order to reach a climate neutral Gothenburg by 2025.

2. Feskekörka
The building has historical value due to it providing roof for the fish-market by the canal.

3. Järntorget
The square got its name in 1867 and was by then a central location for the city's iron scales, with great importance for Swedish exports of wood and iron.

4. Esperantoplatsen
The area got named in 1954 on the initiative of the city's Esperanto clubs. Historically, the place was occupied by the textile industry in Gothenburg. Since 1954 the premises have been occupied for cultural purposes and lgbtq-movements.

5. Draken
The cinema Draken was inaugurated in 1956 and became a part of "Folkets Hus" which is a gathering place for encouraging and maintaining a public culture within Gothenburg.

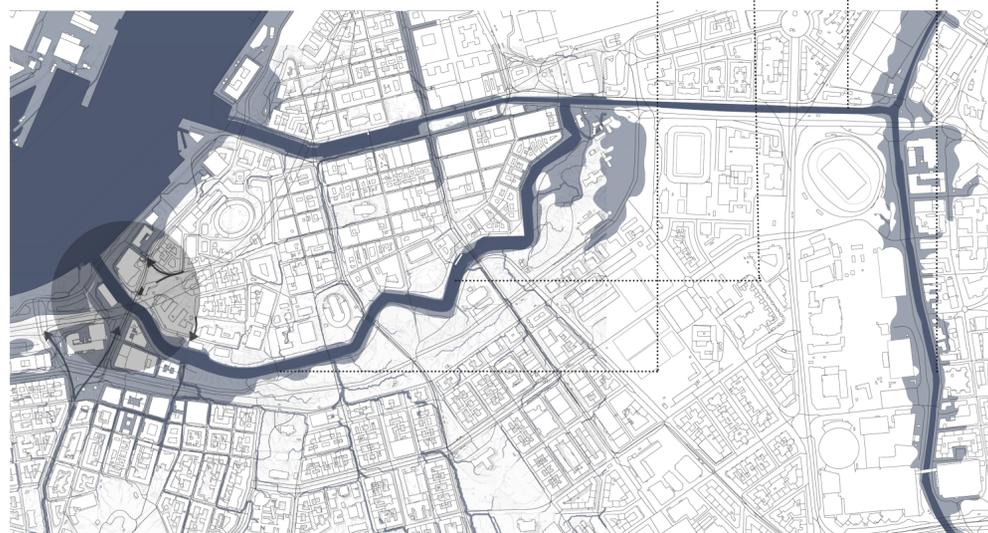
HOW'S THE WEATHER? RAINWATER & FLOODING RISKS

Gothenburg is currently working at solutions for flooding and dealing with increasing rainwater mass in results of climate change. There is a program suggesting different solutions, however they are more directed into creating a barrier against the water instead of solutions regarding the direct environment to the water.

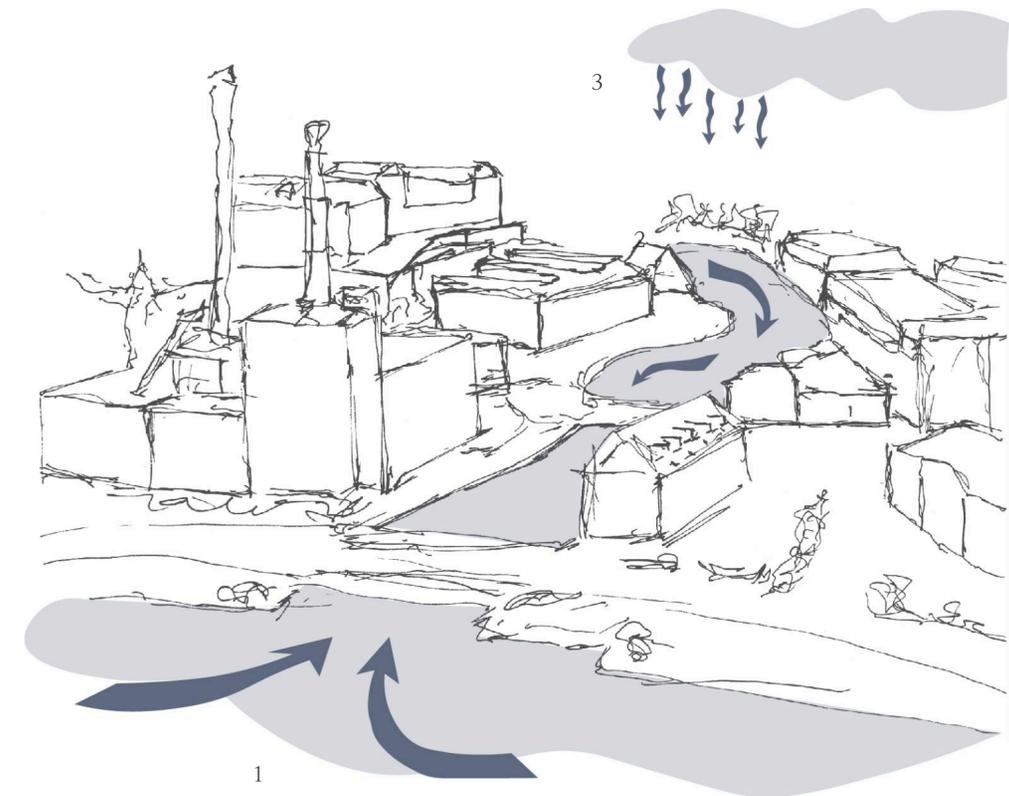
In a hundred years or less, the whole riverbank towards stenpiren and the big area just north of Järntorget will be completely flooded in stormy weathers. We would like to handle this situation by raising structures over this level and lowering spaces between for wetland purposes.

The biggest water streams originate from both Kungshöjden and Linnégatan. The different in height creates a flow leading down in the valley of Pustervik and risk flooding the river.

Mölnålsån
Fattighusån
Vallgraven
Rosenlundskanalen



Map of Gothenburg showing a possible flooding scenario during high flow in the waterways and a 26 hour peak up to extreme level by year 2100 (Stadsbyggnadskontoret, 2014).



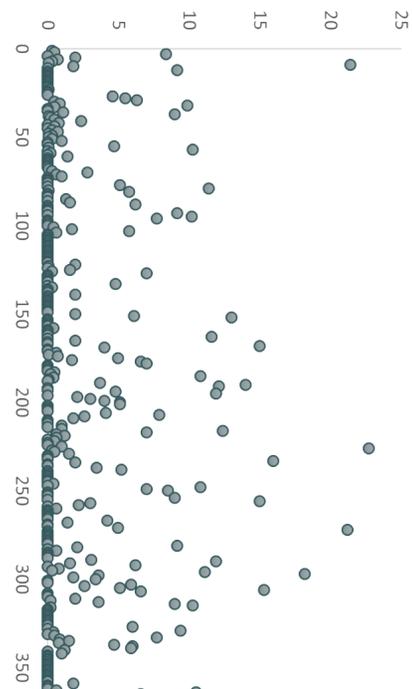
Sketch of main water flow on site

Our site is located right next to open water which creates 3 types of flooding risks:

1. Stormwater from the ocean
2. Flooding coming from within the city wanting to run out in the ocean
3. Rainwater flooding

The site is a key location in accordance to water connection within the city. Heavy flow comes down towards the site in several directions. It is also threatened to be flooded from the sea point of view.

HOW'S THE WEATHER?
TEMPERATURE & CONDITIONS



Rainfall data of Gothenburg (SMHI 2022)

Due to climate change, heavy rain is increasing which effects our site. This will contribute to heavy water flow on site, that we aim to deal with within our water system.

The site is exposed as it is located by the outflow of the river with a lot of open areas and hard surfaes.

Our proposal will suggest a solution for dealing with flooding and heavy water flow as well as creating a comfortable climate for the inhabitants.



Diagram of wind directions in general for a whole year in Gothenburg (Stadsbyggnadskontoret, 2015)



Sundiagram throughout the year in Gothenburg (Suncalc, 2022)

AVERAGE SUNLIGHT HOURS

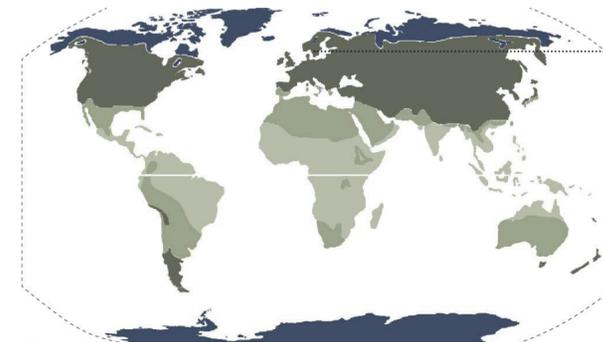
All year: 4.3 H
Summer: 7.7 H
Winter: 1.5 H

AVERAGE TEMPERATURE

All year: 9 °C
Summer: 18.5 °C
Winter: 1.25 °C

AVERAGE RAINFALL

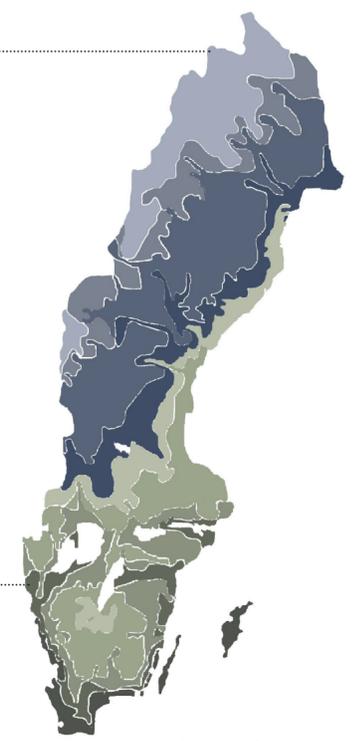
All year: 2.17 mm/day
Summer: 2.3 mm/day
Winter: 2 mm/day



Map of climate zones



Diagram of site



Map of planting zones (Riksförbundet Svensk Trädgård, 2022)

Sweden is located in the Temperate climate zone. In the local planting zones of Sweden Gothenburg is located in zone 2.

HOW'S THE FLOW?
ACCESSABILITY, TRANSPORT & ASSETS

The main connections to our city from the proximity comes from either Stenpiren, in the north, or Vasaplatsen to the east. We imagine these being enhanced and/or altered in near future, but will still be important traffic routes. We also expect a bigger flow of people from the new Västelänken stations, bypassing Feskekörka, and also from Järntorget to Masthuggskajen.



HOW'S THE LANDSCAPE?
SITE TOPOGRAPHY

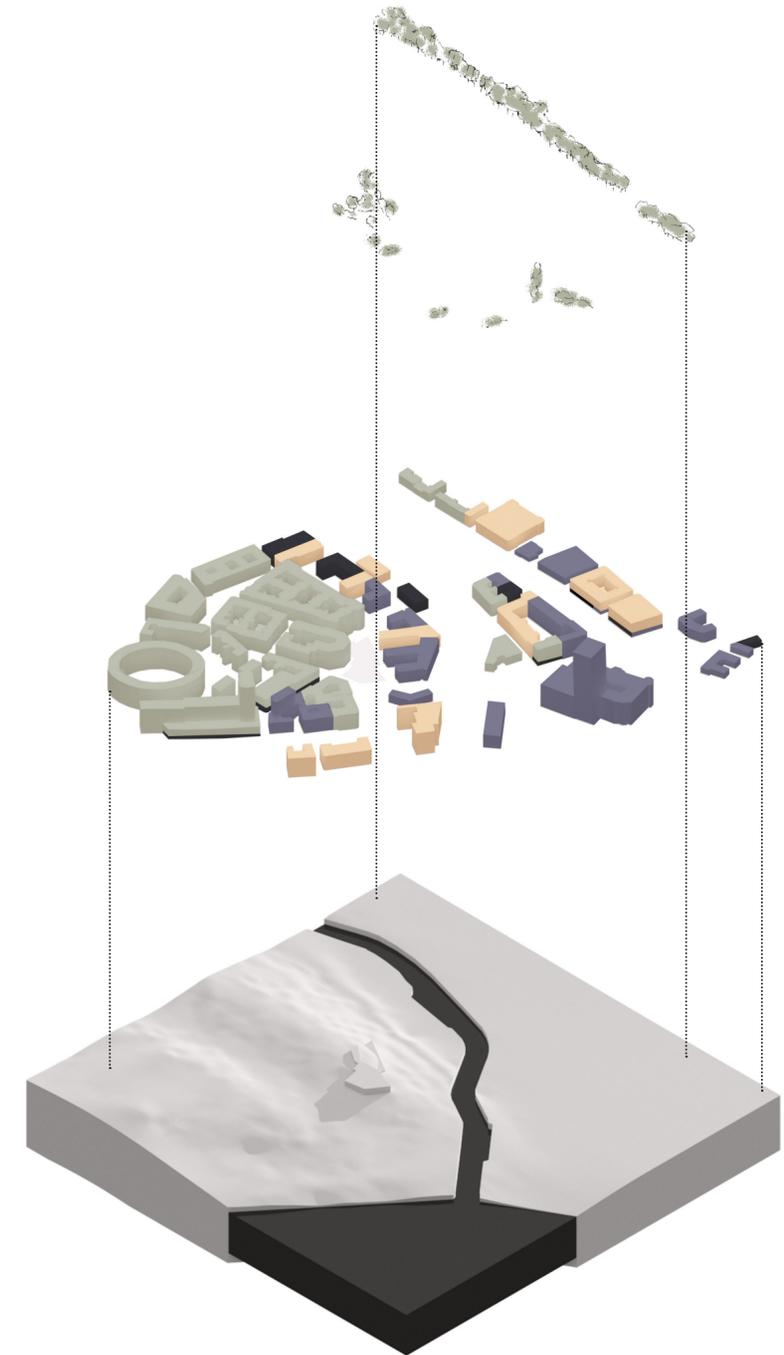
The site topography is mainly flat except for Kungshöjden and Carolus Undecimus Rex. On the other side of the canal, buildings stand almost as tall as the height.

There is a lack of greenery at our site as it is mainly confined to tree alleys along the streets.



Cardboard site model 1:1000

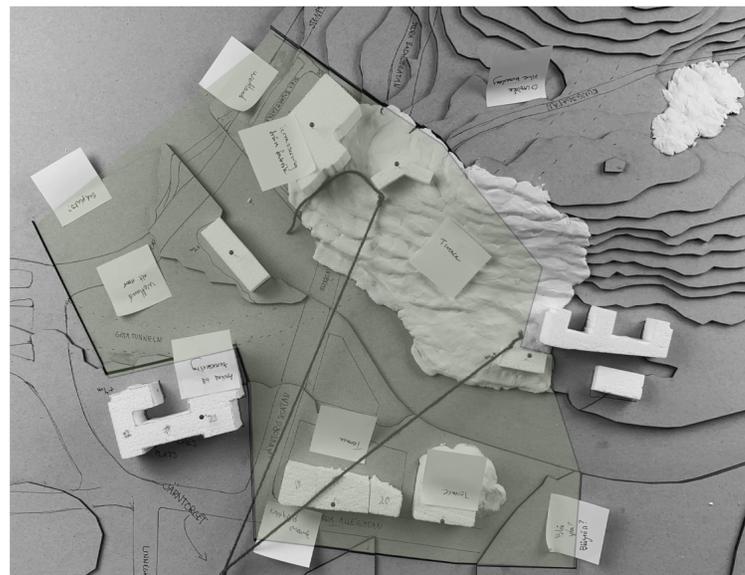
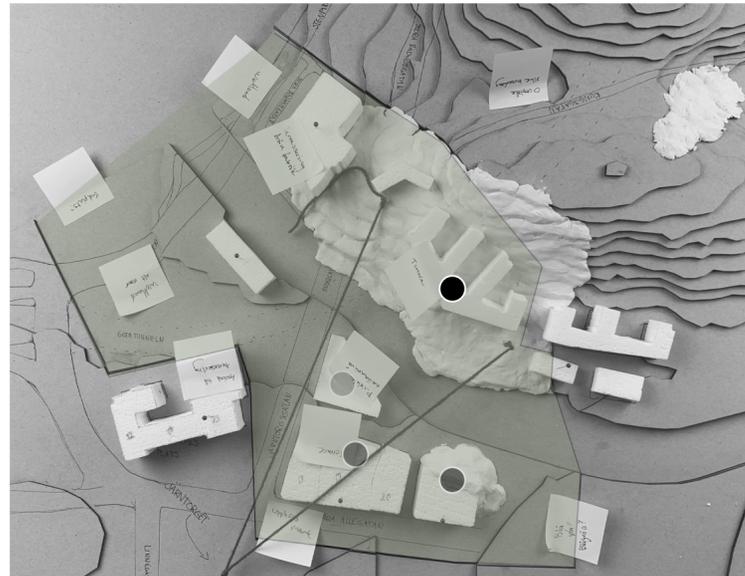
The model is made out of cardboard and produced by the method of using contour lines from the current site. Issues with the model is that it does not significant the difference between steps and slopes. It is not detailed enough.



Exploded site typology

- RETAIL ■
- RESTAURANTS & CULTURAL VALUE ■
- RESIDENTIAL ■
- EDUCATION, OFFICE & INDUSTRY ■

WHAT TO KEEP?
EXPLORING THROUGH MODELLING - SITE MODEL 1:1000



Cardboard site model 1:1000

NA

■ SITE BOUNDARY

Buildings	FloorS	Floorplan area (m ²)	Total (m ²)
● Restaurants (Rosenlundsgatan)	2	4478	8956
● Offices (Rosenlundsgatan)	3	4478	13 434
● Offices (Pusterviksgatan)	2	890	1780
● Residential (Pusterviksgatan)	3	890	2670
● Offices (Järntorgsgatan)	7	226	1582
● Offices (Järntorgsgatan)	5	485	2425
● Retail (Järntorgsgatan)	1	485	485
● Education (Pusterviksgatan)	4	778	5426
● Retail (Järntorgsgatan)	1	631	631
● Retail (Pusterviksgatan)	1	360	360
● Offices (Brogatan)	2	1489	2987
● Residential (Brogatan)	2	1489	2987
● Residential (Brogatan)	2	739	1478
● Offices (Järntorgsgatan)	2	360	720
● Parking	1	905	1741



Map of interesting elevated areas on site

We saw height as an asset to use gravity for waterflow, both natural and built height, and therefore kept buildings on the south side of the canal as well as north of Järntorget to act similarly as Kungshöjden. We also identified Feskekyrka and Lagerhuset as cultural assets worth incorporating into the new proposal. By removing parts of certain dwellings we are able to create terraces leading down towards the canal.

In conclusion, we are adapting the site in order for it to work with the developed water system and thereby creating a unique urban space.

PART II CONCLUSION

The terrain of the site is partly hilly, there are mostly public buildings and a small number of soft surfaces. There are several buildings and places of historical and cultural value within and nearby our site boundaries. It is in need of maintaining water from the river and the sky, making water more accessible as well as expanding the greenery.

In conclusion, the given site has many opportunities that we aim to explore while adapting it to our system. We aim to reconstruct the terrain in a way that favours the scheme but still continues to bring value to the city of Gothenburg.

PART III COMBINATION

Part 3 aims to introduce and account for our proposed solution for a terrain that is adapted to our water system. By combining the water scheme and the information about our site we were able to design a proposal that will make use of the increased water flow as well as introduce a new topography for the city. Regarding the design of the proposal, we were inspired by topographies such as natural terraces, the Scottish highlands and wetlands. All of the references deal with water flow in different ways and we aim to make use of all of them in order to slow down, find paths for and utilize the water.

The proposal will demonstrate the value of recreation and bringing nature back into the urban landscape. As urban designers, we aspire for the scheme to become an attractive place for the citizens of Gothenburg - especially on rainy days. The flow of water within the terrain will awaken the senses of the visitors, such as listening to the water flow and the nature surrounding it, the smell of locally farmed greenery and the views reminding of the highlands where mountains surround a valley of streams.

WHAT INSPIRES US?
TERRAIN REFERENCES



Natural water terraces in Turkey

Terraces has the ability to make steep and hard manouvered terrain accessible. They function like stairs regarding transportation and also gives room for activities on each base while somewhat dividing them vertically. The flowy landscape directs its attentions in different directions and creates a variety of spatial rooms and surroundings. The variations of these give different attributes, considering for example transportation, flow and recreation.



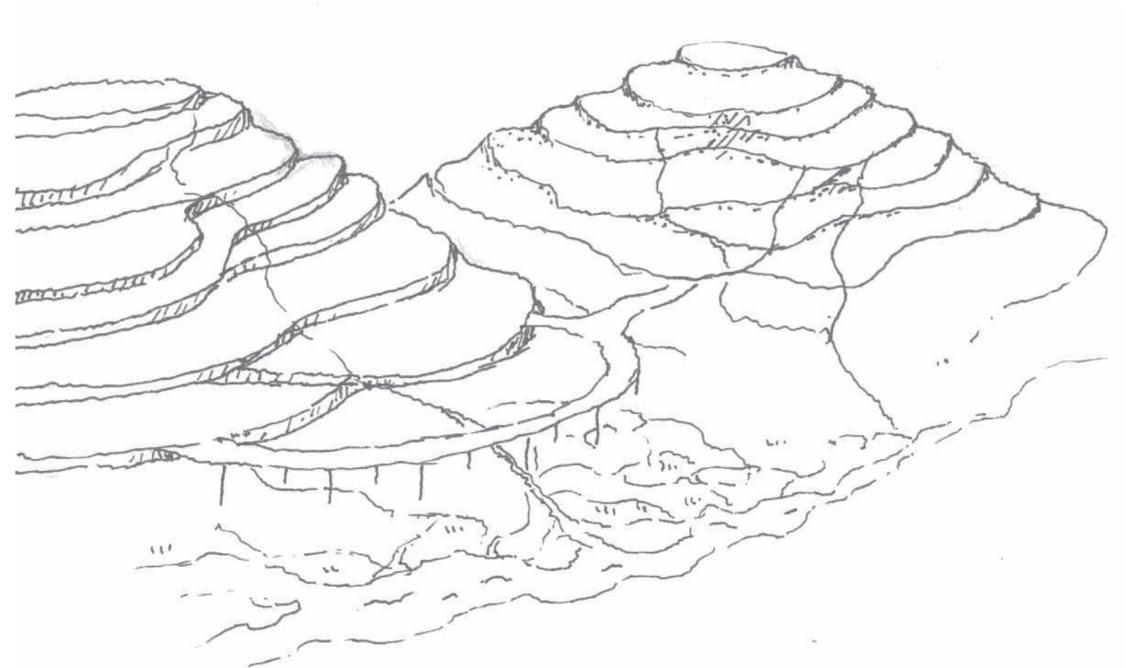
The highlands of Scotland

The Scottish Higlands offer a more easily accessible terrain, with relative smooth curves until it turns into mountains. This terrain also offers great views of the nature which definately is a perk. Like the terraces, it's diversity in spaces and elevations offers many different possible activities.



Wetland in Japan

A wetland landscape divides space into smaller areas that allows for dividing of uses. It is also a vital part in maintaining water and preventing floods.



Interpreted sketch of combining the terrain references

In conclusion, our terrain is defined by combining terraces, wetland and the dendritic drainage system with connections depending on the level vertically. The terraces help divide these levels as well.

Water terraces aim to slow down and collect the water flow whilst the drainage system in between controls the water path. As the systems are combined there can be a more significant control of water flow and pace.

HOW WILL WE IMPROVE THE SITE?
BRINGING GREENERY INTO THE CITY



Illustration of proposed green area location

The site today is free from green areas as only hard surfaces surrounds it. Our aim is to create more green space in the area, most certainly surrounding the river to create a natural barrier for flooding.

The site today can be seen upon as a concrete blockade for the greenery located deeper within the city. We intend to make the green line follow through all the way to the output.



Parkroyal by WOHA, Singapore, 2013



Wetland in Japan

Relating the urban greenery back to our terrain inspiration of the wetlands where we tend to invite nature in a more wild and uncontrolled way.



Collage of green terraces

Due to the lack of greenery on site at the moment, a contribution to a natural landscape would provide inviting places for the inhabitants to enjoy. Visiting green areas increases mental health (Nesbitt, 2022) which strengthens our idea of bringing back nature to the city.

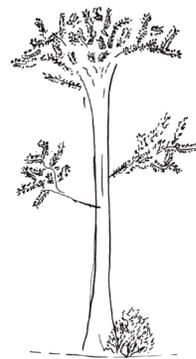
HOW WILL WE IMPROVE THE SITE?
INTRODUCING A TERRACED CITY SYSTEM



Illustration of proposed terraced locations



Amazonas rainforest



Sketch from system concept

Pustervik is currently a flat location where all public and private activity is happening on the same level. By creating a terraced landscape we may introduce a diverse scheme and an inviting landscape.

Relating back to the system of the rainforest where different levels create different types of activities for its inhabitants.

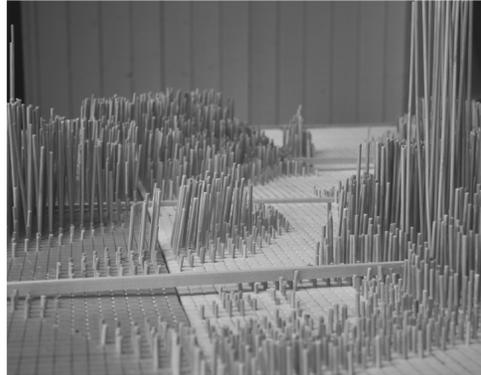
By using terraces we are able to provide different opportunities for each level within the landscape.



Collage of movement within the terraced landscape

The terraced terrain system is not only a way to deal with water flow but also a way to invite public and private activity within the same space. Combining greenery and a diverse landscape creates a satisfying landscape to rest your eyes on as well as it unconsciously stimulates the human mind by generating a lot of impacts.

WHAT IS THE METHOD?
THE MORPHOLIC METHOD OF PILING



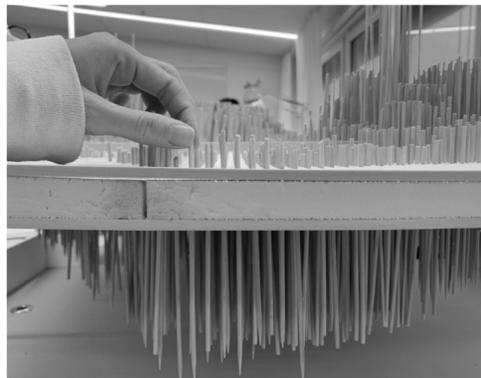
In progress model image

By creating a 1x1cm grid on a scale at 1:500 we were able to regulate the terrain at an accuracy of 5m. The method of using sticks relates back to our model of the water system on site. By using sticks as model material we are able to read node-heights and therefrom creating a grid in a 3D program and develop a digital model of our terrain.

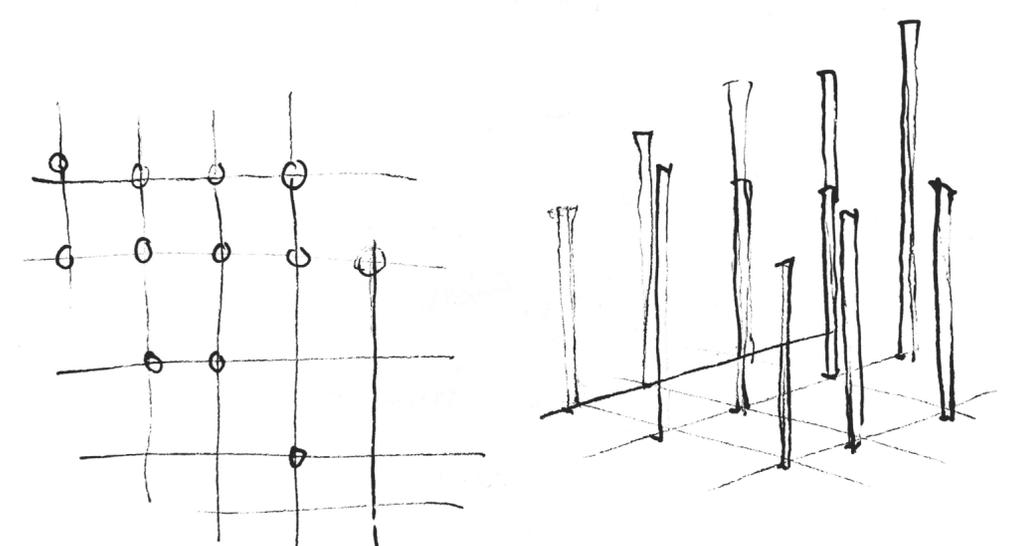


Bananpiren, Gothenburg

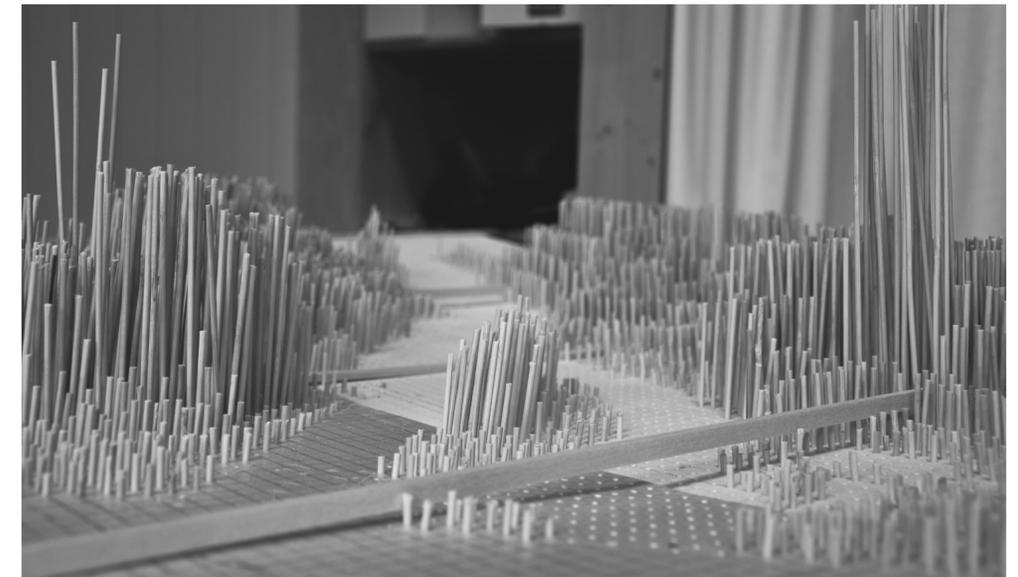
Due to the clay foundation of Gothenburg many man-made lands are built by piling, such as Bananpiren in Frihamnen. We have adapted this method to our terrain model to demonstrate a possible solution for constructing the man-made terrain on site. Image of Banan-piren 1922.



Method image of model

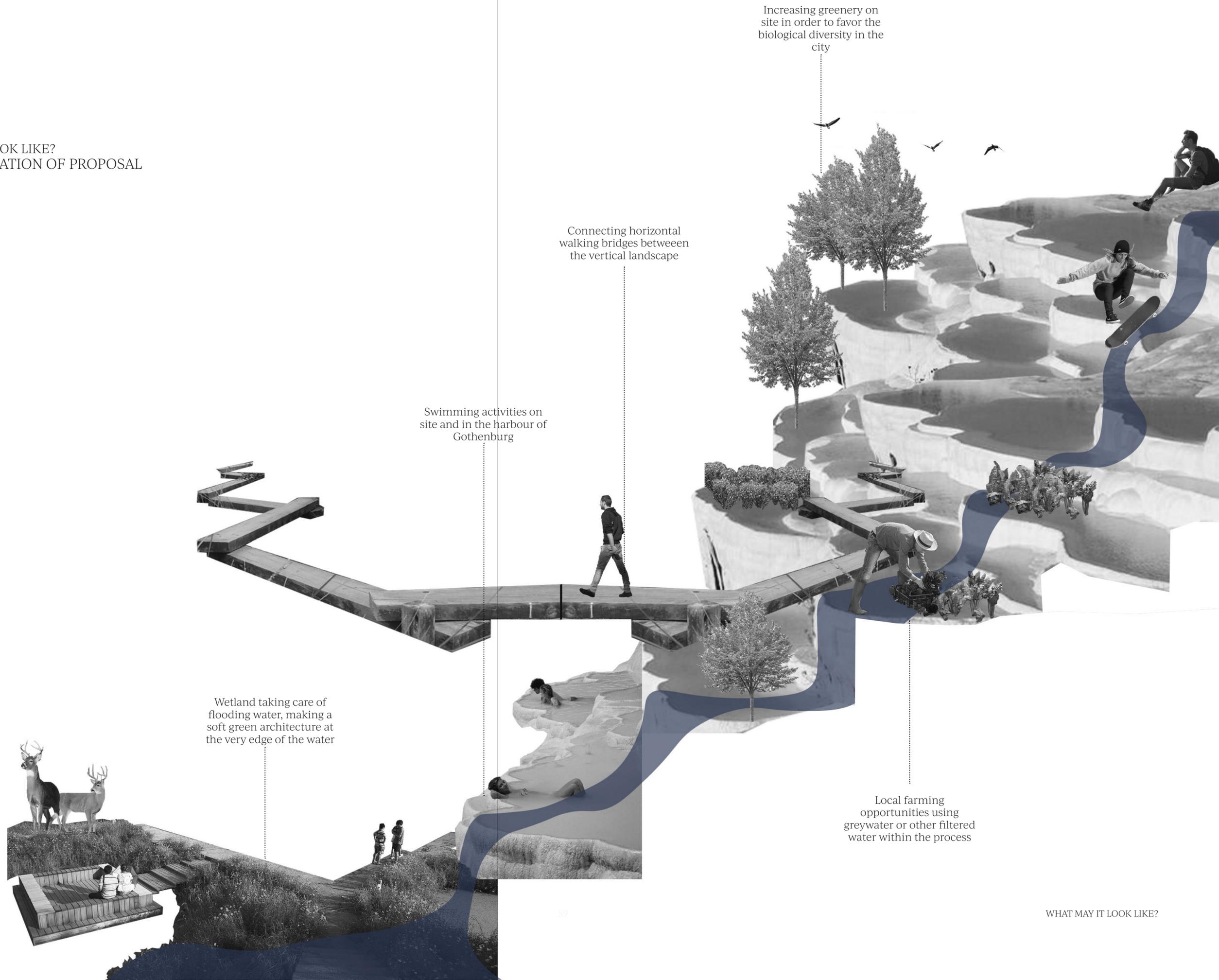


Sketch of grid method



Model image

WHAT MAY IT LOOK LIKE?
COLLAGE ITERATION OF PROPOSAL



Increasing greenery on site in order to favor the biological diversity in the city

Connecting horizontal walking bridges between the vertical landscape

Swimming activities on site and in the harbour of Gothenburg

Wetland taking care of flooding water, making a soft green architecture at the very edge of the water

Local farming opportunities using greywater or other filtered water within the process

PART III CONCLUSION

In conclusion we would like to focus on a terraced design because of its possibilities for varied spaces and activities, possibilities of water control and its natural division vertically. Together with the sightlines and diversity of spaces of highlands and wetlands an interesting focus towards the river is created, although the smaller communities focus on their local centre. The terraced, the highlands and the wetlands work as integrated elements.

The proposal will demonstrate the value of recreation and bringing nature back into the urban landscape. As urban designers, we aspire for the scheme to become an attractive place for the citizens of Gothenburg - especially on rainy days. The flow of water within the terrain will awaken the senses of the visitors, such as listening to the water flow and the nature surrounding it, the smell of locally farmed greenery and the views reminding of the highlands where mountains surround a valley of streams.

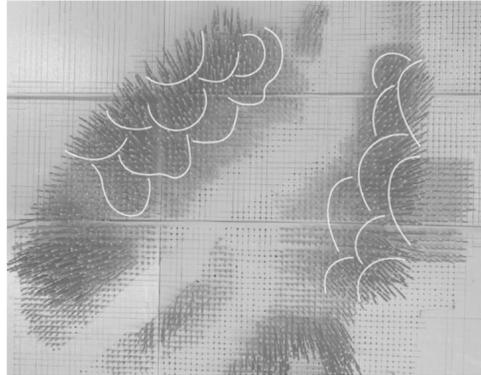


PART IV COMMUNICATION THROUGH DESIGN

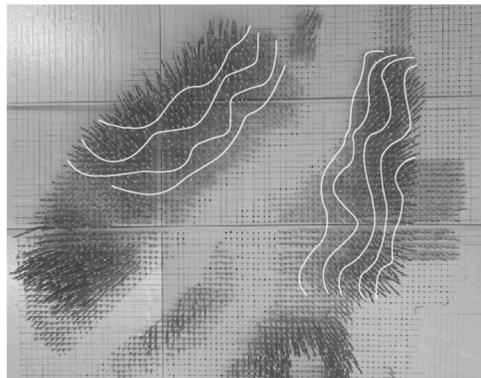
Part 4 will expose the design process of the terrain according to the hydro social system. The process consists of testing and experimenting through study models as well as sketching as a group. The outcomes of the communal testing opportunities has made us take decisions towards the final design outcome.

When designing, the terrain and system references have been contributing factors as a source of inspiration.

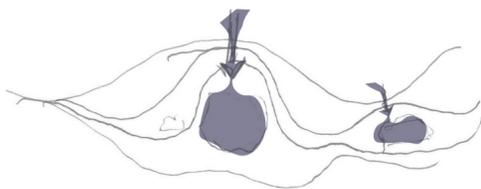
WHAT MAY IT LOOK LIKE?
 SKETCH DEVELOPMENT OF TERRAIN



Previous terraced system proposal



Current terraced system proposal



Sketch of waterflow depending on terrace shape

The terraces outform relates to the waterflow on site - how we are able to slow down water where there is heavy flow and divide the water throughout the terraces.

By creating 4 key crossings within the terrain we are able to create a horizontal pedestrian and bicycle flow whilst maintaining a vertical waterflow.



Sketch plan iteration

NA

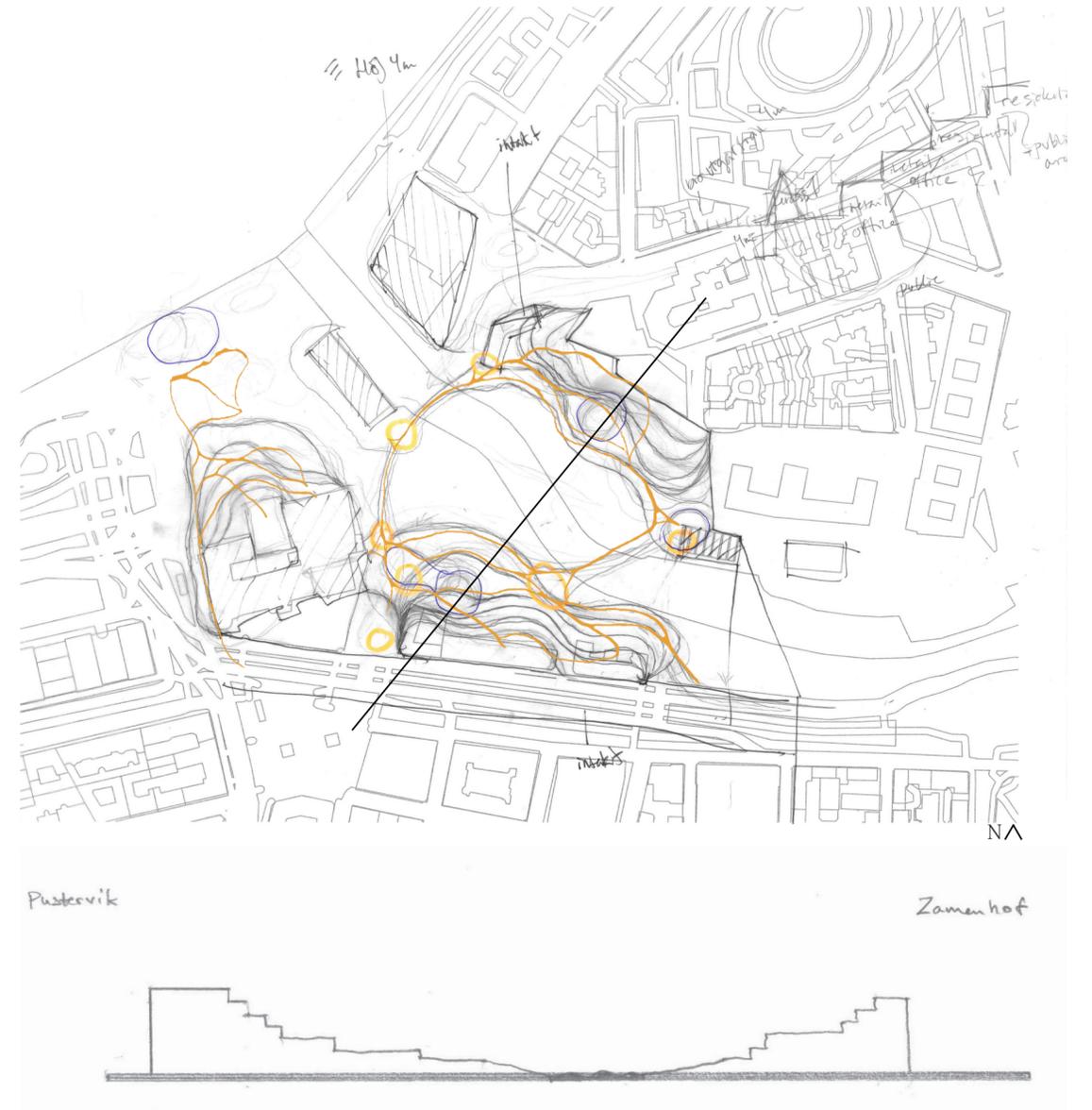
WATER FLOW ■
 PEDESTRIAN & BIKE FLOW ■

WHAT DOES IT LOOK LIKE?
SKETCH DEVELOPMENT OF TERRAIN



Yanweizhou Park by Turenscape

The project in Yanweizhou Park by Turenscape became an inspiration in the way that the horizontal bridges are always accessible even though the area floods vertically. This creates a system between vertical and horizontal elements.

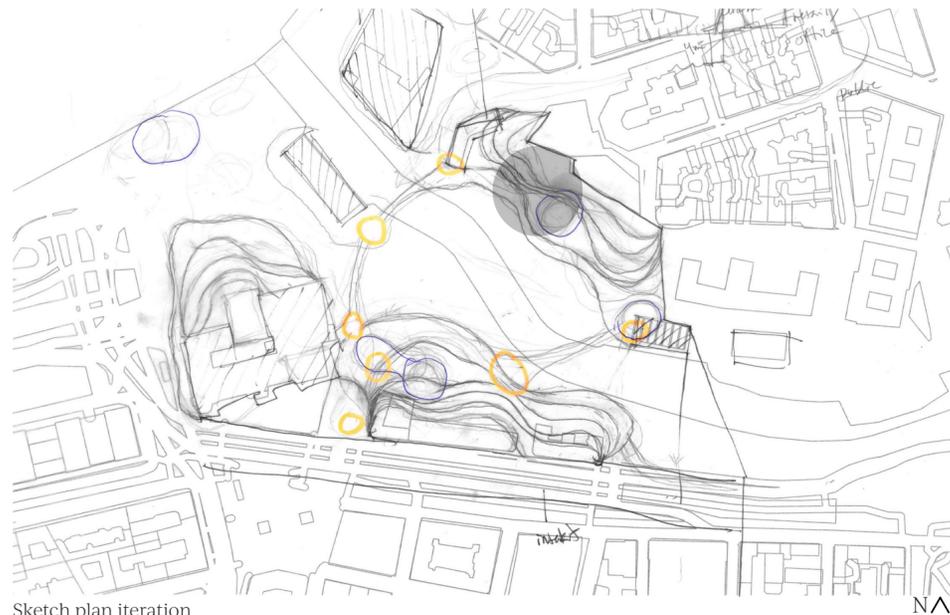


DO WE KNOW IT WORKS?
STUDY MODELLING WATER FLOW WITHIN TERRACED FORMATION



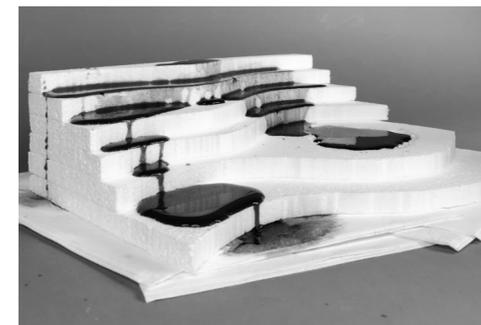
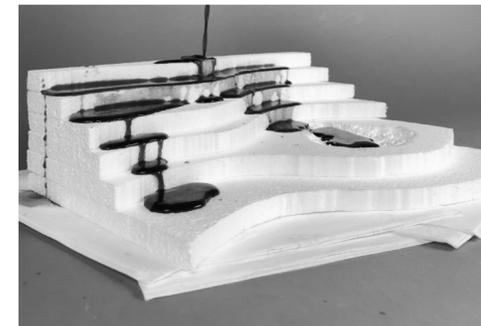
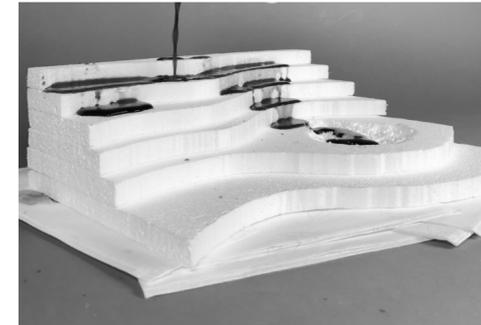
Natural terrace in Huanglong, Sichuan, China

Natural terraced systems that we have studied tend to behave in a similar way as the study model. By using natural solutions is an ideal way to control the water flow on our site.

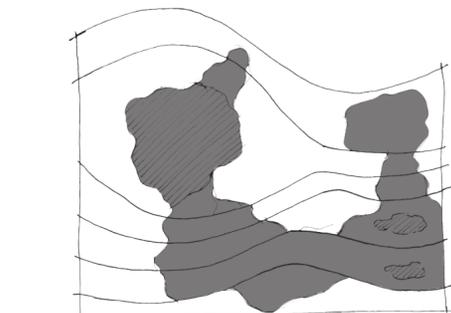


Sketch plan iteration

N^



Images of study model

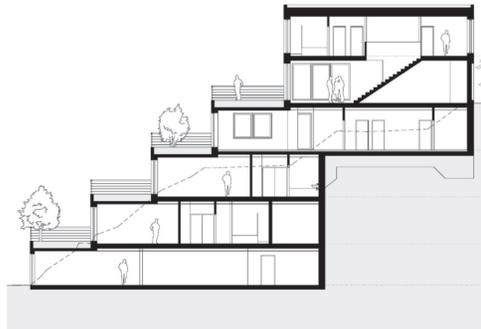


Plan of study model

By studying the water running down the terraces one of the observations were that the water chooses the path where the terraces are most narrow. This provides us with a method to control the path of the water flow towards the wetland.

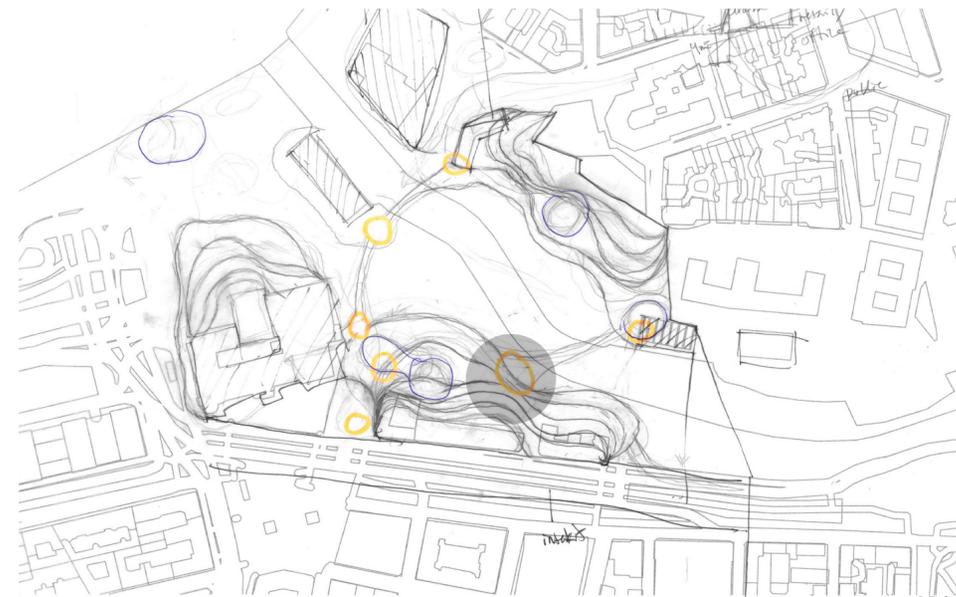
Narrower terrace => heavier water flow

DO WE KNOW IT WORKS?
STUDY MODELLING OF INTERIOR LIGHTNING AND STRUCTURE



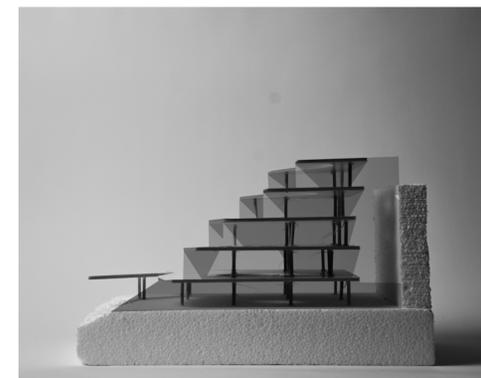
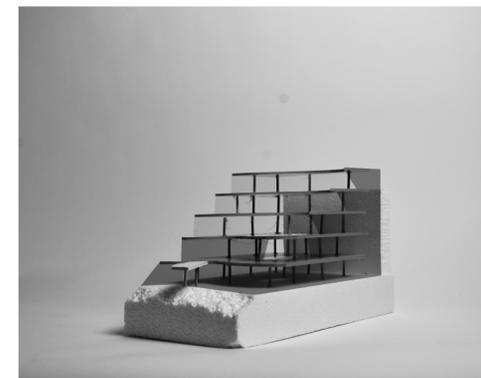
Section of Terrace House by Pavel Hnilička
Architects+Planners, 2007

By studying similar terraced structures there are interesting solutions related to daylight, such as creating shallower terraces.



Sketch plan iteration

NA



Study model of interior lighting conditions

As expected, the light study indicates a lack of daylight within the deepest space of the terraces. Moving forward we intend to develop a system where spaces unreliaint of daylight are located within the darker spaces, such as parking areas, storage spaces, gyms etc.

DO WE KNOW IT WORKS?
STUDY MODELLING OF PATHWAYS BY SLOPE AND STEP

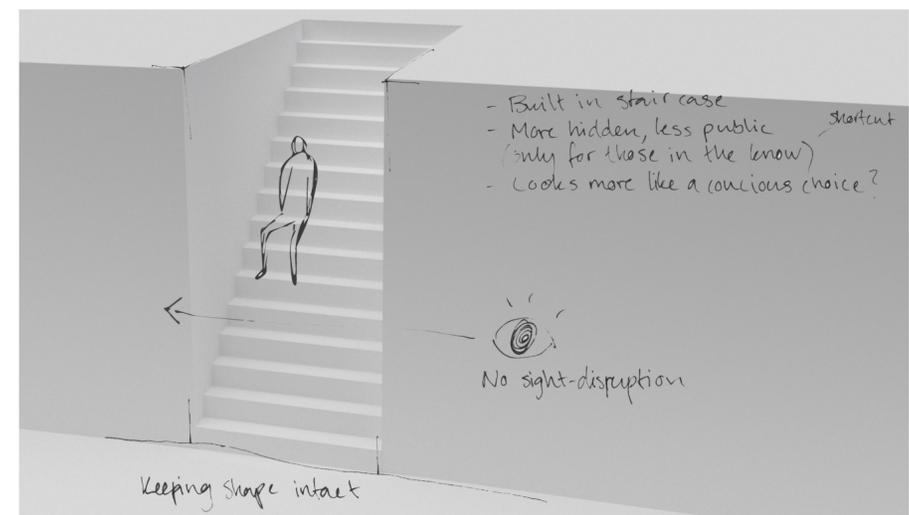
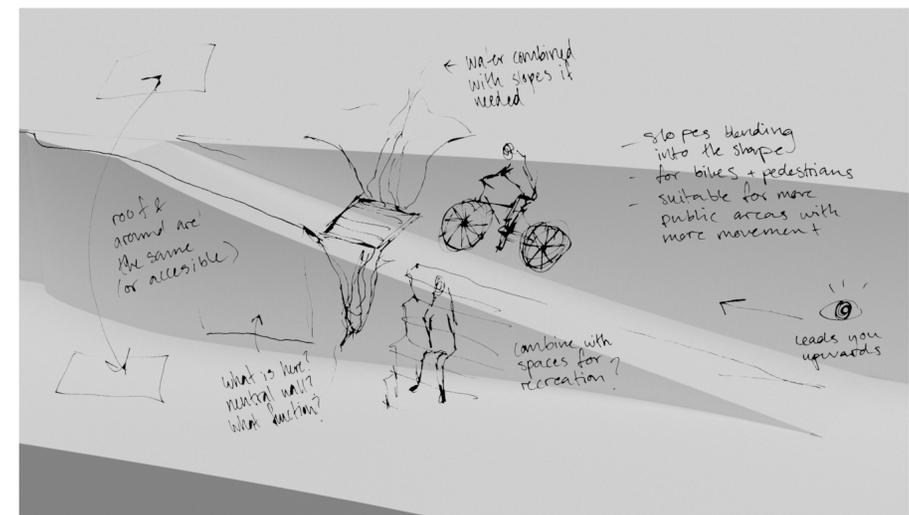
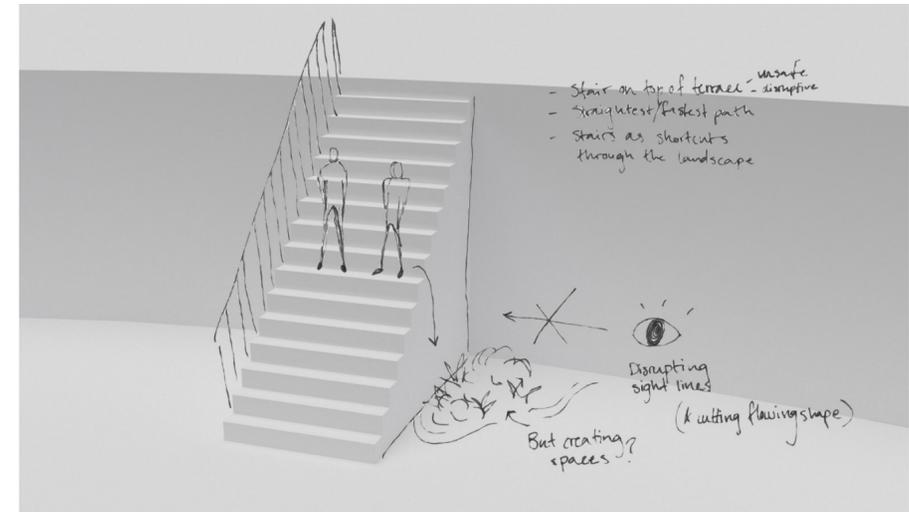


Pedestrian/bicycle bridge by Dietmar Feichtinger Architects, Copenhagen

Copenhagen is an inspiring city when it comes to urban planning. We are inspired by how the city is adapted to pedestrians and bicycles as our proposal discourages car traffic.



Sketch plan iteration



Study model of ramp and slopes within the terraces

DO WE KNOW IT WORKS?
SEPERATING WATER AND PEOPLE



Urban pedestrain stream, Germany

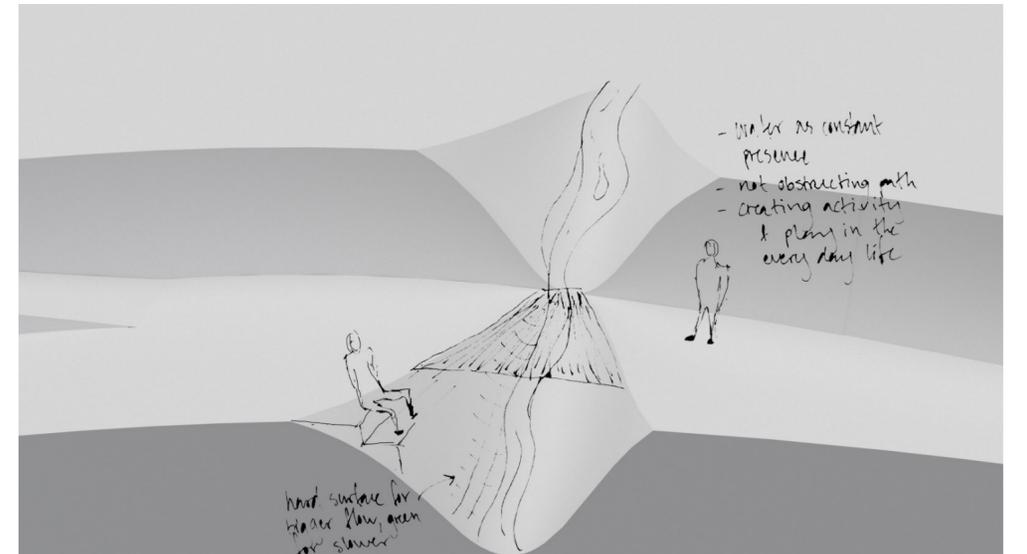


Stream crossing, America

In order to keep pedestrians and bicycles from getting drained within our terrain we are finding solutions to separate the two systems. We are inspired by using simple constructions and historical urban solutions for water flow.



Sketch over study model of urban spaces within our terrain

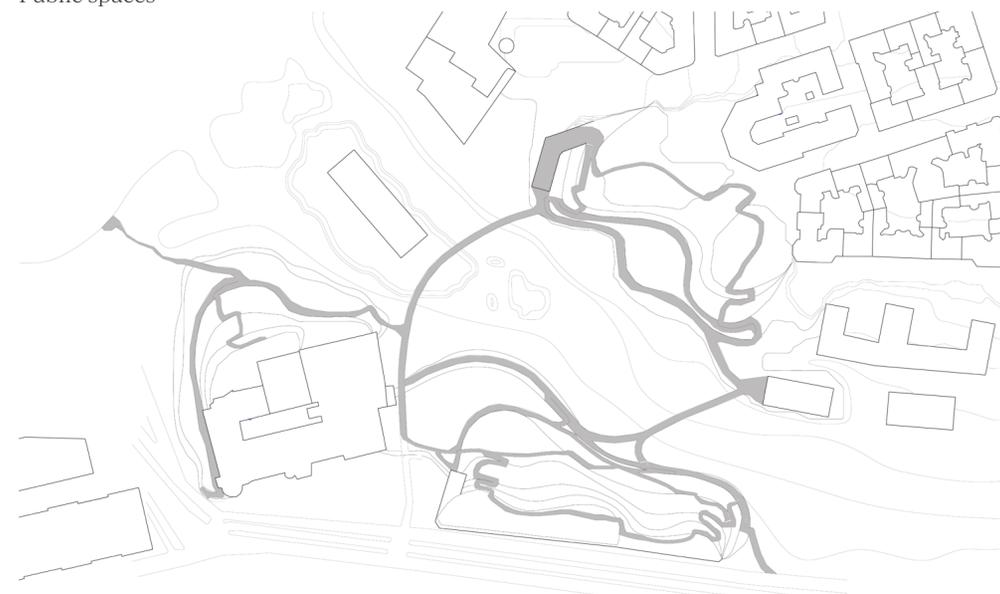


Sketch over study model of water flow within our terrain

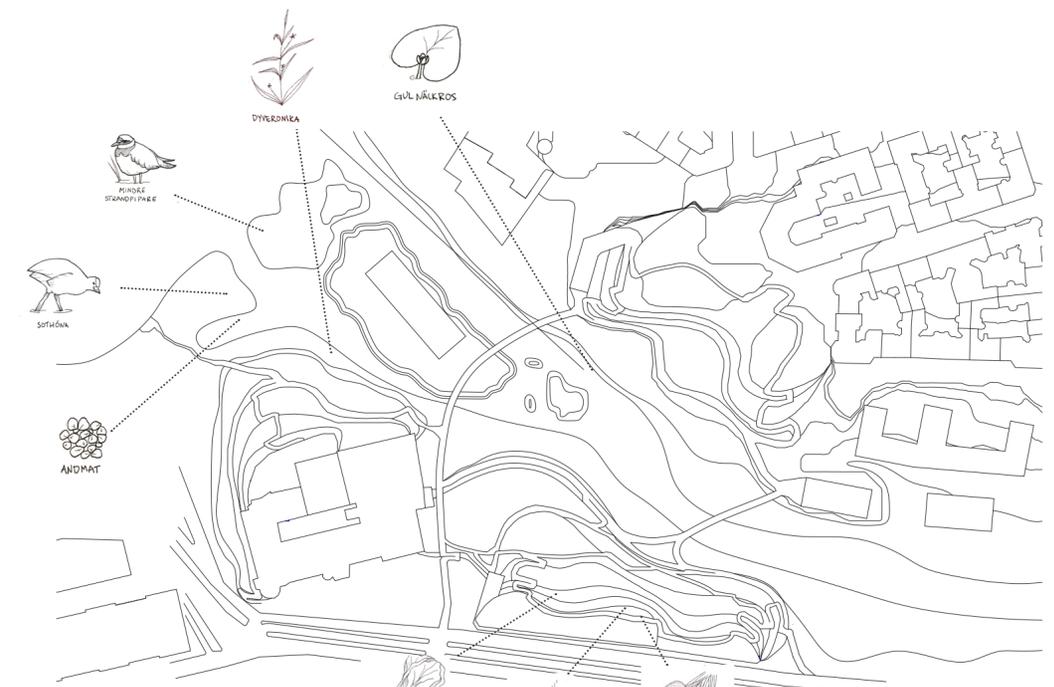
WHAT DOES IT LOOK LIKE?
COMMUNICATIVE DIAGRAMS



Public spaces



Movement



Species of nature



Added Greenery

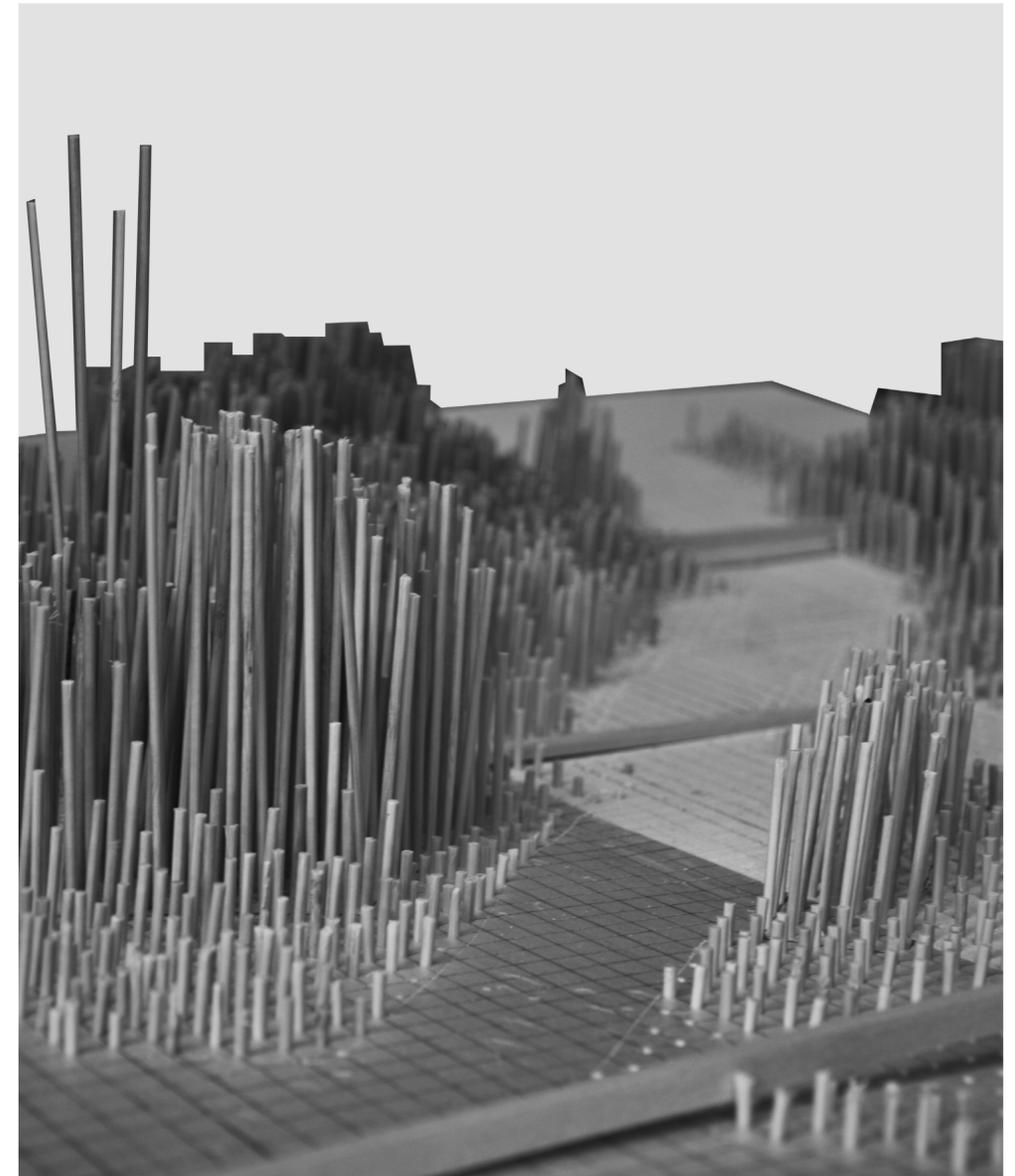
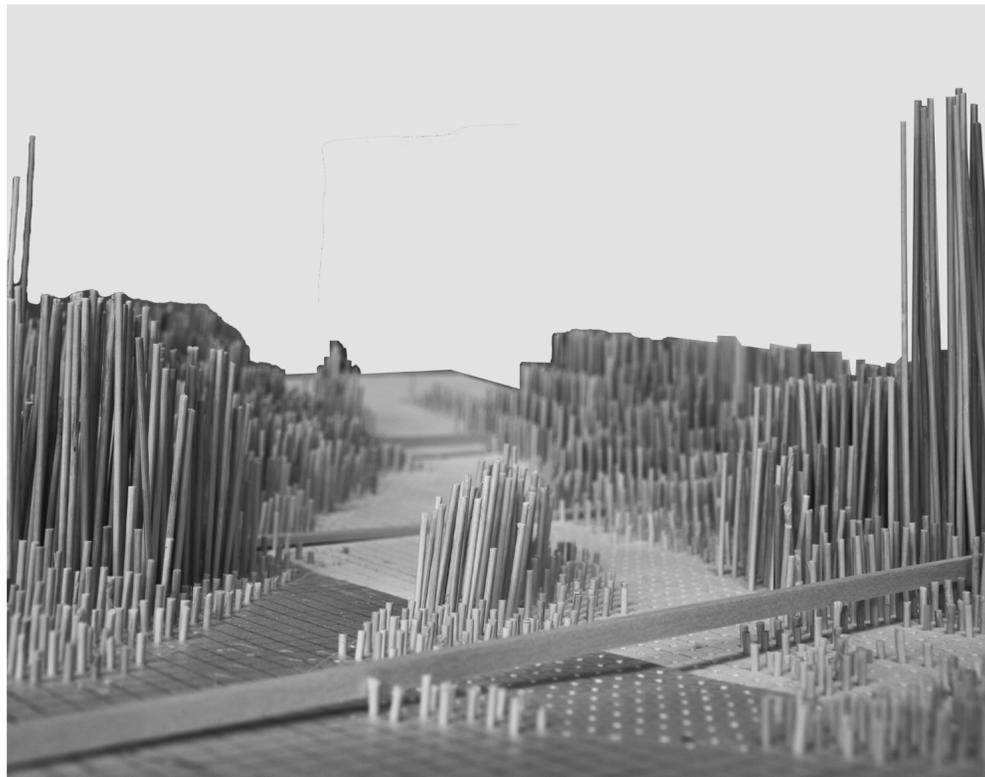
NA

PART IV CONCLUSION

The design process came through as a useful tool in order to develop the final design. The outcome considers green areas, connections, public spaces and wildlife. These decisions ties back to our initial ideas of what the terrain should contribute to. The scheme will become a green oasis within the grey urban grid of Gothenburg. Instead of creating a barrier towards the excess water the terrain will embrace and take care of the fact of climate change.

PART V
FINAL PIECES

WHAT DOES IT LOOK LIKE?
FINAL MODEL 1:500



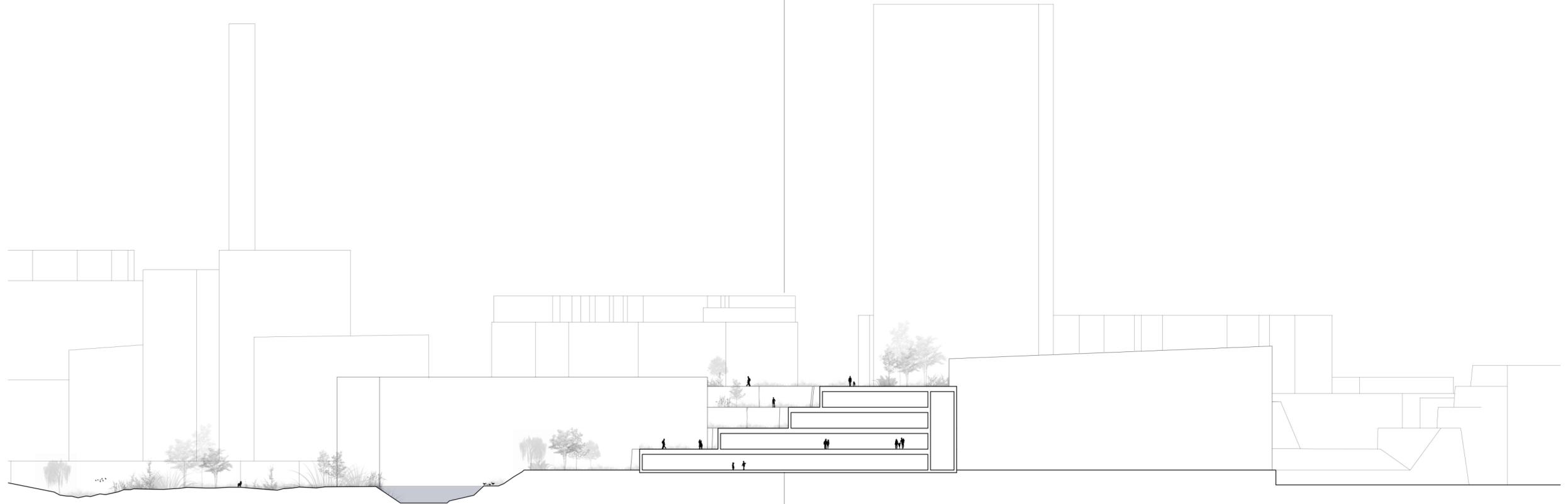
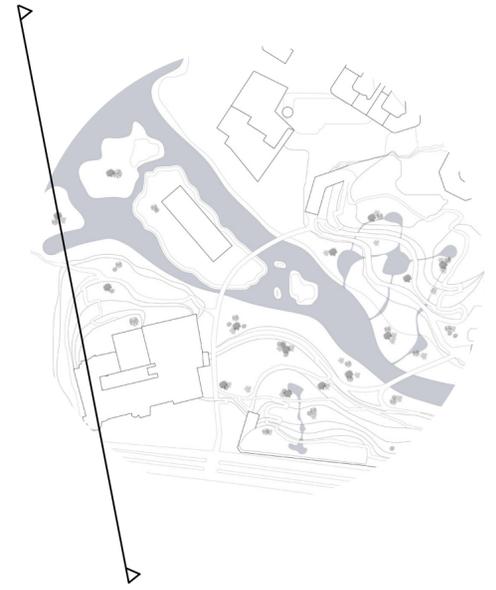
WHAT DOES IT LOOK LIKE?
SITEPLAN 1:1000@A1



Plan 1:1000@A1

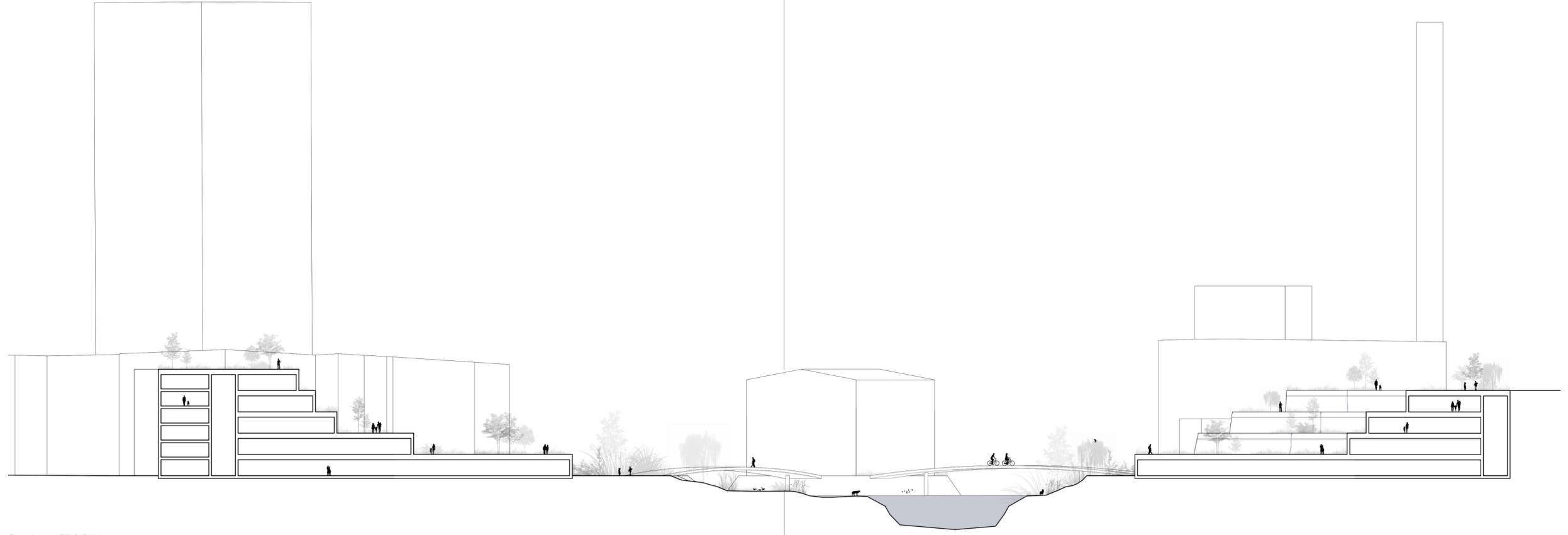
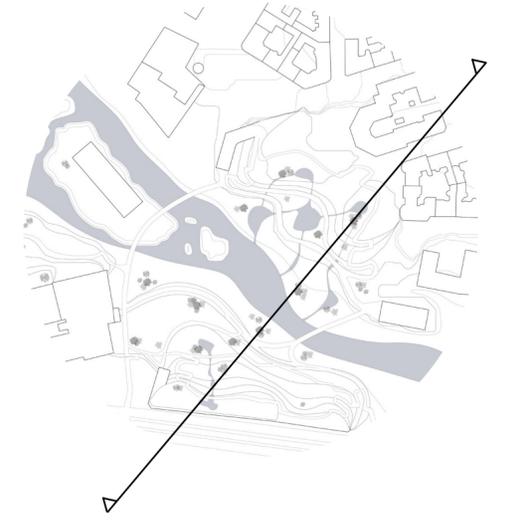
NA

WHAT DOES IT LOOK LIKE?
SECTION 1:500@A1



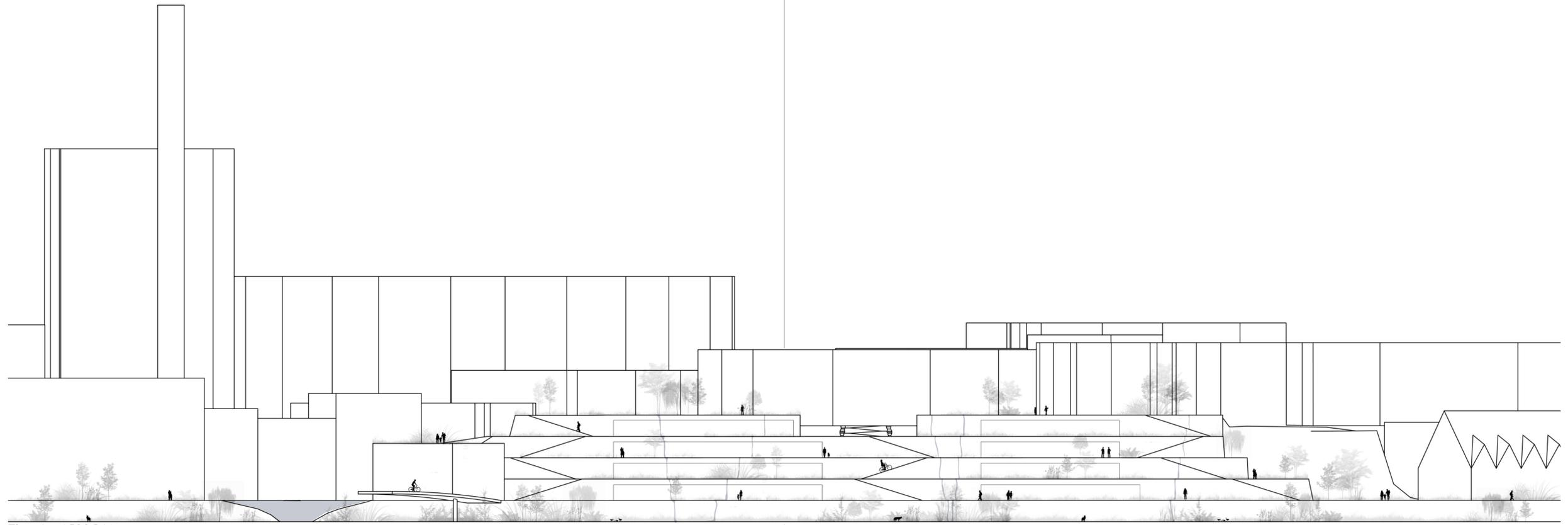
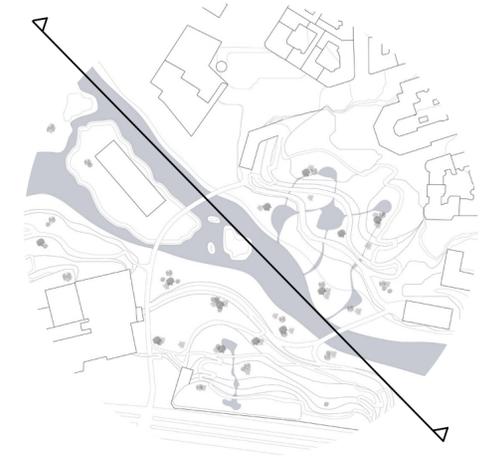
Section 1:500@A1

WHAT DOES IT LOOK LIKE?
SECTION 1:500@A1



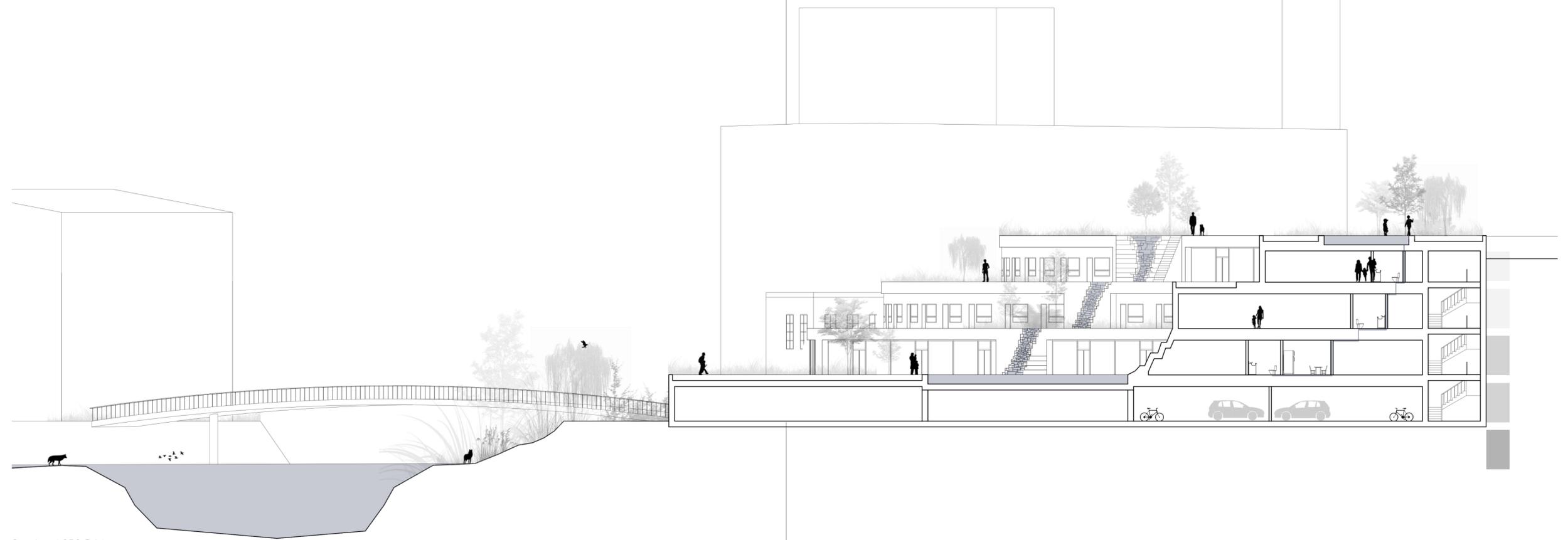
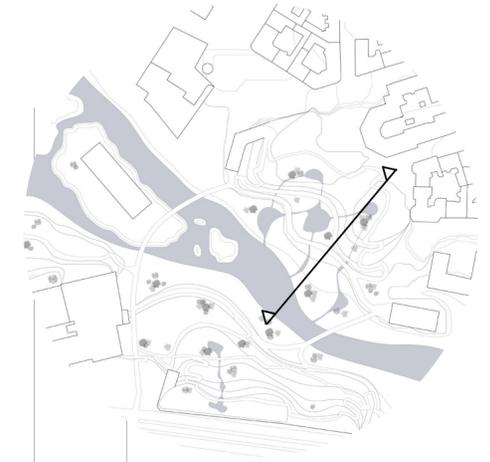
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WHAT DOES IT LOOK LIKE?
ELEVATION 1:500@A1



Elevation 1:500@A1

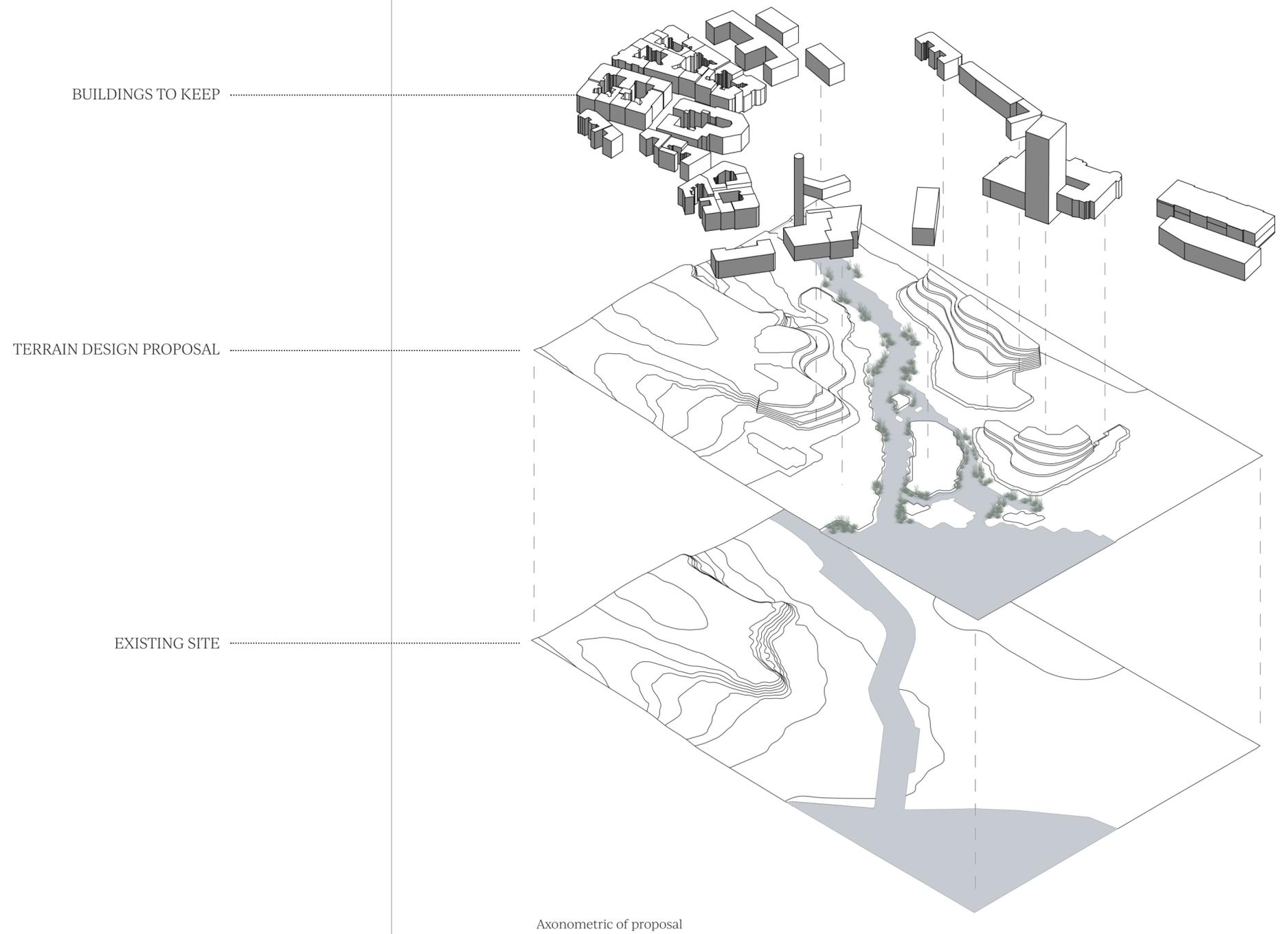
WHAT DOES IT LOOK LIKE?
DETAIL SECTION 1:250@A1



Section 1:250@A1

PRIVATE
PUBLIC
NATURE

WHAT DOES IT LOOK LIKE?
AXONOMETRIC OF PROPOSAL



WHAT DOES IT LOOK LIKE?
VISUALISATION IMAGES WHEN RAINY/DRY



Visualisation dry



Visualisation rainy