

AS ABOVE SO BELOW

A hybrid wellness retreat in Gothenburg



TABLE OF CONTENTS

PART I	4
Introduction	5
Motive	6
Background	7
Mixed-use Development	8
Method	9
Metaballs, curves and circles	10
PART II	16
Site	17
Site Analysis of Valhalla	18
Site Development	21
Proposal	22
As Above So Below	23
Illustrations	24
Situationplans	25
Sections and Elevations	27
Axonometries	29
Bibliography	31

PART 1

INTRODUCTION

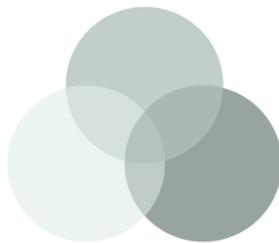
MOTIVE

The area of the land is steadily decreasing due to population growth and sea level rise caused by climate change. Accumulating rainfall will become increasingly challenging as cities grow, building density rises, and soil permeability declines. This puts tremendous pressure on how land is used around the globe. However, it offers an opportunity for architects and urban planners to rethink how cities are designed in order to meet the needs of the future. Through the proposal's atypical architecture, the goal is then to push sustainability further by addressing the issue of both rapid growth and footprint beyond spatial awareness.

BACKGROUND

According to UN estimates, the world's population will increase from its current 7.3 billion to 9.7 billion by 2050. (Nuwer, 2015). Since people tend to value proximity and closeness to facilities, convenience and opportunity, almost 70% of the world's population is projected to live in urban areas. Rapid population growth has many drawbacks, including increased vulnerability to natural disasters, strain on infrastructure and pressure on public services. It will therefore be essential to reconsider how to use land around the globe because as cities grow, so do risks.

Located on low reclaimed land, Gothenburg is particularly susceptible to floods caused by climate change. The city is already below sea level, and by 2100, the tide can rise by up to two meters. For ages, Gothenburg has grown up on the margin of the land and the water, creating a unique cultural identity that must be protected. In addition, efforts must be made to achieve a harmonious coexistence of the built and natural environments.



MIXED-USE DEVELOPEMTN

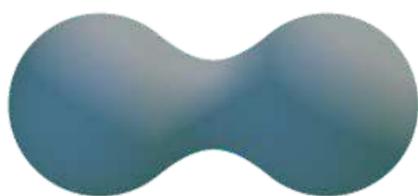
Although there are many disadvantages to urban growth such as lack of privacy and crowding, many argue that these drawbacks are outweighed by higher levels of interaction between people, programs, and establishments, which makes a neighborhood more lively and prosperous. Intentional or unintentional encounters are more likely to occur in an urban intense environment, implying that users of the area can accomplish more tasks in a shared space and with less time. This results in convenience, efficiency, and productivity, which are valued substantially more in a generally fast-paced environment. Urban intensity, according to Peter Rowle (2014), is a balance between density, diversity, and connection. In this context, Rowe defines 'density' as 'dwelling density', which would mean population growth.

When discussing the topic of urban intensity, the concept of mixed-use development is brought up. It encourages the physically integrated combination of residential, commercial, cultural, and transportation functions, consolidating activity within a structure or neighborhood. As cities densify, mixed-use development is becoming increasingly important in order to adapt to the uncertain future and frequently changing needs presented by individuals and collectives. The standard relationship between inside and outside can also be redefined to enhance the beauty and functionality of a place.

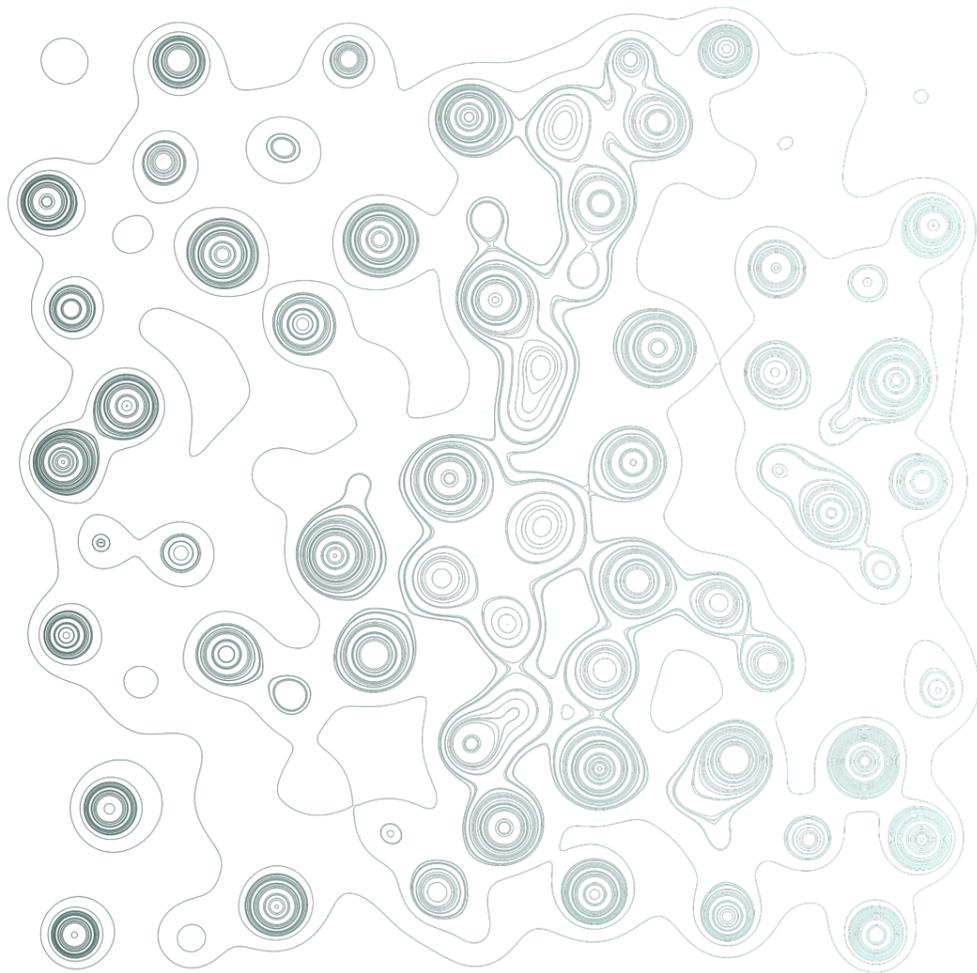
METHOD

METABALLS, CURVES AND CIRCLES

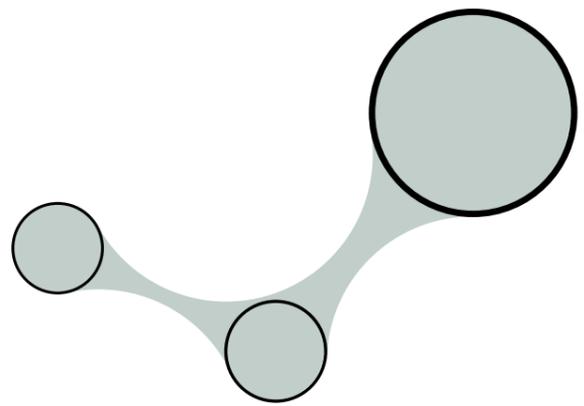
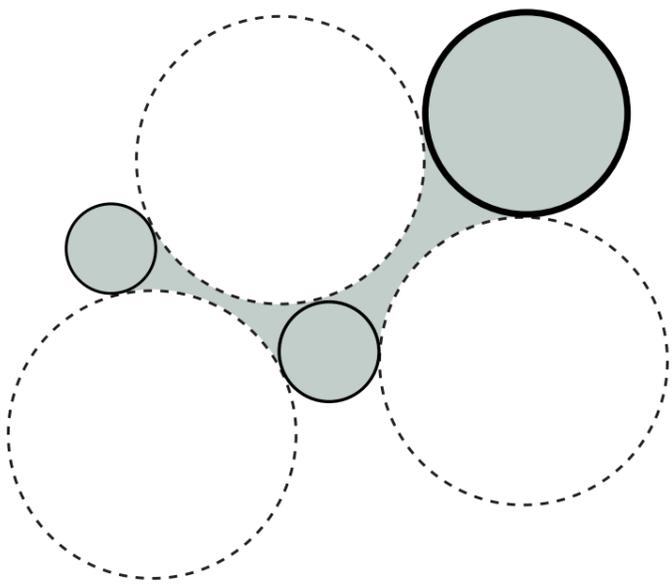
To represent a hybrid landscape's terrain and details, the method consists of a collection of design processes. Each and every design or inspiration is an analog computation created manually from a physical model. Some are purely digital others illustrations. After choosing the inspirational reference object, "metaballs," rebuilding its form, and devising the procedures to account for variances, the method was developed. Metaballs are characterized by their ability to combine into a single, contiguous item when placed close together. Perhaps, organic shapes can be a way to address the ongoing issues of social change, modernism, and technological development. Hence, if the method is neither static nor strictly defined, the chosen shape can be said to have a large spectrum of opportunities. While experimenting with metaballs, curves and circles the goal was to gain the tools and insight to modify an urban landscape holistically.



The birth and life of Metaballs.



Two-dimensional plane manipulated to be more organic through metaballs. From a rigid network to resembling a beautiful landscape.



Metaballs, Characterized by their ability to combine into a single, contiguous item when placed close together.
The method here is to tangent circles in order to reveal interstitial space.

PART II

SITE

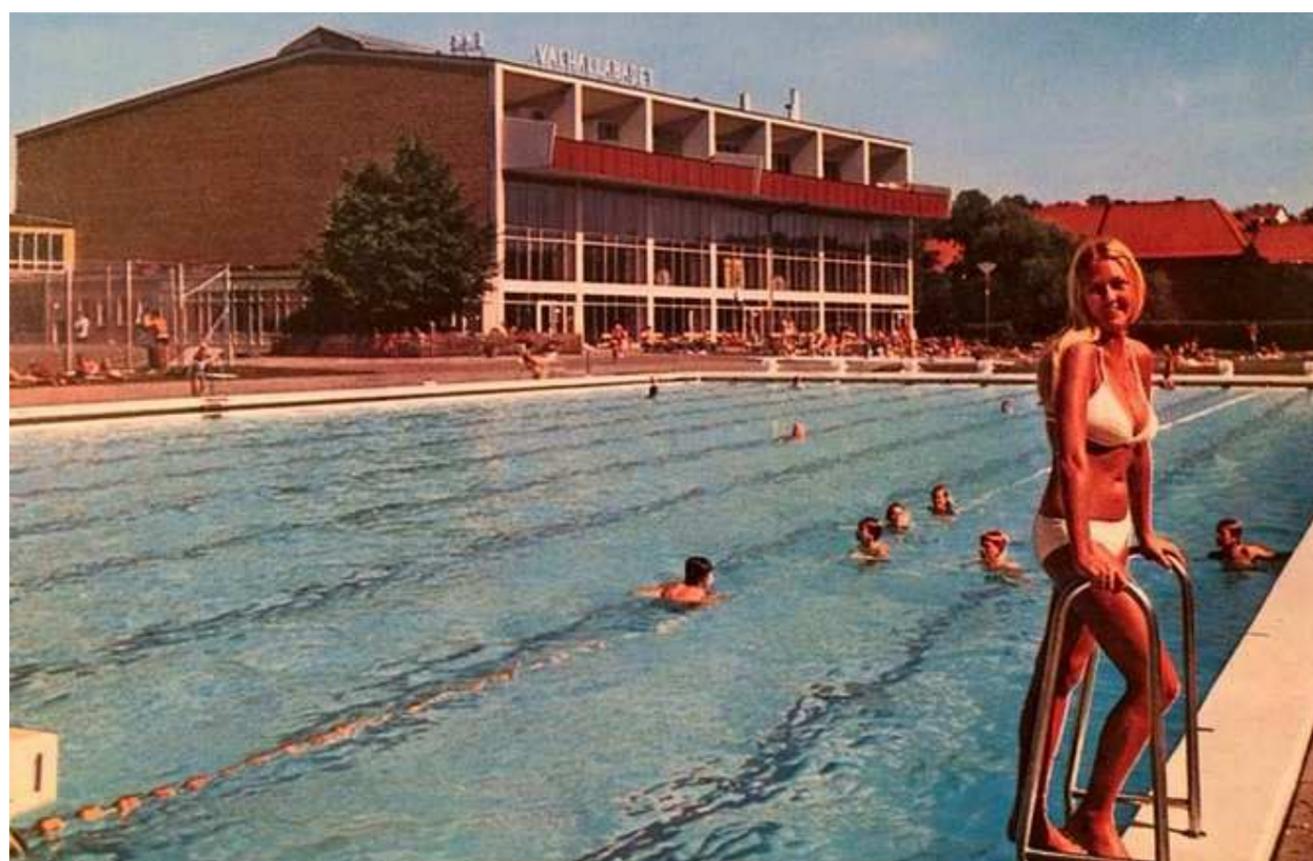
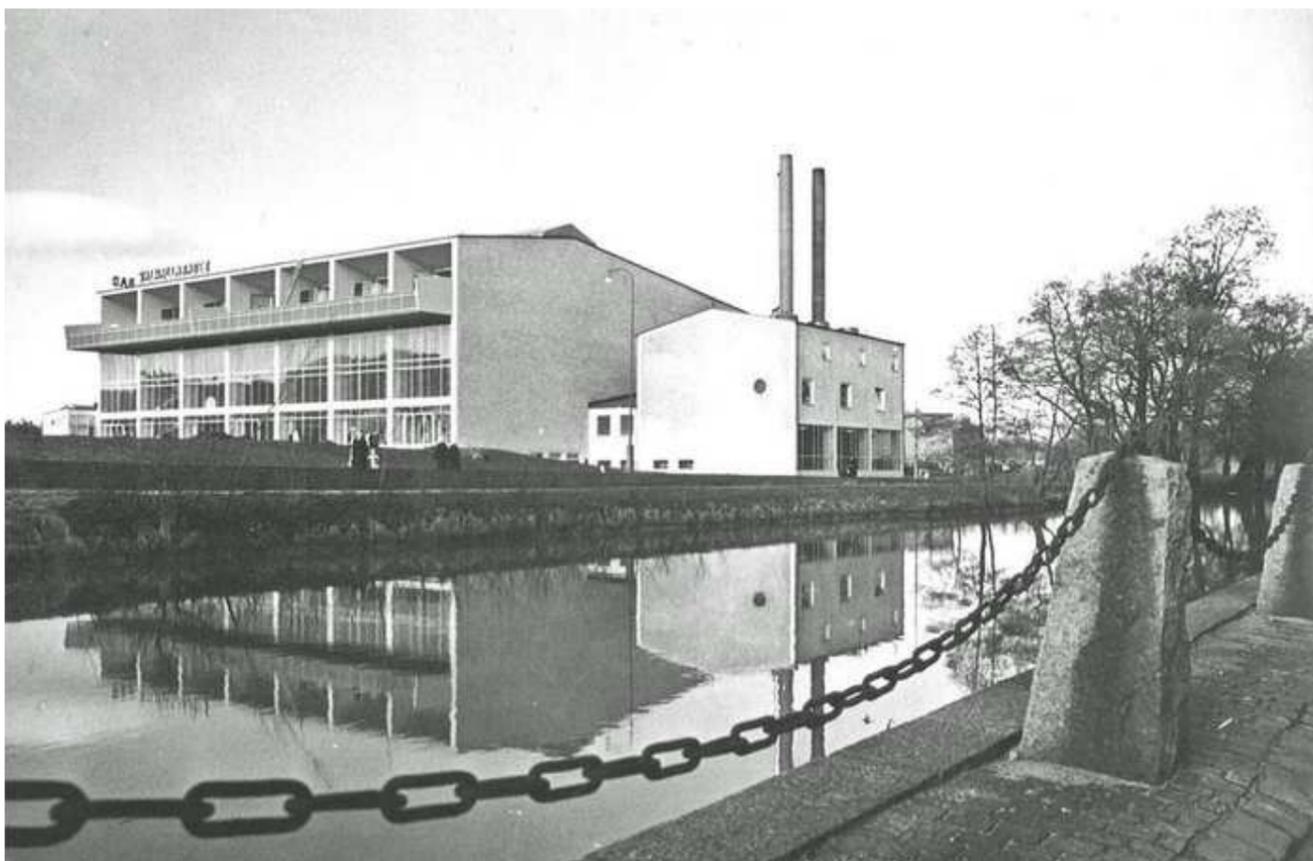
VALHALLA

Valhalla is home to a number of arenas and other event venues, such as, Liseberg, Scandinavium, Universeum and Valhalla Swimming Hall, which together attract millions of visitors few days a year. Beyond the annual highlights, a number of shortcomings are evident, including large barriers to accessing the city center and a dead area after event hours. The barriers are partly the Mölndalsån, the empty and hanging surfaces, but also the cluster of arenas in Valhalla. This, together with current conflicts between crossing traffic types, has ultimately led to great remoteness in Valhalla. However, the popular public bath Valhallabadet has been in operation since the late 1950s. When it opened in 1956, it was a brand-new type of bath facility and the biggest swimming hall in Sweden at the time. It was recently determined that the structure has significant historical and cultural importance (Lindgren & Peter, 2013). Despite the building's cultural and historical significance, the amenities are in poor condition and are in danger of being demolished. The facility added a 50-meter outdoor pool in 1967, but eventually replaced it with an indoor pool. The outdoor space is now only an empty space of grass or 'park'. Dull, but worse is the risk of flooding in the near future.



Valhalla 1975 and 2022.

The image from 1975 was taken by Swedish land surveyor Lantmäteriet, and the image from 2022 was captured using Google Earth.



From "Håwis Göteborg", image Lennart
Håwi, october 1958. Image of the old outdoor pool on a postcard of Valhallabadet in Gothenburg from 1970-1971.



VALHALLA SITE DEVELOPMENT

Valhalla should transform in a way which addresses the issue of growing cities and climate change. The answer to meet rapid urban growth and flooding might be through spatial awareness and the benefits of multifunctional architecture. Design which blurs the lines between inside and outside, walkable and non-walkable. At the same time incorporate water into the urban design process as the coastal ecosystems become more vulnerable and rainfall intensity increases in Gothenburg. Most importantly for Valhalla, to bring back the 'fun' in function.

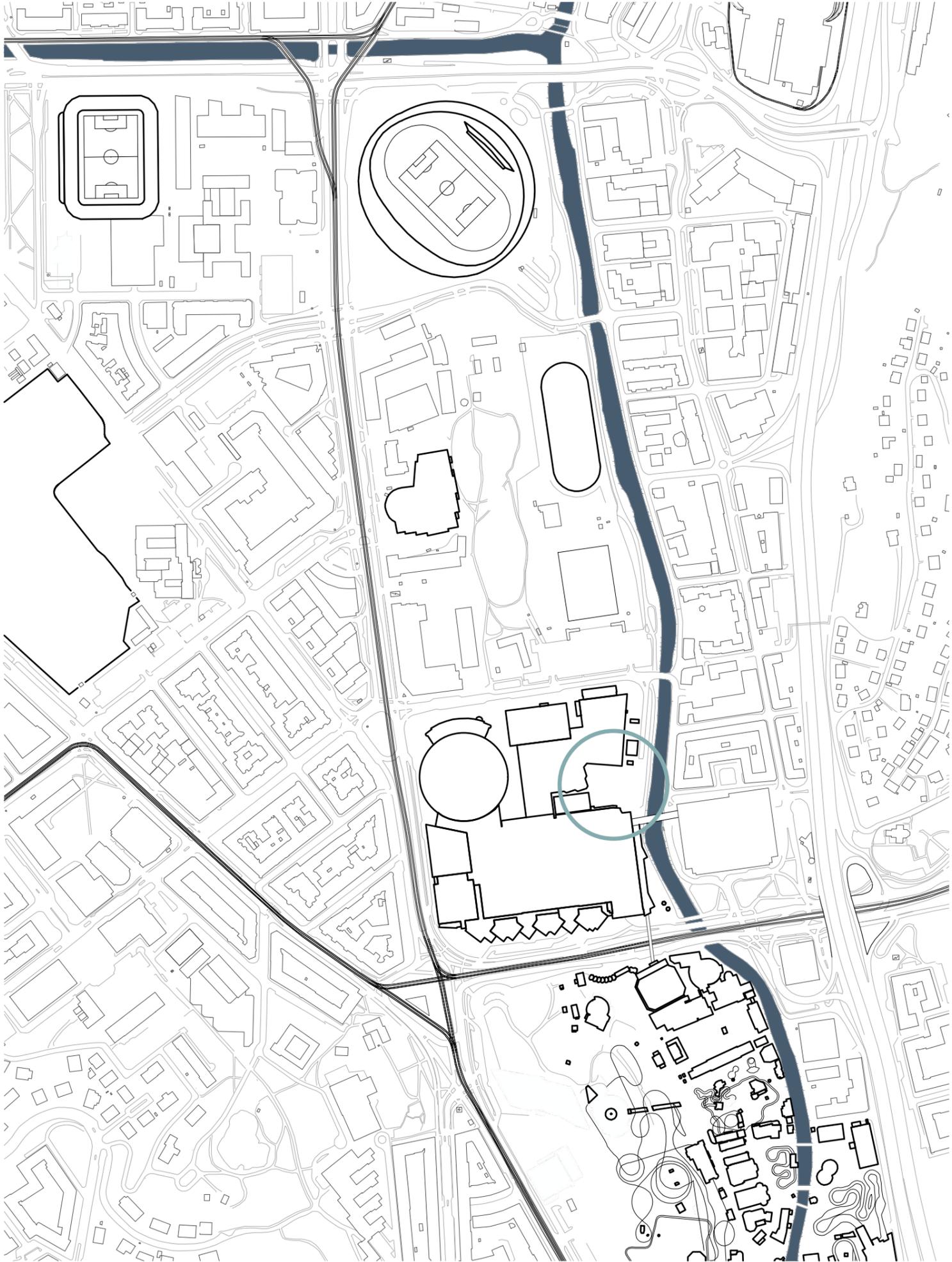
PROPOSAL

AS ABOVE SO BELOW

Flooding will get worse under the scenario of future climate change in 2020–2050. Accumulating rainfall will become increasingly challenging as cities grow, building density rises, and soil permeability declines. However, there is an opportunity to create a new urban attraction and strengthen Gothenburg's association with water.

The proposal is a multifunctional design which aims to serve the requirements, needs and wishes of future generations; a brand-new wellness retreat next to Valhalla Swimming Hall which would let the city expand into the water and for the water to enter the city. By embracing natural sunshine, rain, and topography from above ground to below ground, it generates a variety of interstitial circumstances that promote contact with nature. As the seasons change, extreme weather conditions will change the terrain, serving as a constant reminder of nature's strength and fragility, as well as her warmth and hostility. Pathways appear and fade throughout a rainfall, making each moment special. Water can enter the design through both rainfall and nearby new wetland, hence the name 'As Above So Below'. Being composed of gentle, rounded concrete hills with several spaces built into the grooves, the shape offers many opportunities in one single place as it blurs the lines between inside and outside, walkable and non-walkable. Thus, aiming to meet the issue of rapid urban growth and climate change through its spatial awareness. During rainy periods it serves as a wellness retreat, but if climate change is reversed it can be used as a concert hall or even a skatepark. Nonetheless, being accessible by foot and kayaks, the proposal can act as Valhalla Swimming Hall's new outdoor pool and significantly improved 'park'.





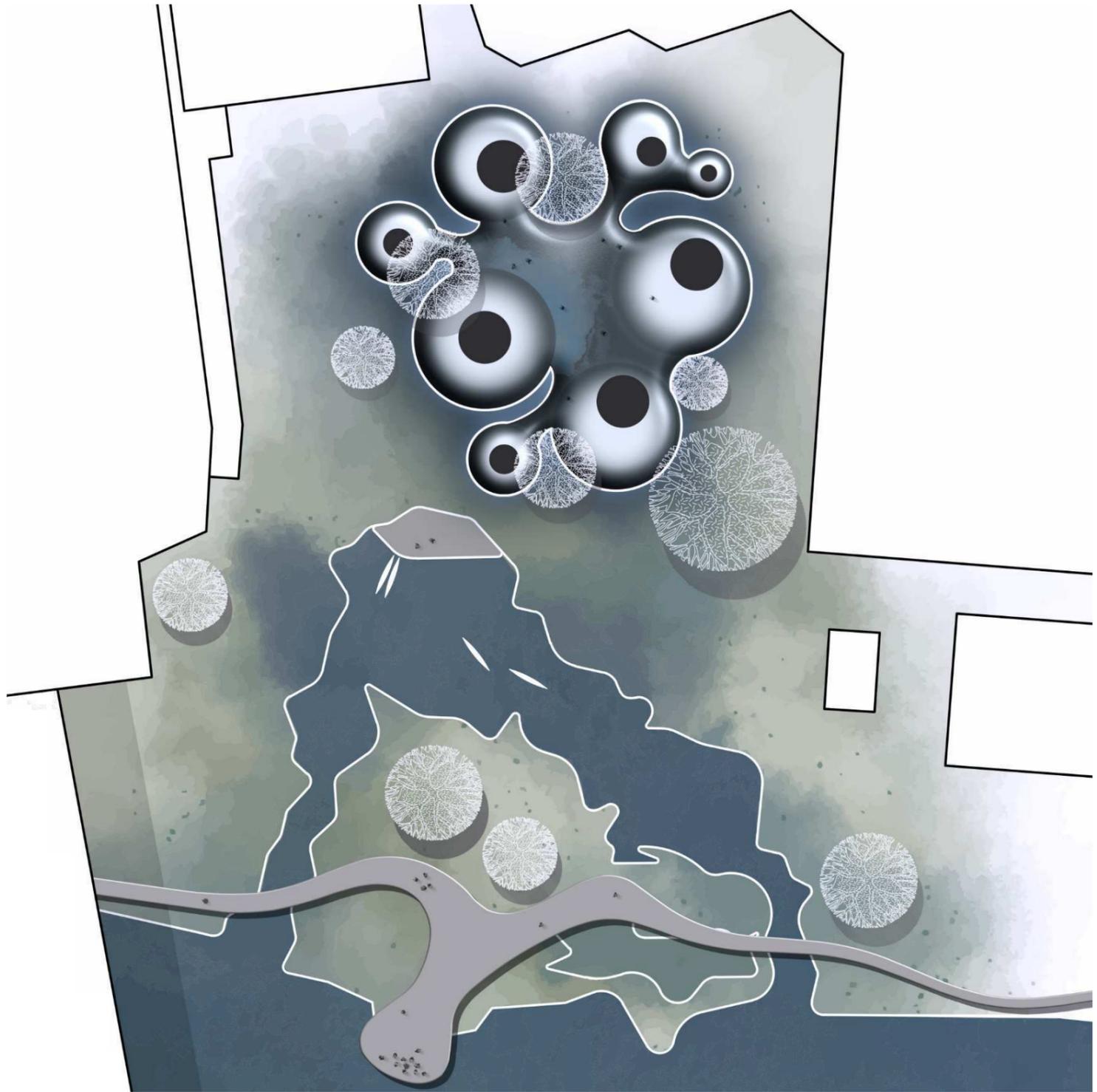
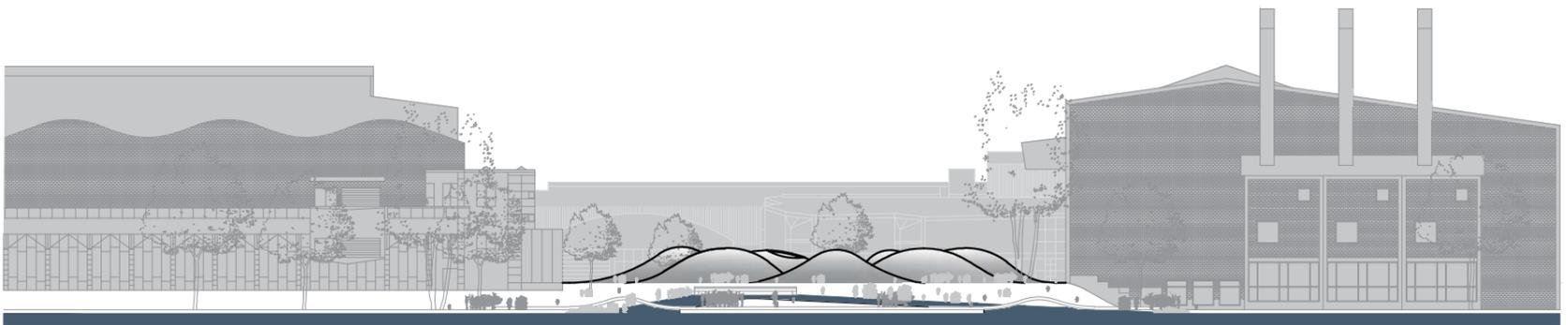
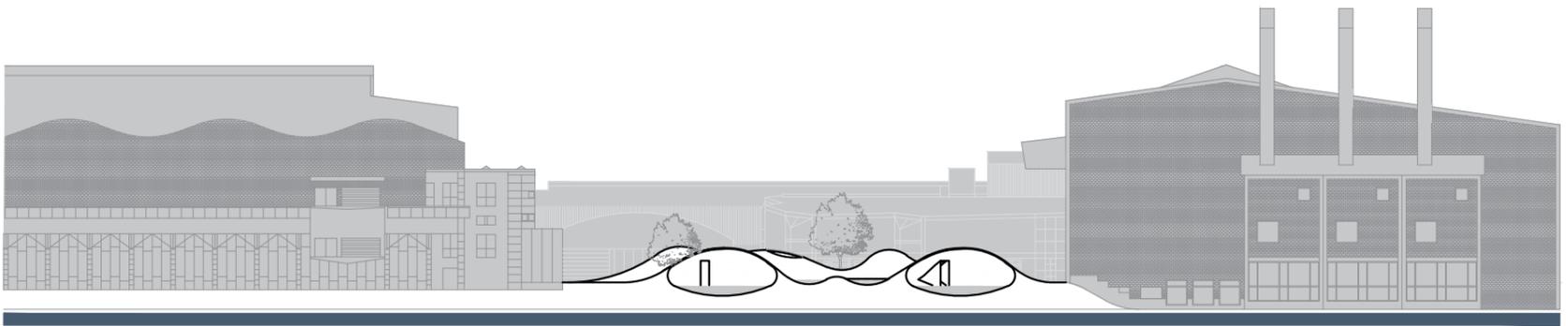
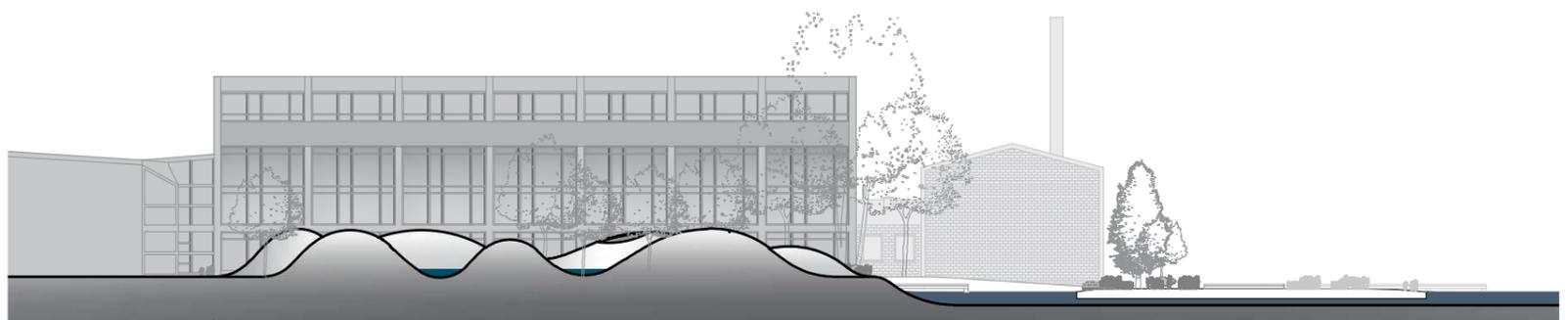
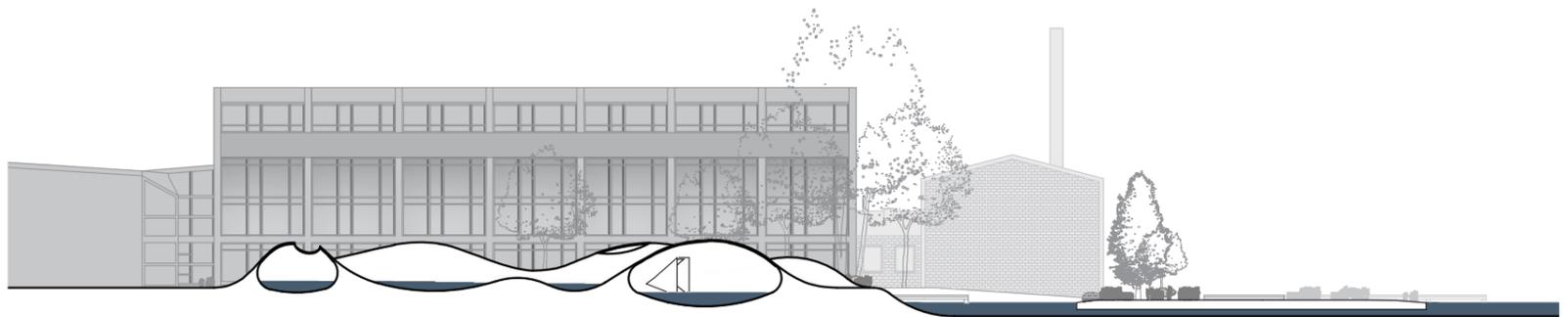


Illustration Plan in east - Future - 1: 500

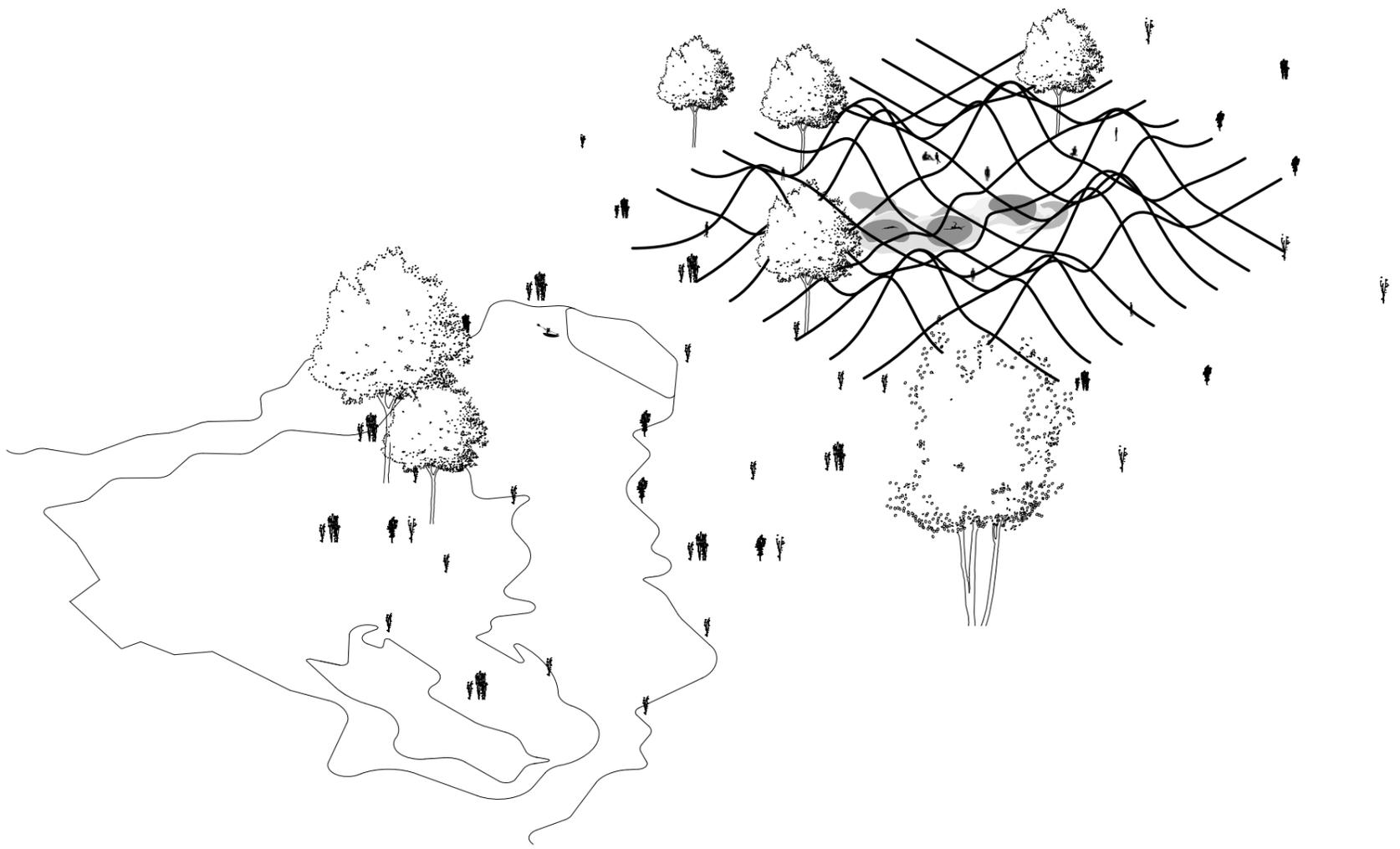




Section and Elevation in south - Future - 1: 500



Site axonometry. An organic shaped proposal among non-walkable and traditional buildings.



Axonometric view over the new structure and wet land

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Credits:

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