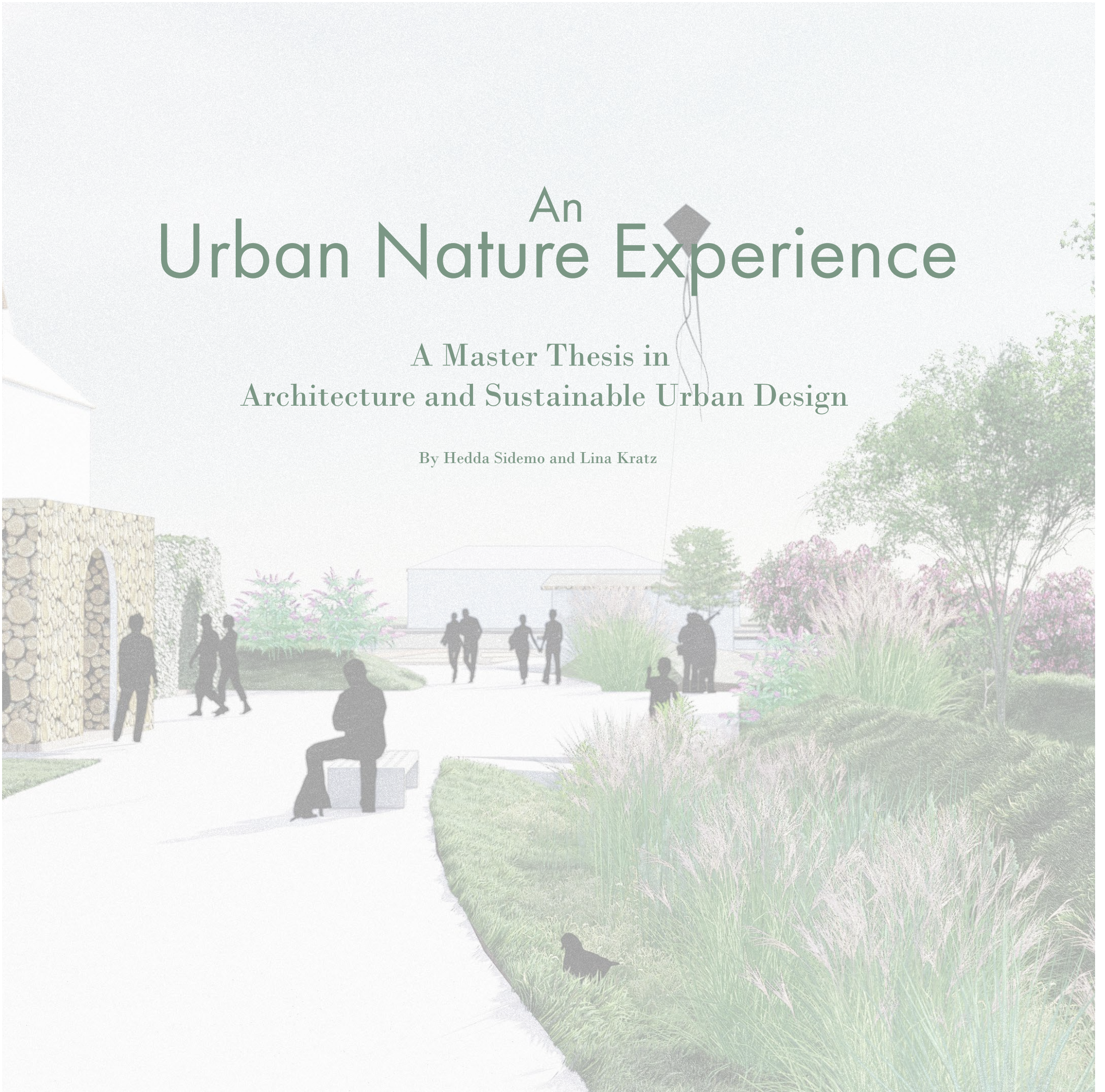


An Urban Nature Experience

A Master Thesis in
Architecture and Sustainable Urban Design

By Hedda Sidemo and Lina Kratz





LUND
UNIVERSITY

Title: AN URBAN NATURE EXPERIENCE

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Lund School of Architecture, LTH, 2020

Abstract

An urban nature experience – an urban park where people can experience and improve the relationship between human and nature.

This is an exhibition of nature in an urban environment. Here you can experience the nature with all of your senses; sight, smell, touch, sound and taste. Research has shown that the more people are exposed to nature, the more they appreciate it, and the more environmentally friendly they behave. The project turns a central waterfront in Malmö from a paved parking lot to green and blue spaces for biodiversity and recreation.

This project handles three different matters; The effects of climate change (heavy rainstorms), nature experiences and connect the existing city with the new planned area for Nyhamnen. The effects of climate change have been present throughout the design and the environmentally friendly solutions are evident and act as an element of education.

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Our story to this point

Lina

Education:

2014-2017 Bachelor of Architecture at Chalmers, Gothenburg, Sweden

2018-2020 Master of Architecture with specialization Sustainable Urban Design at Lunds Univerisity, Lund, Sweden

”My first reason to choose Architecture as my education was my interest in both the artistic part and the construction part. Further into the education my interest got caught by climate-smart architecture and sustainable urban design. I had found out how I could contribute to a more sustainable and long lasting-world.”

Hedda

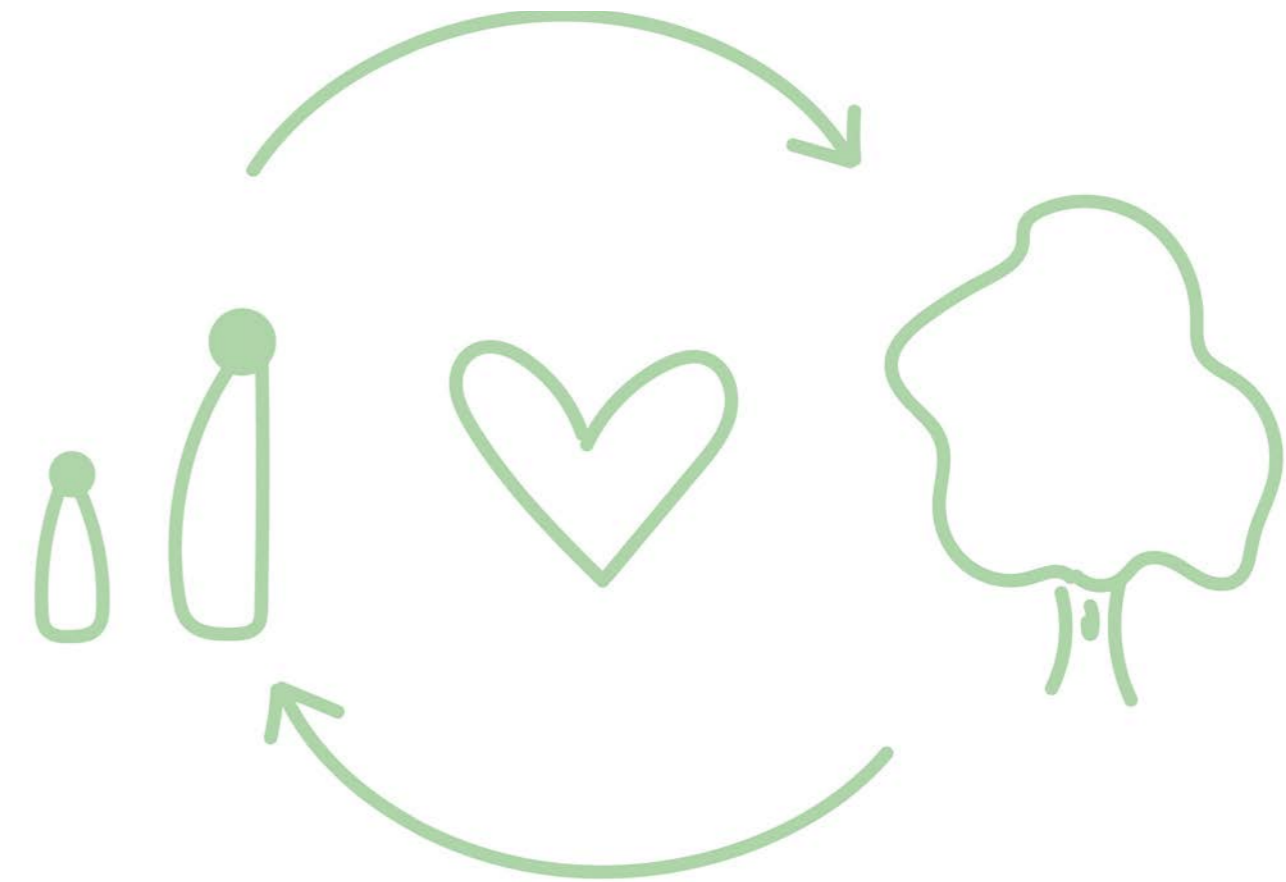
Education:

2014-2017 Bachelor of Architecture at Chalmers, Gothenburg, Sweden

2018-2020 Master of Architecture at Lunds Univerisity, Lund, Sweden

2019 Exchange term at UBC, Vancouver, Canada

”I have always been interested in human behavoiur and communication through built environment. When I was younger I loved the theater and dreamt about becoming a scenograph. Today, the scene has changed to the real world, but my passion for engaging design and building environments has stayed the same. I find designing spaces in 'human scale' with interaction and nudging the most interesting.”



CHAPTER 1

BACKGROUND

The beginnings

Introduction Malmö and climate action

Introduction

The origin of the idea

Climate change is one of today's most important issues and causes a lot of stress in society. It is often associated with anxiety, which makes a lot of people avoid and ignore the matter. Our experience is that there is a lack of positive and engaging ways to take part of the information about climate change. Most easy access information today is online and exists of texts, images, and movies with alarming headlines. Every person is different, and so is their way of learning. Climate change and knowledge about the environment (climate, biodiversity, resources, etc) is such an important issue and we need to develop other ways to spread the information. During the search for how we could approach this issue as architects, we decided that we wanted to focus on the core of the problem: the human's respect and relationship to nature. As long as we don't feel connected to nature we won't act beneficial for climate change.

Urban design + Architecture

Our knowledge and interests within architecture started on the same path, but later went for two different directions. One towards sustainable urban design and the other towards a smaller scale and how a person perceives and interacts with a space. Our perception of architecture and interest in human behaviour is the same, but the approach is different. We both care a lot about the environment and claim that green public spaces for the citizens and access to nature in the cities are crucial for a sustainable future. We wanted to try to develop a project where we from the start could treat our different approaches as equally important: Hedda with the approach from the inside and out, and Lina use the city approach and the site's relation to the city.

Malmö: Knowledge and Climate action

2015, the leaders of the UN agreed to the 17 goals to create a better world by 2030. Malmö is the first municipality in Sweden that signed the Agenda 2030. By 2030, the goals strive for a world with no poverty, equality and a solved climate crisis. Guided by the goals, it is up to each and any of us to contribute to this future. Malmö Stad has adopted these goals and made them their own. (Anpdm.com, 2019)

The city is also one of the pilot municipalities for the government's work to implement the sustainable goals. An important step for Malmö stad's climate action is when the council in the budget 2018 decided that UN:s global goals should be converted into local goals because these goals should affect all kinds of businesses. (Malmo.se, 2019)

Now, a strategy has been developed on how to localize these goals. Two strategies mentioned:

” 3. Planned communication and participation for learning and support

4. Increased knowledge for conscious decisions” (Malmo.se, 2019)

One action to fulfill these goals is their project ”Tillsammans 2030”, a collaborative forum for all public, private and non-profit actors, civil society, academia and others. The purpose of this forum is to share knowledge and experiences because that's what's lacking today; a place to turn to for everyone to get inspired by other's knowledge. They share knowledge to develop sustainable cities and to implement the global goals locally. They also want to spread information about existing methods, tools and education material that can support a sustainable development. Another purpose is to share knowledge about urban developments, for example how new developments work with technical solutions, innovations etc. (Tillsammans 2030, 2019)

Malmö has always been in the front when it comes to sustainable development. An example of that is Bo01, a district that serves as an example for sustainable urban renewal far beyond Sweden's borders. Bo01 was designed as early as 1998-2001 but can still act as a catalyst when it comes to sustainability. (Urbangreenbluegrids.com, 2008)

In December 2019, Malmö stad found that there is a climate emergency and will work harder as ever before to become a top municipality within sustainability and the global goals. (Mikkelsen Jens, 2020)

THE GLOBAL GOALS For Sustainable Development



(The global goals u.å)

Purpose

Key questions

Purpose

We asked ourselves- how can we, by working with architecture, trigger a feeling of nature in an urban space where the connection between human and nature often is lost today?

Research shows that the best way to make a person care about nature (and to change to pro-environmental friendly behavior) is to make them feel a connection with nature (chapter 1.3). A lot of people know about the benefits of nature, but think it is necessary to go outside the city to find it. They believe that nature and the city are two different things and that it's either one or the other. However, studies show the importance of integrating nature within the city. (House, E., C. O'Connor, 2016)

We have found a central site in Malmö (which today is a car-parking) that should be transformed into an attractive space that will bring nature into the urban environment and be of value to the citizens. Our goal is to, by designing a park, inspire and encourage the visitors to connect and care more about nature. To create that we will focus on different parts:

Use existing elements and senses

The project will include the existing nature elements on site and we will, by designing different spaces, work with contrasts and vary between emphasizing and hiding the elements. A variation of rooms and

experiences. We will strive to create a site that evokes some of the feelings and experiences a human can feel in nature. By using nature's way to trigger the five senses it is possible to achieve that.

Water management

The city is threatened by climate change. The site needs to take care of both the sea level rise, storm surges and rainwater. In this place, environmentally friendly solutions should be evident and act as an element of education and inspiration for the visitor.

Integrated into the city

It is important that the site is well adapted to the city and the surroundings. A thorough analysis of the surrounding is important so the project can be connected and create a well-used place for every day. To make people stay in the park we want to create attractive public spaces with the best possible microclimate.

Delimitations:

The benefits of nature within the city are many. We are well aware of all the psychological health-aspects which is something that strengthen this project more but it is not what it will focus on.



The global goals and the local goals of Malmö Stad

Key question



QUESTION

How can we, by working with architecture, trigger a feeling of nature in an urban space where the connection between humans and nature often is lost today?



APPROACH

By creating spaces where people can experience nature through their senses.



Our goal is to create an attractive place in an urban context where the relationship between human and nature can be improved.

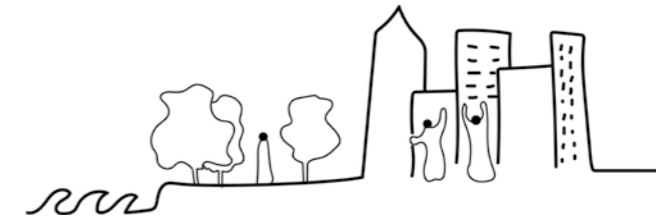
Pro-environmental behaviour
Experience nature
Exhibition design

Pro-environmental behaviour

Today, a lot of people are concerned about the climate crisis but do not think that they can contribute to the solution. They believe that them choosing to take the bike instead of the car or to start recycling won't make any difference on the bigger scale. It is easy to think that education about the environmental issue would lead to pro-environmental behavior, but research has shown that increasing knowledge did not automatically lead to action. (Kollmuss and Agyeman, 2010)

One reason why this isn't as efficient that one could believe is that we respond much better to direct experience than indirect experience. For example, learning about polluted rivers are not as likely to change our behavior to pro-environmental as seeing a dead fish in the water. Education is still important since people need to know about the environmental issue and know how to act to be pro-environmental, but it is not enough on its own. (Kollmuss and Agyeman, 2010)

Research done in England 2015 found a relationship between people's exposure to nature, their appreciation of nature and their pro-environmental behavior. The more time people spent in nature, the more they appreciate it - the more pro-environmental behavior they reported. The result showed that the correlation was evident in both high and low socioeconomic status households. The big difference lay in how much green space they had in the neighborhood as well as how near they were to the coast. As a conclusion, the researchers suggest that better access and contact with nature in urban spaces may be one way to create a more sustainable society. (Alcock, P White, Pahl, Duarte-Davidson and E Fleming, 2020)



Factors that lead to pro-environmental behaviours

Research has shown that the most important factors when it comes to pro-environmental behavior are the situation (if it's easy to recycle more people will do it) and inner motivation (childhood, emotions, self-gain). (Kollmuss and Agyeman, 2010)

The most common experiences that made people in the USA and in Norway to decide to become professional environmentalists in the '90s were (sorted after relevance):

1. Childhood experiences in nature
 2. Experiences of environmental destruction
 3. Pro-environmental values held by the family
- (Kollmuss and Agyeman, 2010)

This shows that to gain environmental awareness and to act pro-environmental, emotional connection to nature plays a big role. If we are told about the human destruction of nature by graphs and figures we don't seem to grip the seriousness. But if we see a picture of a koala who been hurt in the forest fires in Australia, we immediately start to care. (Kollmuss and Agyeman, 2010)

Another example is the connection with nature on a personal level: we notice that we feel happier after a walk amongst the flowers, the sound of the ocean makes us calm and we enjoy seeing our kids playing hide and seek by the trees. Apart from being important on its own, we selfishly care about nature

since the thought of not being able to experience these moments of joy and not being able to give our children the same access to nature makes us sad. In this case, our emotions towards nature make us consider changing our behavior so nature can be preserved. (Kollmuss and Agyeman, 2010)



1. Childhood experiences in nature

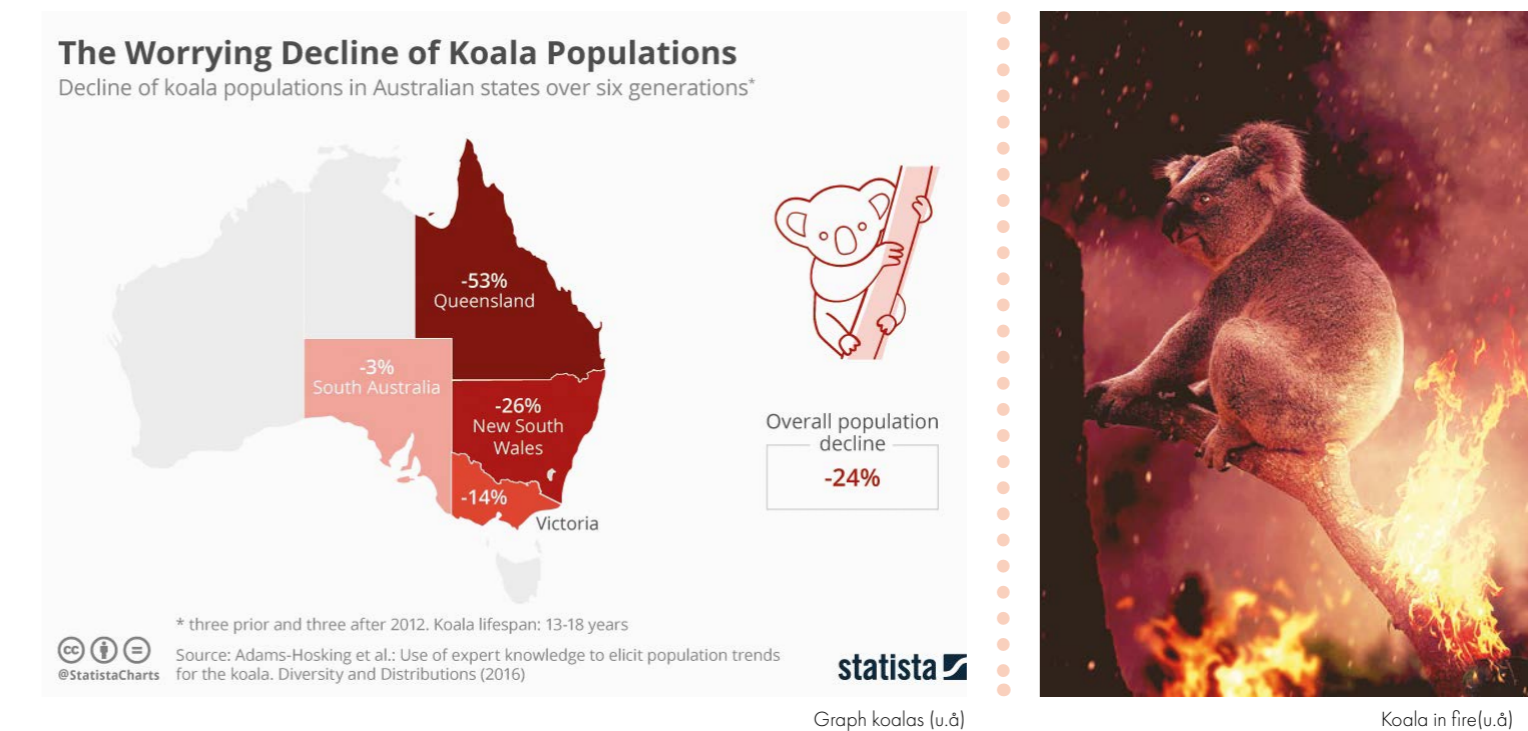


2. Experiences of environmental destruction



3. Pro-environmental values held by the family

Logic vs. emotion



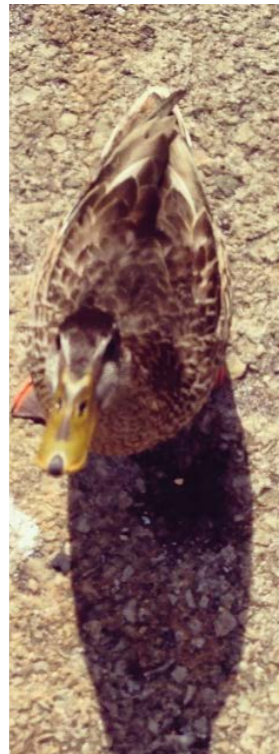
Experience Nature

Trigger all five senses

Sight



Sound



Smell



Touch



Taste



Senses

Sight

Just by seeing nature the human mind benefits from it. One of the most famous studies is one where half of a group of people had a tree outside their hospital window which they could see from their bed, while the other half didn't have a tree. The group who had a tree to look at recovered faster and could leave the hospital earlier. (Franco, 2018)

Sound

Nature provides all different kinds of sound. One of the sounds that many find relaxing and beautiful is the bird song. Studies have shown that exhibitions, where they combine both sound and sight, are much more pleasant and relaxing than the ones that only used the sight. (Franco, 2018)

Smell

Smell has a calming effect and there are many long-standing traditions where we use smell to make people relax. We also tend to like the smell of people and things we feel attached to and like. If we like their smell, we want to take care of them/it. (Franco, 2018)

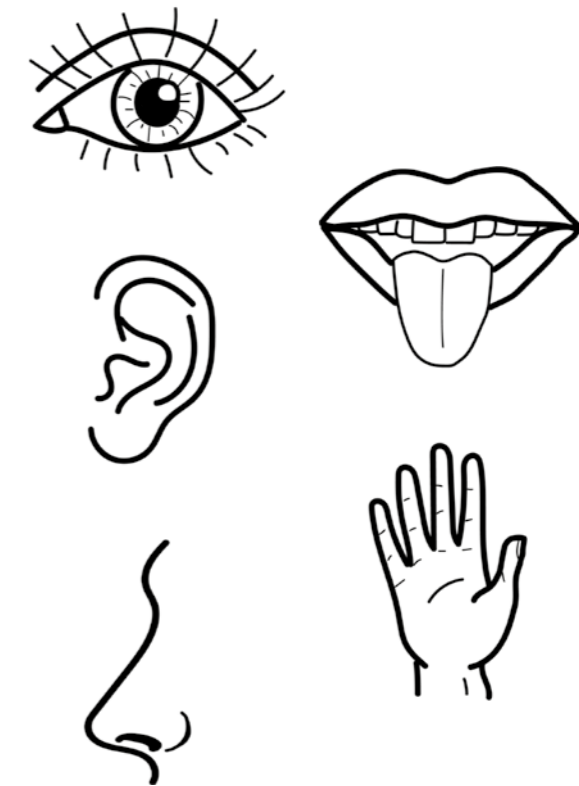
Touch

There are many studies about the touch between humans, and they all show that the human touch is important for our wellbeing. But what about the touch of nature? The feeling of walking barefoot in the grass can be very satisfying.

Taste

The taste is built to give us information about the food. Something sweet is likable while bitter is not as pleasant to eat. The taste helps us to know if the food we eat is bad and should not be eaten. Emotions while eating can be many, and are often associated with joy. We have to eat to survive and are made to focus on eating to keep healthy! (Franco, 2018)

Our perception is that nature triggers all our five senses. To be connected and to take part of the nature all these senses should be present.



Exhibition Design and the visitor's needs

When trying to attract visitors to an exhibition, the design and the exterior of the museum plays a crucial part. It should both give a hint of what's inside and make people interested when passing by. Building a new museum can turn a boring site into an iconic piece of art and give an identity to the place where it's built. (Hughes, 2015)

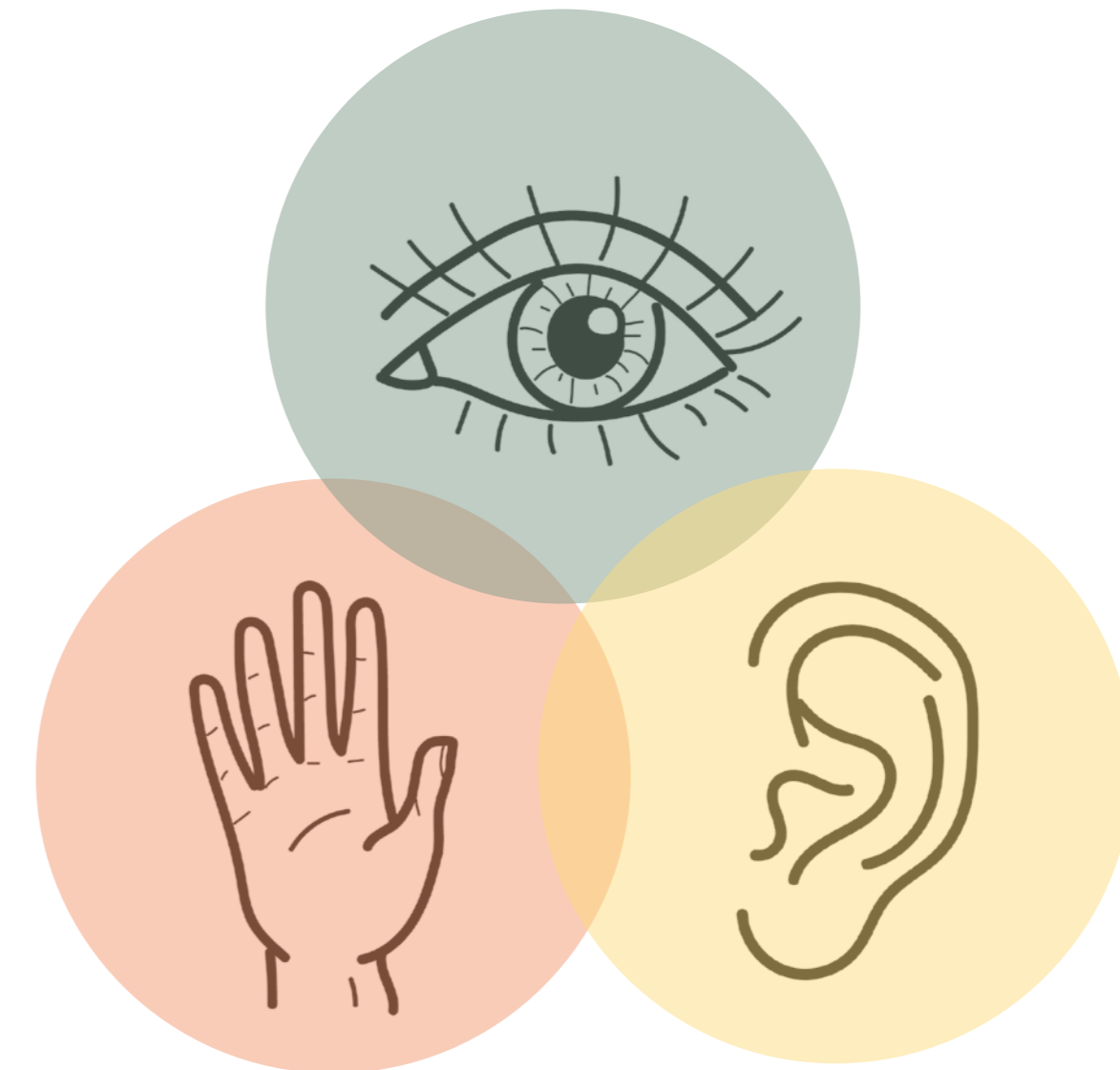
Traditionally this is said about museums, but can also be applied to other public spaces and the built environment. It's important to see the visitor and to reflect upon their needs: What will make them want to enter the area, how to make them stay and why they would like to come back. (Hughes, 2015)

The visitors can be categorized into three different types of learners/visitors and to meet everyone's needs it's best to have a balance between all three:

- **The visual learner:** They learn with their sight and prefer images and three-dimensional sculptures and to take in information by watching.
- **The auditory learner:** They learn from listening and prefer verbal communication and sounds.
- **The kinaesthetic learner:** They learn from touching and prefer a hands-on approach and to interact with the environment. (Hughes, 2015)

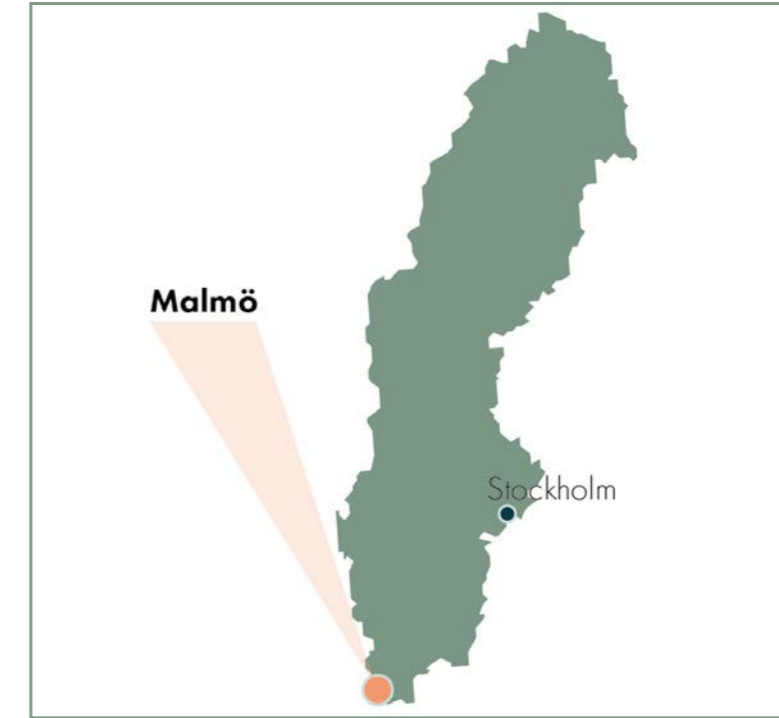
Besides taking into account the different types of learners, it is also important to meet the basic needs that apply to all visitors. The USA Visitor Service Association made a "Bill of Rights" to present the main obligations of exhibitors. Here are the first 5 rules that can be applied to all public spaces: (Hughes, 2015)

- 1. Comfort: "Meet my basic needs"**
 - 2. Orientation: "Make it easy for me to find my way around"**
 - 3. Welcome/belonging: "Make me feel welcome"**
 - 4. Enjoyment: "I want to have fun"**
 - 5. Socializing: "I came to spend time with my family and friends"**
- (Hughes, 2015)

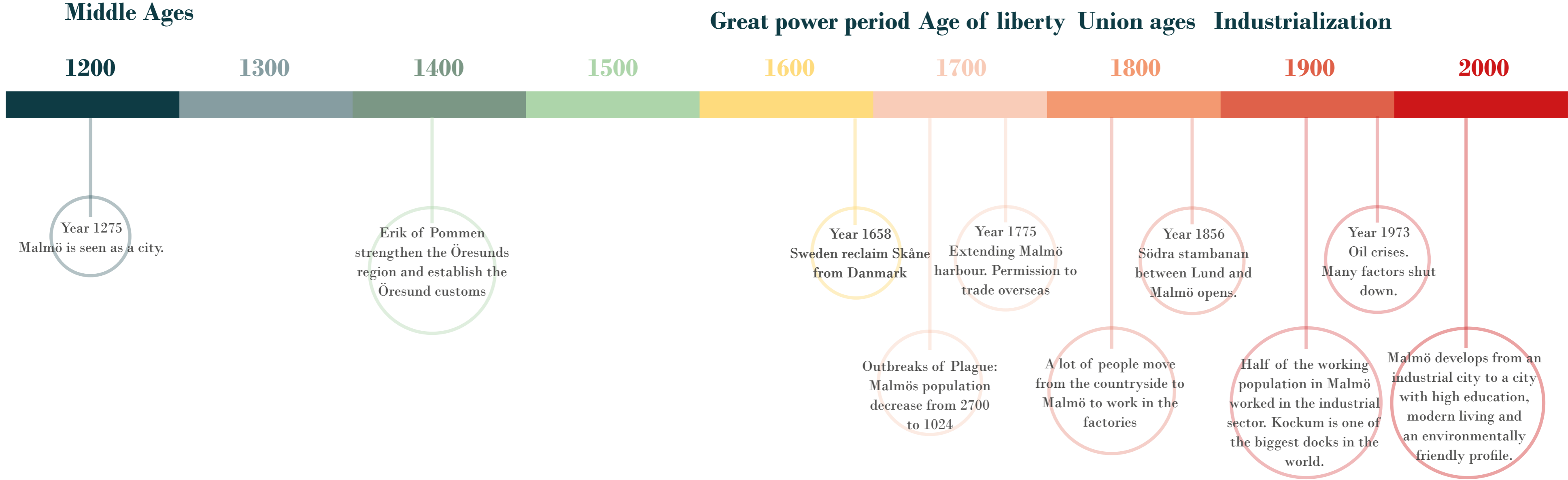


The site

Malmö
The site



The timeline of Malmö



The development of Malmö

Malmö is the third biggest city in Sweden and has been that ever since the year 1870. The harbour has had a big impact on the development of the city and made it possible to develop a lot of industries by the sea. (Malmo.se, 2019)

In the '50s, half of the working population in Malmö worked in the industrial sector. Kockum was the biggest employer and one of the world's biggest docks.

However, after the big oil crises between 1973-1974 a lot of industries closed and many moved away from the city. The fall of the industrial city was followed by the economic crises in the '90s. After the city repaired itself from the crises, big changes were made. (Malmo.se, 2019)

Today the city keeps on growing and the municipality has big plans for the future. The industrial identity has been exchanged and today the focus is on education, smaller to medium-sized companies, environment and the Öresund region. They have taken advantage of their former industrial history and are now using the old factory sites around the harbour to build new attractive public spaces and apartments. (Malmo.se, 2019)

This is how Malmö's municipality describes the city: "Malmö University opened the year 1998 and is already one of the country's biggest centers of learning when it comes to undergraduate studies with over 21 000 students. 85% of the companies in Malmö have less than 10 employees. (Malmo.se, 2019)

Malmö is one of the most fast-growing cities in Sweden. The population is growing, both through immigration, people moving from other parts of the country and a lot of families with kids chose to stay. (Malmo.se, 2019)

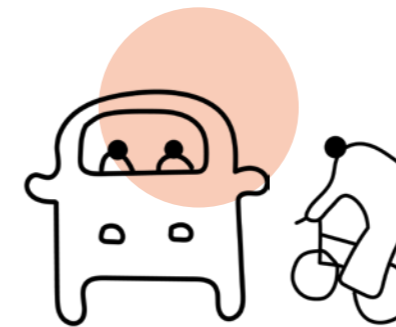
New districts are developed and new housing areas are being built. Västra Hamnen och Hyllie are two big districts under progress and there are more to come. The infrastructure has been extended with the Öresunds bridge and the City tunnel which is important for Malmö both today and in the future. (Malmo.se, 2019)

Malmö today



Inhabitants

344 650 inhabitants 30th September 2019
49% are under 35 years old.
186 nationalities
1/3 are born abroad
(Malmo.se, 2019)



Transportation

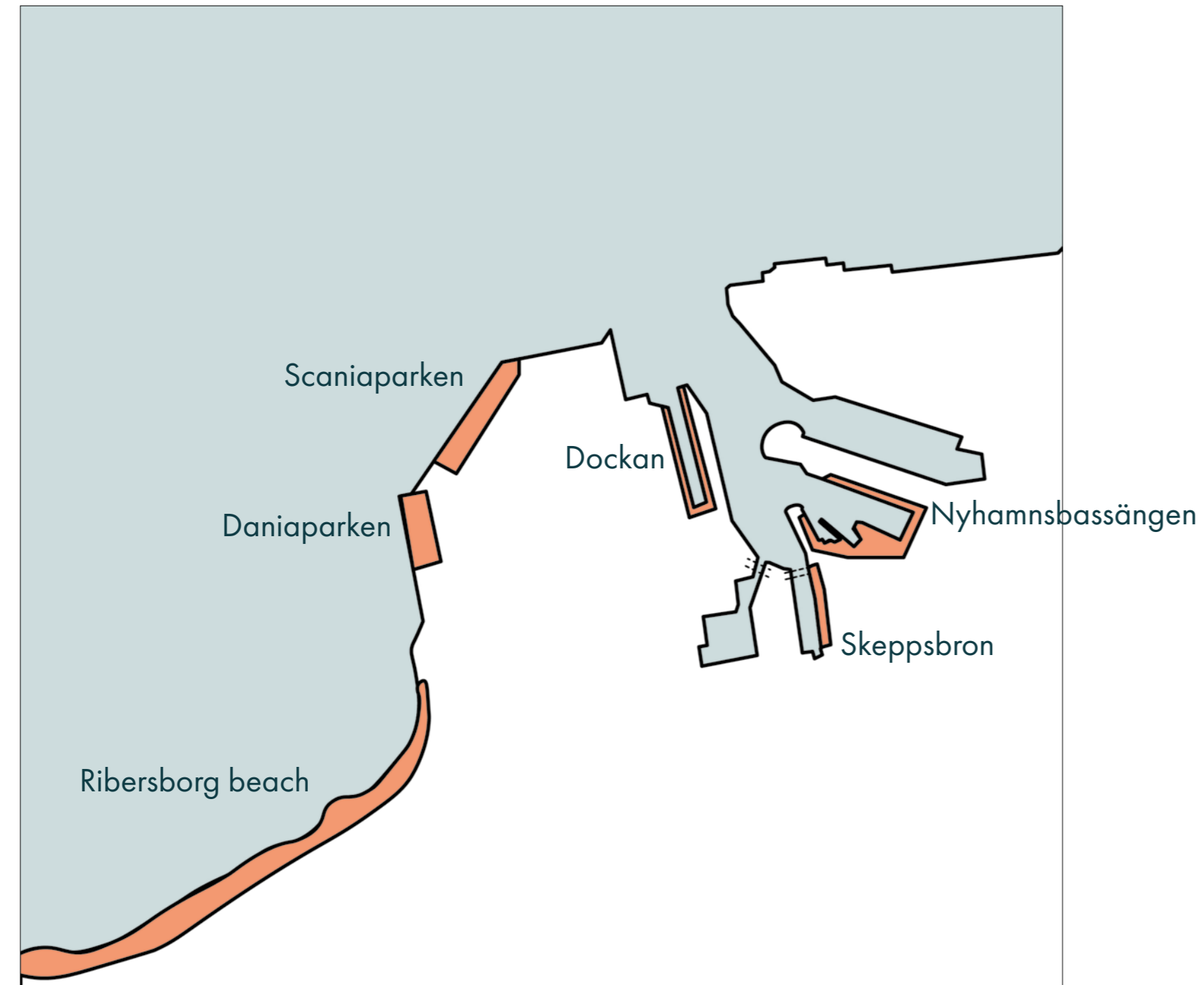
38 000 people travel for work to Malmö from other municipalities.
34% of the inhabitants travel by car
26% by bike
25% by public transport
14% by walking
(Malmo.se, 2019)



Education & occupation

50% have post-secondary education
67,8% between 20-64 year old were employed 2018
110 000 people live and work in Malmö
(Malmo.se, 2019)

Malmö waterfront



Ribersborgsstranden 2011

Ribersborg beach

Ribersborg beach is Malmö's most visited beach just a couple of kilometers from the city centre. It is a man-made with a long boardwalk along it. Here, it is possible to take a swim and the shallow water makes it child-friendly. Malmö open-air swimming-bath, built 1898, is located here. There are a lot of big open spaces, both grass and sand which makes this a place with a variety of activities. (Malmo.se. 2019i)



Daniaparken

Daniaparken is a popular park for Malmö's citizens. The architecture is strict. A park is often imagined as green and leafy, but here concrete, stone and wood are dominating materials. The place is used for sunbathing, swimming, concerts and events. The park is all about the sea with open spaces to experience it and the wind to the fullest. It is close the landmark Turning Torso. (Malmo.se. 2019j)



Västra hamnen(2012)

Dockan

Dockan is a marina for small boats. The tall buildings are close to the edge of the water. The quay feels more private due to the residential buildings with its balconies above.



Visionsbild över Nyhamnen©Mandaworks

Nyhamnsbassängen

In the plans for Nyhamnen, there is a lot of focus on water activities. Nyhamnsbassängen will be a place for activities both on top of the water as well as in it and next to it. Built-up quays will create a more intimate room. (FÖP Nyhamnen, 2019)

Malmö and the development of Nyhamnen

A golden opportunity

Malmö is a city that is constantly growing and the population and offices are expected to keep on increasing during the coming years. (FÖP Nyhamnen, 2019)

They are moving the harbour in Malmö and a golden opportunity has appeared to develop a new attractive and central area. An area which will include offices, residents and places with different qualities for the city. The city of Malmö has strong connections, both regional and national. With the new metro train that is planned between Copenhagen and Malmö, the city will have an even stronger connection to Europe. (FÖP Nyhamnen, 2019)

The city wants to create new urban environments close to the water and give the residents different ways to use the seaside. The access to water is one of the great assets for Nyhamnen. (FÖP Nyhamnen, 2019)

Nyhamnens character will be built up by four main themes:

- Greenstructure and water
- Migration and diversity
- Culture and meeting
- Food

(FÖP Nyhamnen, 2019)



The area Nyhamnen

New connections - FÖP Nyhamnen

Below is a diagram with future connections and visions of the development of Nyhamnen from Malmö stad's document "Fördjupning av Översiktsplan för Malmö" from December 2019. One of the new connections is a bridge that the municipality are planning to build between

Universitetsholmen and Jörgen Kocksgatan (FÖP Nyhamnen, 2019). In this project the FÖP of Nyhamnen has been used to understand the visions for Malmö around this area. The document has been critically reviewed by us and we have made our interpretations from their visions.



graphically interpreted by authors
(info from FÖP Nyhamnen, 2019)



Important new connections

Nyhamnen will emphasize the existing connections along the east-west axis. New connections along the north-south axis will open up for new possible ways to move from the north of Malmö to the south. New landfills will also open up a connection from Västra hamnen and make the area around the central station the city's true center. (FÖP Nyhamnen, 2019)



Blue and green theme

To move within Nyhamnen is to move between open water and sea views (blue) and narrow lush and green environments (green). The inner part has green spaces as an important element, meanwhile, the outer has the sea as its strongest character. (FÖP Nyhamnen, 2019)

Green corridor

Jörgen Kocksgatan will become a new green corridor with parks and recreation. This is where the north of Malmö meets the south. This axis can become a green and creative path where biodiversity and recreation is important. The movement along Jörgen Kocksgatan is going to be extended with a new bridge over the water to Universitetsholmen. (FÖP Nyhamnen, 2019)



Green and blue loop

Jörgen Kocksgatan will be a part of a recreational loop, that will connect the blue and green themes. (FÖP Nyhamnen, 2019)

Key Values for Nyhamnen:

”A city centre that meets the water”

”An inclusive identity”

”Focus: Humans”

**”A part of Malmö for everyone
in Malmö”**

**”Innovative and challenging
sustainable urban design”**

(FÖP Nyhamnen, 2019)



Visionsbild över Nyhamnen©Mandaworks

The site

Skeppsbron

Now that Frihamnen is being developed north of the existing city centre, this site will become an important junction between the two. The area around Malmö Centralstation has gone through major changes within the last 10 years. The municipality is trying to make it become Malmö's new entrance and to make it emphasize the city's identity. (FÖP Nyhamnen, 2019)

Skeppsbron, which is an old quay, is also part of this new entrance but seems to be forgotten. Today it comprises a big parking lot, but Malmö stad has decided that Skeppsbron should become a green area in the future (Malmö.se, 2019). We saw the opportunity to develop this dense and urban place to something that could become useful for the whole city.



Ortofoto Malmö (u.å)
Malmö Stadsbyggnadskontor



Ortofoto Malmö (u.å)
Malmö Stadsbyggnadskontor



Malmö Live



Train station



Skeppsbron Today



Stortorget



Lilla Torg

History of Skeppsbron

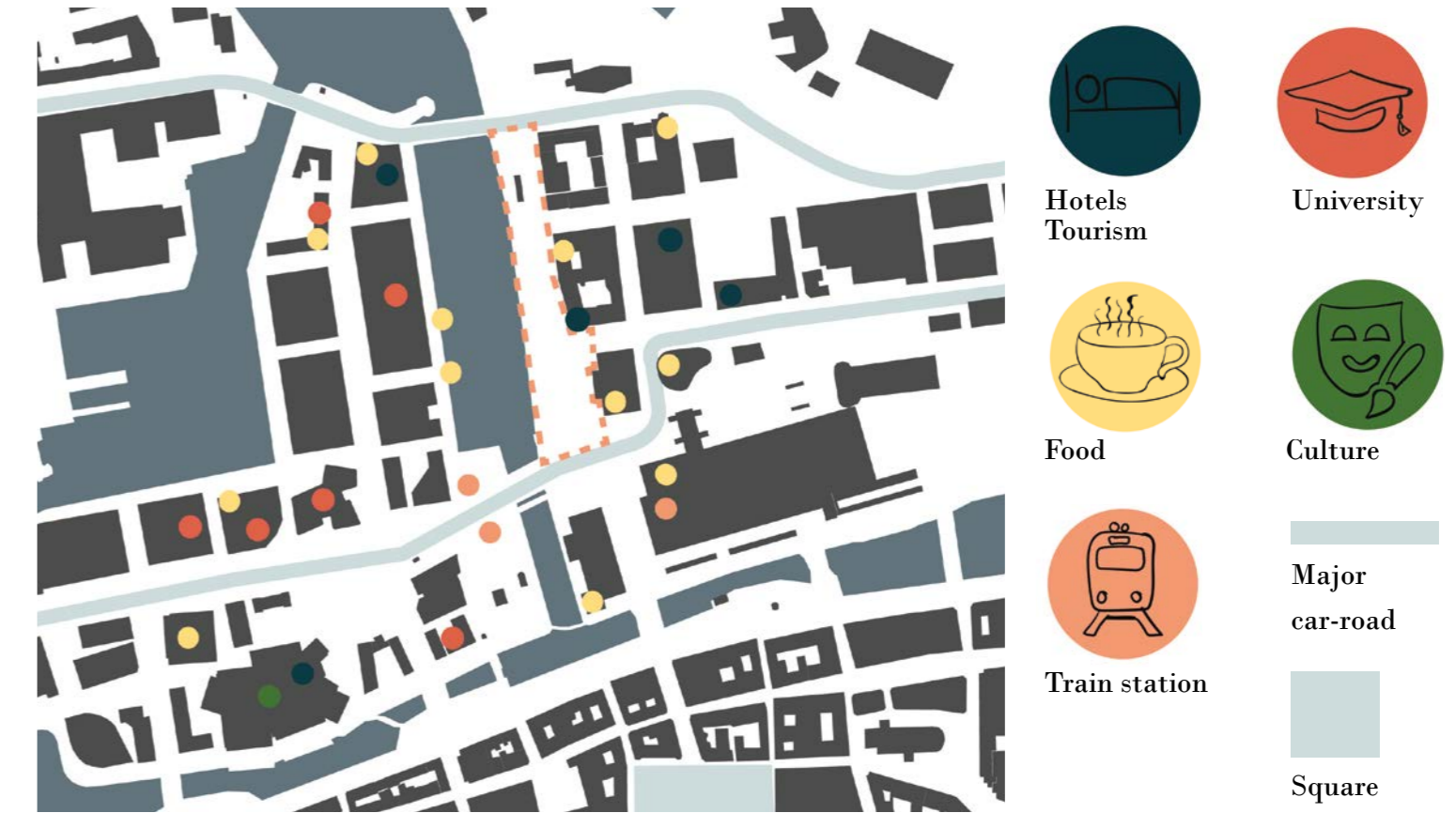
The year of 1775 Malmö started to develop its new harbour. The front person for the project was Frans Suell, who supervised the work. He made sure the harbour consistently developed and got bigger and bigger. The expansion of the Malmö harbour is a process that has been going on ever since. (Pedersen and Lund, 2002)

Skeppsbron and the inner port

The inner port is the oldest part of the existing port and the construction started in the early 19th century. The constructed land was easy to flatten, and therefore a train station got built on the site. The flat surface ensured that the trains would stay still at the station. The train station has been

rebuilt and expanded multiple times. When the port expanded furthermore, a perpendicular road system was built as well as stone buildings for different uses; residential, public and offices. (Pedersen and Lund, 2002)

The other strong character of the inner port was the ferries. 1894-95 SJ built a stop in the area for the ferries that would go between Malmö and Copenhagen. At first there were both freight and passenger traffic at Skeppsbron, but after the year 1950 the passenger traffic dominated Skeppsbron. After the Öresundsbridge was built, the boat traffic between Malmö and Copenhagen decreased and eventually disappeared. (Pedersen and Lund, 2002)



Functions around the site

The site is located in a mixed area where there are both residential buildings, mixed buildings and commercial buildings. On the opposite side of the water is Universitetsholmen where Malmö University is situated as well as its library, Orkanen. The different types of buildings, as well as the proximity to the train station, contribute to a variety of visitors in the area.

It is possible to see both turning torso and Malmö Live from the site at the same time, both of them characteristic buildings for Malmö.

The buildings surrounding the site are tall and from the buildings at Universitetsholmen there's a great view over the whole site, which means that it also affects people who are indoors.

Architecture

The buildings surrounding this site vary a lot in their architecture. The first buildings were built around 1900 and there are still new projects being built at the site as we write. The variation of new and old shows both Malmö's history, as well as their ambition for the future and wish to continue to thrive.



Centralposthuset 1900-06



Sundhuset 1911



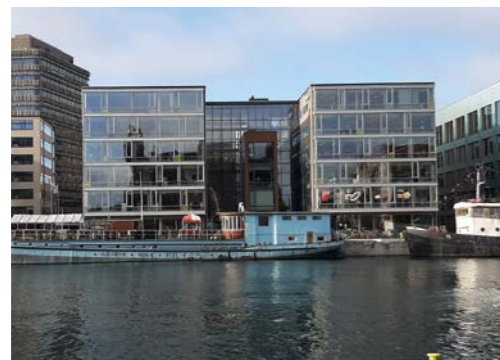
Kolgapalatset 1934-35



Orkanen, Malmö universitet 2005



Studio 2016



SWOT analysis of site

Strengths

-that should be emphasized

- The site has access to the sun almost all day long
- Easy accessible with public transport due to its close location to the train station
- The site is adjacent to the sea

Weaknesses

-that could be improved

- The site has two big roads in south and north that could act as barriers
- The site is not accessible from all directions because of its water location
- The shape of the site limits the shape of buildings built on it
- The site can be exposed to strong wind

Opportunities

-that should be made possible

- Could become a junction between the Nyhamnen and Malmö city centre
- Could become a first meeting with the sea from the city centre and train station
- Could become a link in a green structure for biodiversity
- Could become a link in recreation paths

Threats

-that could change the strengths

- The climate change makes it a place risk for flooding
- The plans for Nyhamnen might not happen or will be delayed
- Connections and important movements that are planned in the future will not work as they were planned

Chapter 2

SITE CONDITIONS

Introduction Movement & activities Surroundings

Public Life

Introduction

Public life, also called human behaviour in the built environment, is a topic that is more and more discussed. In the last decade, the public life in some cities has been forgotten and nonexistent due to the prioritizing of complex infrastructure systems. To study public life and actively work to improve it can help to create human-friendly cities and public places.

So, what does public life consists of? It can be divided into two activities; optional and necessary (Gehl and Svarre, 2013). What public life covers in our interpretation is both recreational activities as well as movements, such as going from A to B (which is what we believe the most common reason to move in the built environment).

Our aim is to create high quality of public life in our project to act as a magnet for the visitors and invite them to take part in a nature experience, as well as using the public life as a factor to create a place that people want to return to. The public life at the site and surrounding will be analyzed and important strategies will be made as a help when creating a vivid public life.

To be able to get specific and useful knowledge about the public life at the site today, it is needed to divide activities and questions systematically (Gehl and

Svarre, 2013). This chapter will be divided into those activities and questions we found extra relevant.

Today, a lot of cities redefine their identity when old functions are moved from the centre to the outside of the city instead. For example many cities open up for an urban waterfront at attractive locations when the harbours are moved to less central locations. Still, it is important to keep in mind that not everyone feels invited to occupy these new areas. (Magnusson, 2016)

Malmö is one of the cities that are using the old harbour to create new attractive places, as previously mentioned with the area Nyhamnen. Our site, Skeppsbron, is a part of this new urban waterfront. One of the goals for Nyhamnen is that it should become a part of Malmö for everyone (FÖP Nyhamnen, 2019). By making our project opening up for great public life and also becoming an entrance for Nyhamnen, we think it could be an important part of the strategy that is being used to achieve the goal for Nyhamnen and Malmö.

Our observations on site have been made at different times of the day. Microclimate, which can have a heavy impact on the public life, is also considered. The connections between microclimate, public life and urban design are covered in the chapter Microclimate.

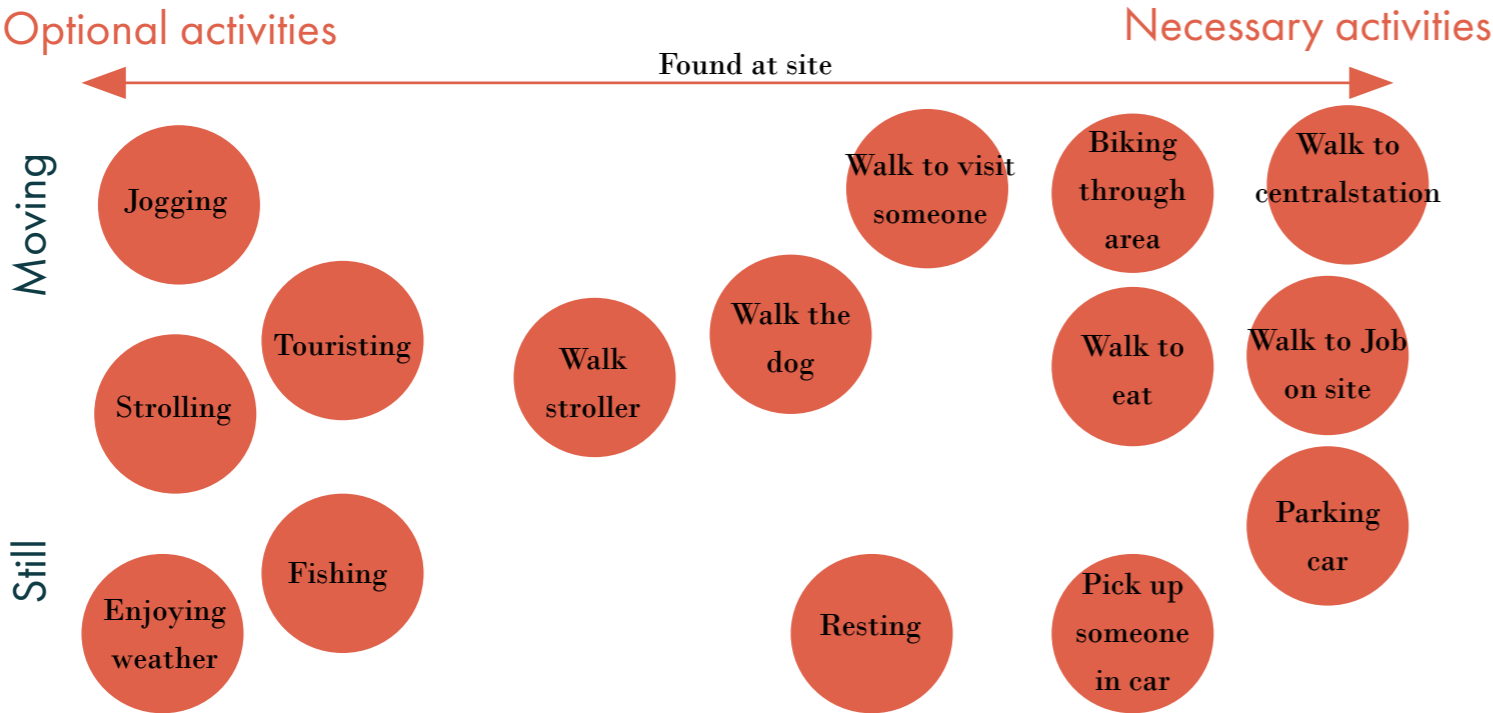
Movements & Activities

Site study

The activities in public spaces can be divided into two categories; necessary and optional. Examples for necessary can be going out for shopping, walking to or from the train station and waiting at a crossing. Examples for optional can be jogging or sitting and enjoy the sun. Activities can be in between as well. An example of that can be someone that walks his or her dog. The dog needs to go out for a walk no matter the weather, which gives it some necessity into it, but to have a dog is most likely something optional and therefore the walk has some level of option. Looking at the development of public life and the use

of the city, the distribution between necessary and optional activities has changed. The activities have evolved gradually from primarily being necessary activities, to become more and more optional. The city is no longer something we only use for needs (trading, working etc). (Gehl and Svarre, 2013)

This shows that to actively create spaces where public life can take place is even more important now, since the city of today is shaped by the former (necessary) use of it.

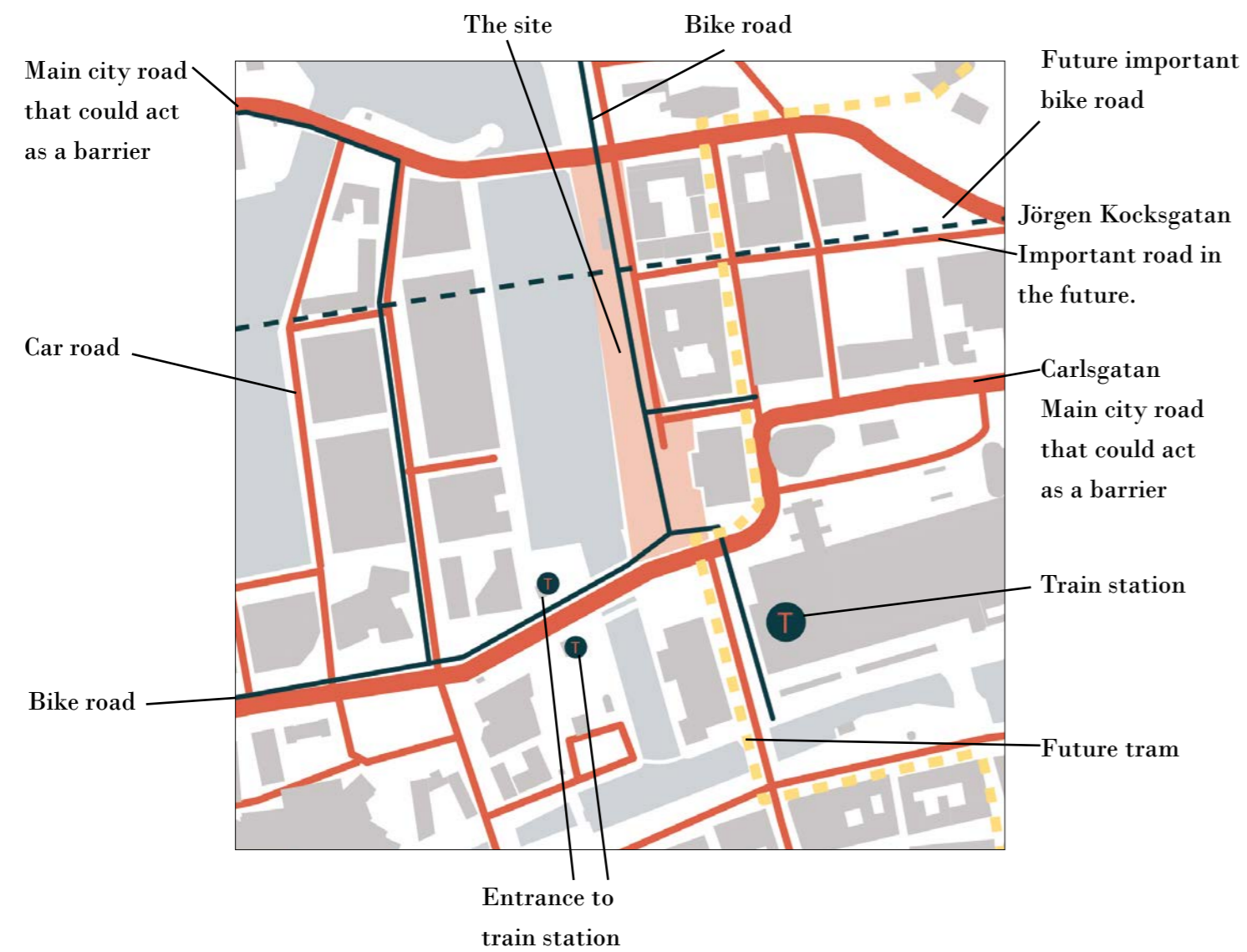


Conclusion activity study

The site has a lot of public life today, mostly consisting of movement when people use it as a part of their route when they need to get somewhere. What surprised us was that also many people used the site to enjoy life, rest or enjoy the view and weather. The site is well used in optional activities even though it is not designed for it. This could mean that the site has the potential to act as a vivid public space.

Our public life study shows that the site has a connection to many different kinds of activities. Many people went through or to the site with different purposes of their walk. The age of the people varied from young persons to the elderly with a walker. This already, before the project is even built, provides the basis of many different kinds of people.

Infrastructure



Movement and behaviour

To study the movement on the site allows us to see key places and how the site is used today. The main flow is through the site, probably because the site only contains a big parking lot. The "where question" (where people want to stay), can relate to where people place themselves in relation to other people, buildings and city spaces, or to the climatic conditions (Gehl and Svarre, 2013).

The square in front of Posthuset is the only designed outdoor space on Skeppsbron. The steps down to the sea are used for sitting, even though the layout is not suitable for sitting. The steps are very low, which only allows sitting for those who can handle that low seating. The first visible movement is the movement through the site, those people choose to take the pedestrian path in the middle. Many of them stroll and are not in a hurry. The other pedestrian flow is the one along the facades, and those people have one thing in common: they are going to visit one of the buildings on site.

Many bikes are going through the site and a lot of them come from Carlsgatan. In the north of the site it is clear where to bike, but around and on the square adjacent to Posthuset, many people are confused about where to bike and choose different ways. This contributes to a less safe feeling for the pedestrians.



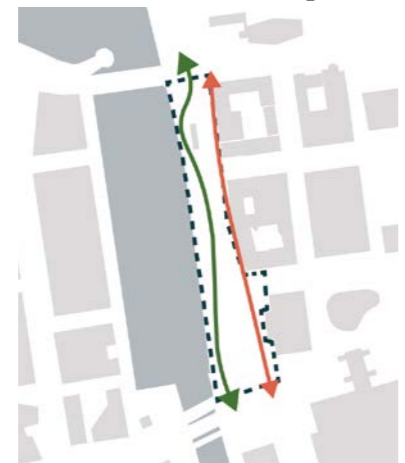
Opportunities

The life in public spaces is based on peoples need for social acknowledgment. An example is promenading, it is one way to satisfy the need to see and to be seen. People often need an excuse to stay, it can be to read a newspaper, to supervise children or to look at an artifact. (Gehl and Svarre, 2013)

On the site, there are not so many spaces, buildings or artifacts that give these opportunities.

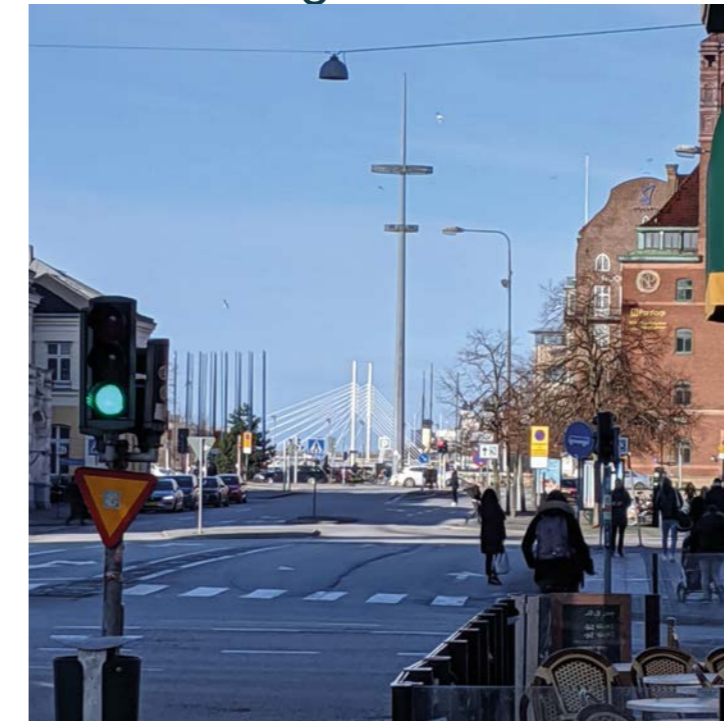
The existing movement on the site gives us the possibility to create a path for promenading and use it strategically when creating places where people can stay.

The almost nonexistent artifacts and places to stay, gives us the opportunity to take control over the place and choose where and why we want people to stay. As William H. Whyte says in his book the social life of small urban spaces: "people tend to sit the most where there are places to sit".



Opportunities to create a path for recreation.

Surroundings

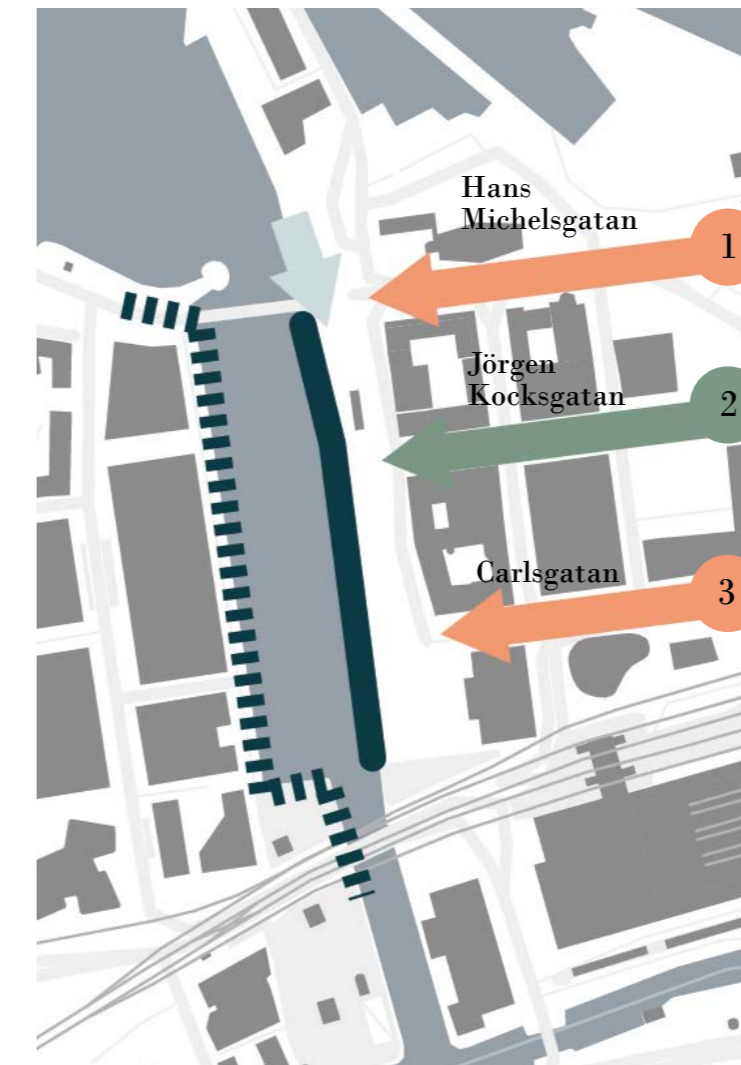
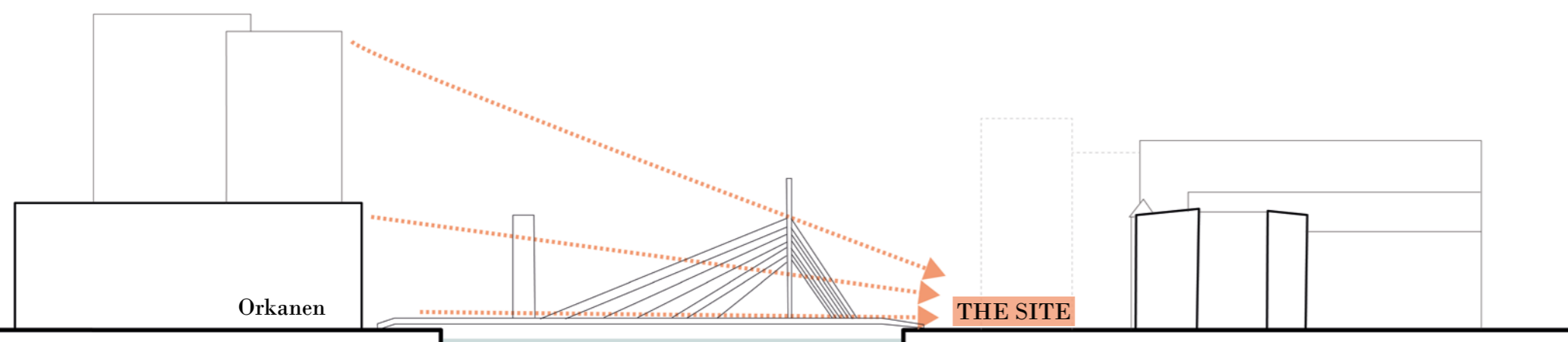


Visible from everywhere

The site needs to take care of many different sightlines and views. Many of the surrounding buildings can see the site from their window and the site has the opportunity to create value for those as well. The new planned bridge from Orkanen opens up for better communication with the visitors on the other side of the water.

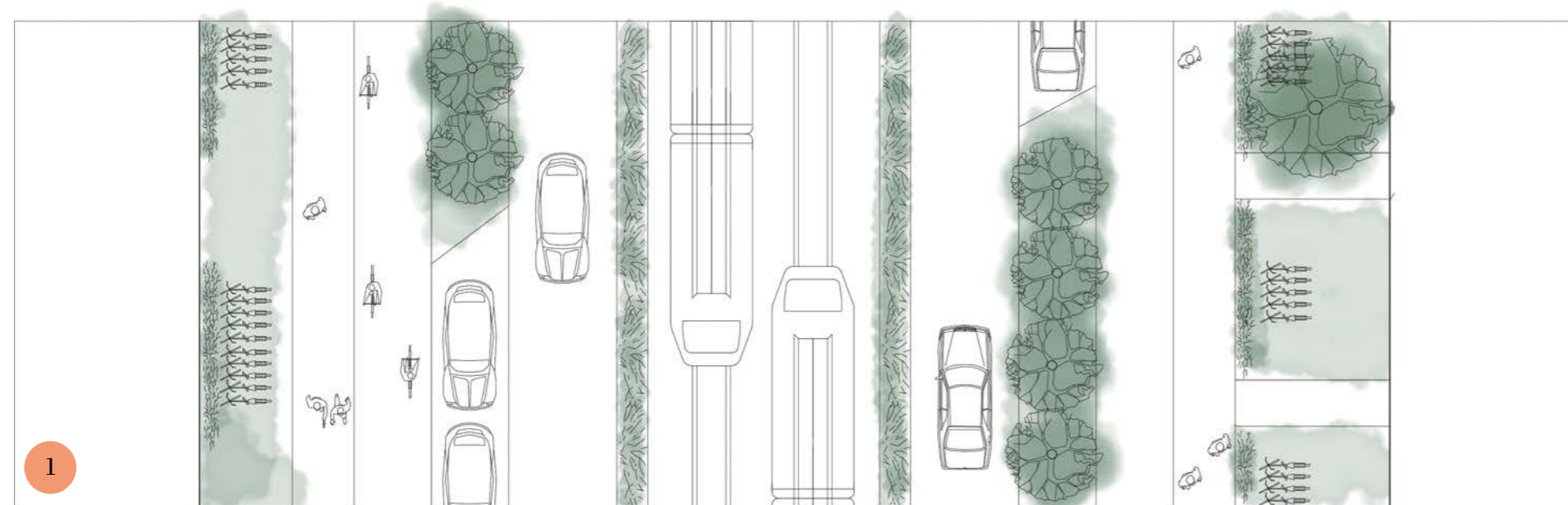
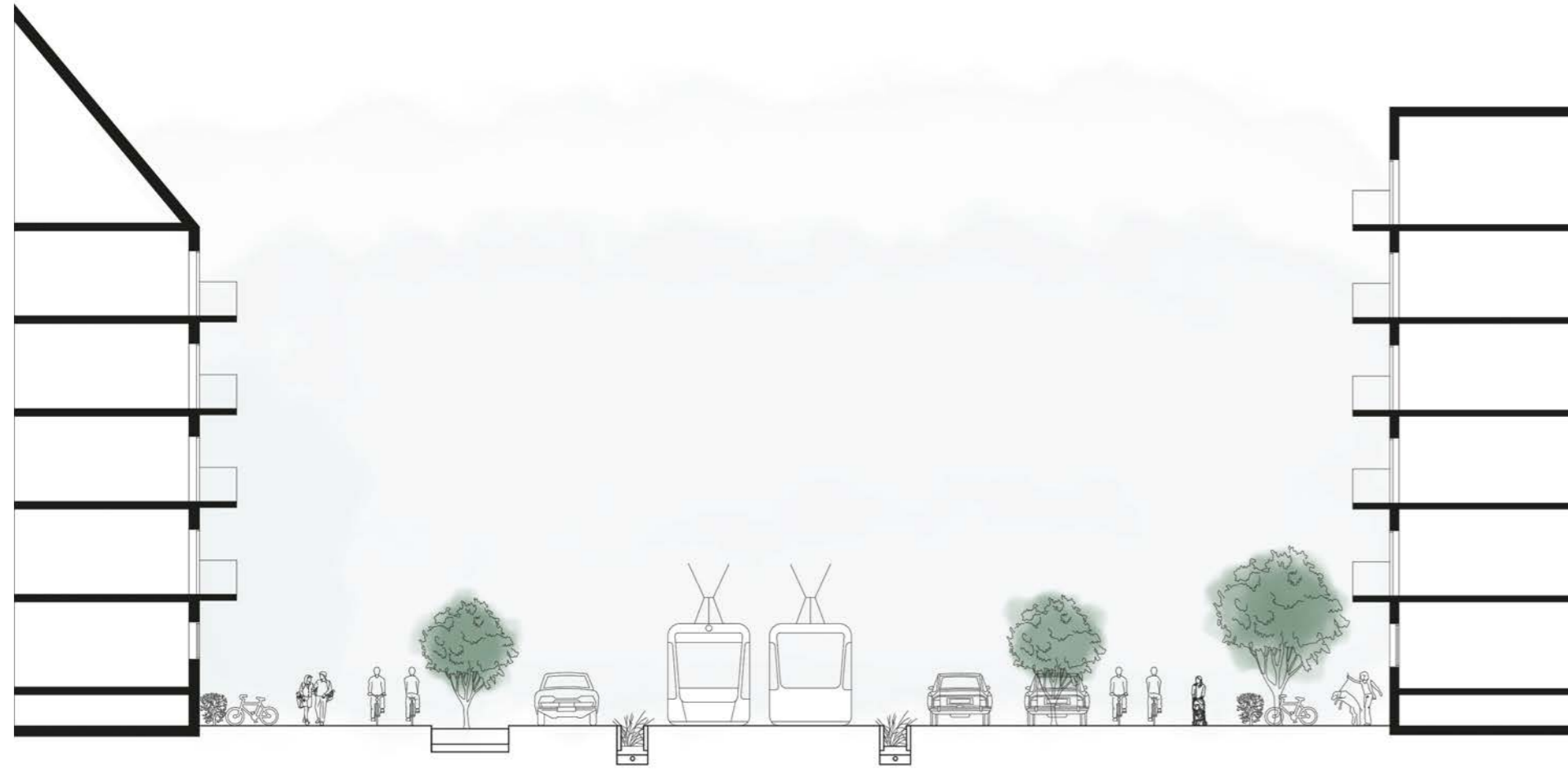
The project will become both visually pleasant for the user inside the site as well as the viewer from further away.

Now when Nyhamnen is being planned, a lot of different characters will influence the site. The streets in the east are not defined and built yet. In FÖP Nyhamnen Malmö municipality has created intentions for the streets, which we have used when creating a vision of how we think the new streets should become, see next pages.

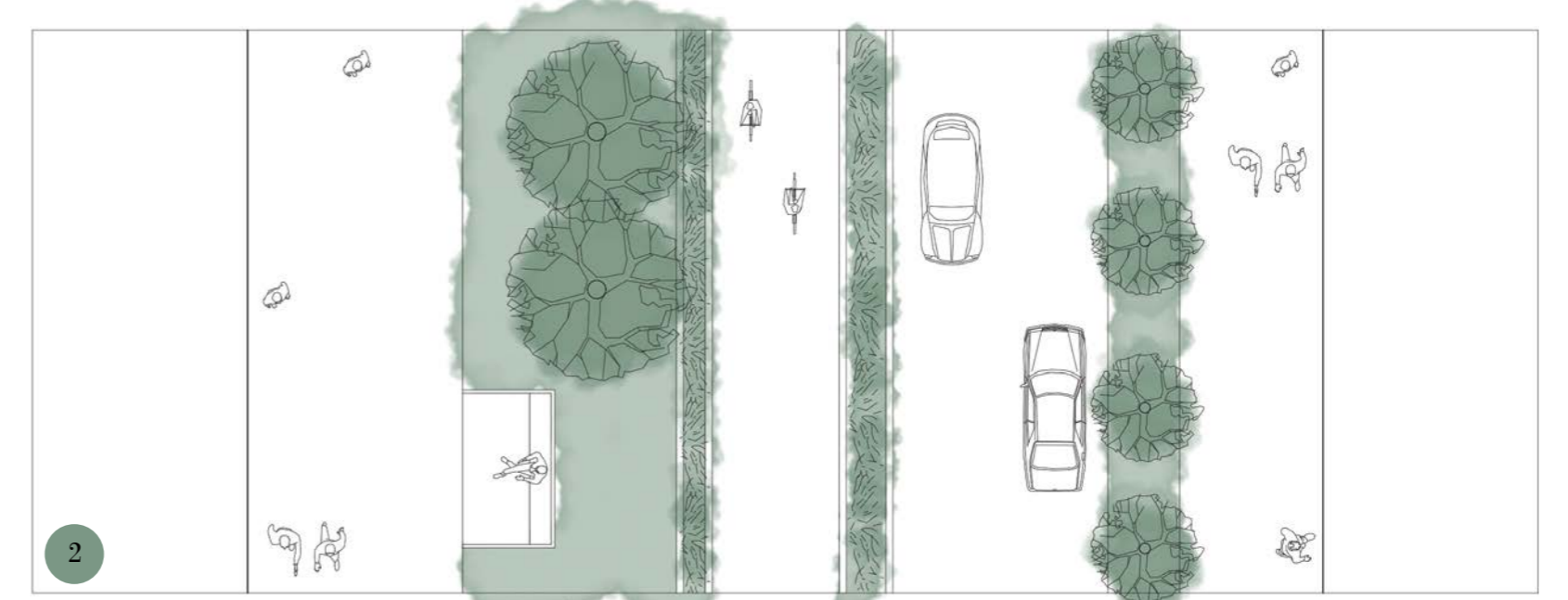


Characters

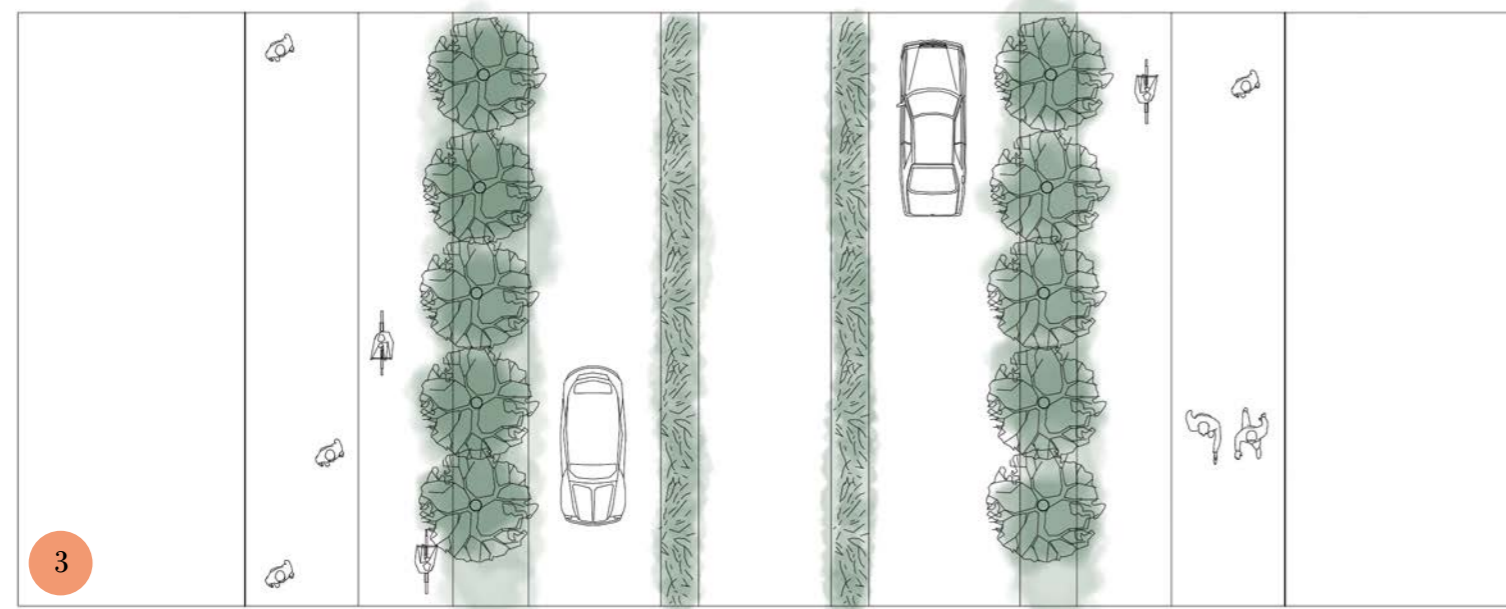
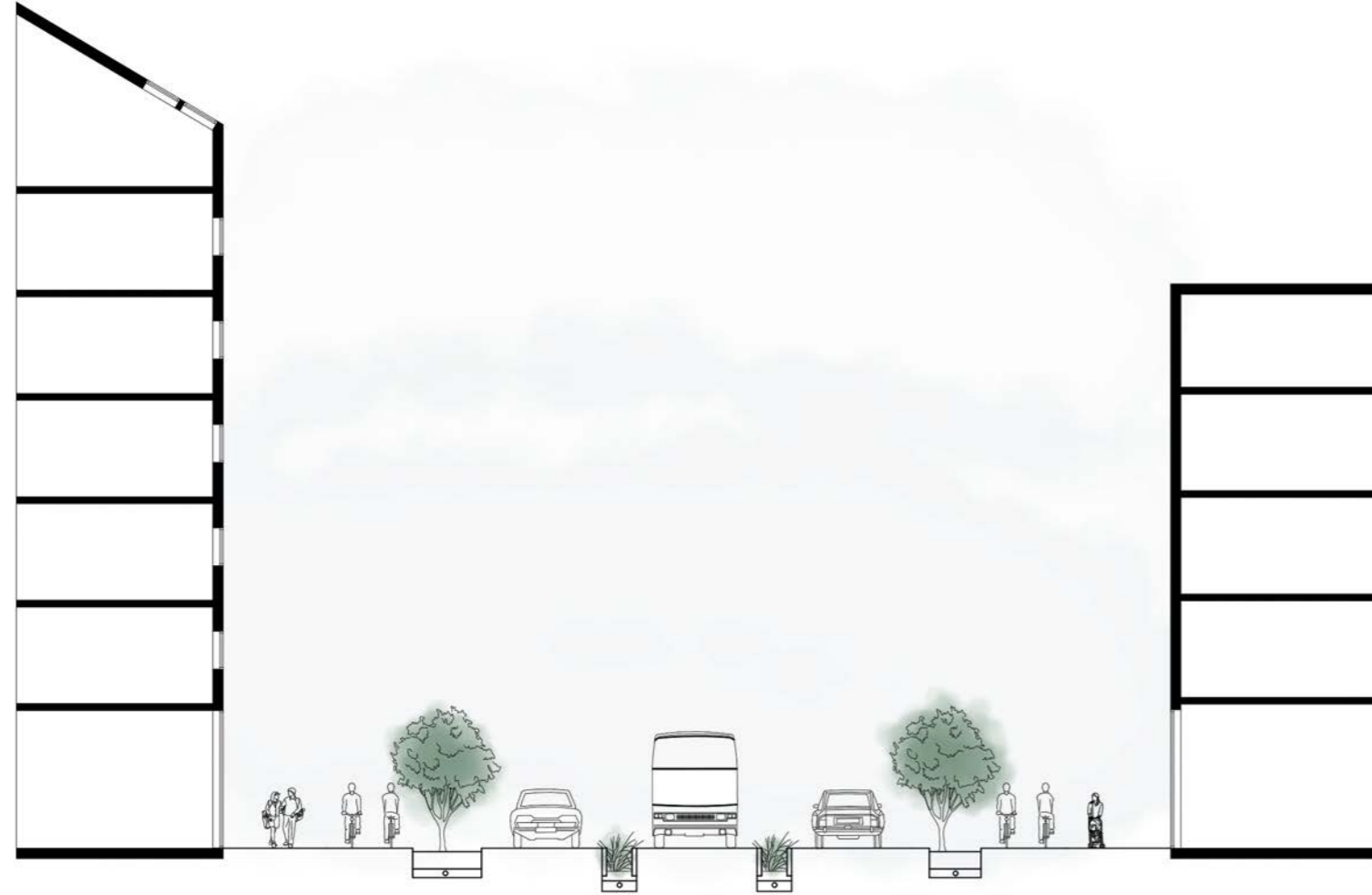
- 1 - Hans Michelsgatan and Carlsgatan are two main traffic streets with well-defined uses of street.
- 2 - Jörgen Kocksgatan is green and more flexible with a focus on the human scale.
- 3 - The area north of the site will focus on mixed buildings with commercial lower floor.
- 4 - The edge of the quay will be urban with a lot of places to connect with the water.
- 5 - The edge in front of Orkanen has many commercial boats. The edge is not used to enjoy the sea, due to the bad sun-location.



Our vision Hans Michelsgatan 1:200



Our vision Jörgen Kocksgatan 1:200



Our vision Carlsgatan 1:200



Sightlines

→ - Important sightlines.

⊞ - Important places, edges and sightlines.
 These places will tie the area together with its surroundings. It should be places to stay, and places that will catch the sight without interfering with the strong building characters around.

Climate smart

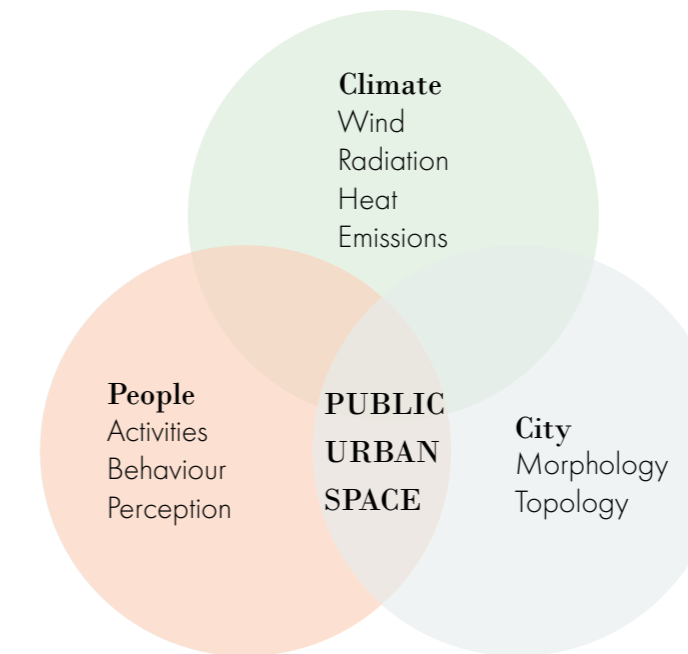
Microclimate
Water
Green loop

Microclimate

A factor that has a huge impact on the comfort and well-being in a city space is the actual climate where people are sitting or walking. There are three levels of climate: Macro-, local and micro-climate. Macroclimate is the regional climate. The local climate is within cities and built structure, affected by topography, landscape and buildings. A microclimate is a local climate at a specific zone. An example can be the climate for a single street or at a specific bench (Gehl, Jan 2010). In the study that William.H.Whyte did in his book "The social life of small urban spaces" it shows that people often are seeking suntraps, and equally important for these suntraps are the absence of wind and drafts.

The solar heat and absence of cooling winds can increase comfort in a microclimate and invite people to stay outdoors even on cold days. On the other hand, during a hot summer, the same can decrease the microclimate at the spot when people want to seek a cooling breeze. Therefore it is important to provide different kinds of microclimate depending on the year and the local climate. (Gehl, Jan 2010)

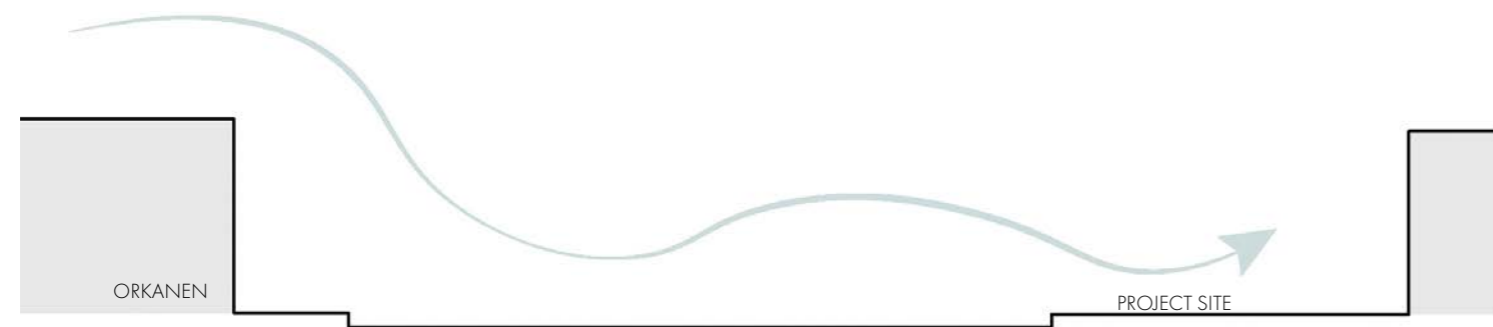
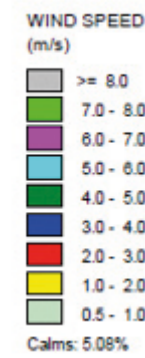
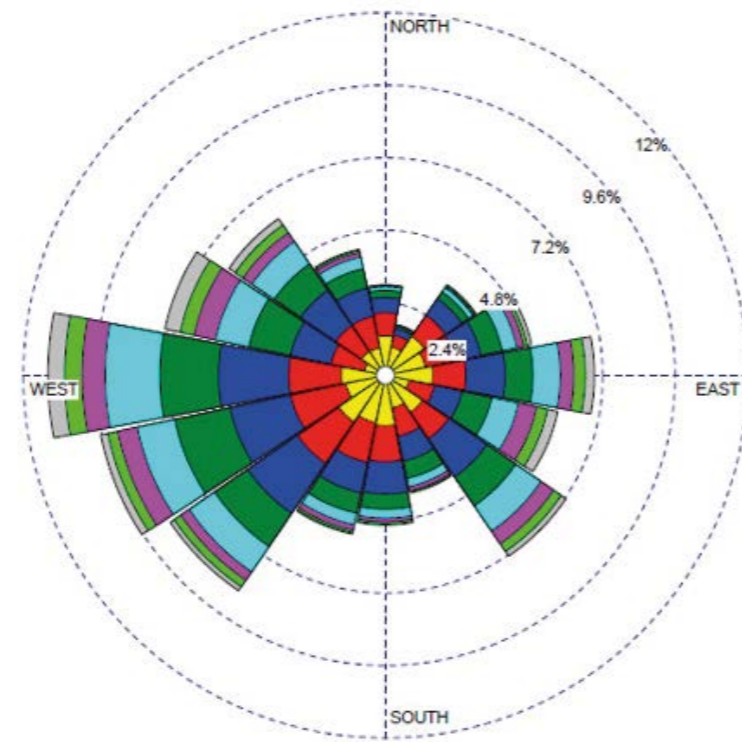
Air temperature, humidity, wind and solar heat is what affects the microclimate (Gehl, Jan 2010).



Wind

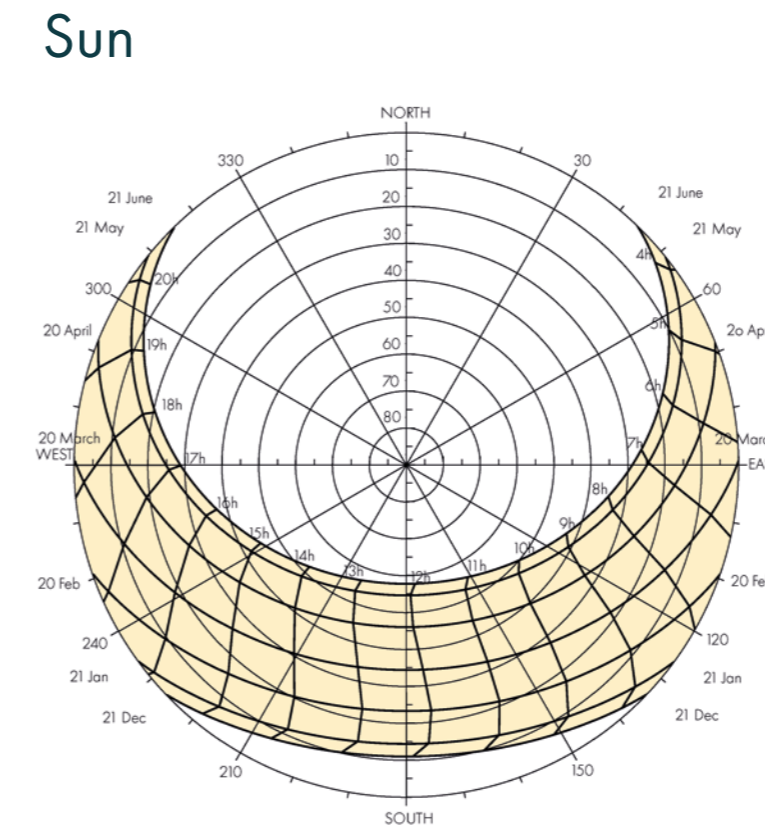
Wind can have a huge impact on how the microclimate is perceived and if public spaces are being used.

Looking at the windrose of the site, it is most common with wind from west and south-west. The distance between the buildings on the opposite side of the water and the site is so long that the wind drops down and enter the site.



The wind from west falls down in between the buildings

Sun



The sun and its heat is often one thing that contributes to making people stay and enjoy a place (Gehl, Jan 2010). According to Gehl in his book "How to study public life", enjoying the sun can be a type of activity within the urban space.

Sun studies shows that thanks to the long distance to the buildings on the opposite side of the water,

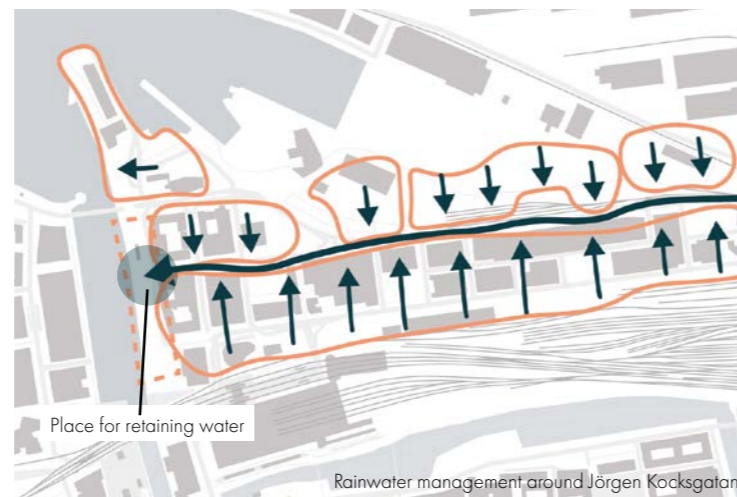
the site has very good conditions for sunny days. So the distance that is bad in the wind-perspective, is good in the sun-perspective. The long shadows from the buildings in the afternoons doesn't reach over to the site for the most part of the day. This means the site has the potential to create sunny spots almost all year round!

Water

Rainwater system

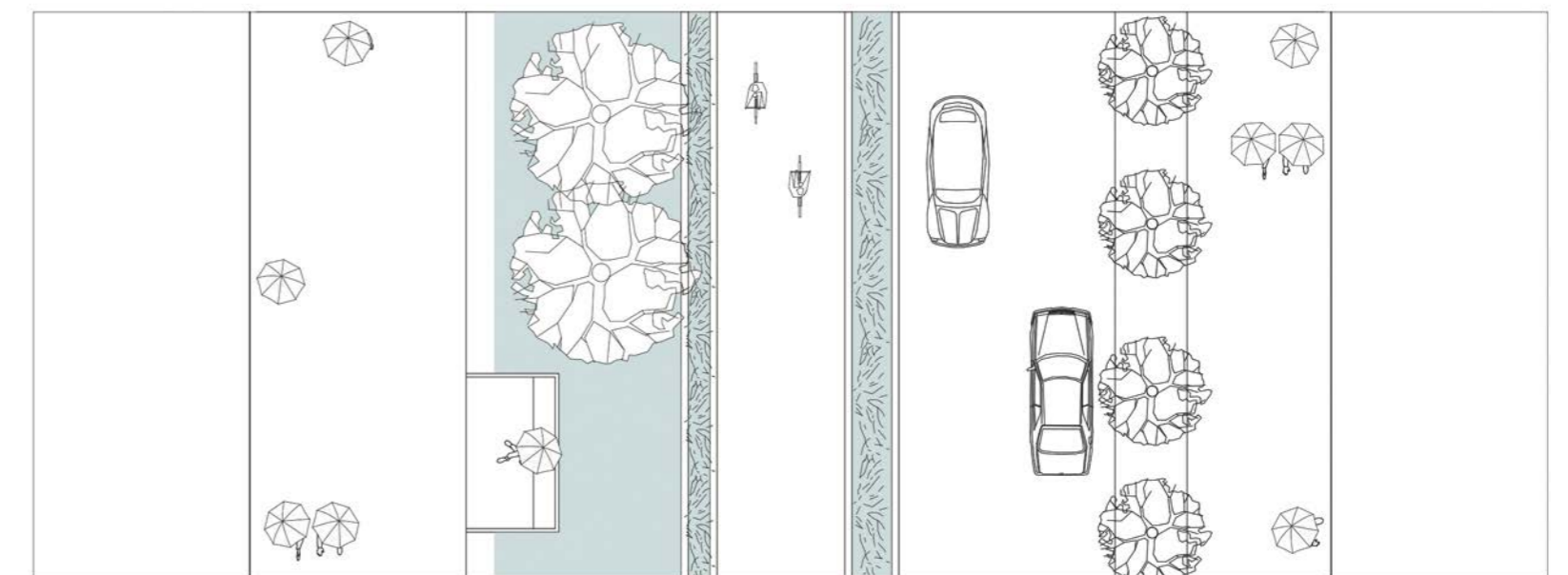
The conventional way to deal with rainwater in urban environments is to use drains that channel the water and send it away as quickly as possible. This water is often polluted and the system can cause flooding during storms. When the drains get overwhelmed the polluted water can get into ecosystems. A way of overcoming these problems is the development of SuDS; sustainable drainage systems. Sustainable drainage systems strive to reduce the volume and speed of surface water runoff. The system catches the water at the source (where the rain lands), which could be green roofs or even water harvesting systems (tanks). The water that is not intercepted at the spot can run into rain gardens, swales or ponds to slow down, detain or clean. If the soil and geology underground are suitable, the water may be allowed to percolate into the ground (Grant, Gary 2012).

The project site will be the end of a water runoff along Jörgen Kocksgatan. Malmö municipality has planned to let the area around it (including Carlsгатan) lead the rainwater down Jörgen Kocksgatan. To work according to SuDS and to mitigate the water to the site, we have designed a vision for how Jörgen Kocksgatan can be designed to handle stormwater (see image on next page).



Malmö city wants Jörgen Kocksgatan to have space for greenery and activities (FÖP Nyhamnen, 2019). This opens up an opportunity to work with bioswales and greenery, which can give value to the street. The street should always be a minimum 30 meters wide (FÖP Nyhamnen, 2019) which allows a lot of space for human activities, bicycle paths and greenery.

Where Jörgen Kocksgatan meets the project site the water needs to be retained. To give aesthetic values and also spread knowledge about the relationship between cities, humans and rain, a rain park can be constructed.



Our vision Jörgen Kocksgatan heavy rain 1:200

Rising sea level

The site along with the rest of Malmö, will be affected by climate change, especially by temporarily high water levels. It is important that the development of the project will take into account that protection is needed. According to "FÖP - Nyhamnen" all new development should be able to handle a new level at +3.0m above the mean water level (RH 2000)."

The sea is a strong contribution to Malmö's potential and identity, therefore it is essential to not create a

barrier between the city and the sea. The contact to the sea is important to create a vibrant and interesting urban environment.

Skeppsbron and surrounding quaysides need to have a protective wall or other levels that gives the same protection. The levels that will occur will be taken care of as a part of the urban design. With its central location we think Skeppsbron has the possibility to become an entrance to Malmö and its contact with water might be the visitors first meeting with the sea.



Water level at +3,0m (RH2000)
 Information from Myndigheten för samhällskydd och beredskap, översvämningssportalen
 Barrier is needed. Where a barrier is not needed the municipality will work with landfill.
 FÖP Nyhamnen 2019
 Ortofoto Malmö (u.å) Malmö Stadsbyggnadskontor

Handling the sea level rise

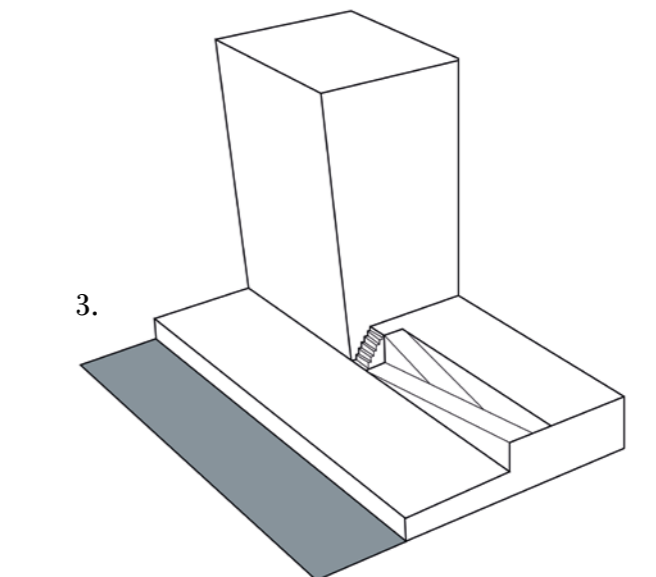
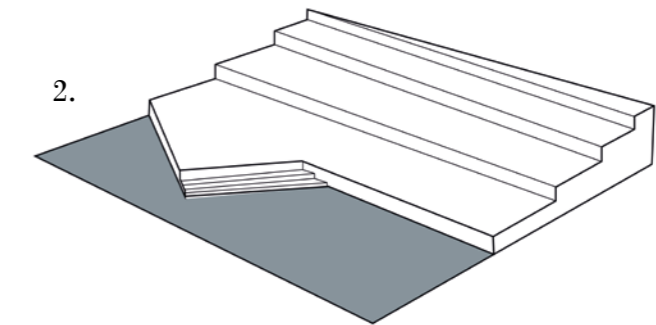
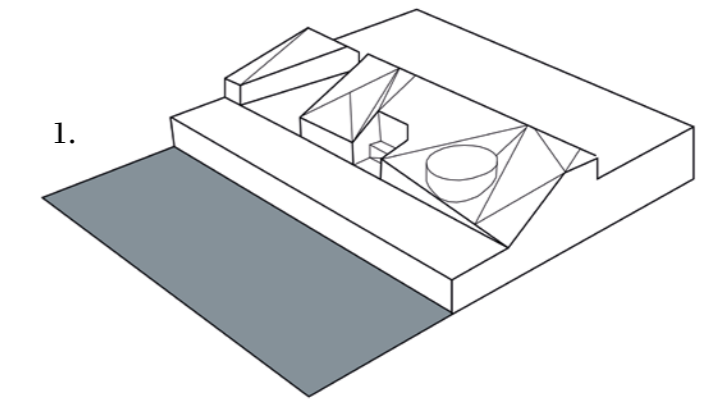
Integration in urban design

Malmö municipality will get a new waterfront now when the industries are moving from the harbour and there is a need to take care of the rising sea level. There are different ways to integrate a protection wall for the sea level rise within the urban design. In the images to the right there are three different characters that the waterfront inside and in the surrounding area can work with:

1. Create a path along the water at a lower level. The "wall" becomes an urban furniture that can have the shape of benches or room for greenery etc.

2. Steps down to the sea so a visitor can touch and have contact with it.

3. If a built structure is built near the waterfront, the lowest level can handle the sea level rise. Elevated courtyards can protect and become a part of a "wall".

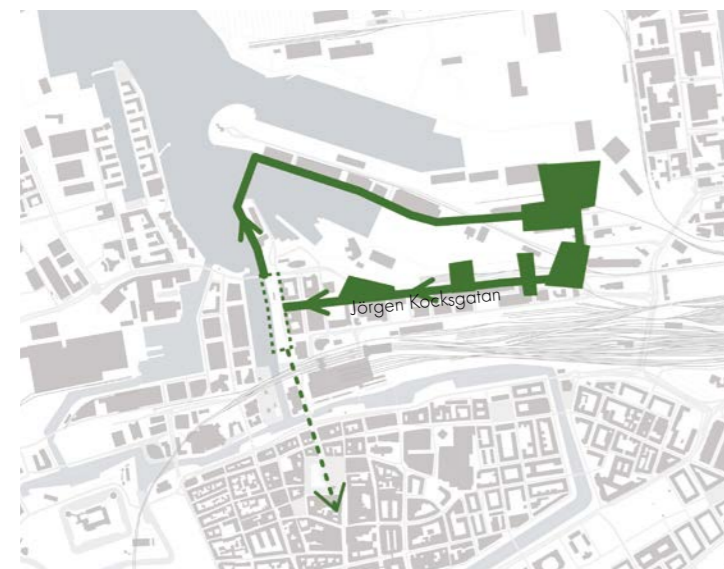


Greenery in city

Nowadays, some think of cities as a separate part from nature. However, cities are ultimately supported by nature. When bringing nature into the city the residents can enjoy and appreciate the ecosystems nature provides in their everyday life. (Grant, Gary 2012)

The landscape in a city can affect and improve the microclimate within the city. It can mitigate the urban heat island effect and improve the air quality. Another important effect of greenery is creating places for a diversity of species that can live in the city. (Randall, Thomas 2003)

According to the FÖP Nyhamnen, the area wants to benefit biodiversity and green connections.

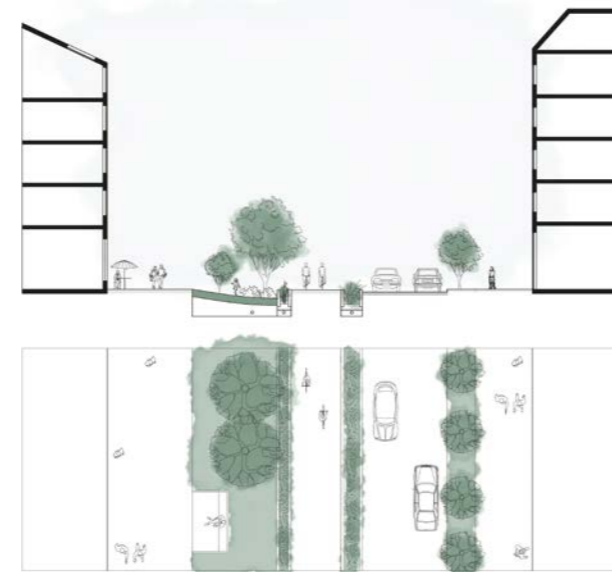


Malmö stads vision of the green loop and connection to shopping area

A planned green loop with parks along it gives the residents close to greenery and the opportunity to move without losing contact with it. (FÖP Nyhamnen, 2019)

The project site is a part of this loop. It is important for the site to strengthen the green belt and work to benefit biodiversity. This goes along with what this project wants: To convey a sense of the humans relationship with nature.

As earlier mentioned Malmö municipality plan Jörgen Kocksgatan to be a street with greenery and activities (FÖP Nyhamnen, 2019). The image below shows a vision we created for how Jörgen Kock can look when it is green.



Vision Jörgen Kocksgatan green

Boosting biodiversity in the city



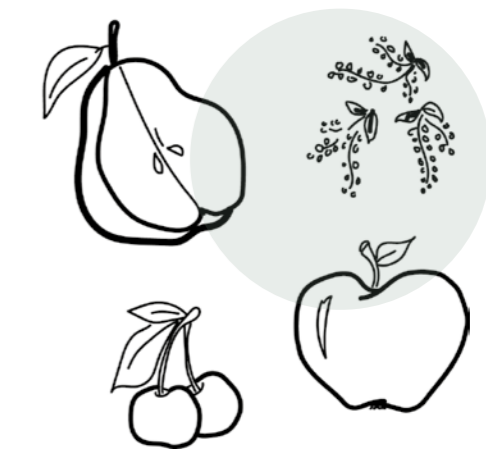
Flowering meadow with a diversity of species which blooming covers all seasons.



Wetland that collects rainwater.



Insects hotel for different species.



Multicultural fruit and berry plantation.

Chapter 3

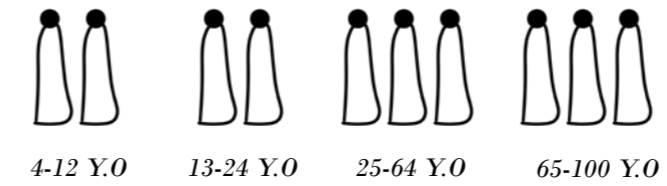
PROPOSAL

Design strategy

Target group
One part of many
Elements
Design strategy

Target group

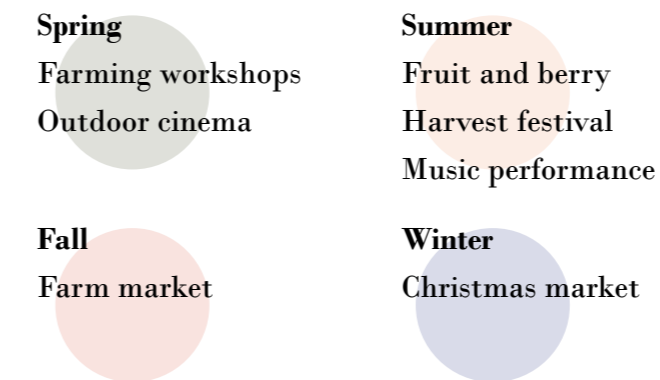
WHO - Expected visitors





WHO - visitors needs

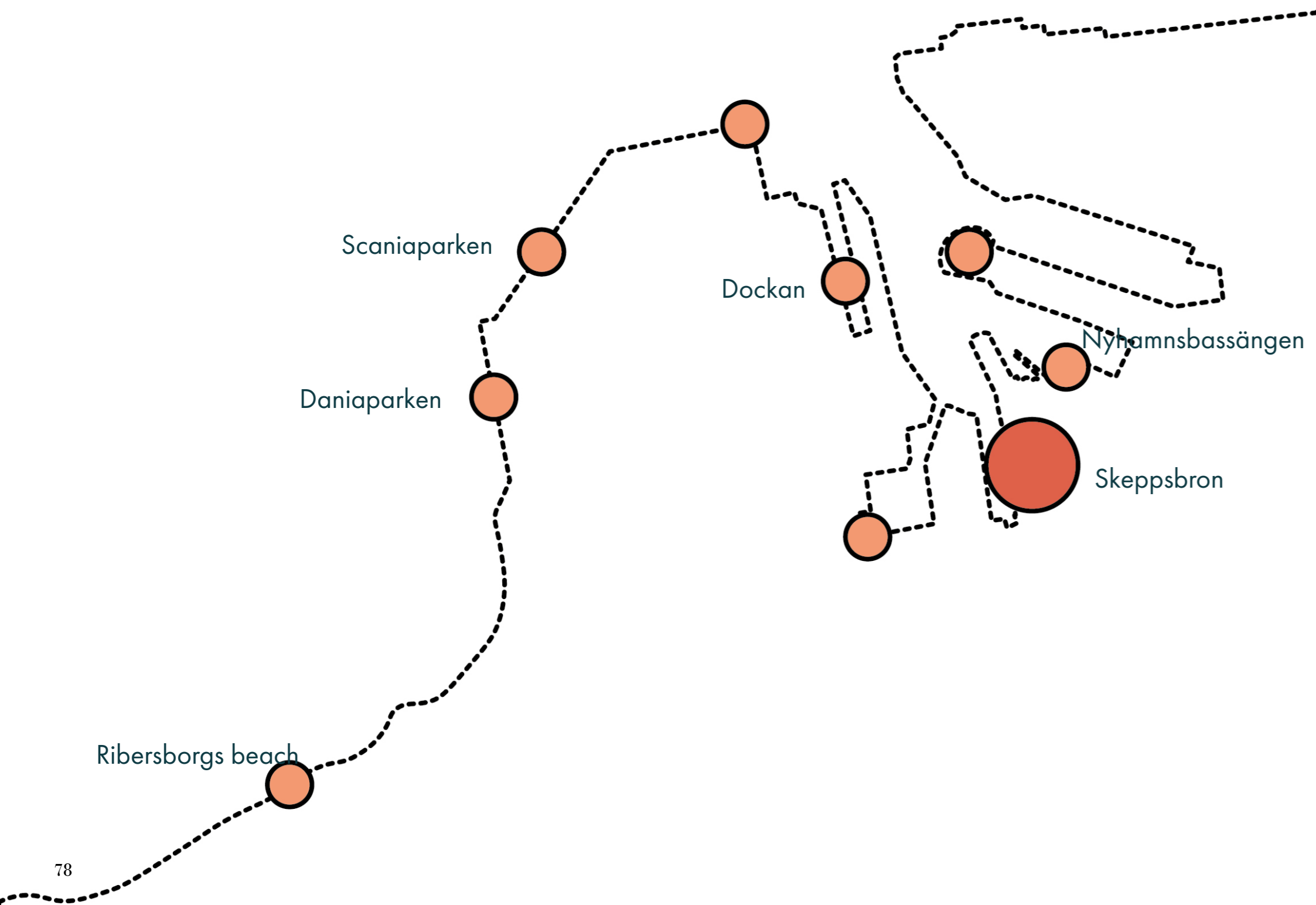
- Child: Activities, doing instead of watching
- Teenager: Cool spaces with photo moments
- Adults: Social spaces and places to grab a coffee
- Pensioner: Places to rest and be comfortable

WHAT - Happenings



WHY - Outcome

-  **Emotion:** Feel a connection with nature and hopefully an inspiration to take more responsibility for sustainability
-  **Action:** Changing behaviour and habits to pro-environmental



One part of many

The use of the edge to the sea as a place for recreation for the whole city, is a rather new phenomenon. Most of the places adjacent to the sea has been used as harbour and has not been for the citizen to use as they please. The first area that was transformed into a place for leisure was Ribersborgs beach, in the late 1900s'. (Malmo.se. 2019i)
 The harbour of Malmö is constantly moved away further and further out from the city and this leads to more places to enjoy the sea.

One thing most of the places shown in the image to the right has in common is open exposed spaces to the sea. Ribersborg beach, Dania- and Scaniaparken are places where the sea and the wind can show itself at its fullest (Malmo.se. 2019j). They are very popular places for leisure, sports, sunbathing and just enjoying the weather and people watching (Malmo.se. 2019j). The people using these spaces have chosen to go to these specific locations for the kinds of activities these places can offer.

Skeppsbron is different due to its location. Here a lot of people just pass by to go to the city centre or the train station. When Nyhamnen is built, people using the area for just passing will increase. It has very

hectic surroundings with big roads close to the quay. Universitetsholmen, on the opposite side of the water from Skeppsbron has a grey, concrete quay. Skeppsbron is an exposed area to wind and rain. While many of Malmö's different waterfront areas open up and expose the user to the weather, Skeppsbron will become a place to spend time in a waterfront area but still be able to be protected. Daniaparken is well used during sunny summer days, while not as much used during a grey rainy fall day. Since Skeppsbron is still going to be used every day by people passing by, it will also allow them to find a place to stay all year round.

Even though Ribersborg beach is man-made (Malmo.se. 2019i), it feels green and natural. That is the only place today to meet the sea within a "nature" context- sandy beaches. Skeppsbron will create another kind of nature experience to be within while enjoying being at a waterfront area.

Adding to the surrounding

The project site has connections to a variety of spaces. From the innercity with older structures where roads and squares are the public spaces, to bigger more open rooms with a lot of focus on the cars and where the public space seems to be forgotten. Our site gives the user a new way to experience an urban waterfront.

Universitetsholmen

Here is the big library Orkanen. The architecture here is grand modern buildings. The close contact with the sea is not existing. The edge is far from the water and not designed to be a place for recreation.



Universitetsholmen

The Old City

The city center of Malmö is partly from the middle ages. The built structure is mostly closed blocks in a tight grid. It is mostly hard surfaces with bigger open squares.

The Train station

The space outside the train station is hectic with a lot of movements. The roads are wide and the pedestrian is lower than the car in the hierarchy.

Malmö C

Posthusplatsen

Posthusplatsen is a very big open square. It is a public car-free zone suitable for big arrangements. It is planned to be a link from the inner city out to Smörkajen and Skeppsbron. Posthusplatsen creates a room that opens up to the sea.

Project site

Skeppsbron - Project Site

At Skeppsbron it is possible to feel enclosed and truly experience the small human scale details with your senses. Lush greenery and the sea offer a calm and relaxing experience for the hectic urban citizen.

Smörkajen

The planned tall buildings will define the waterfront. The commercial program on the bottom floors will spread out to the edge of the water. The quay will have a concrete urban edge that will be exposed to the sea and the wind. (FÖP Nyhamnen, 2019)

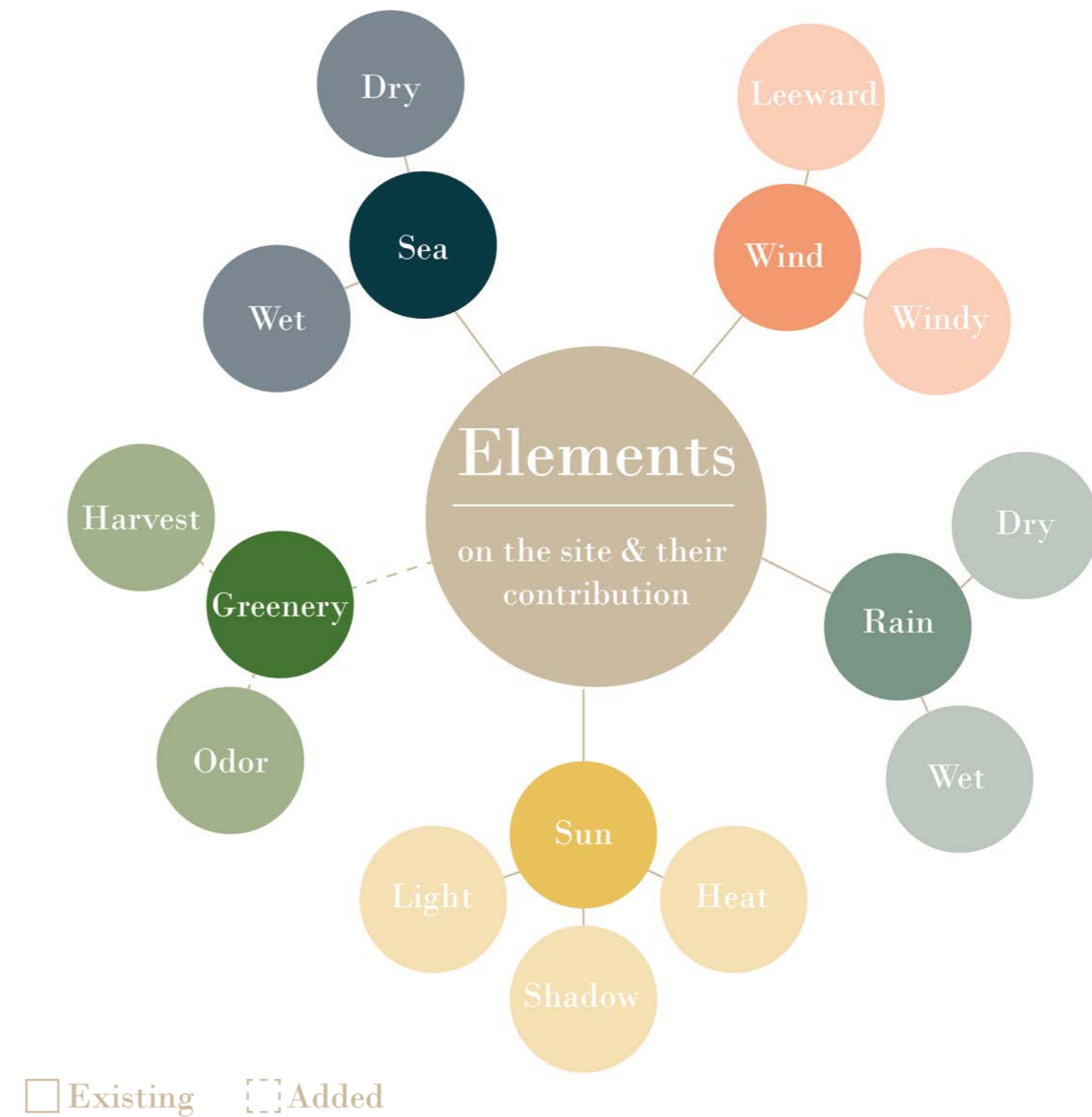


Nature elements on the site

The different nature elements and climate factors on the site has been a big part of the project throughout our whole process. Besides existing elements, other nature elements that are missing on the site today have been added, such as different types of vegetation.

To be able to benefit from the elements in the best possible way, diagrams have been made to help to develop different spaces where the elements are either hidden or pronounced. Another important part of the project is the five human senses. When focusing on different senses, different types of visitors are appealed and it makes the experience as wide as possible in the built spaces.

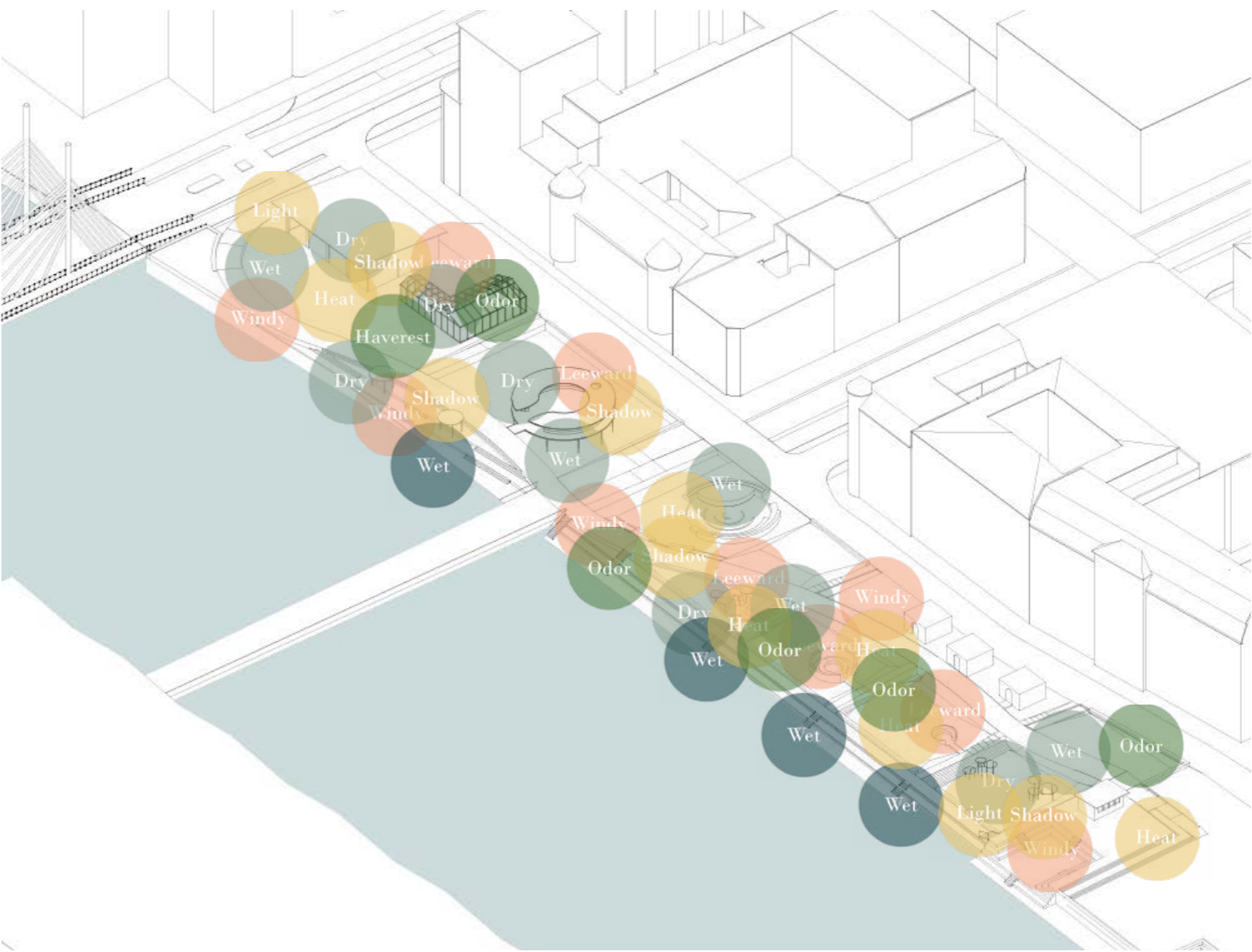
Since the site is very central it attracts a lot of different visitors in all age groups, which means that their needs are different. Every space can't please all, but there are some places for everyone.



The site elements & the human senses

Senses	Sea	Wind	Rain	Sun	Greenery
Vision	Framing the water	Subject fluttering in the wind	Measuring amount of rain	Reflecting the light	Seasonal shiftings in greenery
	Measuring rising sea level		Gathering rain in sunken pools	Playing with shadows	Different insects
Hearing	Waves	Wind passing through tree tops	Rain dropping on surface		Leaves shivering in the wind
					Walking in dry leaves
					Insects buzzing
Touch	Dipping feet in the water	Sunken seating and object protecting from the wind	Dipping feet in the water	Surfaces heated by the sun - natural or through solar panels	Climbing trees
	Wall protecting from rising sea level	Open spaces and pronounced wind	Falling rainwater		Sitting on soft grass
Smell	Salty smell of sea water		Smell of summer rain		Smell of flowers
					Smell of herbs
Taste					Open farming of fruits and berries

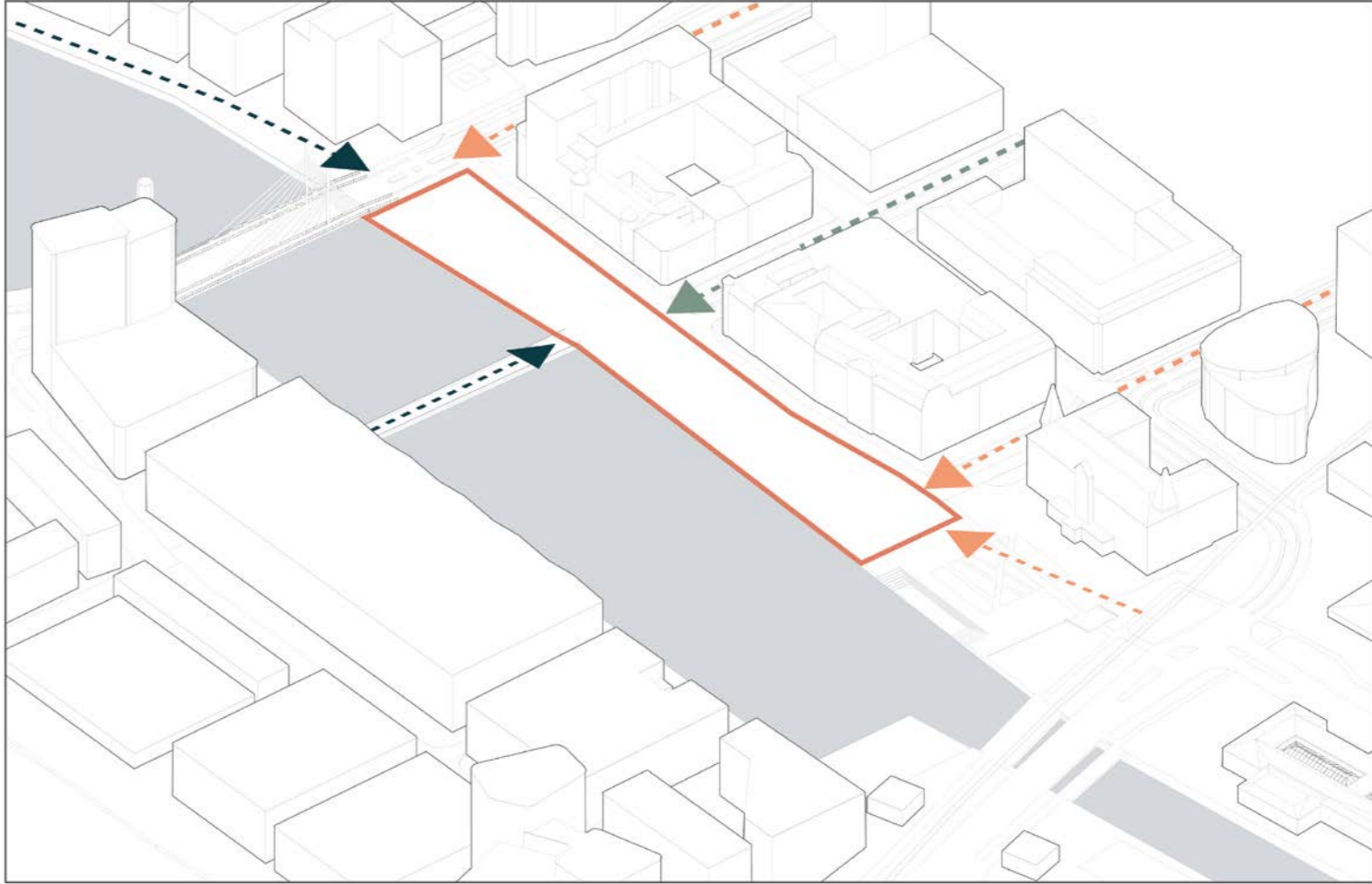
Nature and senses Spaces defined by nature elements



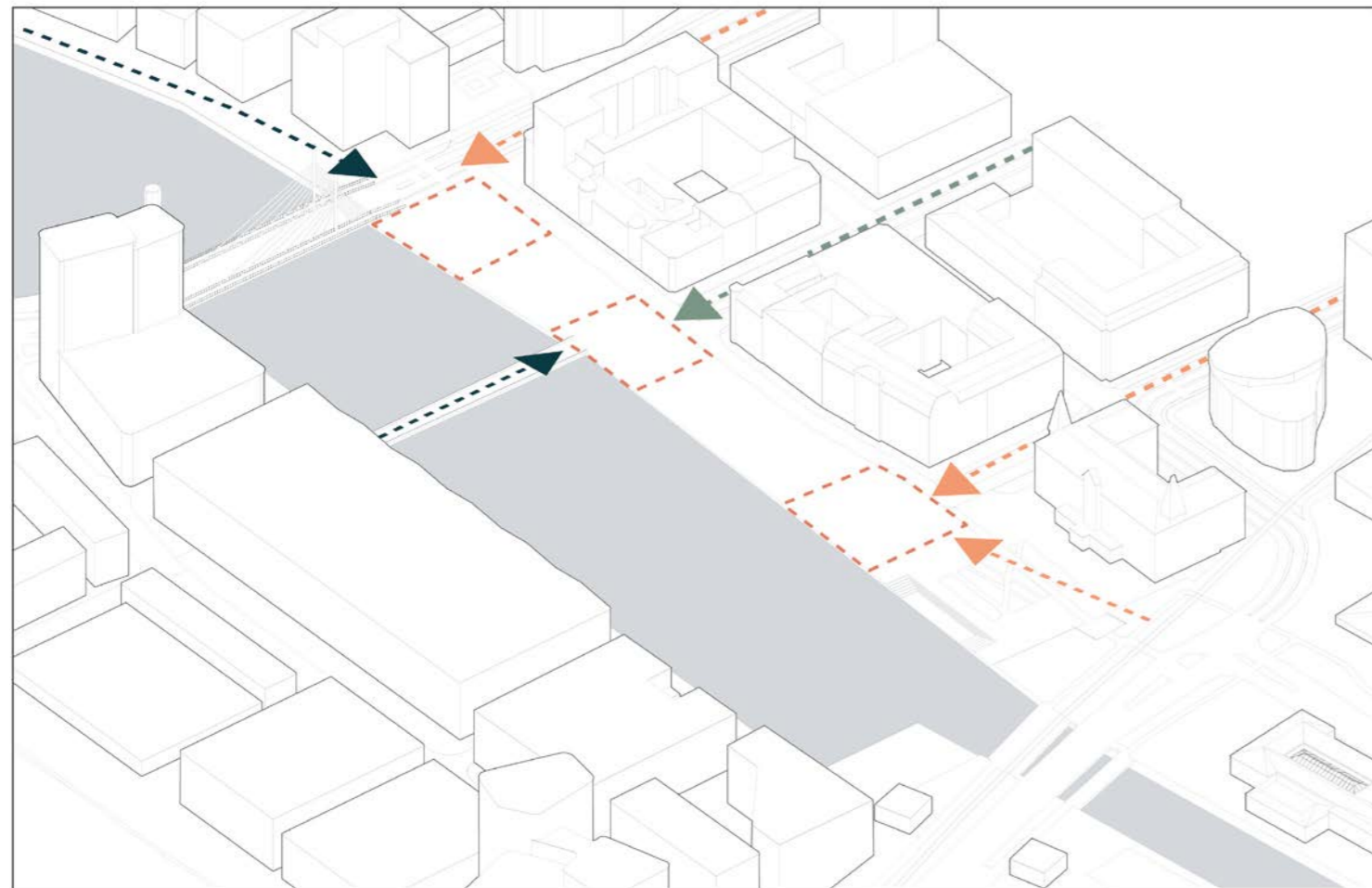
Moodboard



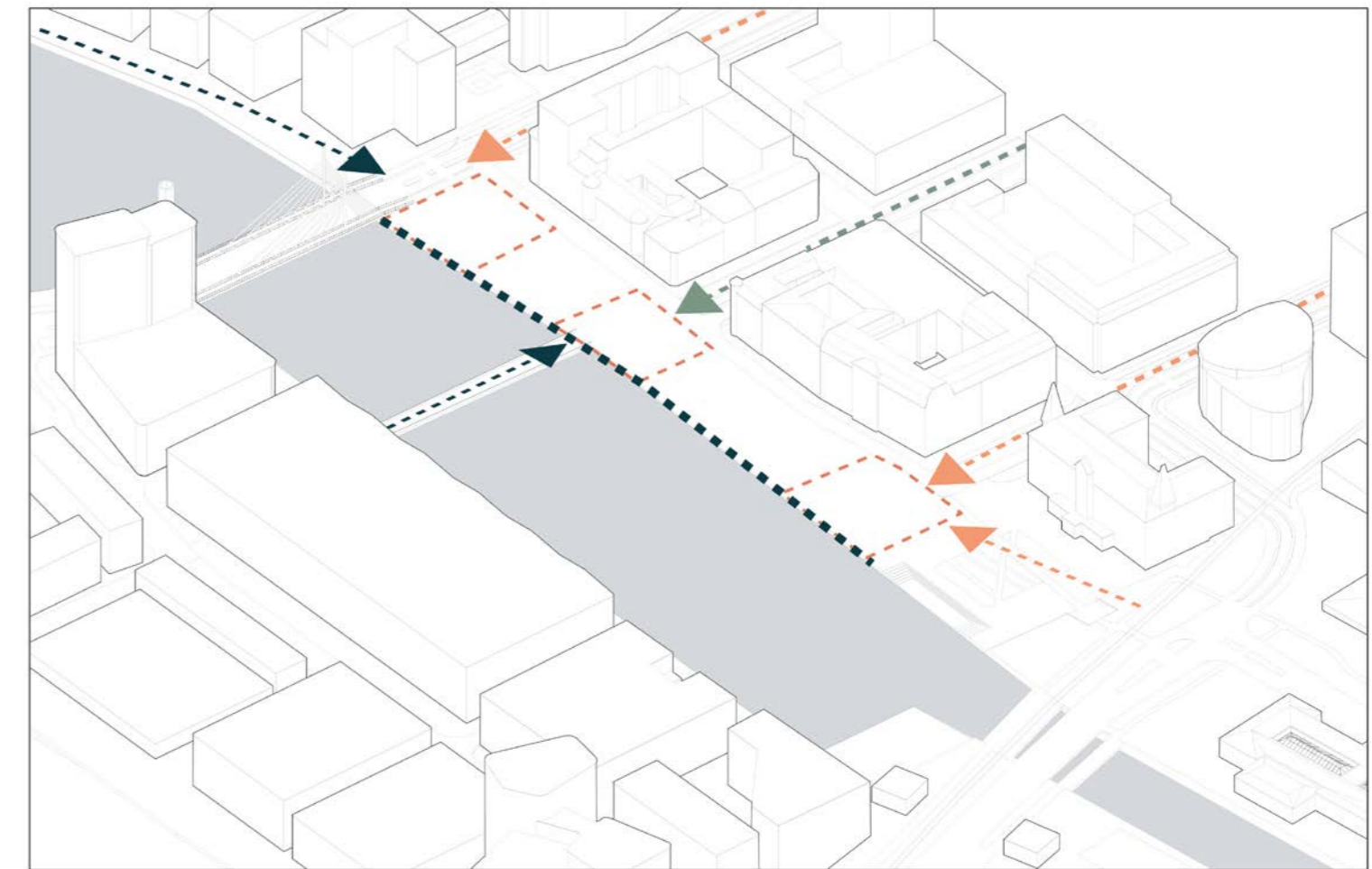
Design strategy
Important edges and sightlines



Keyplaces



Urban connection with water



An Urban Nature Experience

Components
Space and movement
Materiality



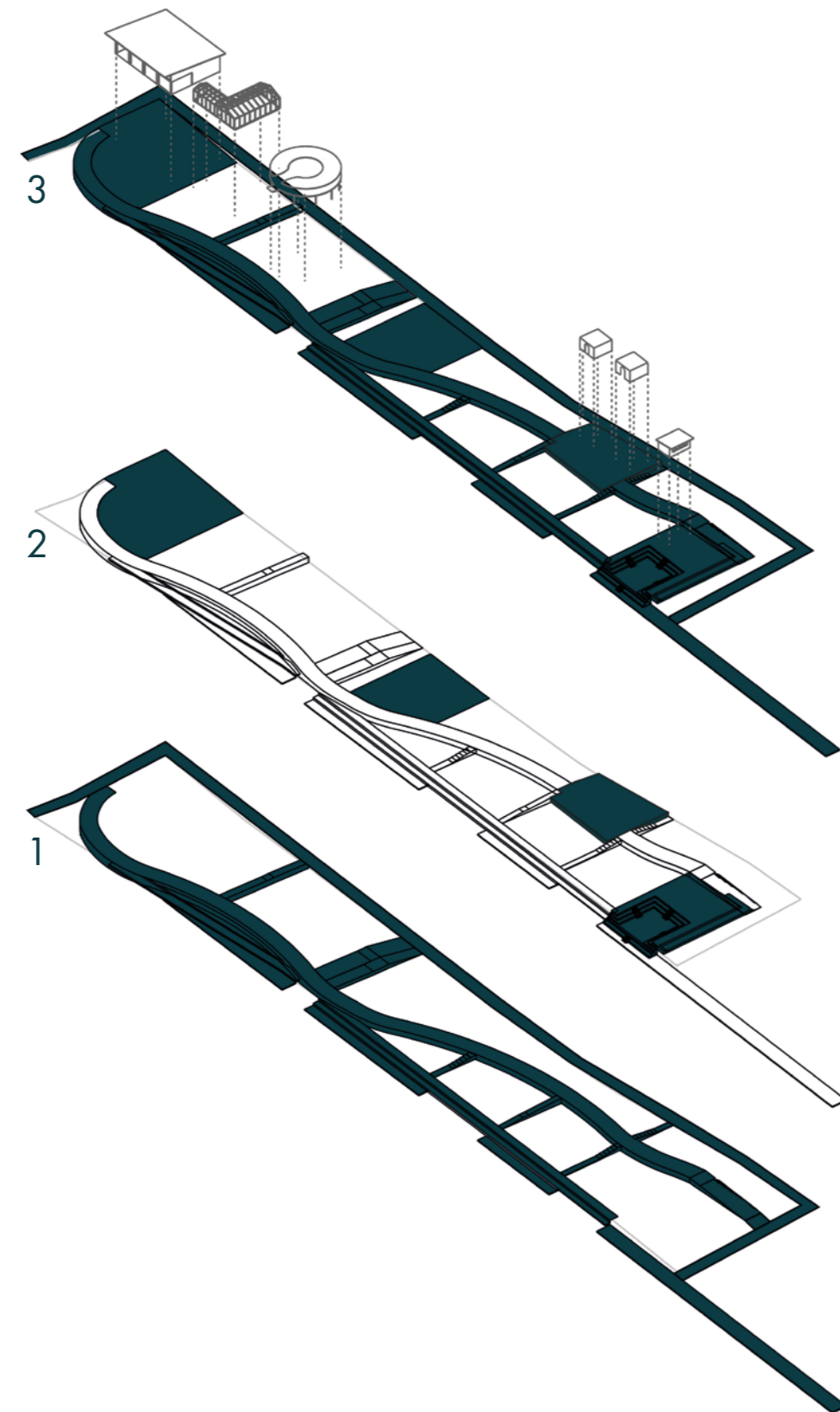
View along the main path

Components

3. Constructions are placed on top.

2. Squares are located to meet the surrounding city and create junctions.

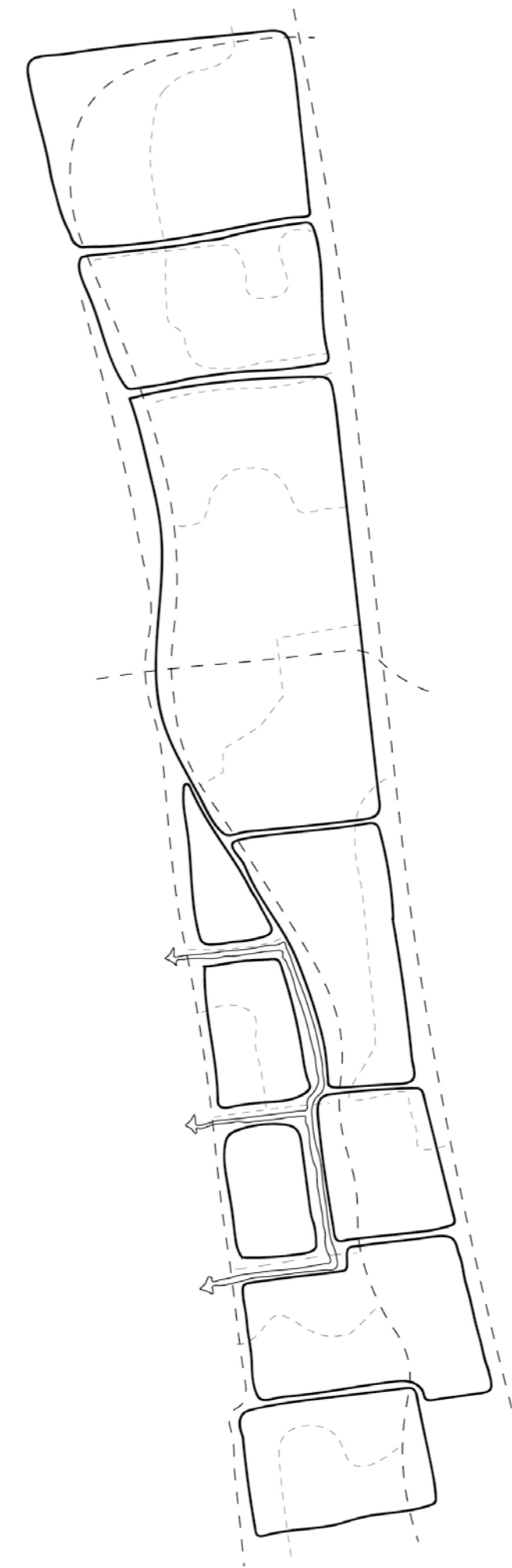
1. Different kinds of movements. The curvy path in the middle (later referred as the concrete path) is the main protecting wall for the sea level rise.

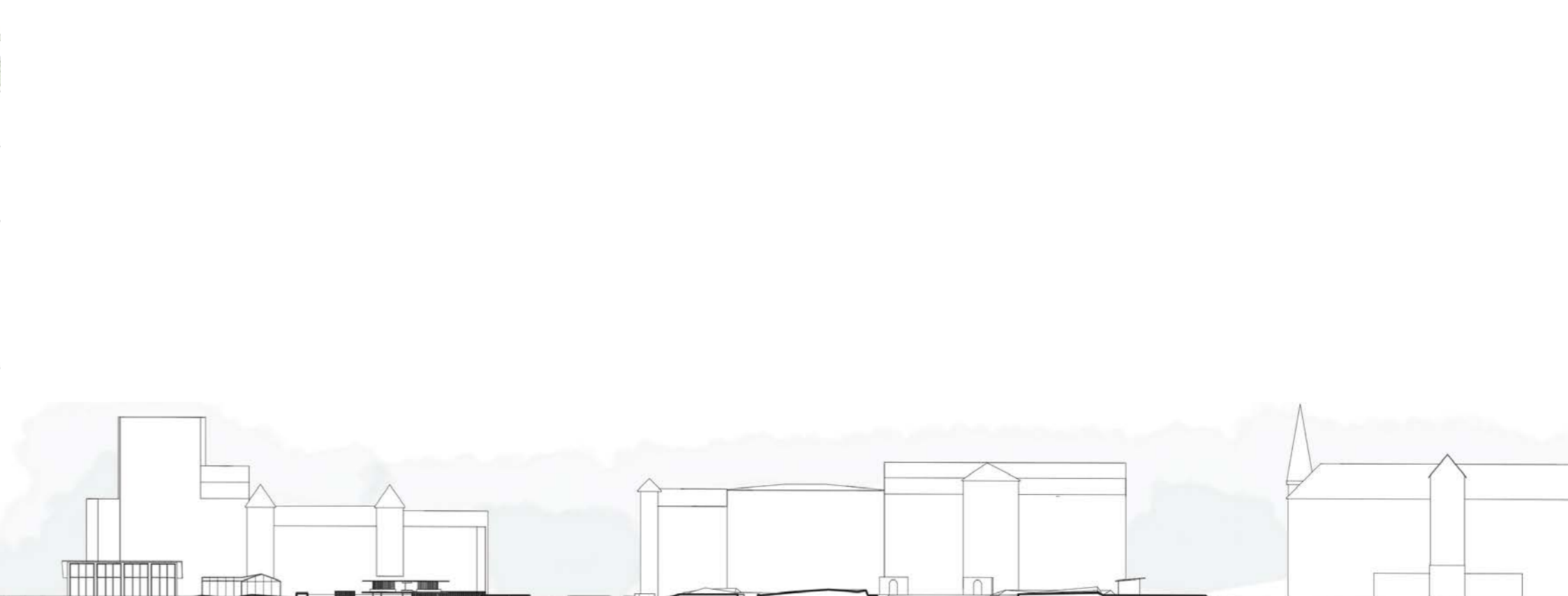
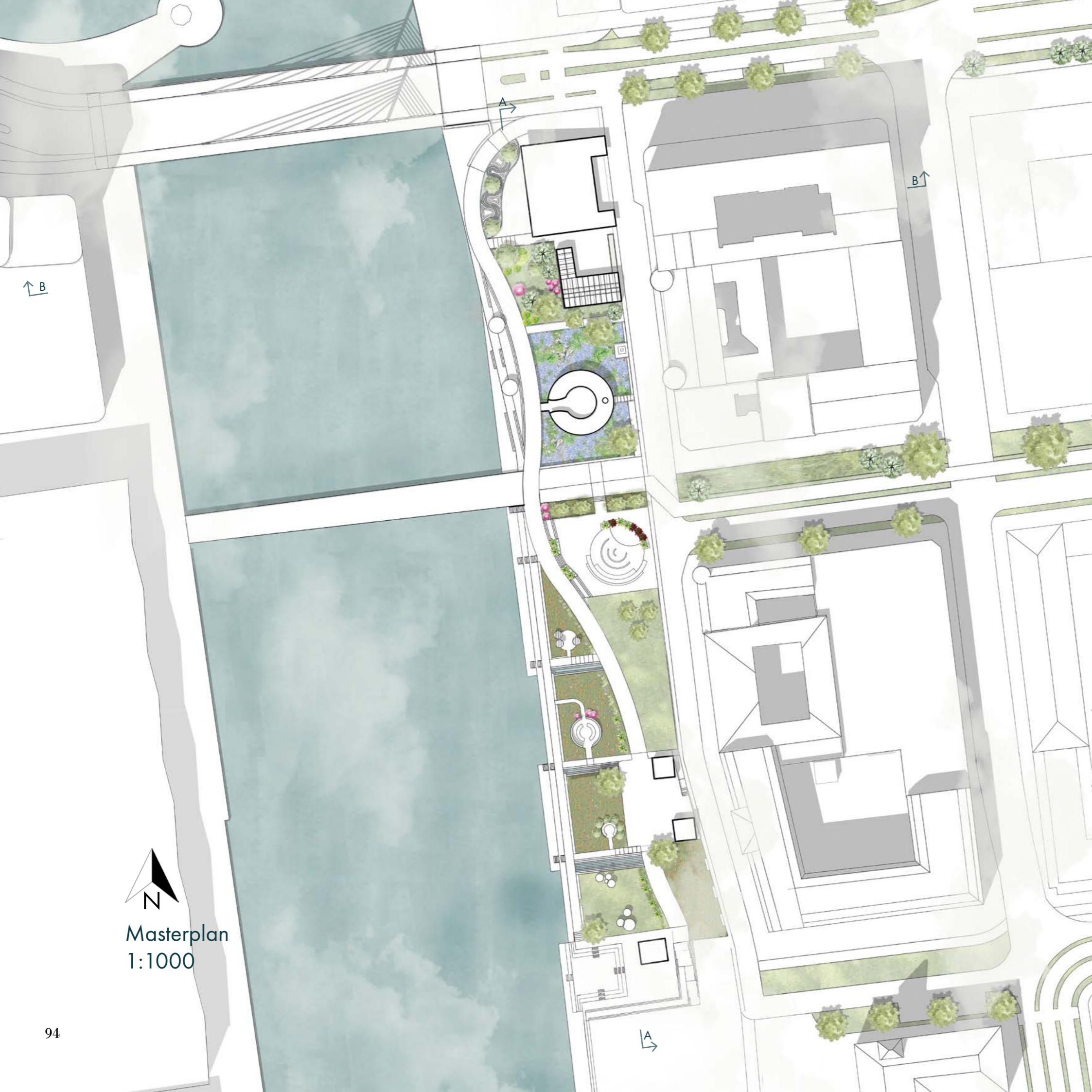


Space and movement

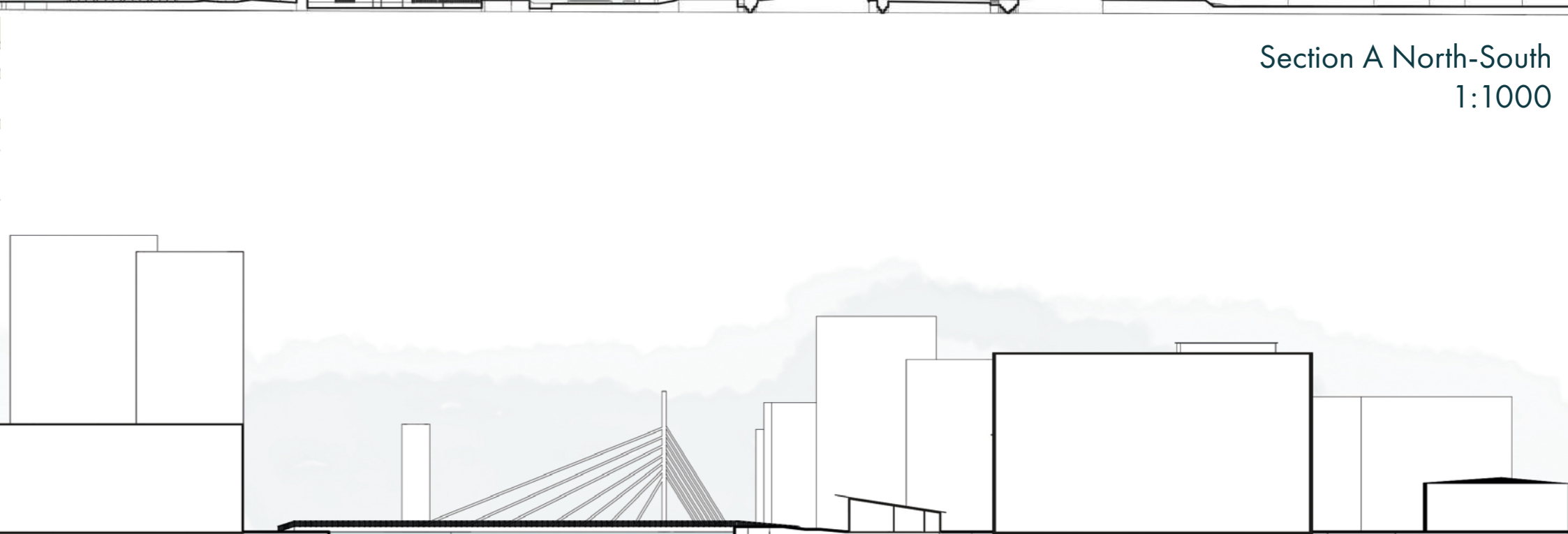
The site is a movement through different spaces and experiences. Each visitor can choose a path of their own, depending on their need and what they want to experience.

The diagram shows different kinds of spaces and different kinds of movements.





Section A North-South
1:1000

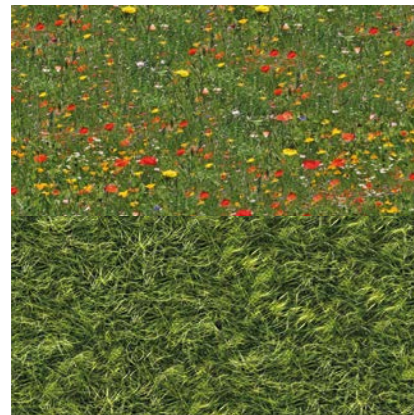


Section B East-West
1:1000


Masterplan
1:1000

Materiality

Meadow & Grass



Flowerly meadow & green grass (u.đ)

Surrounding and decorating the main path is a variety of flower meadows and grass. The short grass is for the visitor to use as they please.

Concrete



Concrete (u.đ)

The wide path in the middle is made in concrete. It's practical for the curved shapes and gives a smooth impression.

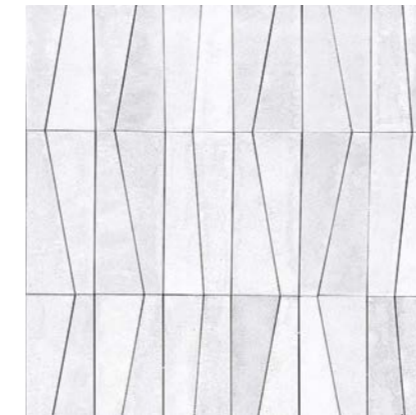
Wood



Wood (u.đ)

The restaurant, the kiosk and parts of the quay is made in wood. It's a warm and welcoming material as well as it's nice to sit on.

Stone



Stone (u.đ)

The squares are covered in paving with a graphical pattern. In contrast to the smooth concrete which leads the visitor on, the paving is a way to mark a resting space.

Gravel



Gravel (u.đ)

The courtyard between the restaurant and the greenhouse is covered in gravel. It gives a natural feeling to the square and brings the mind to the countryside.

Glass

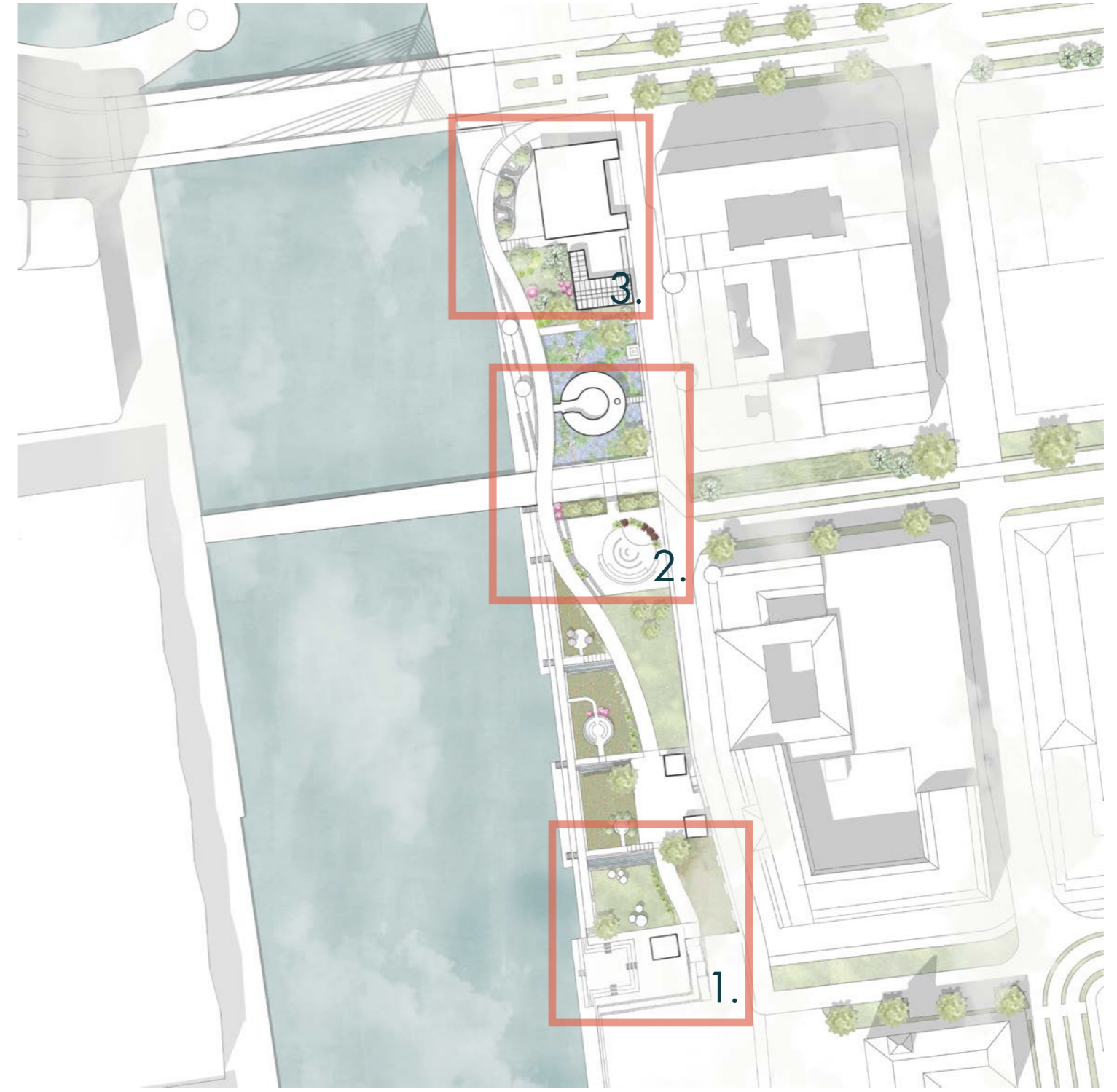


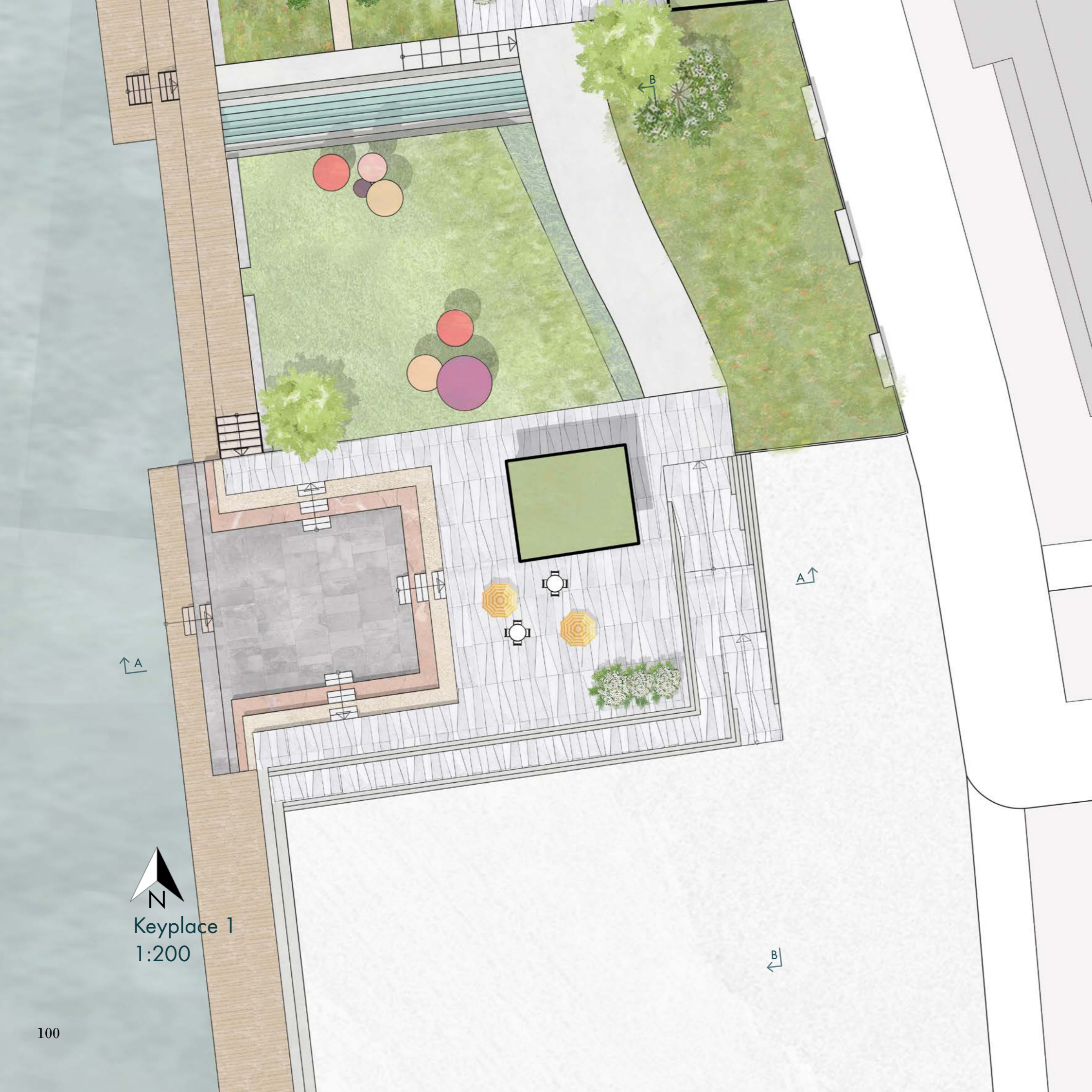
Glass (u.đ)

The greenhouse next to the restaurant is made in glass. It's a good way of making a wall that protects from the wind and still keeps the space that it surrounds inviting.

Keyplaces

- Keyplace 1
- Keyplace 2
- The rain pavilion
- Keyplace 3






 Keyplace 1
 1:200

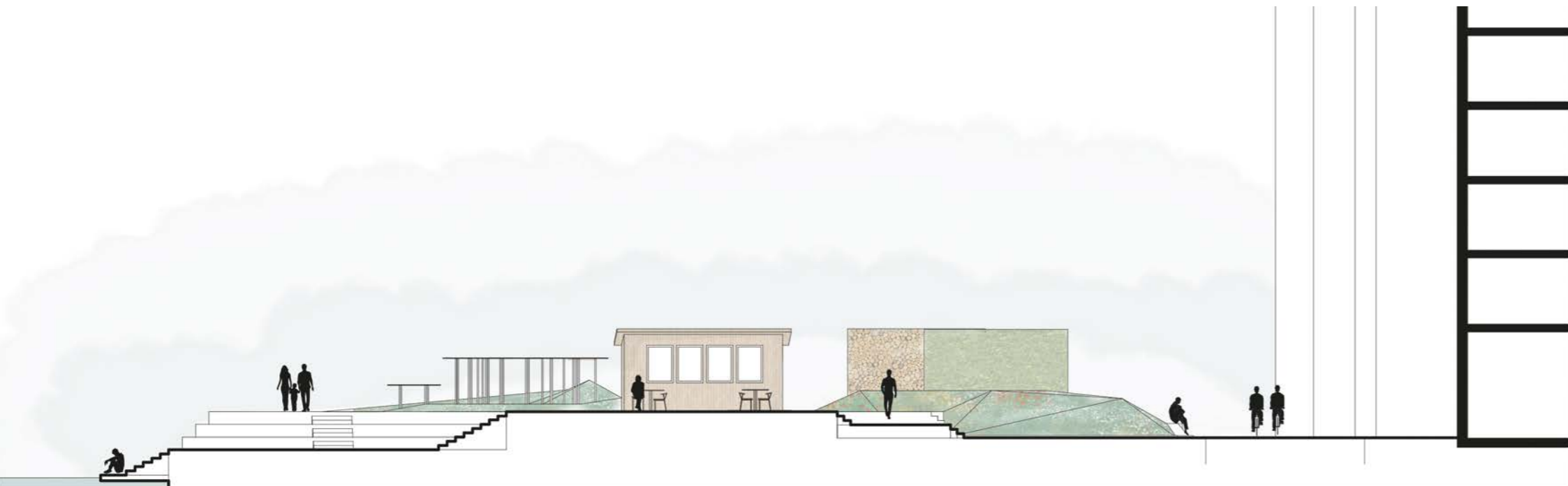
Key place nr 1.

The south end, meeting with Posthustorget

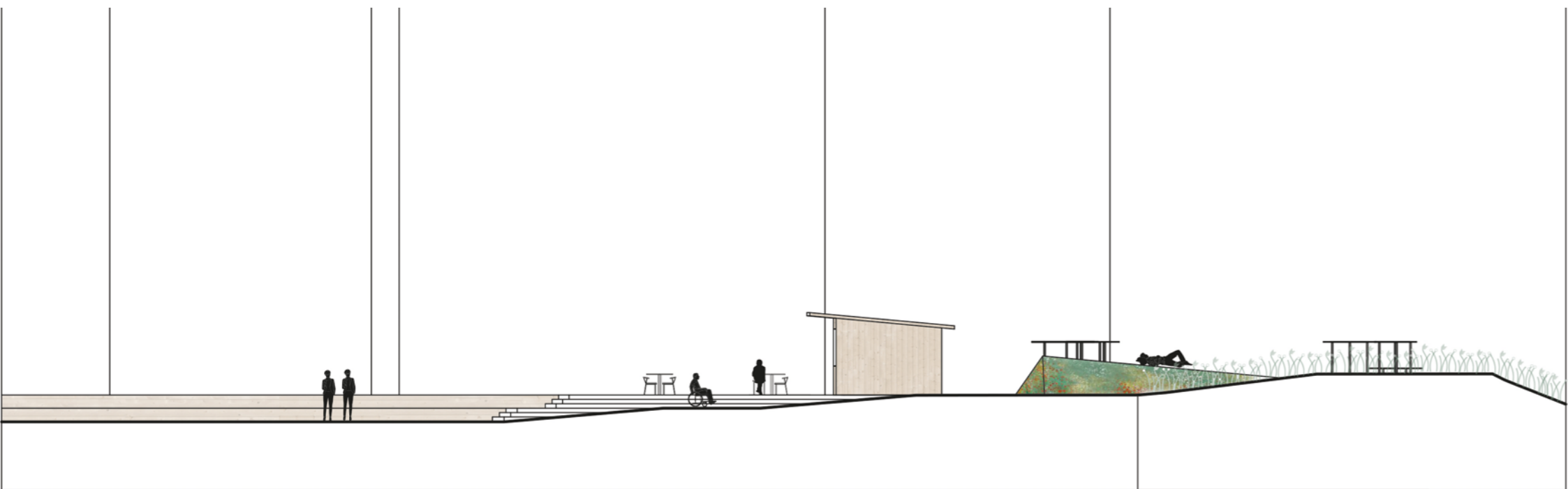


Key place number 1 is in the south end of the park where the site meets the big open square Posthustorget. It's the park's first connection with the existing city and since it acts as a type of entrance, the square is elevated to mark where the park starts. It is also the end of Carlsгатan, which will become an important street for both vehicles as well as pedestrians when the area Nyhamnen is developed. To meet Carlsгатan and to make this the natural path for the pedestrians in the crossing next to posthuset, a kiosk is placed and made the square more commercial.

There are many places to sit around the square, both looking in towards the city and out towards the sea, on a stone bench, or in the soft grass. The visitor can feel the wind in their hair while sitting on a sun-warmed stone step and enjoying the smell of flowers from the meadow.



Keyplace 1-Section A
1:200



Keyplace 1-Section B
1:200



View Keyplace 1 - meeting with Posthustorget



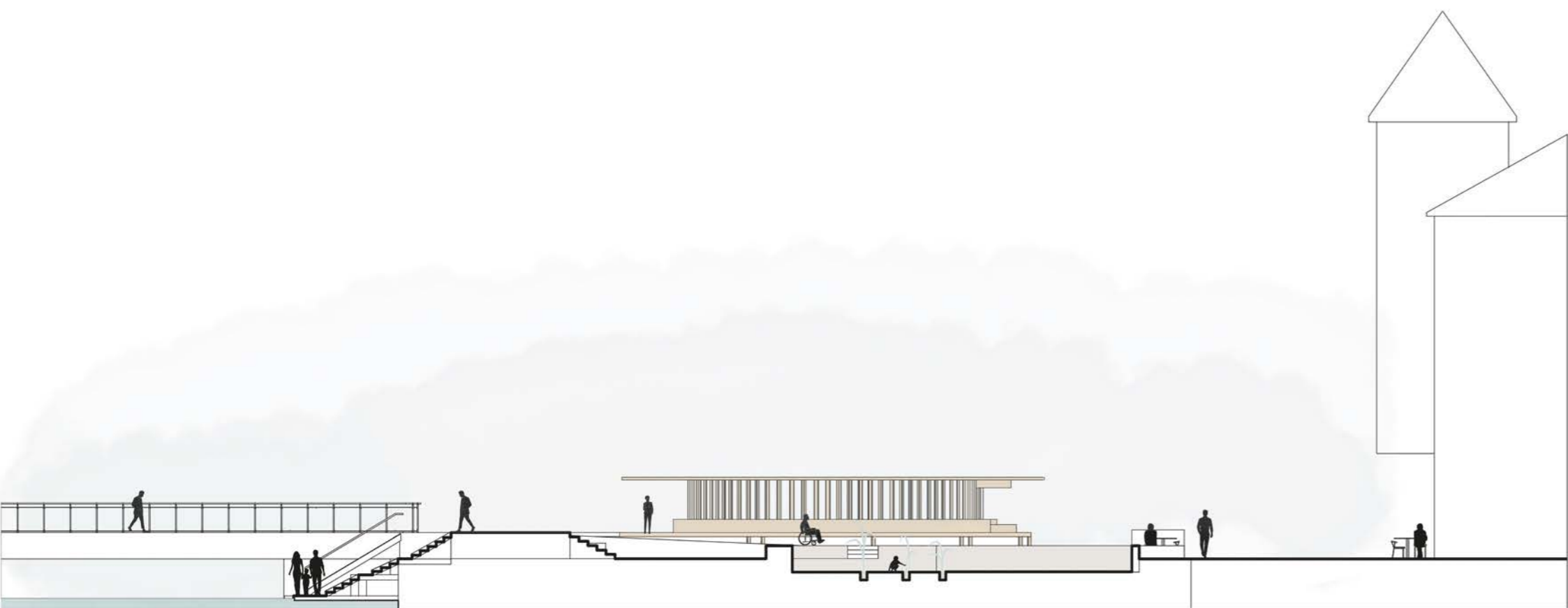
Keyplace 2
1:200

Key place nr 2. The central part, meeting with Jörgen Kocksgatan



Key place number 2 is in the center of the park and it is where the site meets Jörgen Kocksgatan and the new bridge from the university that the municipality has planned. Since the rainwater from Jörgen Kocksgatan will be lead to our park, the focus is on creative ways of handling rainwater. Due to the bridge, it is also a crossroad where both pedestrians and cyclists pass. To prevent the crossroad from being dominant, a rain pavilion and a water square are bigger than the road.

The water square meets Jörgen Kocksgatan on the same level to welcome new visitors into the park. The rain pavilion is another type of entrance, working as a bridge and leading the visitor to the park through the pavilion. To create different kinds of experiences, the collecting of water vary size and appearance.



Keyplace 2-Section A
1:200



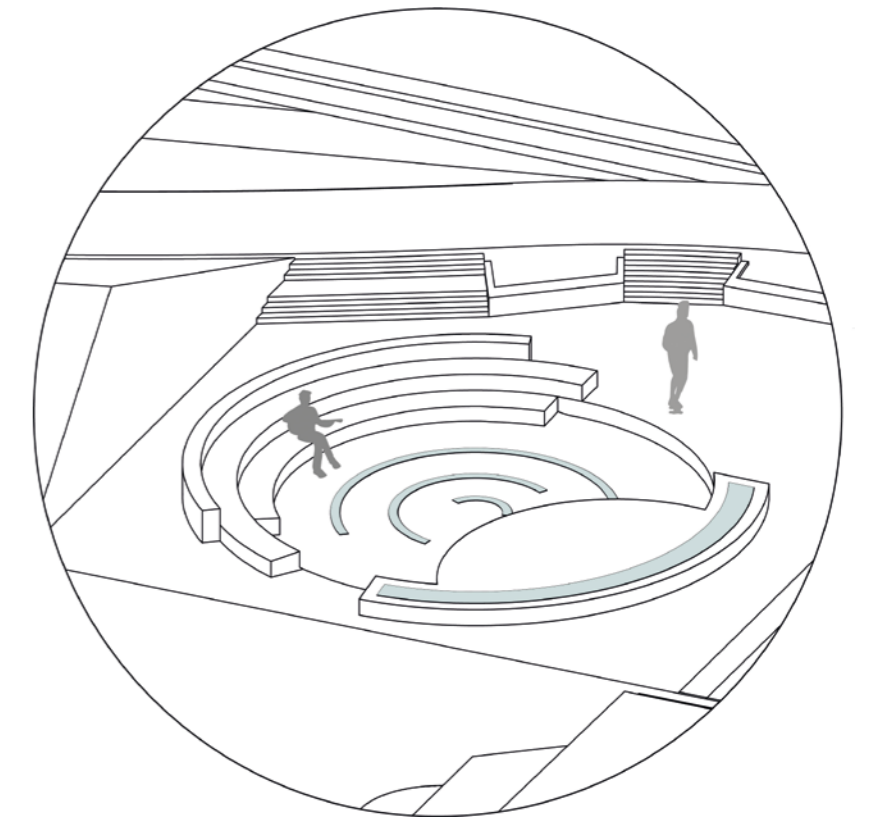
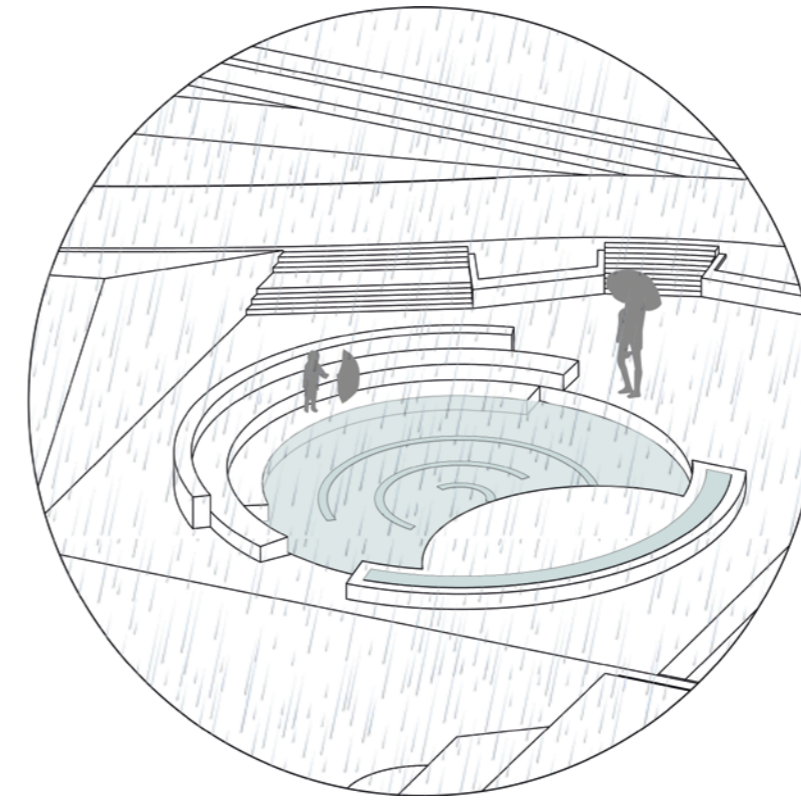
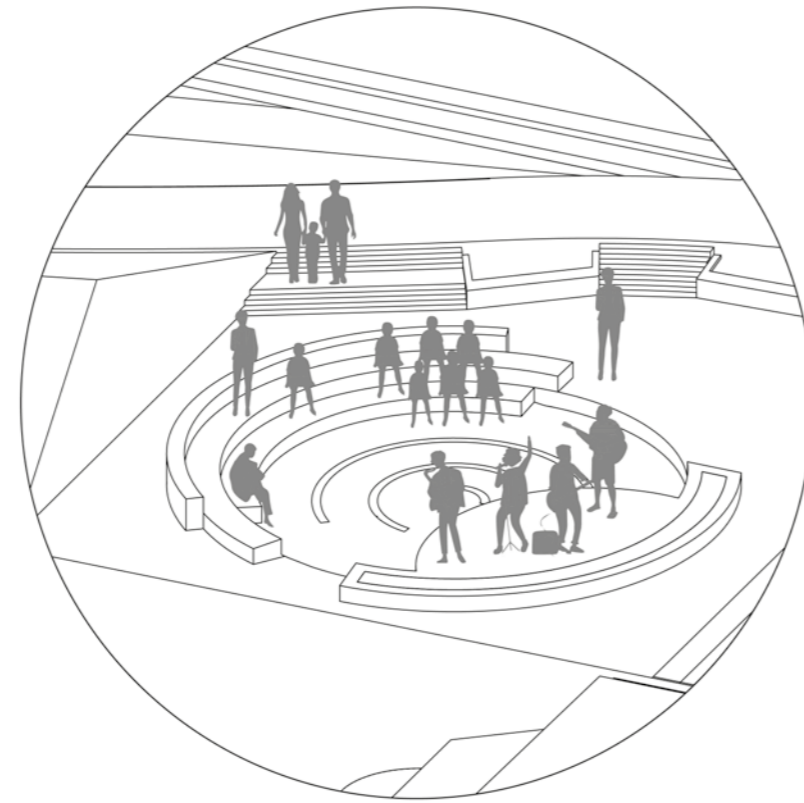
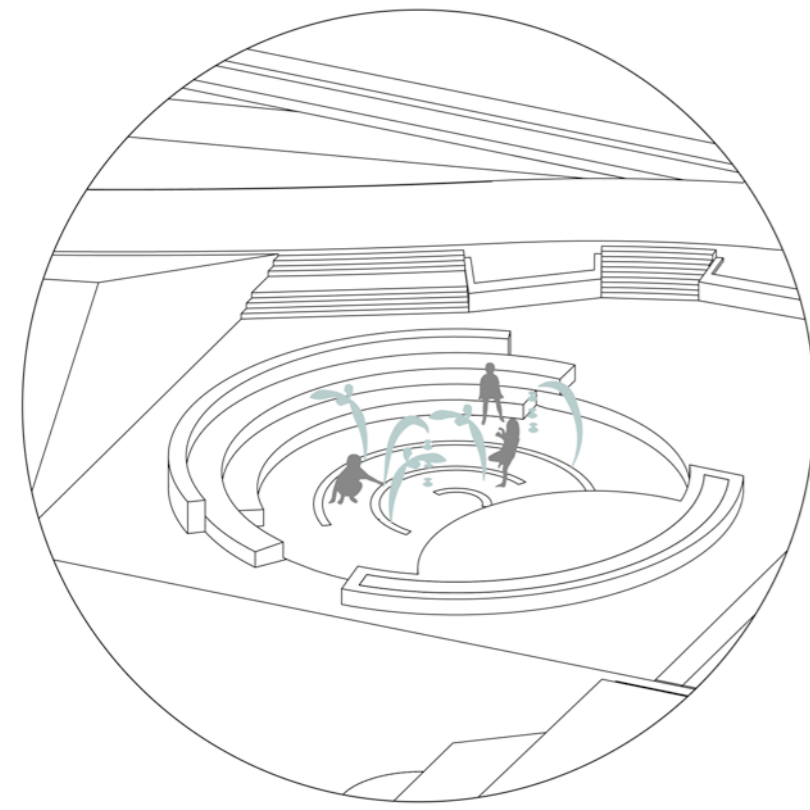
Keyplace 2-Section B
1:200

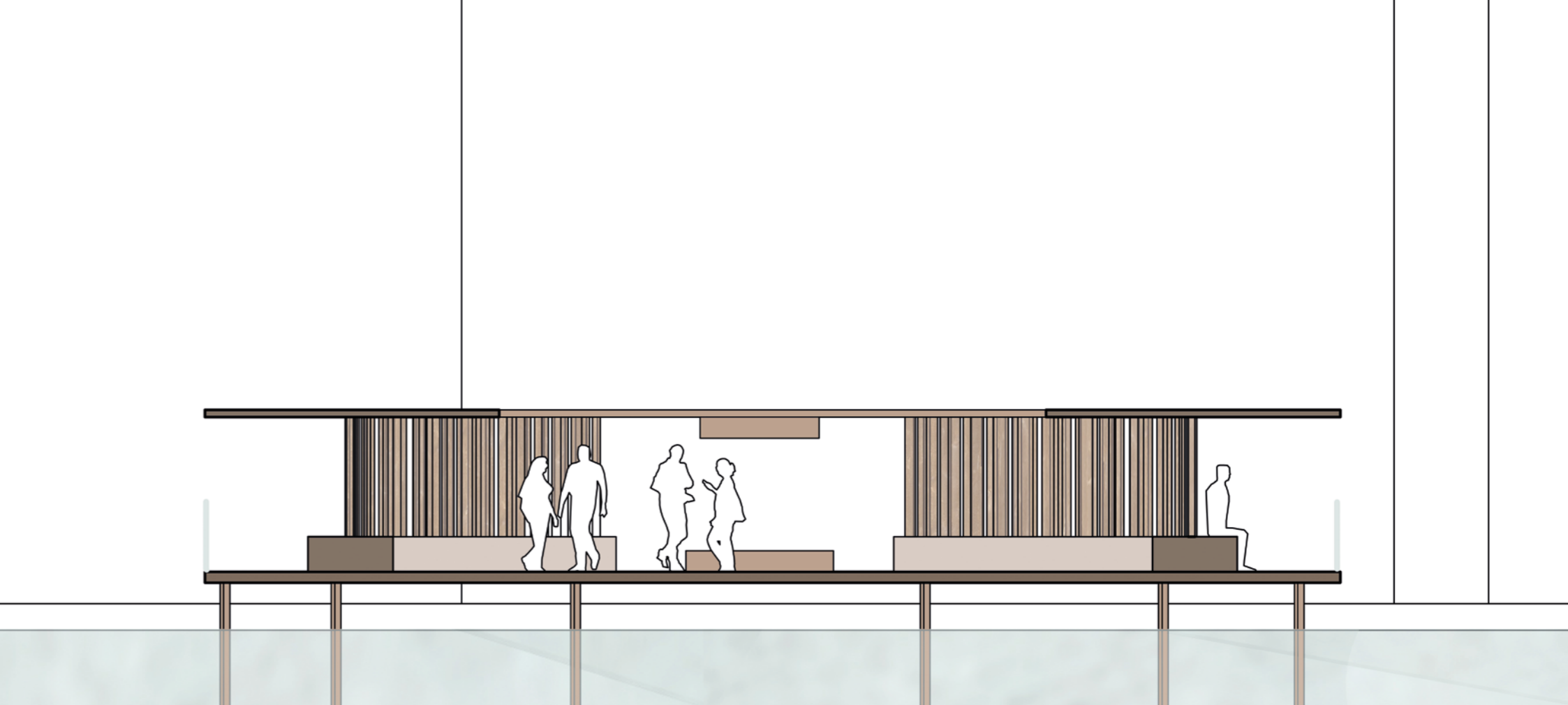
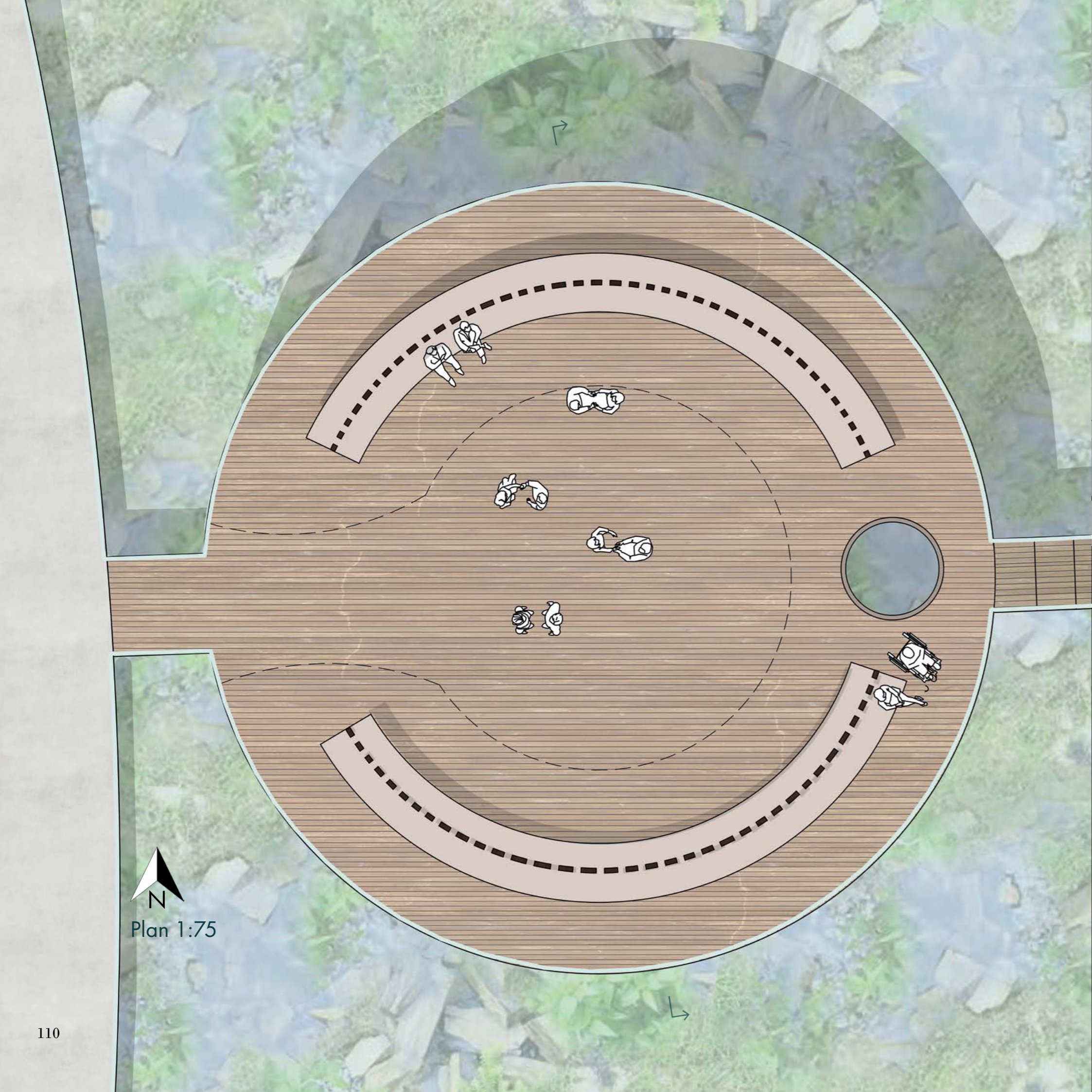


View over water square during heavy rain

The water square

The water square is a multi-functional place where kids can play with the rainwater, people can sit in the stairs and a performance can be held on the small scene. This is a place where rain, instead of being a problem, becomes a resource.





Section 1:75

N
Plan 1:75



The rain pavilion

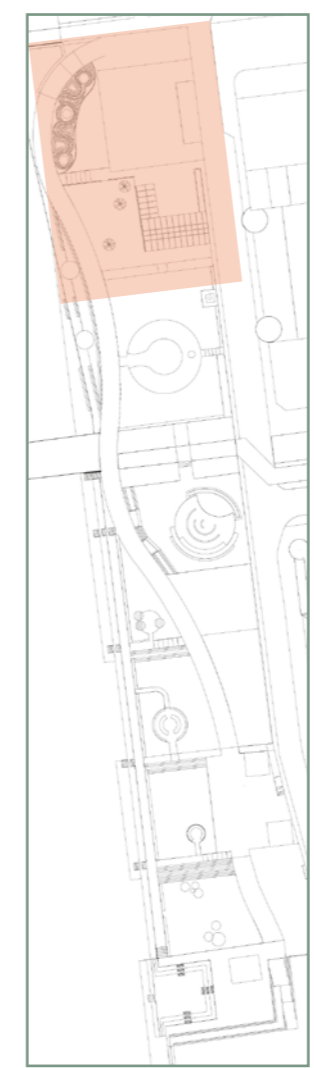
The pavilion is placed above the rain garden and its main purpose is to protect the visitor from rain. It turns the visitors focus inwards and on the contrast between the rain outside and the dry seat protected by the roof. On one spot there is a hole in the roof and in the floor, this acts as a waterfall when it is raining heavily. The pavilion also protects from sun and wind and has a nice big multifunctional area in the middle; perfect for dance classes for example.





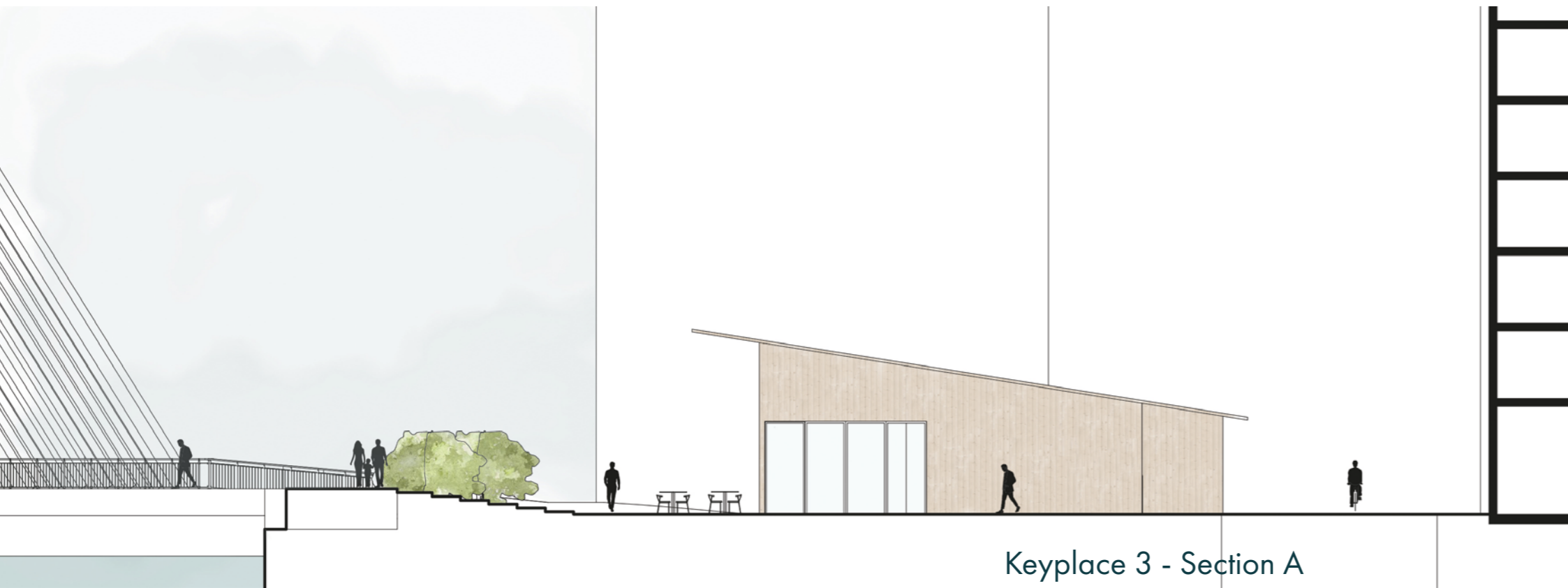
N
Keyplace 3
1:200

Key place nr 3. The north end, meeting with Smörkajen



Key place number 3 is the north end of the park where the site will meet the new area Smörkajen, yet to be built. The park meets Smörkajen with the same commercial and restaurant focused character to make a smooth transition between both areas and to minimize the border that Hans Michelsgatan creates.

During the warmer months, the restaurants have nice outdoor seating in the west where visitors can enjoy the evening sun. During winter, the restaurant is a place where you can experience the park protected from the cold as the big windows connect the inside to the outside. In windy weather the greenhouse and the courtyard are protected from the wind. Next to the greenhouse is a fruit and berry garden, open for the public. The variation of species boost the biodiversity, insects as well as animals.



Keyplace 3 - Section A
1:200



Keyplace 3 - Section B
1:200



View restaurant building

Seasonal changes

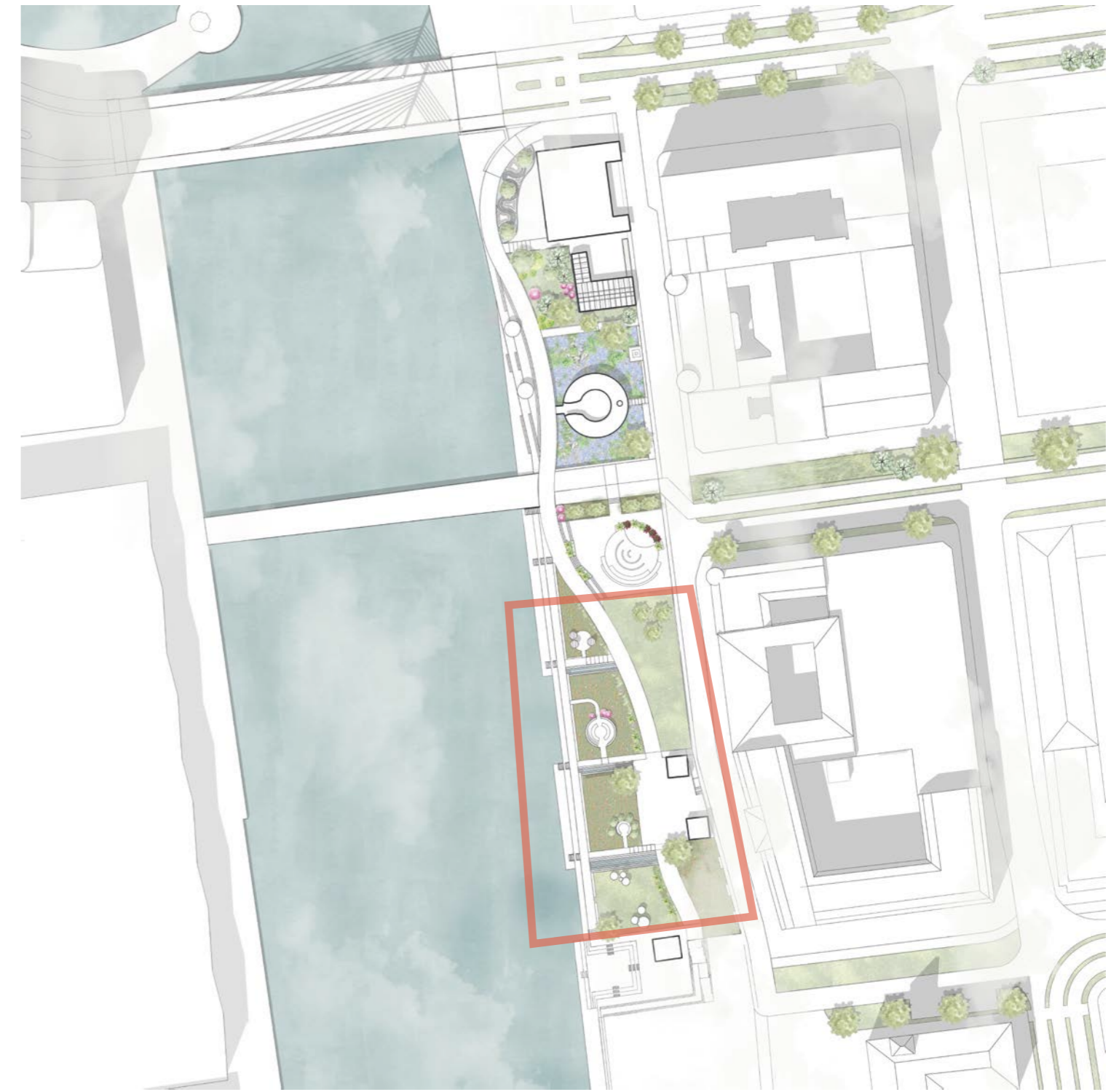
As the season changes, so does the park. Each season has its own expression and enables various activities, which gives the visitors different experiences depending on the time of the year. The park encourages visitors to not only visit nature during the summer months, but to see and appreciate all different kinds of weather and seasons. The diversity of greenery in the park blooms throughout the whole year and creates different living, changing spaces.

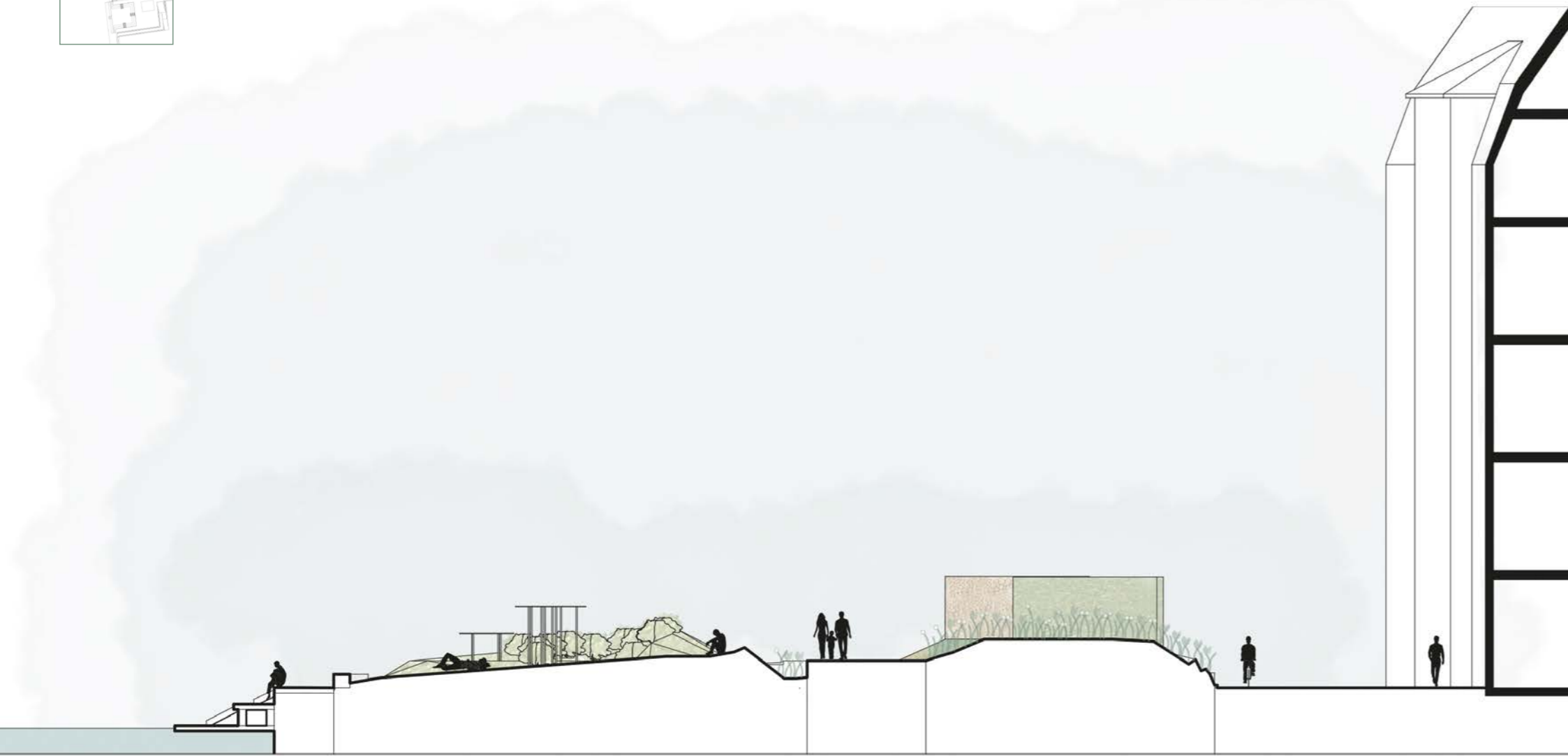
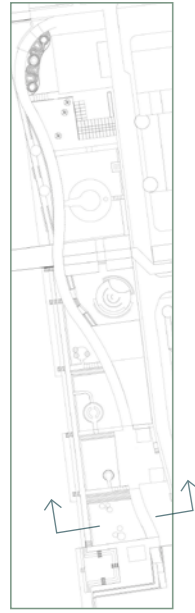
The fruit garden and the greenhouse offers a variety of harvest for both humans and animals. While spring and summer is a time for greens, berries and fruits, the main attraction of the fall are the maturing apples and the pumpkins at Halloween. The fruit garden is the perfect place for an urban harvest market.



Meadow

Trigger the senses
A flexible space
The pavilions
The bookworms getaway
The kingdom of the insects
The catching-up circle





Section "meadow"
1:200



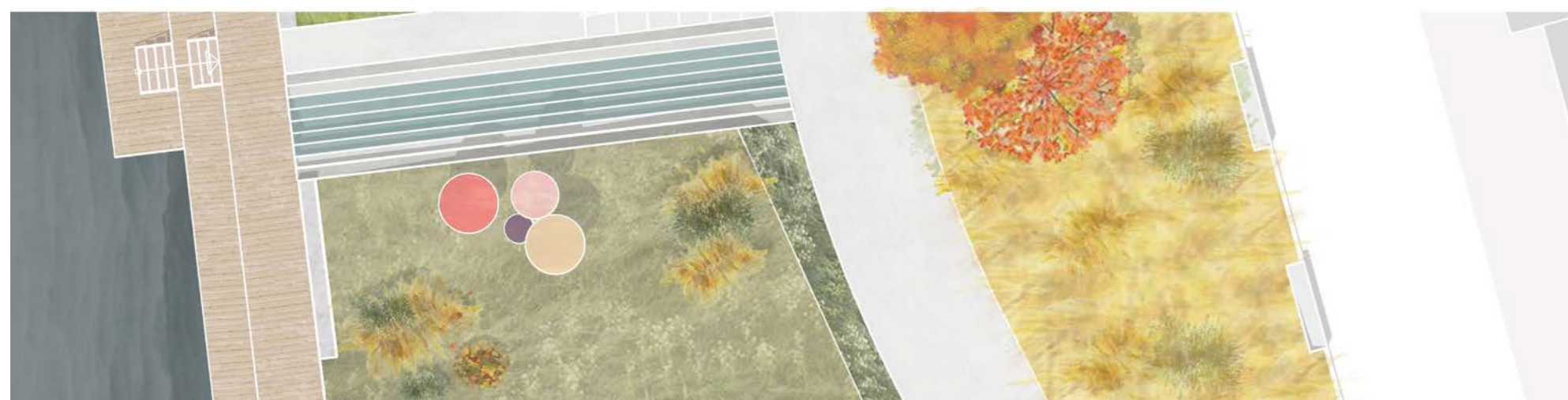
View along the main path

Different seasons



Meadow - Spring
1:200

Meadow - Summer
1:200



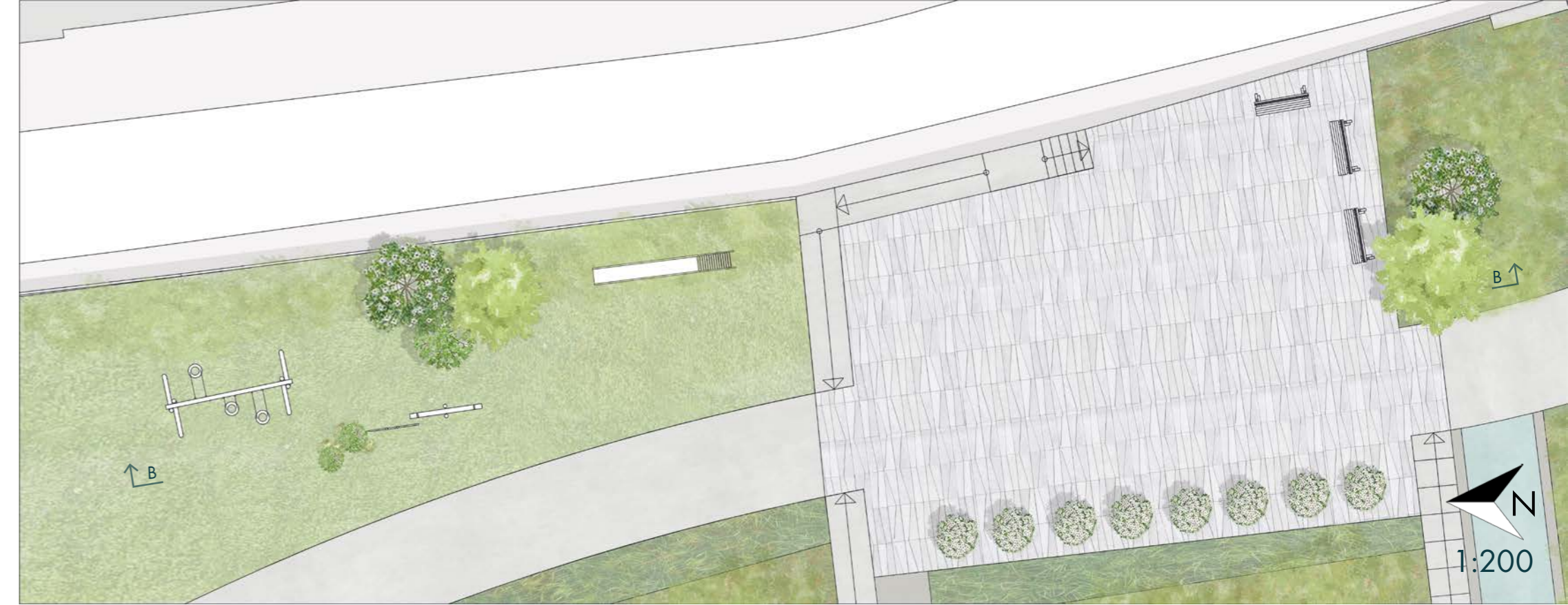
Meadow - Fall
1:200

Meadow - Winter
1:200

Trigger the senses At a smaller scale

As previously mentioned, the project is dealing with water such as rain and sea-level rise as well as integrating the site with the surroundings. When it comes to experience nature, it is the small things that can make a huge impact. The park has taken

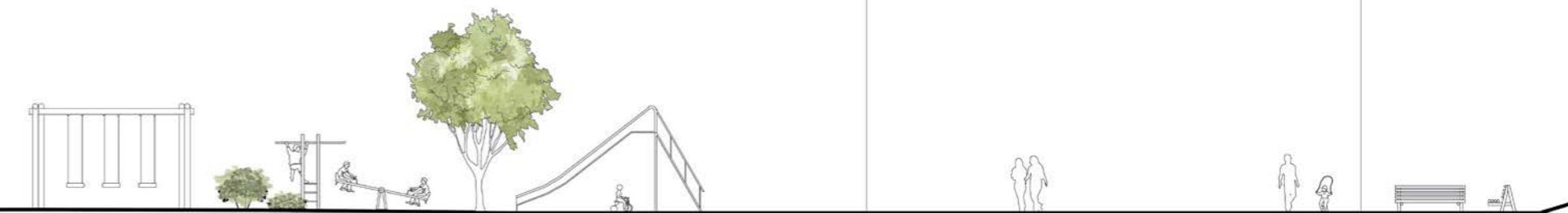
advantage of the requirement to create topography (due to the sea-level rise) with a variety of enclosed and open spaces. It provides a place for the urban citizen to find respite in the hectic city, as the insects find their respite in the flower covered meadow.



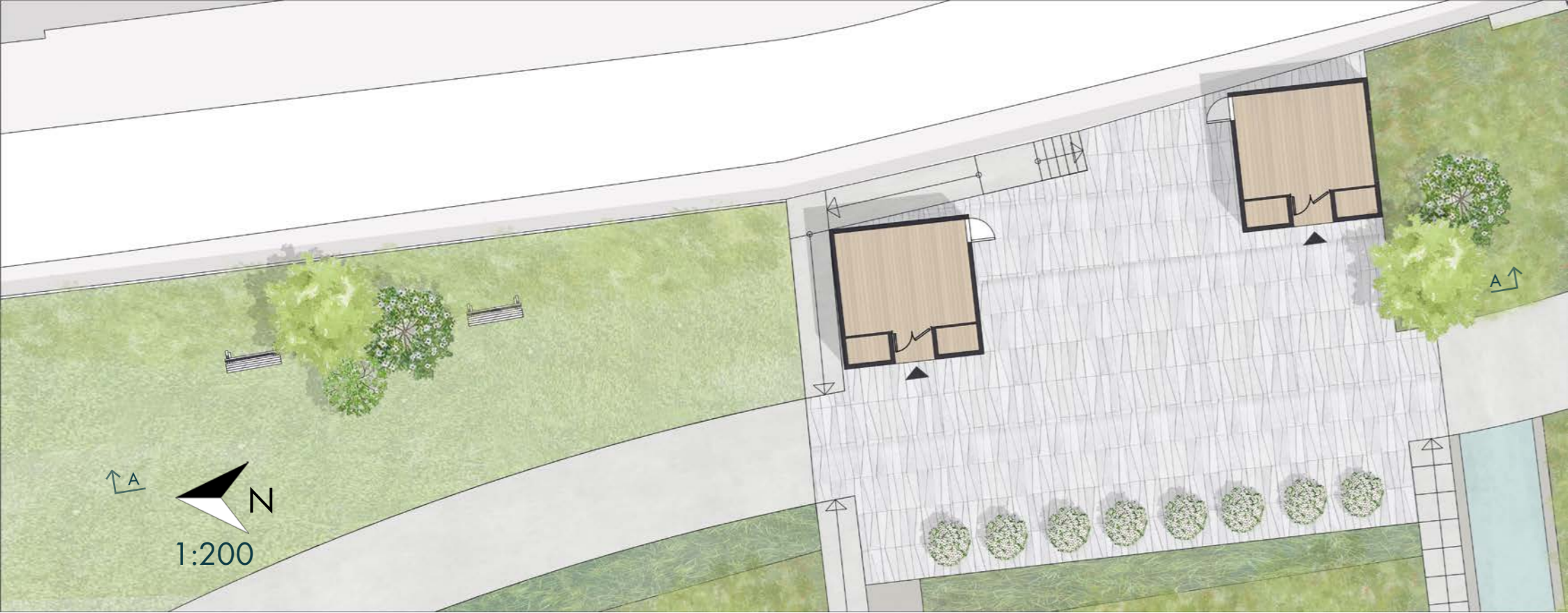
A flexible space

What is right today might not be right tomorrow. This is a part of the park that is flexible and without a program. It can be used for installations, seasonal happenings or just be an open space for recreation.

One example is that it could be a playground and be a part of the park purely dedicated to the children.



Section B
1:200



Facade material

An eco of the surroundings



Wood logs (u.å)



Grass (u.å)

The left pavilion has a facade made out of cut tree trunks. Besides being beautiful as a material, it also has a strong association with wild nature and encourages the visitor to touch it and experience it with different senses.

The right pavilion has a living facade as it is covered in greenery. It acts as an extension of the park and is a kind of exhibition in itself as the greenery changes over the season. Besides looking at it, it is a facade to smell and study closer as it is covered by nice details.

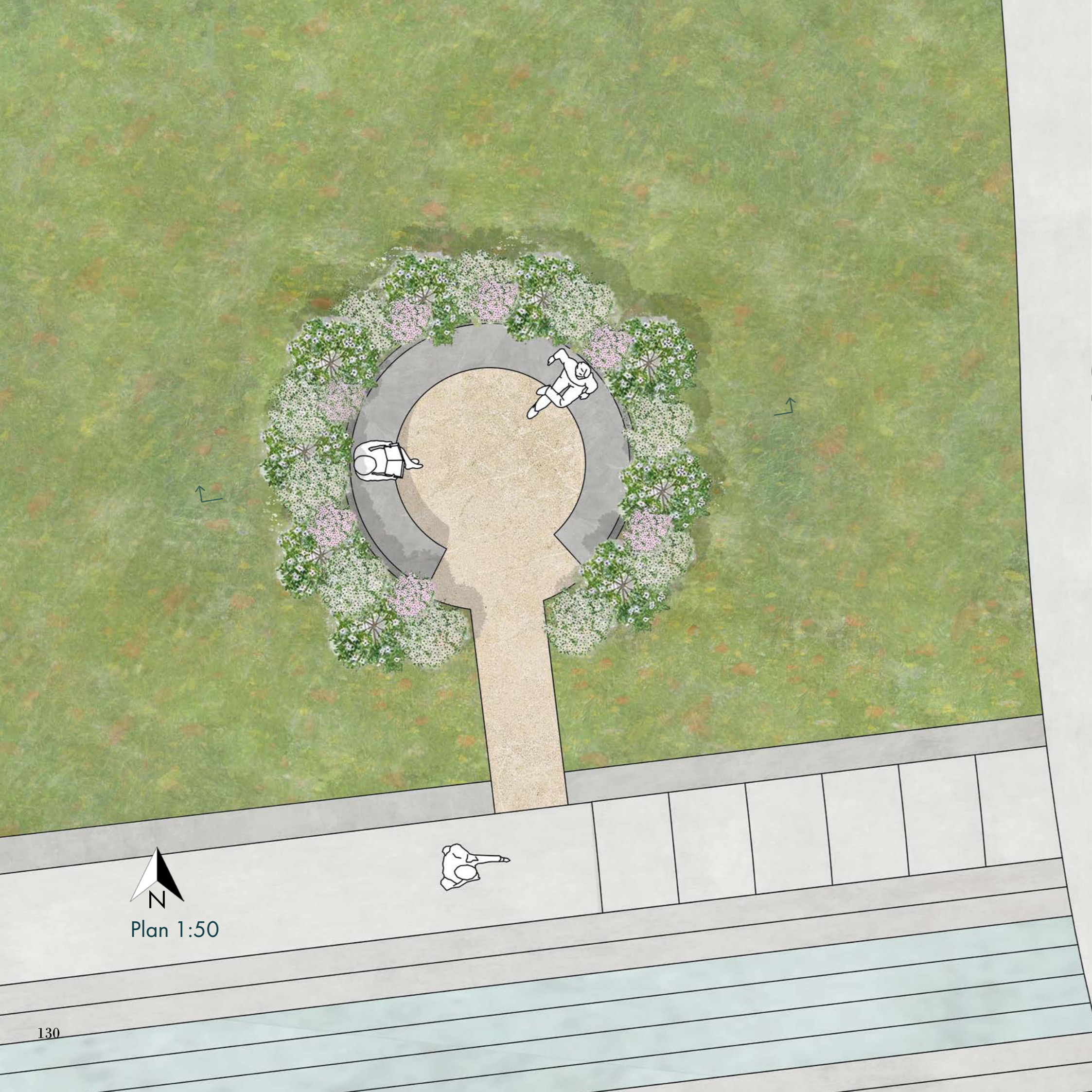
The pavilions

Another example is to place two exhibition pavilions on the flexible nonprogrammed area. These two pavilions have a simple floor plan with one exhibition room which is 5x4 m and 3 meters high. To make the exhibition space as easy to use as possible, there are no windows and natural daylight to take in consideration.

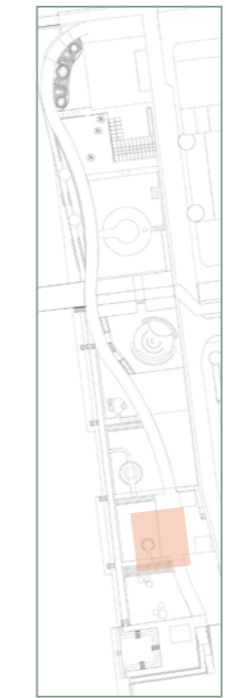
It's an exhibition space where the visitor can experience nature in a weather-protected room. The exhibition should deal with nature or climate topics and focus on experiences. They should be easy to maintain, stay long term and free of charge to visit.



Section A
1:200



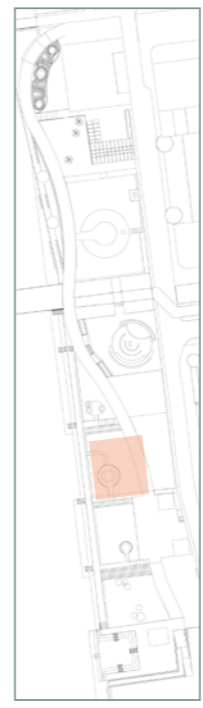
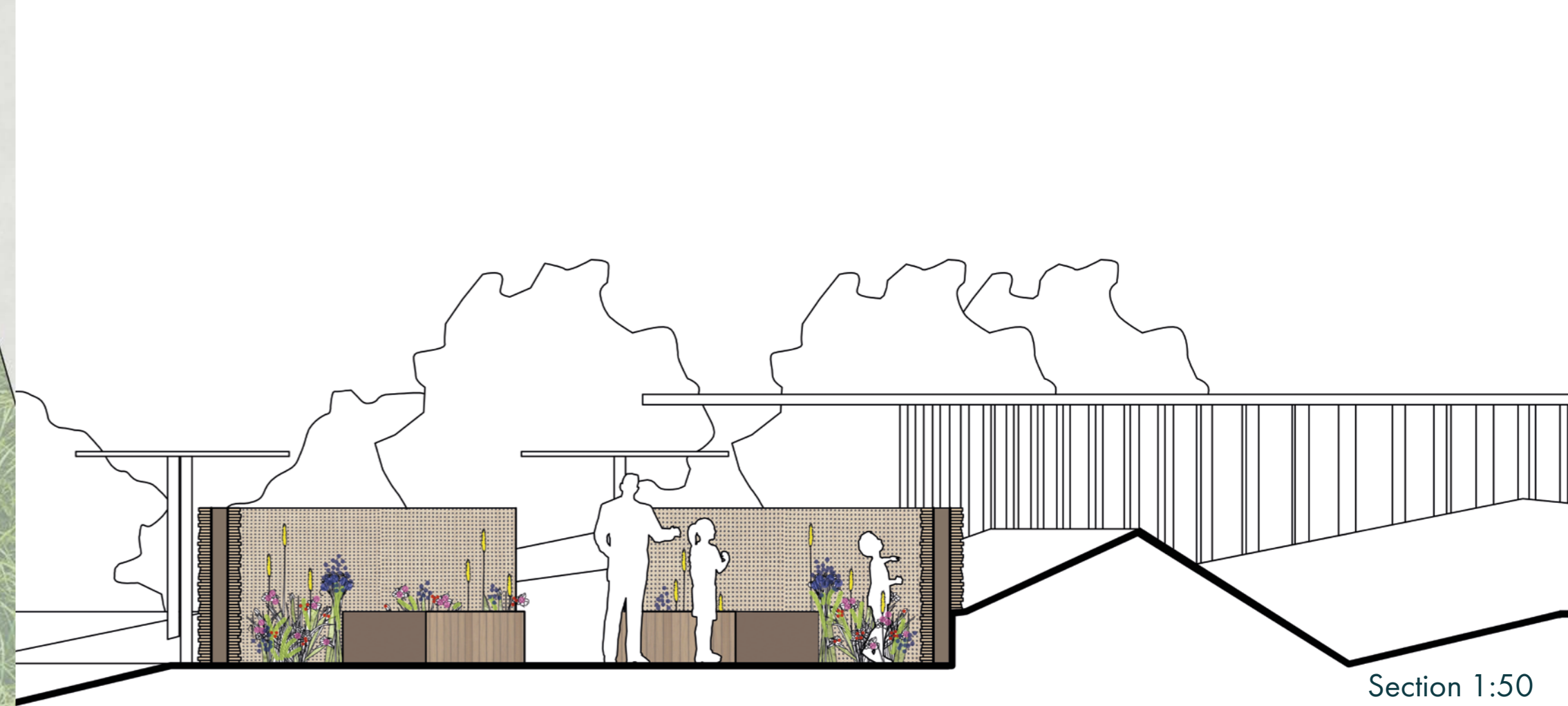
Section 1:50



The bookworms getaway

Sunken into the meadow and surrounded by greenery, this is a good place to rest for a visitor who wants to be protected from the wind. It is big enough for a smaller company but also small enough to be cozy even if it is just one person using it. It is the perfect place to hide and relax with a book while smelling the flowers.

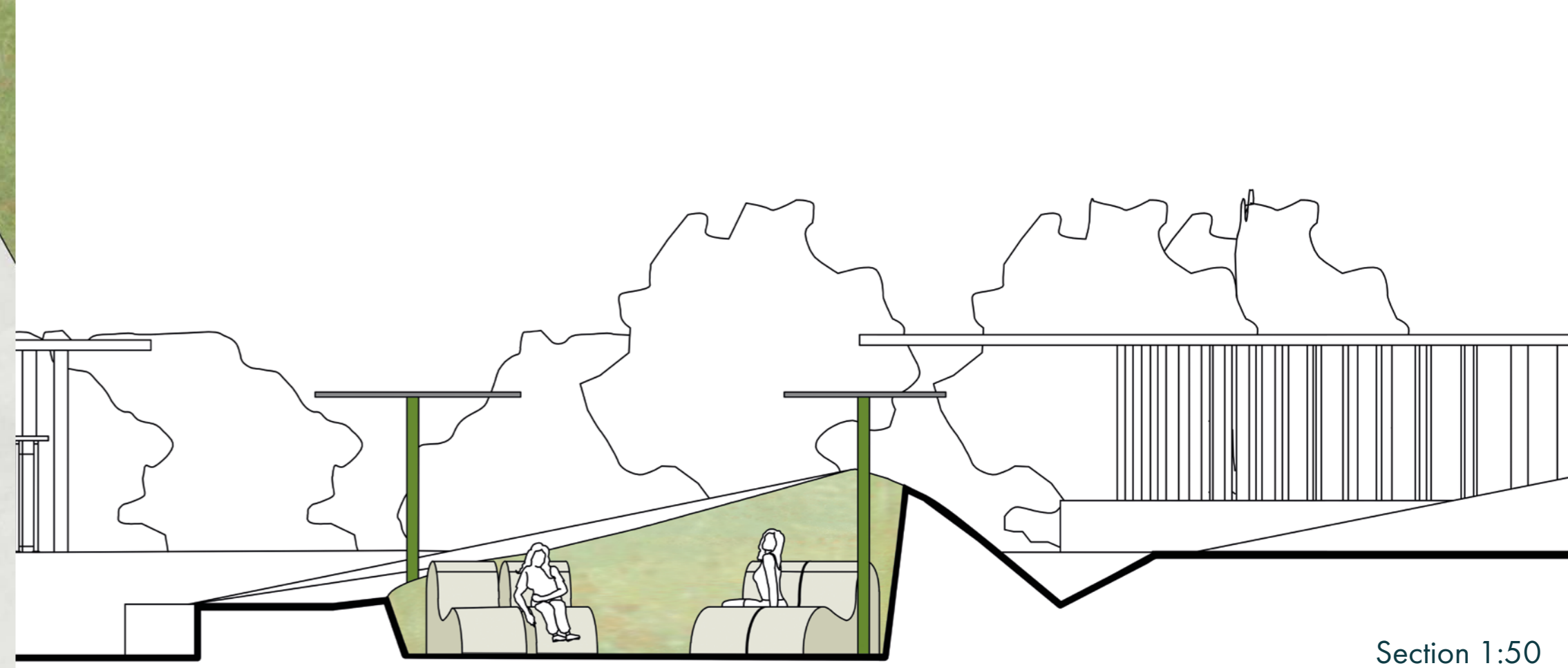
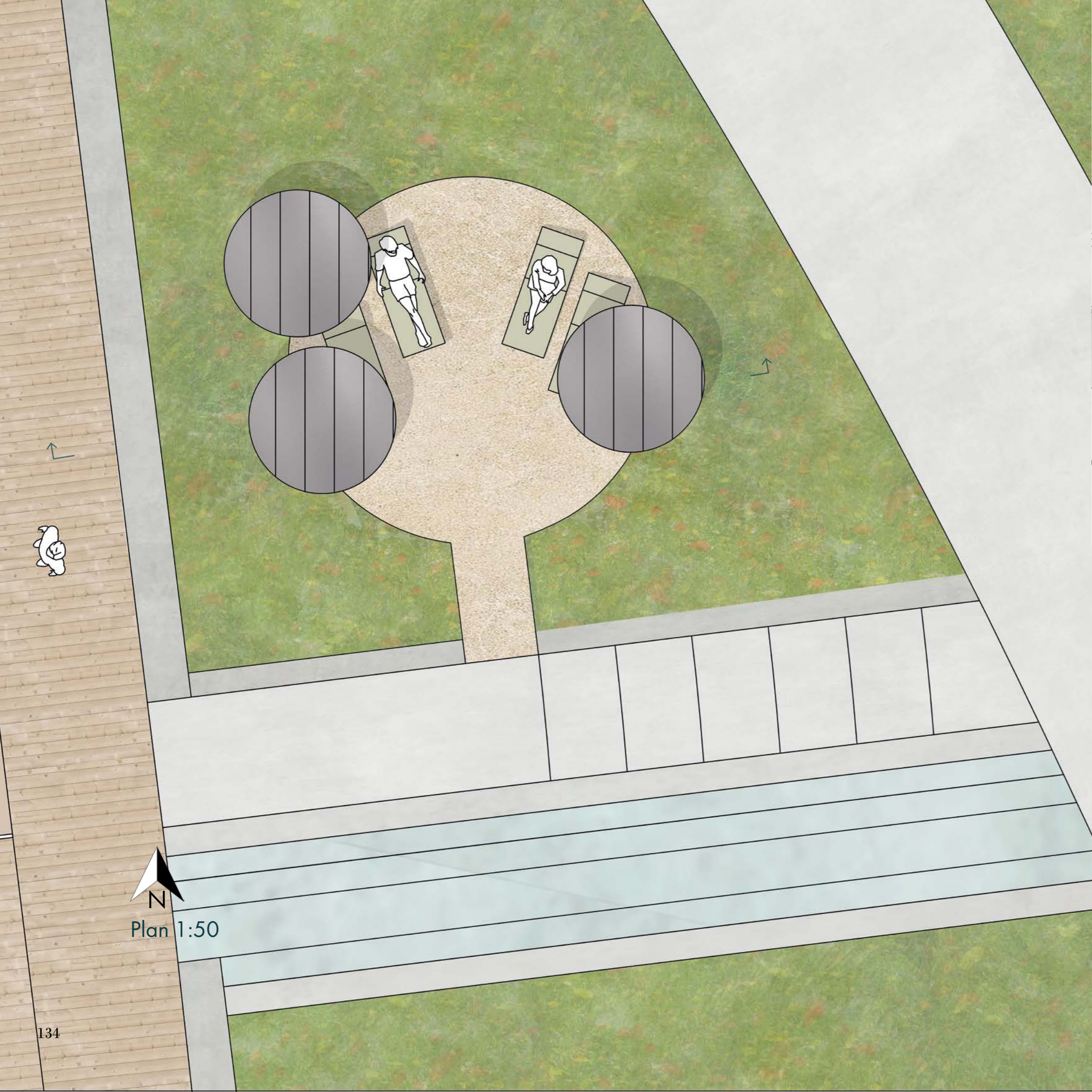
- Greenery
- Wind
- Sun



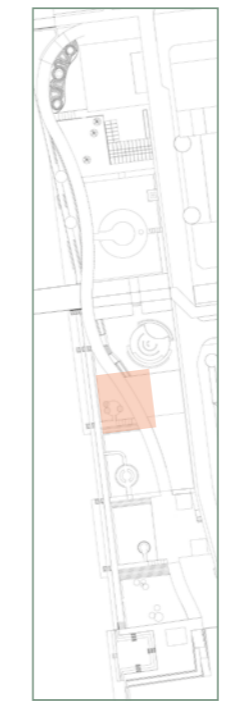
The kingdom of the insects

This is a place dedicated to curious children and adults who wish to come closer and learn more about insects. The place is surrounded by a bamboo wall that works as an insect hotel, especially popular amongst solitary bees, which are very important for pollination. The diversity of flowers that are planted between the insect wall and the bench provides food to the insects and attracts different species.

- Greenery
- Wind
- Sun



Section 1:50



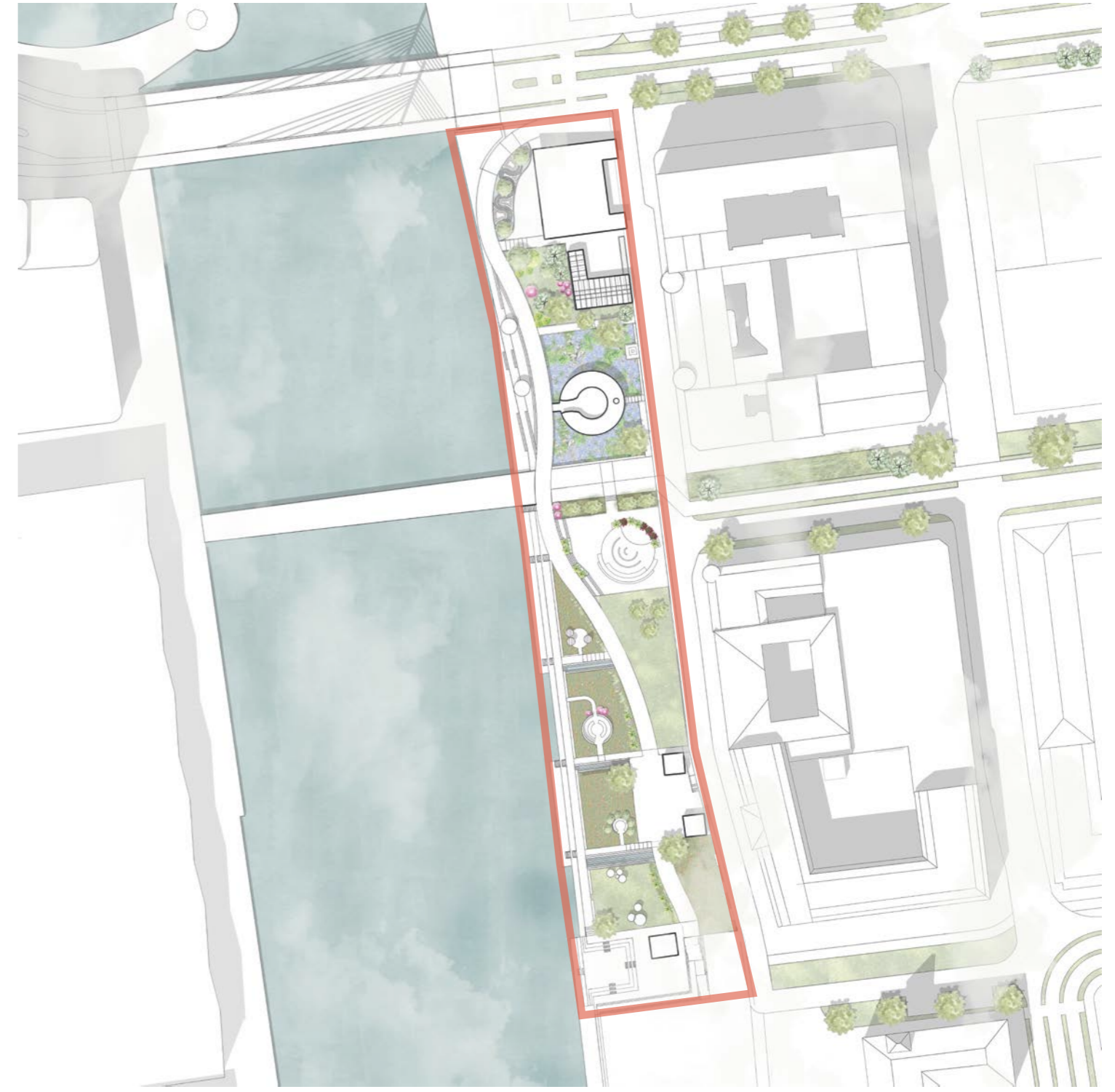
The catching-up circle

During the warm month, this is a perfect place for sunbathing when having a catch-up with some friends. It fits either a bigger group of friends or two separate companies. When the weather turns colder, the seating is heated by the solar panels which makes it a comfortable place to use the whole year-round. Sunken into the meadow, the place is protected from the wind.



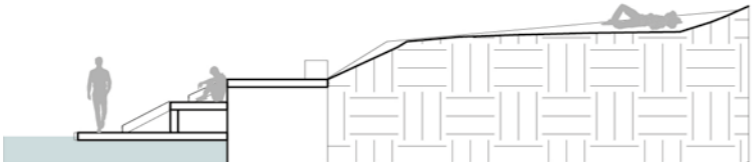
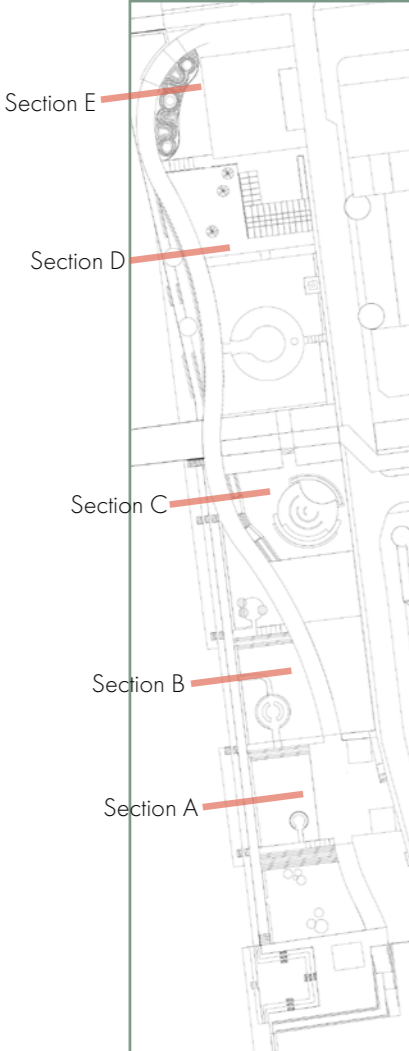
Borders

Interact with the sea
Interact with the surrounding



Interact with the sea

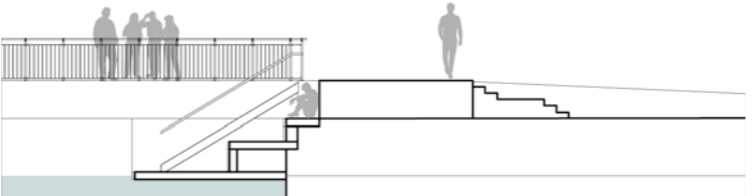
The edge is taken care of as an urban quay with different places to sit, interact and enjoy the weather and the sea. The materiality is hard materials, but at some places greenery will show up near the edge.



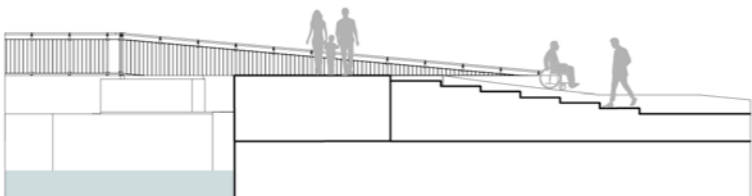
Section A Get down close to the water. The concrete path is further away with greenery in between.



Section B Interact with the water from a distance. The concrete is further away with greenery in between.

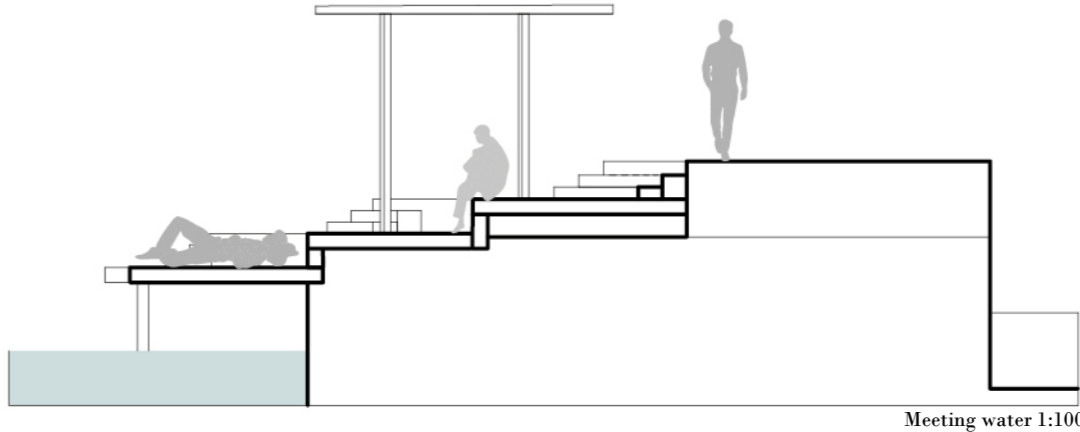


Section C Get down close to the water. The concrete path is close to the edge to experience the sea while walking through the site.



Section E Interact with the water from a distance. The concrete path is close to the edge to experience the sea while walking through the site.

Section scales 1:200



Section D Interact with the sea from above. Long steps create places to rest. Shelter from the rain creates places to enjoy the sea while being protected.

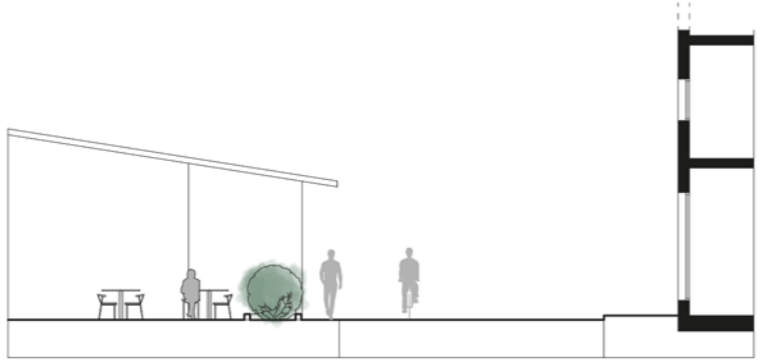
To provide protection from rain and snow is important to create public spaces that could be used during all seasons.



An evening by the water

Interact with the surrounding

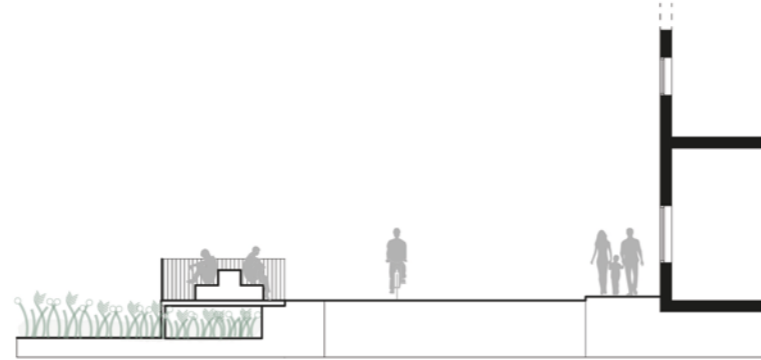
The edge towards the road and the city is an edge with variation, both in use and in levels. It interacts with the existing buildings and creates value for those as well.



Section A The inner courtyard next to the greenhouse is an edge consisting of a hedge high enough to give privacy, but low enough so people walking by can get a glimpse of the inside.

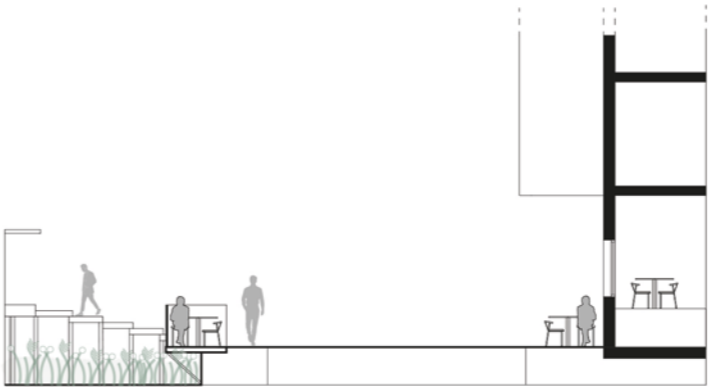


Section B The fruit garden is accessible from the street.

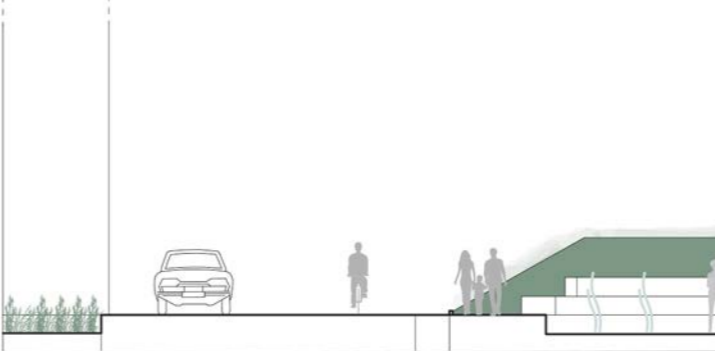


Section C Stay and enjoy the rain garden while waiting for your friend or taxi.

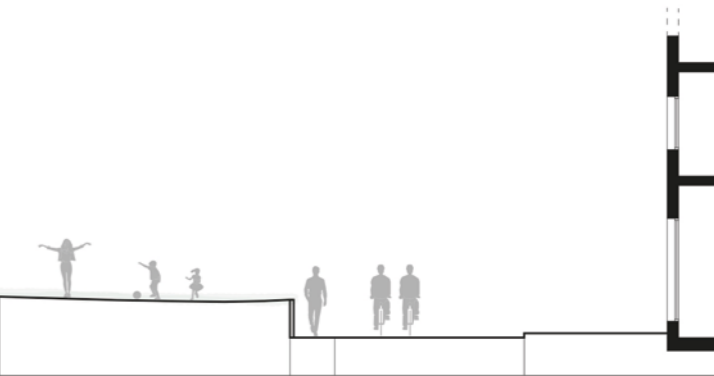
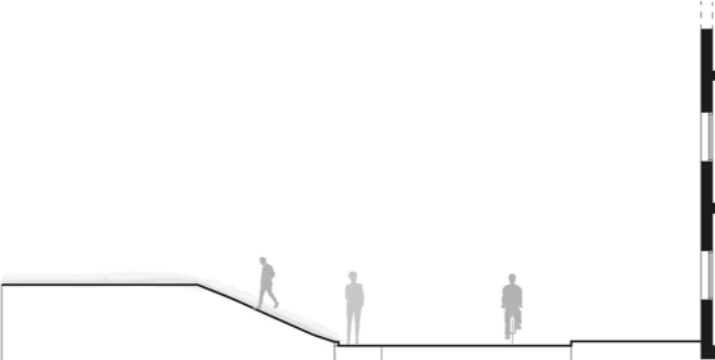
Sections scales 1:200



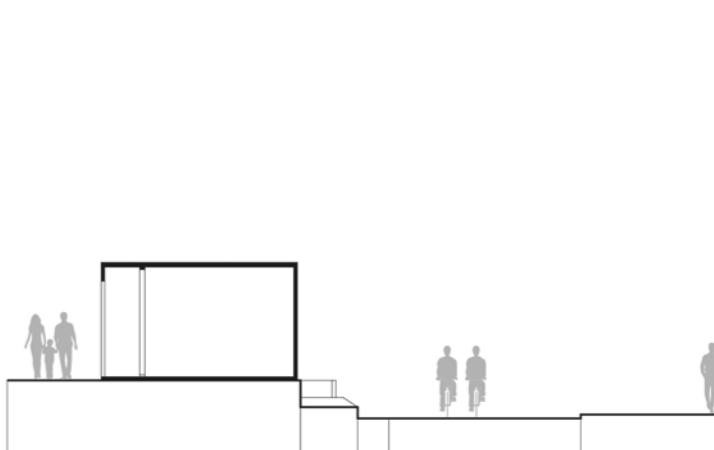
Section D An interaction with the restaurant on the other side.



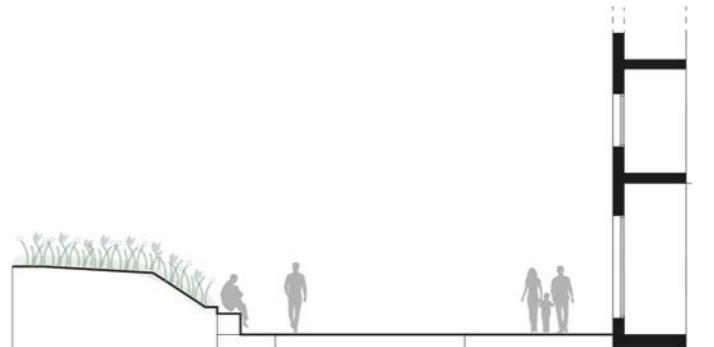
Section E The square is the same level as Jörgen Kocksgatan to prolong the street into the park.



Section G Walk by the playful area.



Section H The pavillions mark the street with their interesting facades and becomes an interesting element to look at.



Water resources

Protect and invite water
Water in different levels
Rain as an asset

Protect and Invite Water

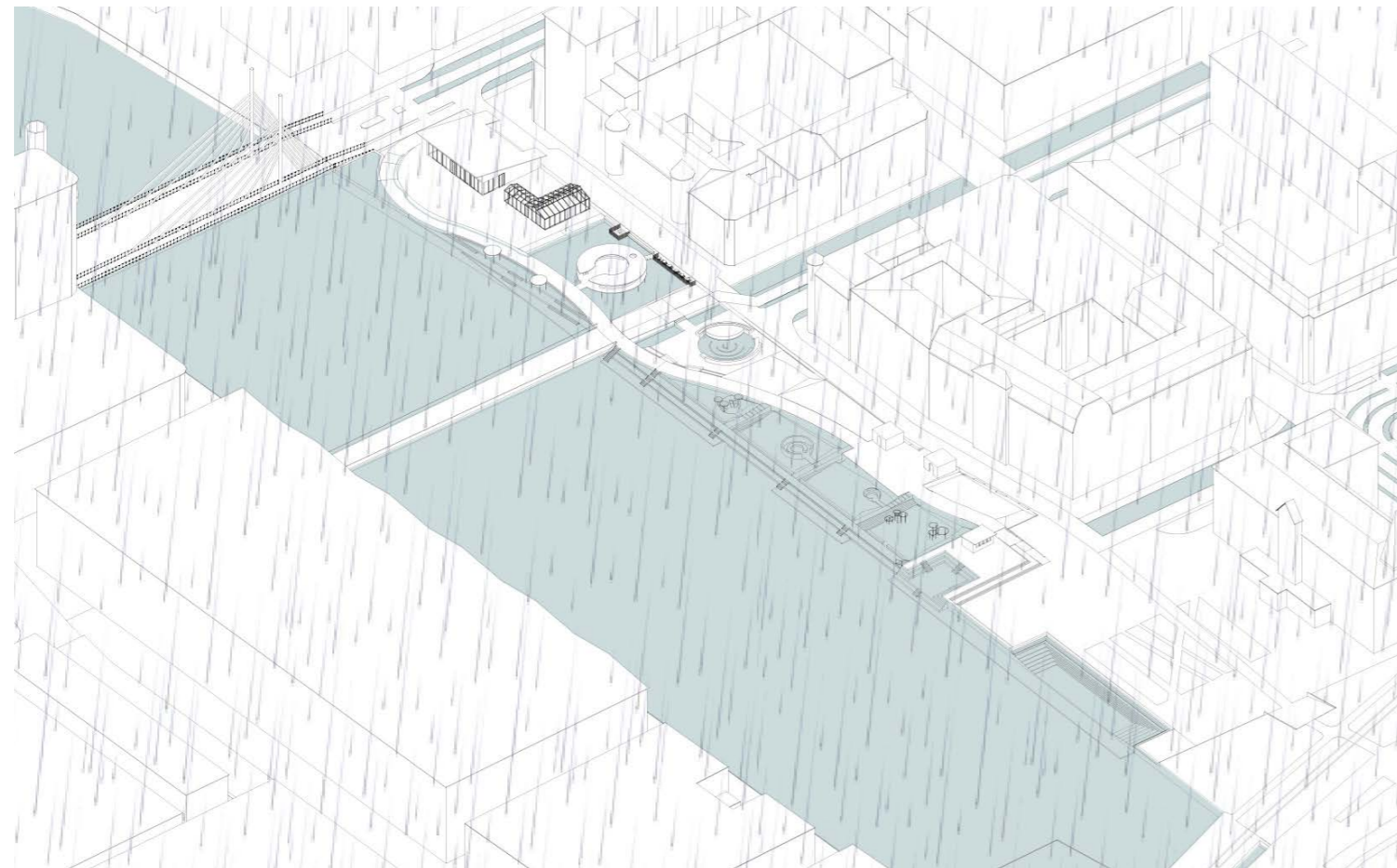
As mentioned in FÖP-Nyhamnen as well as in the previous chapter about water, the site is threatened by storm surges and heavy rain. By taming the water and let it into our site in a controlled way, it is possible to change this threat to an opportunity. The concrete path is the main sea level rise barrier. When a big storm surge will happen, the quay edge will become the shape of the concrete path. The site will take care of water from Jörgen Kocksgatan as well as Carlskatan (the water from Carlskatan will run into Jörgen Kocksgatan). The water that will not be detained at Jörgen Kocksgatan will run into our site. By using rain gardens and urban furniture that can detain the water, the rainwater will also add value and create an interesting view while raining.

The water will create wet environments that are beneficial for a higher level of biodiversity.

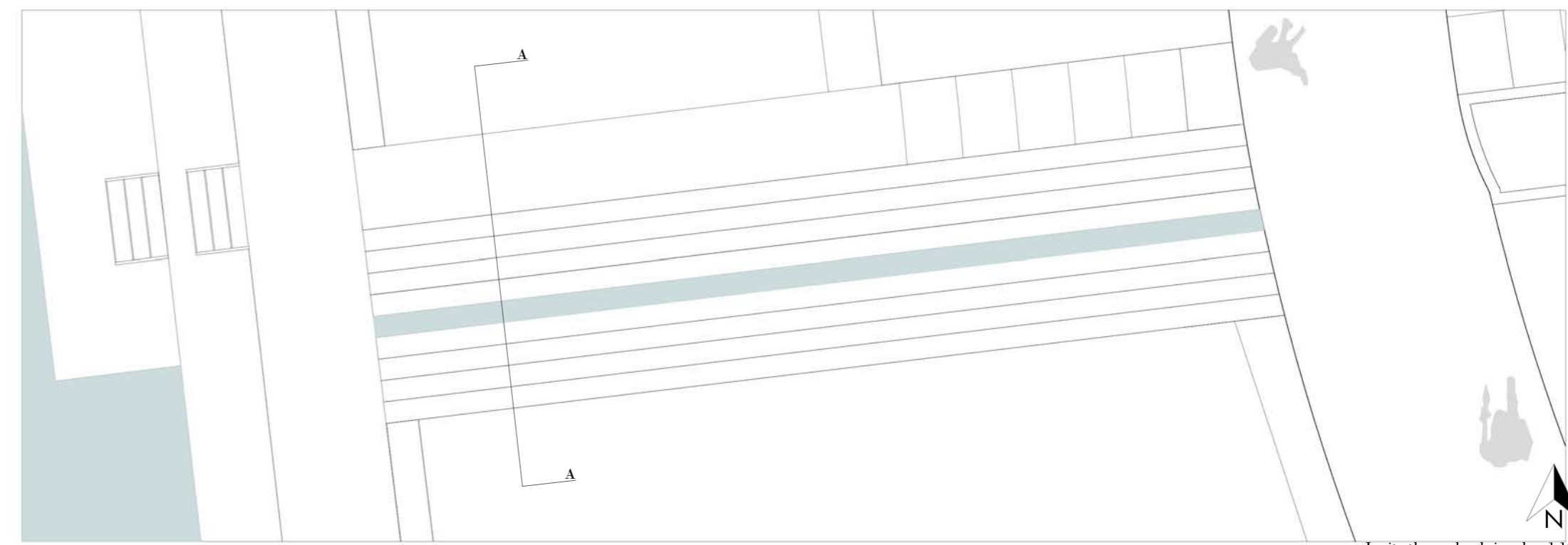
Rain

Sea

Wind



Axonometric view during storm

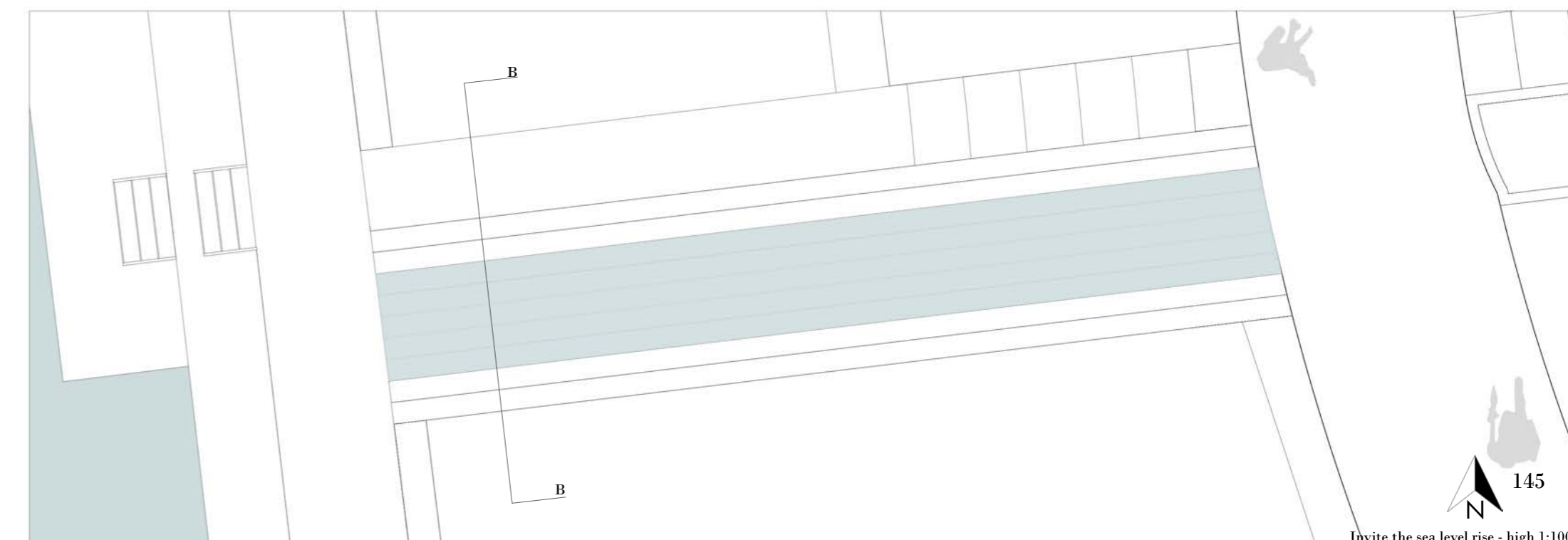
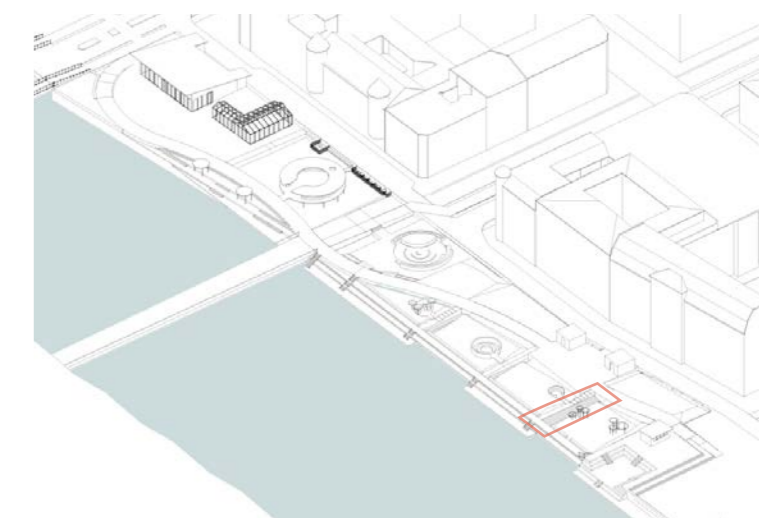


Invite the sea level rise - low 1:100

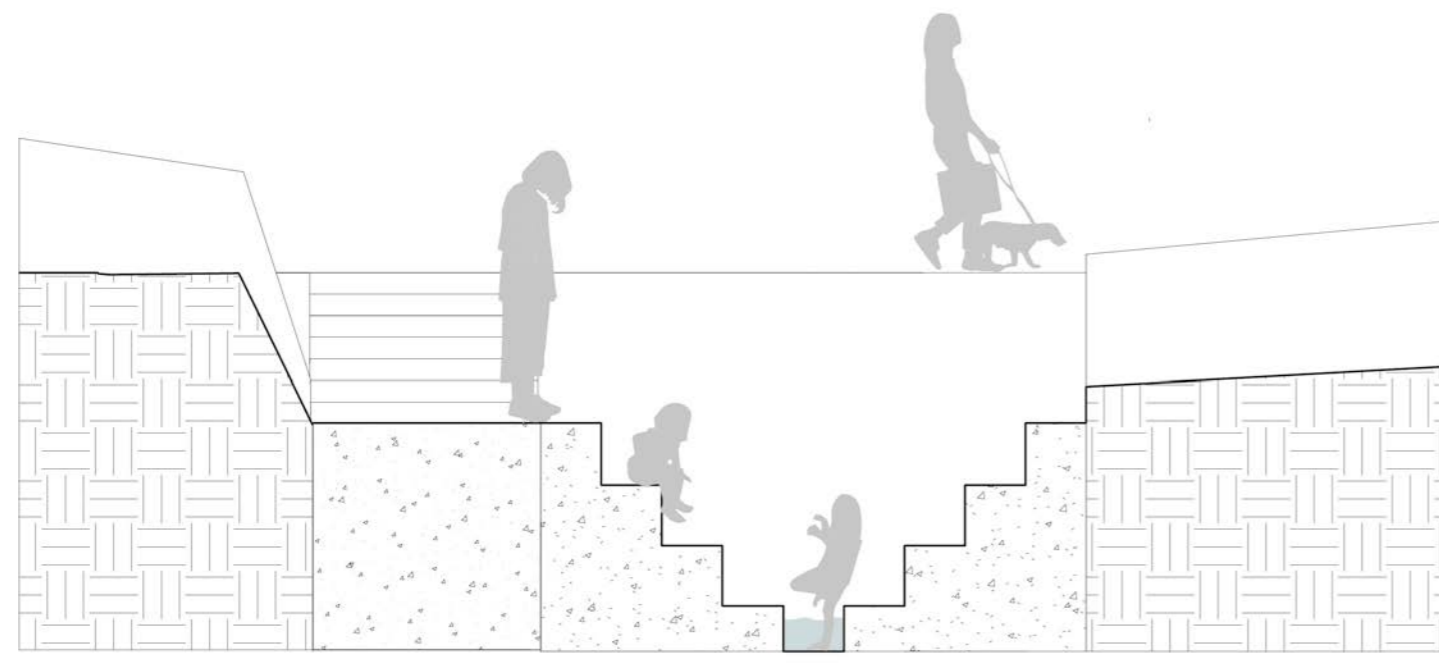
Water in different smaller levels

The water doesn't only change levels during big storms and storm surges, it changes in smaller scale as it's natural way of moving. Small channels is placed from the sea to the main path. The channels is lowered in different steps and will clearly show today's water level.

Here it is possible to meet and touch the water in a safe way. It will also give a chance for the ones passing by to notice today's water level and hopefully give them a reminder that the sea is full of life.

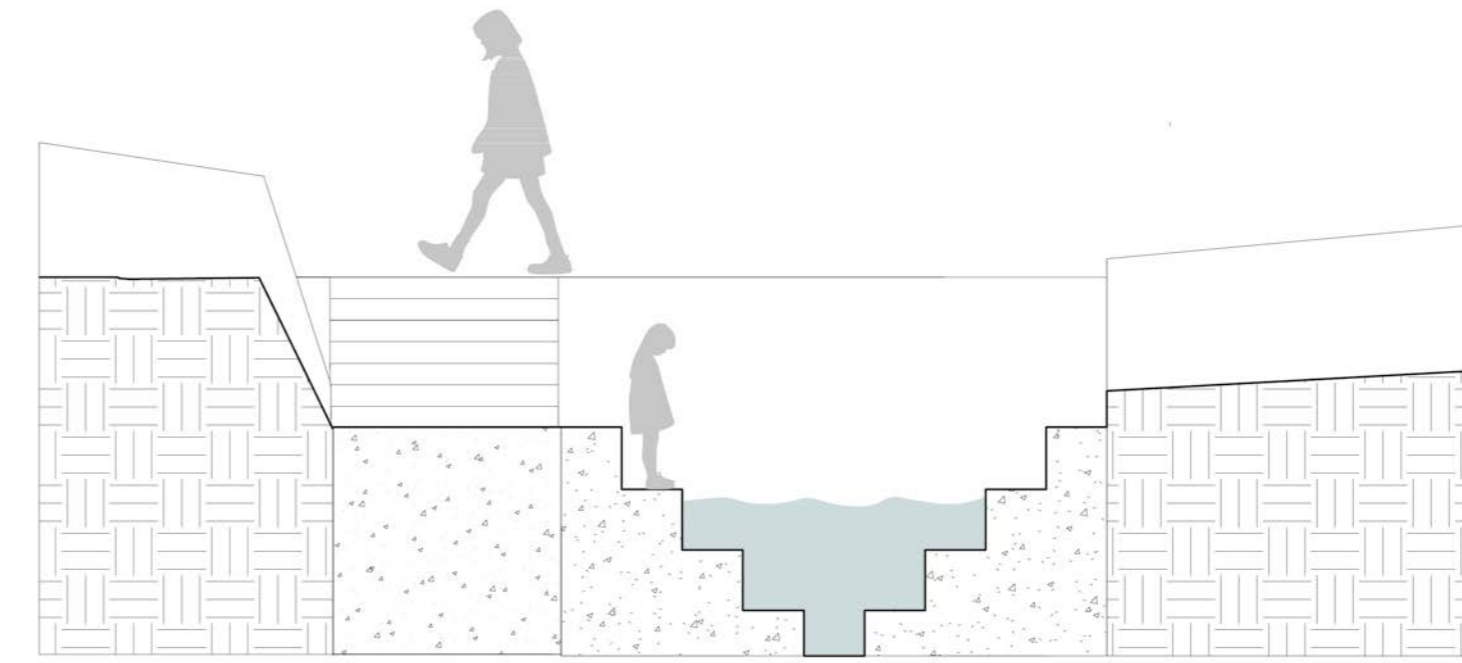


Invite the sea level rise - high 1:100



Section A The lowest step is lower than the average sea level which makes it filled with water almost all year.

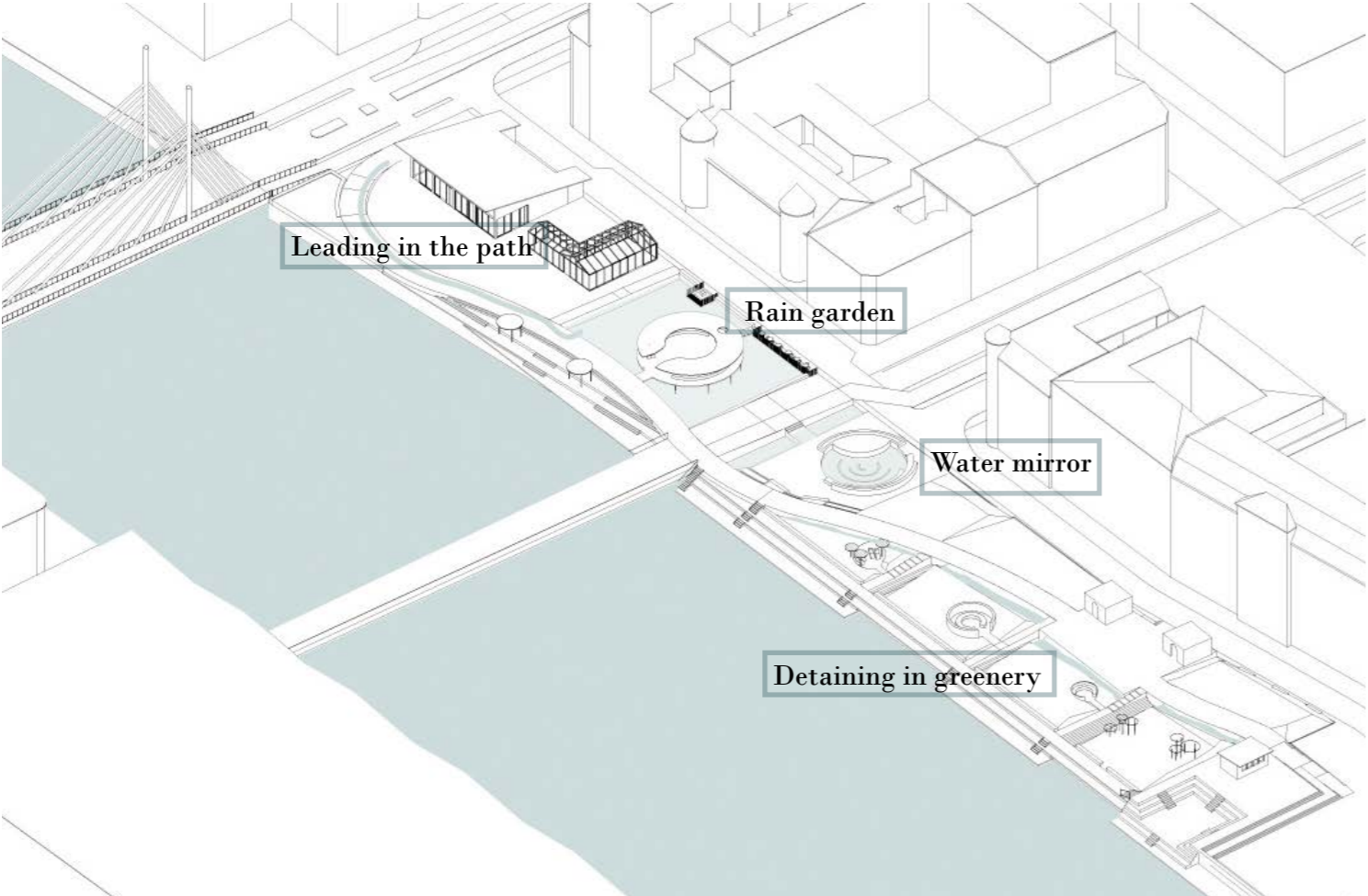
Invite the sea level rise - low 1:50



Section B The channels can be filled if the water level rise.

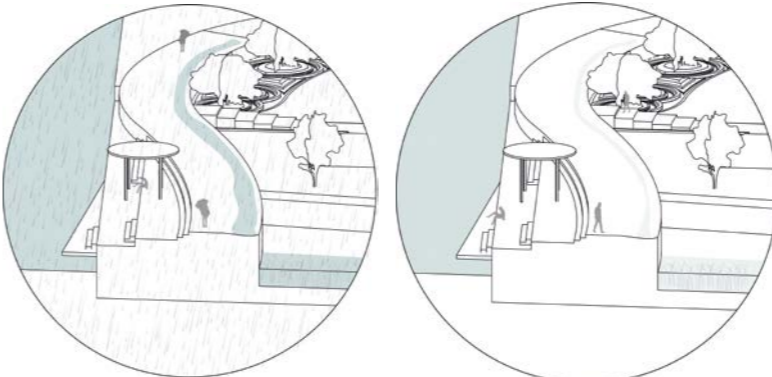
Invite the sea level rise - high 1:50

Rain as an asset



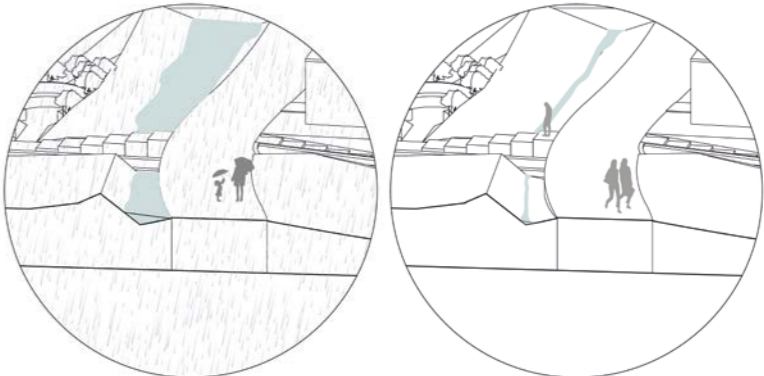
Places to handle the rainwater

Leading in the path



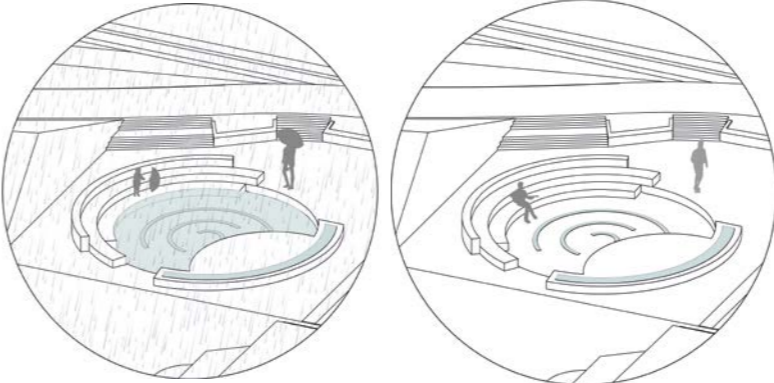
A small immersion in the path will create a place for the water to be lead into the rain garden. When it is dry it will not be noticed. When it is raining, a rippling small water channel will be revealed.

Detaining in greenery



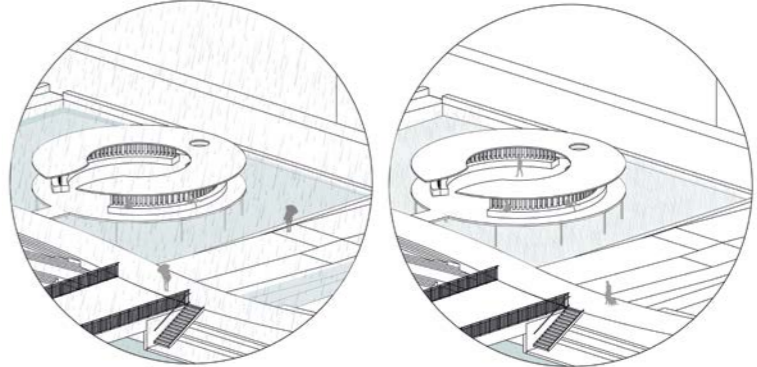
The created hills south of the site has an immersion as well. The permeable ground will take care of a lot of water by detaining and retaining it. If it is too heavy rain and the amount of water is over its capacity, the water will be lead to the rain garden.

Water mirror



The water mirror is an urban furniture that can be filled during heavy rain. If it gets overflowed the water will run to the rain garden. During light rain, narrow cuts in the ground will create a pattern.

Rain garden



The rain garden will take care of the water that the small instances can't handle themselves. Here the water will be detained. During a big storm, it can be filled with a lot of water and after rain it will remain until it has evaporated. During dry seasons it will be a green garden.

Chapter 4

FINAL WORDS

Conclusion

This project was born from a wish to make a place where people can connect with nature in an urban environment. To create a valuable place in the city for both humans and biodiversity.

It has resulted in an urban park that acts as an exhibition of nature with a focus on experiences through the five human senses. Handling the climate on the site as well as boosting the biodiversity has been important and will function as educational elements for the visitors.

What could have been a difficulty with the handling of sea level rise and rain, did instead become a strength as it has shaped the park and become an important design element. The rainwater from Jörgen Kocksgatan ends up in the middle of the park which naturally gave it a rainwater theme. To prevent the storming sea to flood the streets, the concrete path in the park is elevated one meter and acts as a wall that protects the city behind.

Another very important factor when it comes to the layout is the location of the site. Placed in the centre of Malmö with connections to both the existing part and to the planned new area Nyhamnen, the site is important as being the link in between. There are three big roads connected to the park and a planned bridge connecting the site with the university which has been important when we programmed the site.

With the central location, this park is a resource for a lot of different people: the kid who wants to play on the grass, the commuter that gets a relaxing walk home from the train station, the pensioner that wants to enjoy the sun and the student who grabs lunch in the restaurant while enjoying the sea. Everyone will experience and trigger some senses that give the positive effects that nature can contribute with.

If we would have had continued this project, we think that the bridge could be important as a part of the park. The bridge gives an opportunity to actually go out on the water and experience it even more.

Our reflections

When we started this journey, we had a very idealistic project in mind; we wanted to handle the climate change issue and help people to learn about nature and act environmental-friendly. We found an interesting site in central Malmö that seemed perfect. Working together and having double workforce for this project gave us an opportunity to go even further in the exploring process and try a lot of different solutions.

We found that the site and its surroundings have a very strong identity, which led to a lot of re-evaluation as we constantly during the whole semester explored new factors to take into consideration.

Now, looking back at our process and project, we feel that the combination of our original vision and the identity of the site has been one of our biggest sources of struggle. Our reasons why we chose the site are also the reason why many of our earlier proposals did not work. We tried to keep to our original vision for quite a while, but as it never really worked out we had to refine it and finally we found a project that we believed in. This ended up being one of the biggest lessons; you can't come with a finished idea to a new site and be sure that it will work without knowing the place. Our job as architects is to find solutions, rather

than coming with requests. Every surrounding has its influence and will shape the project, even if you wish for it or not. In earlier courses, we have always been given an already made brief and site. Now we know that it takes a lot of consideration and searching to find a perfect match between site and project.

It has been both interesting and frustrating that these earlier mentioned problems made us go into fields of architecture that we never have worked within.

Another challenge has been working with the different scales. In earlier projects, we have either been working with much bigger or much smaller sites. This was a new scale for both of us and a new focus. It has been a constant challenge and worries about getting it all together as a unity. We found it difficult to choose where to go into detail and where to not.

Finally, we have learned a lot from each other, both by bringing different skills to the table and working together as a team. We have had a challenging but fun semester and are really grateful that we did this journey together!

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