
BUILT TO CHANGE

REVITALIZING A SPOILDED PLACE

Final Seminar Booklet
Zoe Timon Niklas Lam

Chalmers University of Technology
Department of Architecture and Civil Engineering
Master's programme of Architecture and Urban Design
Building Design and Transformation

Supervisor: Filip Rem
Examiner: Björn Gross

"Everything that once was can never be again, and that every thing that once was forms an irreplaceable link in a chain of development."
Alois Riegl



ABSTRACT



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This masters thesis investigated how architecture can help revitalizing environmental damaged sites by carefully integrating the existing structure into the design. By in depth analysis of the site and its genius loci, the site has been adapted to the new functions needs as a fundamental socializing area and strengthened in its relationship with the surrounding nature. The study focused on a waste management site on Öckerö Island, Gothenburg, that will soon be abandoned and therefore, due to sustainability reasons and expansion visions of the municipality, needs a new purpose. With the aim to transform a environmentally and aesthetically spoiled place into a meaningful public space, that supports the local municipalities goals for a strong maritime heritage and residents engagement, especially for younger generations and rough weather times.

The research methodology included various site visits and analysis and is mainly conducted by classical architectural sketching, drawings, 3D modelling and physical model building to test design strategies. With the special emphasis on existing structures and the surrounding landscapes, architecture was used as a space making tool and not only to create indoor facilities. The intervention therefore had the goal to enhance the existing structures and its immediate surrounding by careful choice of placement, tectonics and material.

The results showed that, at the current state, undesired structures could be revitalised due to architectural interventions which concentrate on finding spacial experiences with the site. Strategically placed walls in various heights and two building typologies helped the place to become an asset for the community and travellers seeking shelter in bad weather times while emphasizing on the beautiful nature and the places history.

The conclusion highlighted that the design methodology enabled the place in various ways, but also imposed significant constraints, narrowing the range of design possibilities by adjusting heavily onto the landscape and landscape. Therefore the design rooted strongly into the historical and natural context but resulted in solutions which size and material was mainly driven by the place. The result of a theoretical thesis is the lack of a client, which might differ from the exact needs of municipality and its financial capabilities.

Keywords: architectural revitalisation, contextual architecture, landscape architecture, genius loci, bathhouse, restaurant

STUDENT BACKGROUND



EDUCATION

2018 - 2023	Bachelor of Science Technical University Darmstadt
July - October 2020	Internship architectural office Dietz Joppien Hammerschmidt GmbH
July - September 2021	Internship carpenter Hoffmann Messe & Ausstellungsbau
2022	Bachelor Thesis
2023 - now	Master of Science Chalmers University of Technology
Design courses taken	Building Tectonics I Building Transformation Building Tectonics II

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INTRODUCTION

PURPOSE AND AIM

Living in the Anthropocentric era in which human activity significantly impacts the environment this influence can not only be measured by CO₂ emissions and pollution but also through the built environment. Once the infrastructure for architecture has been built and the function of the built environment has been lost, it should preferably be reused for another project, rather than becoming abandoned, to prevent expanding development into untouched nature. The phenomenon of abandoning sites and buildings due to changes of function is a natural process and therefore presents opportunities to create new interventions based on the local memory and therefore strengthen the identity of the surrounding area.

Rather than pursuing a common tabula rasa approach, the more careful approach of analysing and responding to the local conditions in order to enhance and build upon the strengths of what is already present is the aim.

To further integrate the architecture with its surrounding nature, materiality and the tool of space making should be adapted to the context, so the site's existing qualities can be further emphasized. Therefore, the architecture should not dominate the nature but strengthen its appearance by adapting to it and make it more accessible especially in harsh weather conditions.

This thesis explores the revitalization of a site, placed in nature close to the rough ocean, through the use of architecture as a space making tool, aiming to strengthen a place's identity that, in its current condition, harms the natural environments with its aesthetics, isn't an accessible place for public needs and therefore doesn't resemble the local maritime identity.

THESIS QUESTION

How can architecture transform spoiled sites into public assets while preserving their historical context and enhancing the surrounding natural environment?

OBJECTIVES

An architectural design located on the west coast of Öckerö, aimed at drawing people in to revitalize the area as a place of shelter from the harsh environment, while allowing them to experience it from a safe space. The architecture should relate to its surroundings, with clear form and shapes as architecture to contrast the natural surrounding, while blending into the rocky landscape through materiality and views. When placing the design, the genius loci should be taken into account. Existing structures and rock formations play a fundamental role in zoning and placing the architecture. The project should be expressed in drawings, 3d-images and physical models - and a booklet narrating and describing the decisions of the design project.

METHODS AND TOOLS

Exploring theory - Reference projects - learning from built environment and reading literature about defining elements of the design process

Site visits – natural boundaries, weather conditions, genius loci

Model building - build the site model for experimentation purposes

Model building – testing the drawn material in different scales and models - concept model, overview model and detail model

Sketching – sketching e.g. on theories, walking patterns, spatial qualities

Architectural drawing – showing how the architecture is executed from the volume placement to detail level.

Discussion - about the project's aim, the obstacles and achievements in the process of finishing the work.

Conclusion - if the architecture and its research outcome was similar to the aim, what can be learnt from it and how it can be developed further.

DELIMITATIONS

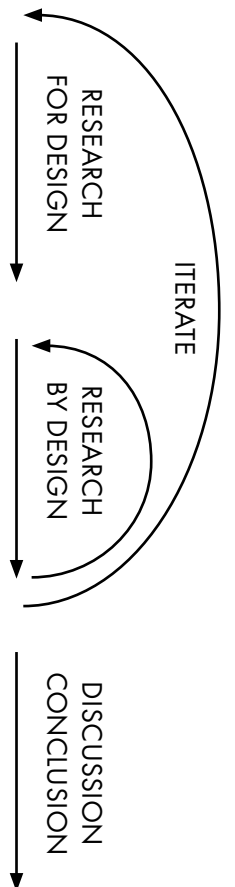
Flood Risk - While the architecture is intended to shelter people from immediate environmental challenges, the potential for extreme weather events and natural disasters such as floods caused by heavy rain or rising sea levels are not taken into consideration.

Financing - No financial calculations have been made for the project and economic decisions regarding construction and maintenance have been considered in the design but are not quantified.

Shoreline regulations - applicable to the site will be disregarded to allow for the creation of architecture close to the sea. The decision is based on the premise of the need to build for public assets and that the existing structure can't be fully renaturalized and therefore will instead be repurposed for architectural use.

Municipality - It is a fictive project so there has been no communication with the local community or municipality, the information used in the design is drawn from the "Öckerö Overviewplan 2017".

DISCLAIMER - ChatGBT was used to help find spelling mistakes and increase the flow of text.



THEORY

READING INSTRUCTIONS

The coming chapter will dive into the theory of creating architecture in landscapes, how to work with the plots genius loci and chosen references. While the first part focusses on how to work within landscapes, the genius loci introduces the perspectives of historical and cultural values. The references are sorted into site specific references, which inherits similar site conditions, and structure specific references which will be implemented as an structural orientation for the project.

ARCHITECTURE AND LANDSCAPE

Landscapes and nature have something a special connection to our minds. Especially when witnessing natural circumstances such as strong weather conditions, big mountain ranges or vast ocean, the mind relaxes and all problems seem to fade away. As Zumthor says: "A certain melancholy comes to the fore, imbued with the sense of a world that is infinitely bigger than I am but that offers me sanctuary" (Zumthor, 2010).

When adding architecture into landscapes, special care towards it is needed. According to Zumthor (2010) there are a certain things to be taken into account: the landscape should be closely analysed to get a deep understanding into its qualities so the architect doesn't do it harm and takes good care of it. And therefore finding the right measure, quantity, size and shape for the object which can end up in different ways of harmony and tension with its surroundings. The architecture should fundamentally enrich the surrounding, by resonating with the topography, climate vegetation and light, and never threaten to dominate it. Also the local materiality should be taken into account so the "building materials match the historically grown substance of the landscape" so that they "stand in the landscape like sculptures and yet also seem to grow out of it." (Zumthor 2010). Therefore the material should age beautifully parallel to the landscape due to its local material properties.

He talks about personal preferences which are precise and clear forms. Meaning a clear typological choice to make a clear and "simple" design. So that the form is reduced and construction methods are easy to read. By using these clear structures its also not trying to mimic the natural but rather than that using natural materials to adapt to the surroundings in a clear distinction to its original form.

While Zumthor mainly addresses the building typologies into virgin landscapes he distinguishes between those landscape architectures and the "cultural landscapes" which humanity creates by building cities. There are different grey zones between landscape architecture and urban architecture. So when looking at a site which is placed into the landscape but connected to an urban environment, or even set up for human use, there will be more criteria to address then adapting to landscape.

ARCHITECTURE AND GENIUS LOCI

The word genius loci or spirit of place comes from a Roman concept, every "independent" having its own "guardian spirit". Norberg-Schulz (1980) emphasizes that architecture shouldn't only address functional or aesthetic qualities but also engage with the genius loci.

According to Norberg-Schulz, the existential purpose of architecture is creating places which is interpreted according to its individual history or culture. He defines places as spaces that are more than just a location on earth, but a physical form of space and atmosphere of its own due to its own character. The architects role should be to reveal or strengthen the unique spirit of the place, says Norberg-Schulz. To archive that, the architect needs to respond to the landscape, cultural and historical context. He opposes the modern architecture movement which neutral identity can be placed anywhere in the world and strengthens the thought of rooting the architecture in the site specific genius loci. There is a character in every place, architecture doesn't create it, but can help revealing it. By different conditions of the place, the character is in constant change., says Norberg-Schulz. "(...) all places have character, and that character is the basic mode in which the world is "given". To some extent the character of a place is a function of time; it changes with the seasons, the course of the day and the weather (...)"(Norberg-Schulz, 1980).

Norberg-Schulz, similarly to Zumthor, addresses the importance of nature of sites and puts emphasis on its value of a genius loci: "Being the primary natural things, rocks, vegetation and water make a place meaningful..." (Norberg-Schulz, 1980)

"A study of man made place therefore ought to have a natural basis: it should take the relationship to the natural environment as its point of departure" (Norberg-Schulz, 1980)

Adapting to or changing the current genius loci: "Through building, man made places are created which possess their individual genius loci. This genius is determined by what is visualized, complemented, symbolised or gathered." (Norberg-Schulz, 1980)

"'Things' thereby explain the environment and make its character manifest. Thereby the things themselves become meaningful." By placing architecture it becomes inherently part of the history of the place and shaping the genius loci and therefore become meaningful for the place. (Norberg-Schulz, 1980)

Norberg-Schulz's phenomenological approach to architecture has many parallels to Zumthors theory on working in landscapes, such as the experience of a place in its totality, combining natural elements with human perception. Architecture should be rooted in the landscapes, climate and identity of the place, strengthening its character. By adding the cultural and historical contexts, he extends the theory into the what Zumthor would call the "cultural landscapes".

SITE SPECIFIC REFERENCES

LEÇA SWIMMING POOLS 1966, ÁLVARO SIZA VIEIRA

Site specific references deal with similar environmental issues like the thesis project. The urban setting and natural influences, like wind or views. Similar factors and challenges are provided by the thesis plot, therefore Siza's working methods are analysed.

The Leça Swimming Pools are one of Siza's first solo projects. A lot of sketching makes a smooth transition from the rocky environment, the sea and designed architecture possible. The architecture is hard to understand for the user and brings a lot of individual scenes and sequences with it. It's a human-centric design where many of the design decisions are made based on human movement and spatial experiences, framed by concrete walls and pathways.

The project revolves around the view of the ocean and tries to show the relationship between fragile humans and rough and imposing landscapes. Also, the corrosive air is implemented in the design because the monolithic concrete structures adapt to the salty air and sand, so it adapts to its colour over time.

The architecture is also careful about the views from the street and tries to not hinder pedestrians and city views by building the architecture into the ground.

The architecture and monumental features were officially declared as national monument in 2011 and 2017 UNESCO World Heritage.

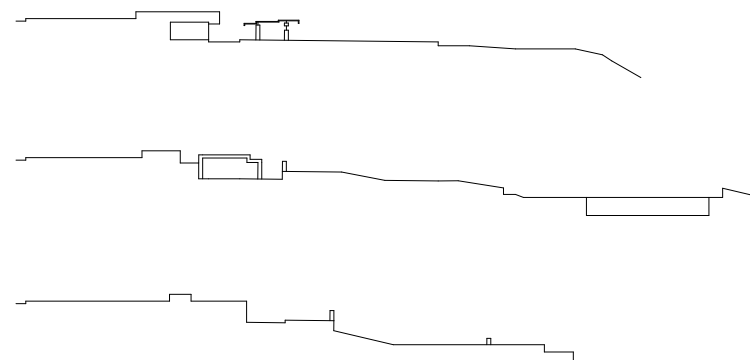


Figure 1: Sections Leça pools

SITE SPECIFIC REFERENCES

OVERLAPPING TOPICS:

Bathhouse, coastal setting, careful blending into nature

KEY TAKAWAYS:

Creating different views and spacial situations by precisely placing walls. Interesting interplay with the surrounding nature. Similar situation with the ocean view and street behind and uses thick walls with light roof construction.

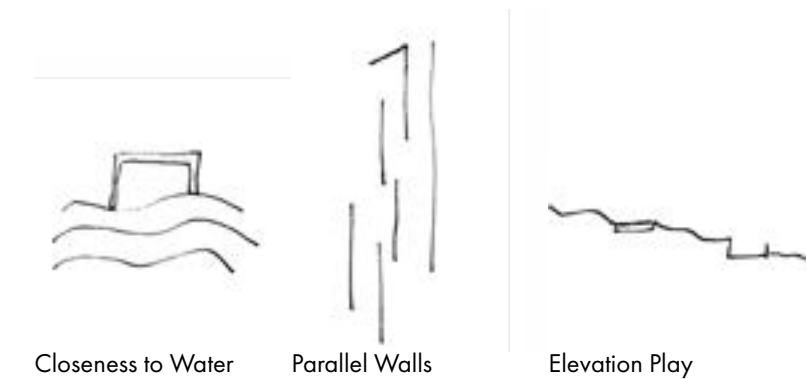


Figure 2: Design Principles Leça Pools

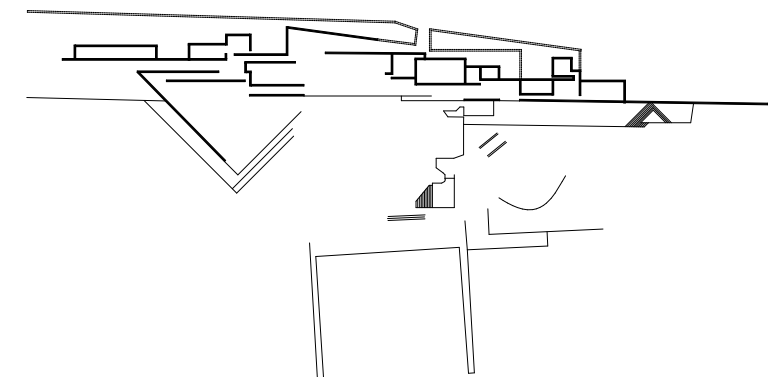


Figure 3: Floor Plan Leça pools

STRUCTURE SPECIFIC REFERENCES

VILLA KJAERHOLM 1962, HANNE KJAERHOLM

Site Area: Approximately:
Gross Floor Area:

Structural references are a clear inspiration in the tectonics of the project. By analysing the main features of the project, it can be extracted and varied to the thesis projects different needs. Villa Kjaerholm works with a clear column grid followed by beams showing a clear direction of the architecture.

Villa Kjaerholm, built in 1962 at Rungstedt, Denmark, was designed by the architect Hanne Kjaerholm and furnished by her husband Poul Kjaerholm. The Villa is Hannes second project with 145 m² of visible construction and minimalistic design of stained wood and painted brick construction. The flat roof is covered by sedum and its attic is clad with oxidized copper. Towards the front and sea the building opens up with an glazed post beam facade, capturing the views while the backside represents a closed and compact area, distributing to the private functions such as sleeping rooms, toilets and kitchen. The kitchen is also separating the two separate entrances to the west.

The open area towards east inhabits a 15m long living room combined with a dining area, working area and fire place.

The grid used for the building makes forms the placement of the walls and columns in a symmetrical pattern which shows the contrast between the compact backside and open multifunctional living space in the front.

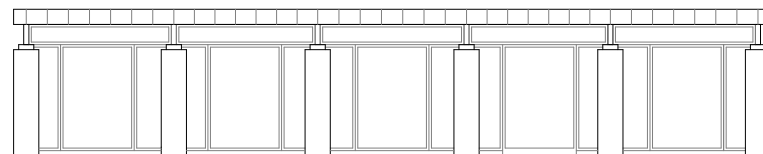


Figure 4: Elevation Villa Kjaerholm

STRUCTURE SPECIFIC REFERENCES

OVERLAPPING TOPICS:

Tick walls and the beams of the roof structure giving clear direction of the building towards the water while the column grid carrying the main roof structure.

KEY TAKAWAYS:

Especially the roof structure and offset columns in the facing direction indicate an orientation of the building. Simplicity of construction and materialities.

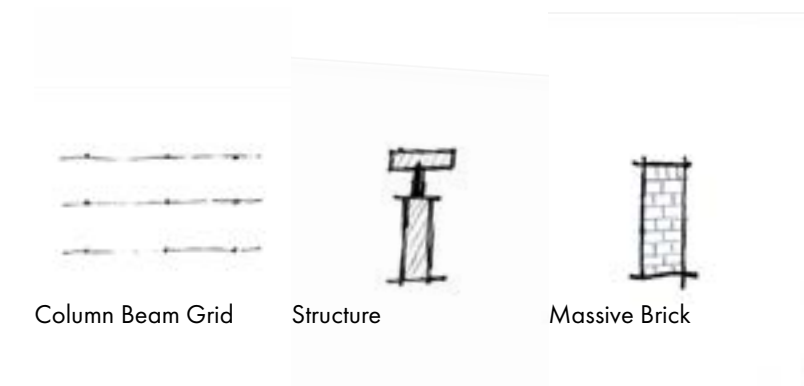


Figure 5: Design Principles Villa Kjaerholm

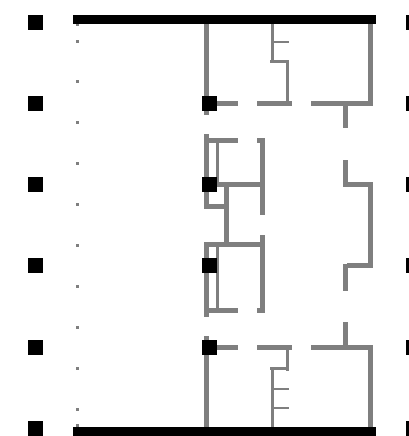


Figure 6: Floor Plan Villa Kjaerholm

STRUCTURE SPECIFIC REFERENCES

RENZO PIANO PAVILION 2013, RENZO PIANO

Site Area: Approximately 9400m²
Gross Floor Area:

Structural references are a clear inspiration in the tectonics of the project. By analysing the main features of the project, it can be extracted and varied to the thesis projects different needs. A similar structural approach as in Villa Kjaerholm has been chosen, even though the technical execution of the roof varies completely and the spans of the beams are fundamentally larger.

The Renzo Piano Pavilion is an addition to the famous Kimbell Art Museum from Luis Kahn in 1972. Located in Forth Worth, Texas the architecture features a strong concrete foundation with columns and walls facing one direction, ending up in a light steel and glass construction as a roof. Similarly as Kahn's project the building follows a long axis which is mainly formed by the roof structure, but also strengthened by the walls and columns following it. Because of the columns carrying the roof weight, a free plan for flexibility is in mind. Therefore the column distances and the double beams on top span large dimensions of over 40 meters.

The pavilion can be separated into two sections connected by a glass passageway, which is also the entry. From the entry the two section face opposite directions, expressing on the views and lightness through the open plan.

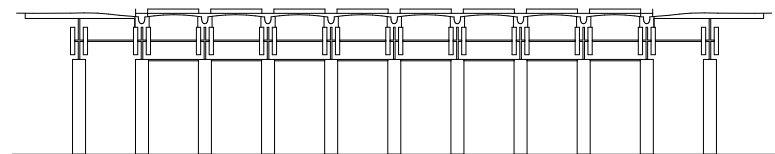


Figure 7: Elevation Renzo Piano

STRUCTURE SPECIFIC REFERENCES

OVERLAPPING TOPICS:

Thick walls and the beams of the roof structure giving clear direction of the building while the column grid carrying the main roof structure.

KEY TAKAWAYS:

Especially the roof structure and offset columns in the facing direction indicate an orientation of the building. Compared to Villa Kjaerholm this building exemplifies an a similar structure in a bigger scale with even further spans and double beams which might be interesting for insulation possibilities.

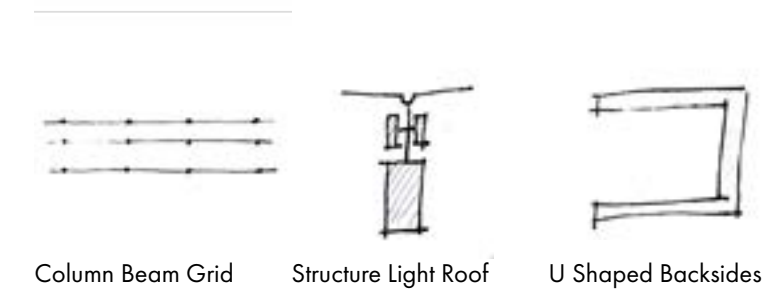


Figure 8: Design Principles Renzo Piano

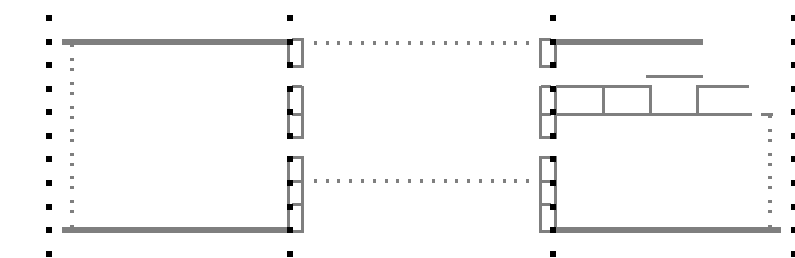


Figure 9: Floor Plan Renzo Piano

THE MAIN MATERIAL

READING INSTRUCTIONS:

The coming chapter will dive into the Swedish to-local context, from in-depth analysis of the chosen site to final drawings and execution. Therefore the designing process has a strong link to the chosen theory of working with the genius loci and topography, while also introducing the chosen reference projects in depth to understand its impact on the architecture. The process will also include the local Öckerö commune goals and will end with final material of architectural drawings if form of drawings from site scale to construction detail and renderings.

LOCATION

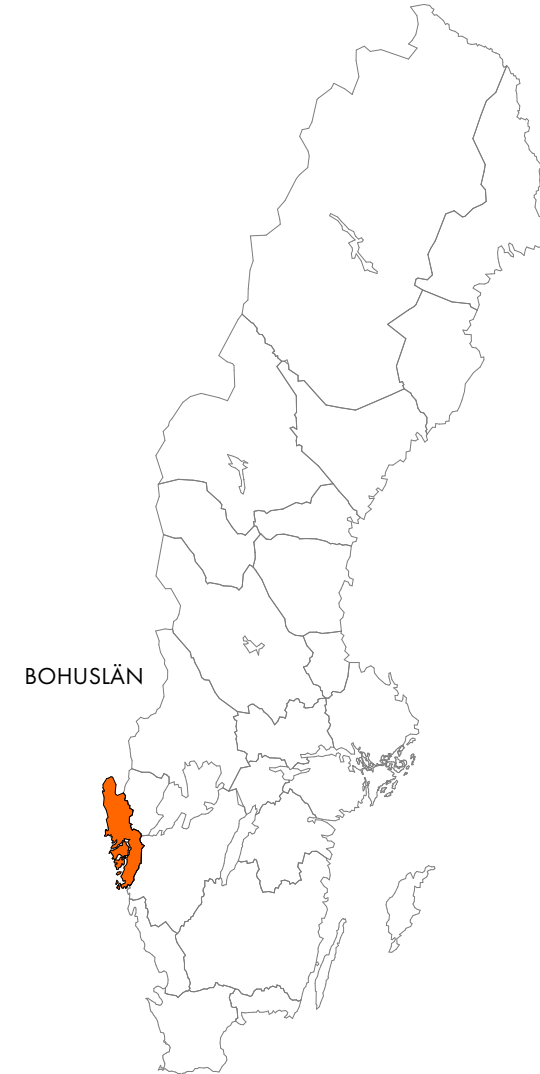
The thesis project is located in Sweden, a country in northern Europe, known for its natural landscapes and extensive coastline. Highlights of its nature range from forests to indicate archipelagos.

The climate is shaped by its northern latitude, meaning an more extreme shift of weather conditions and bigger differences in sun hours between seasons. Its boarder is next two the Baltic sea, Gulf of Bothnia and north sea, making it a country with one of the longest coastlines in Europe, which contributes to the maritime heritage.

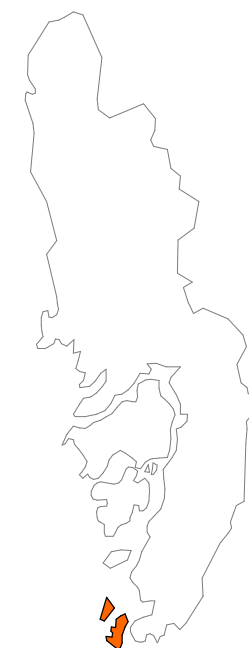
Bohuslän situated at the west coast of Sweden at the Baltic sea, characterised by rocky coastlines with thousands of islands and sherries. The openness to the north sea leaves Bohuslän with strong westerly winds.

Öckerö Island is located in the northern archipelago next to Göteborg. The Island can be reached with any vehicle by taking the ferry from the mainland station Lilla Varholmen towards Hönö. Following the red line is a main road connecting the main islands through bridges or other ferries. Following the green line a path called "Skärgårdsleden trail" meant for pedestrians, cyclists to get close to the local nature.

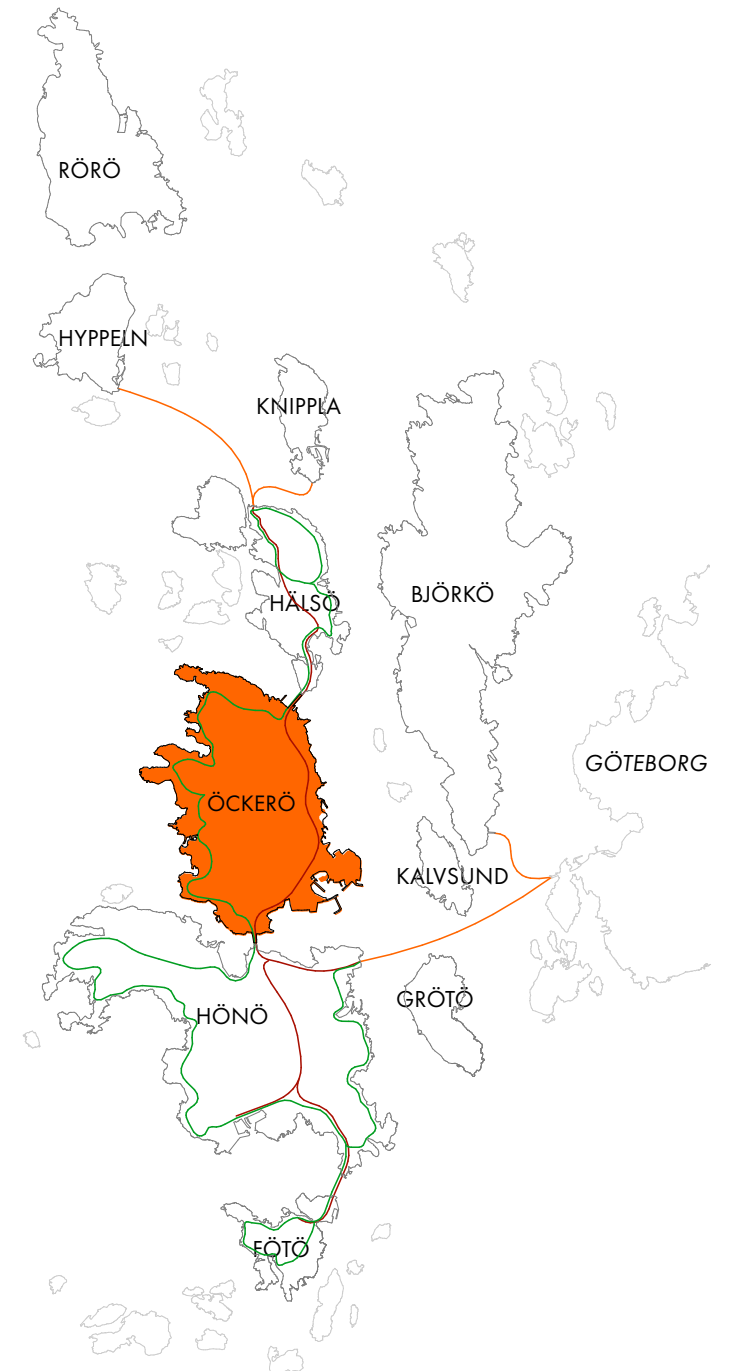
SWEDEN



BOHUSLÄN



ÖCKERÖ ISLANDS



ÖCKERÖ ISLANDS

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Figure 10: Location Sweden - Archipelago

OVERVIEWPLAN ÖCKERÖ

The commune consists of eleven islands, connected by bridges and ferries. Also a well frequented and free ferry from Hönö to Göteborg.

It has roughly 13 000, while Öckerö itself has roughly 3500 (2015), all year residents. The number of residents fluctuates greatly between the summer and winter seasons.

Most of the population of Öckerö is located to the east side due to protection of the strong overseas winds and nowadays shoreline regulations, to ensure the right for public access and protection of the nature close to water and therefore keep the maritime identity.

Öckerö itself has infrastructure to like a school, sport facilities and care. Pride, landmark and highpoint of the island being the Öckerö kyrka in the middle of the island.

On Öckerö there are two possible public bathing spots and one public sauna to use. The two bathing areas inhabit changing facilities and are surrounded by a protecting bay, one of them with a sandy beach on the west side of the island.

The sauna faces towards the east to the mainland. The Nimbus has place for up to eight people and is located on a peer. Four more sauna's in similar size are located on the further out islands of the northern archipelago.

The closer to the rough sea the more the vegetation transitions to blank red granite and rocky shorelines.

Strong winds hit the island from the west, which get absorbed by stone formations or vegetation inventions created to protect pedestrians.

Although lots of residents have been living here for generations, the Öckerö municipality plans on migration from the mainland to help the commune grow.

Also to lower the fluctuations of residents in different seasons the municipalities goal is to create more attractions and meeting points.

The plot for this thesis is located on the east side of Öckerö island, facing west side and vast ocean. Positioned between two rock formations the plot has a natural boundary to the north and south. Also the natural path, connecting the islands for running, walking or cycling is running at the east side.

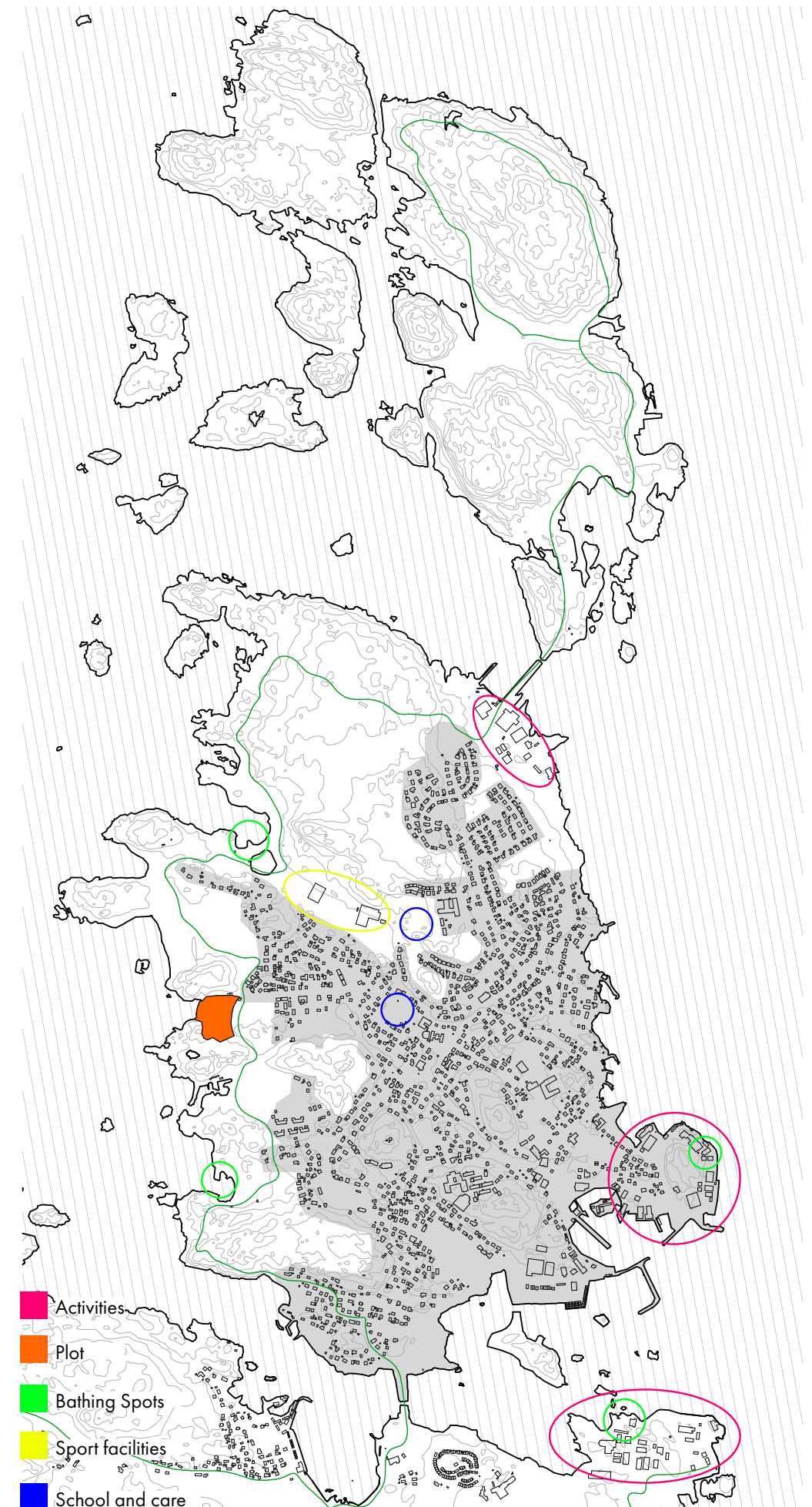


Figure 11: Öckerö Island

KÄRRSVIK SITE

The dominant features are the two framing rock formations closing the site from the north and south, the open sea to the west and accessibility road and walking trail to the east.

Also a rock formation located in the middle of the site is form giving element.

The granite rock is gradually building up towards the sides.

Resident areas are just 50 meters away from the site and thus have are directly impacted by the function of the place.

There is also a bus station next to the plot, which public transport goes there every half an hour through Öckerö and connecting Hönö with the Ferry to Göteborg.

The current function of the site "Kärsvik" is a recycling centre where the local residents of Öckerö bring their trash. Historically the function has been strategically placed at the ocean and used for waste disposal by throwing the trash into the ocean. Nowadays the disposal is regulated and sorted with containers, but still has significant impact on the nowadays impression of the shore.

According to the Öckerö overview plan, the recycling centre is planned to be moved to a central one in Hönö, close to the ferry towards Göteborg. This provides a special opportunity to have architecture built on the west coast, opening up towards the ocean.

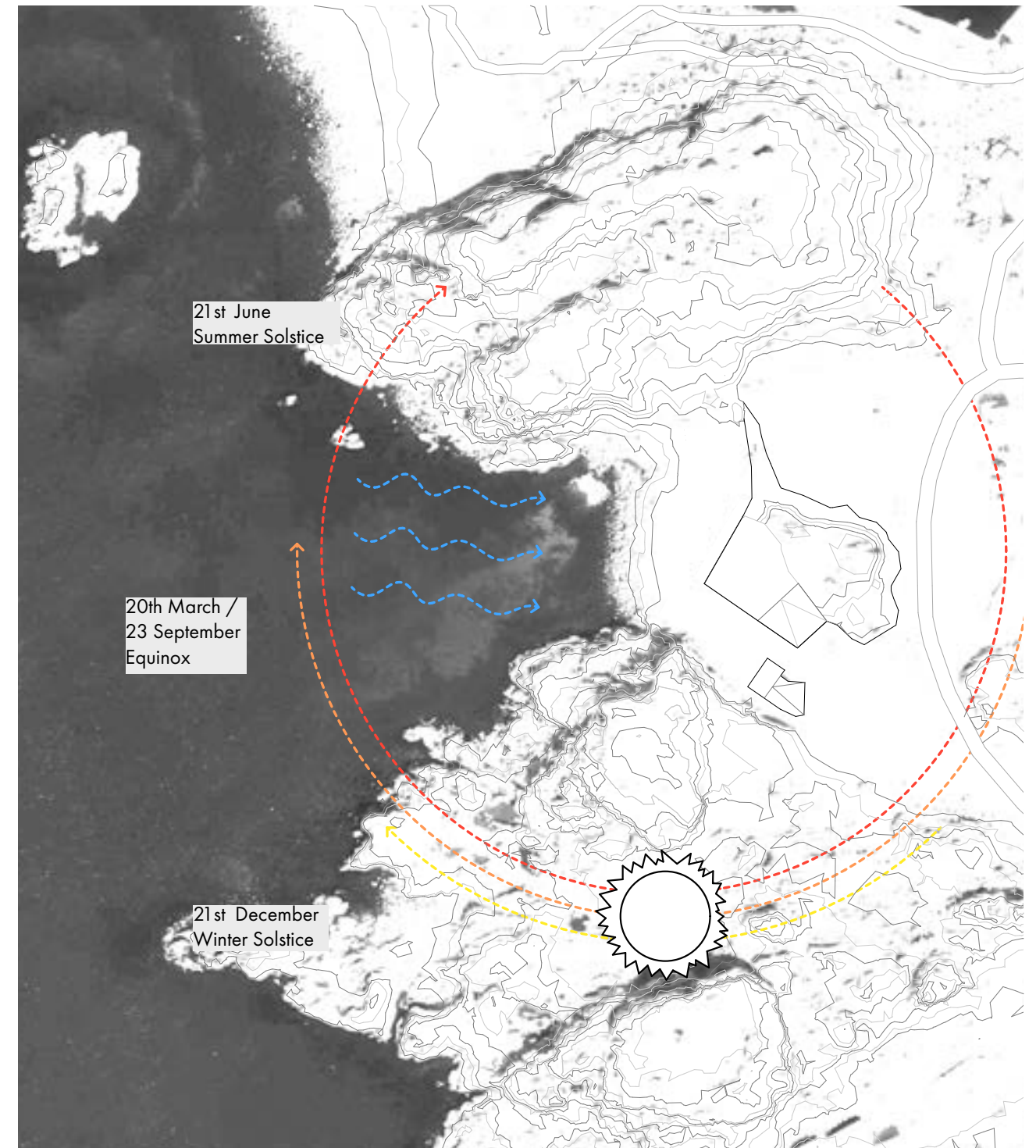
This place has been an exception of the shoreline regulation, which is there to protect the nature close to the sea, due to its historically vital function for the island and therefore has been prepared for usage in form of a filled and tarred ground to even out for better usage, concrete structures and connection to the local infrastructure.

Therefore the plot doesn't show any qualities of nature anymore.

The only "natural" element left is the rock in the middle of the plot, exceeding the 3 meter high heaped up structures.

The natural "Skärgårdsleden trail" which fundamentally supports nature accessibility for residents and tourists is going along the opposite site of the street and has no connection to the plot. Creating a space for people to meet.

As written in the "översiktplan öckerö kommun" the commune wishes for more all-year residents, younger residents and further developing of the sea identity the islands inhabit. By creating an attraction that can be used all year and strengthening the maritime identity by emphasising on the ocean through architecture.



SWOT ANALYSIS

STRENGTHS

NATURE: Direct view to the ocean, Rocks, Bay, west direction sunsets

STRUCTURES ALREADY THERE: ground already prepared, connection to infrastructure

UNIQUE SELLING POINT: only plot on west coast which has possibility to be built because of shoreline regulations - therefore being alone in the rough nature environment, away from "the city".

ACCESSIBILITY: Located on larger island good accessibility with the ferry and bus station next to the plot.

WEAKNESSES

CURRENT STATE: Trash scattered through the wind, Barrier through fenced of plot with opening hours, blocked views, spoiled ground on the plot.

NATURAL TRACK: Being a benefit for the site but misplaced on the other side of trafficked road .

OPPORTUNITIES

EMPHASIZING ON STRENGTHS: with a unique selling point of special place to be, stone/ asphalt raise in the middle of the plot making a plateau - edge behind it framing the area.

Being a unique point on Öckerö, attracting locals or tourists to stay on Öckerö over winter times.

IMPLEMENTING THE NATURAL PATH INTO THE PLOT: Being a shelter place for natural path users in cold and windy periods
And therefore bettering the local situation about all year attractiveness, opening up the ocean for the residents and creating attractivity for visitors.

RECONNECTING WITH NATURE:

Implementing a function that emphasises on the place and its surroundings rather than leaving it spoiled.

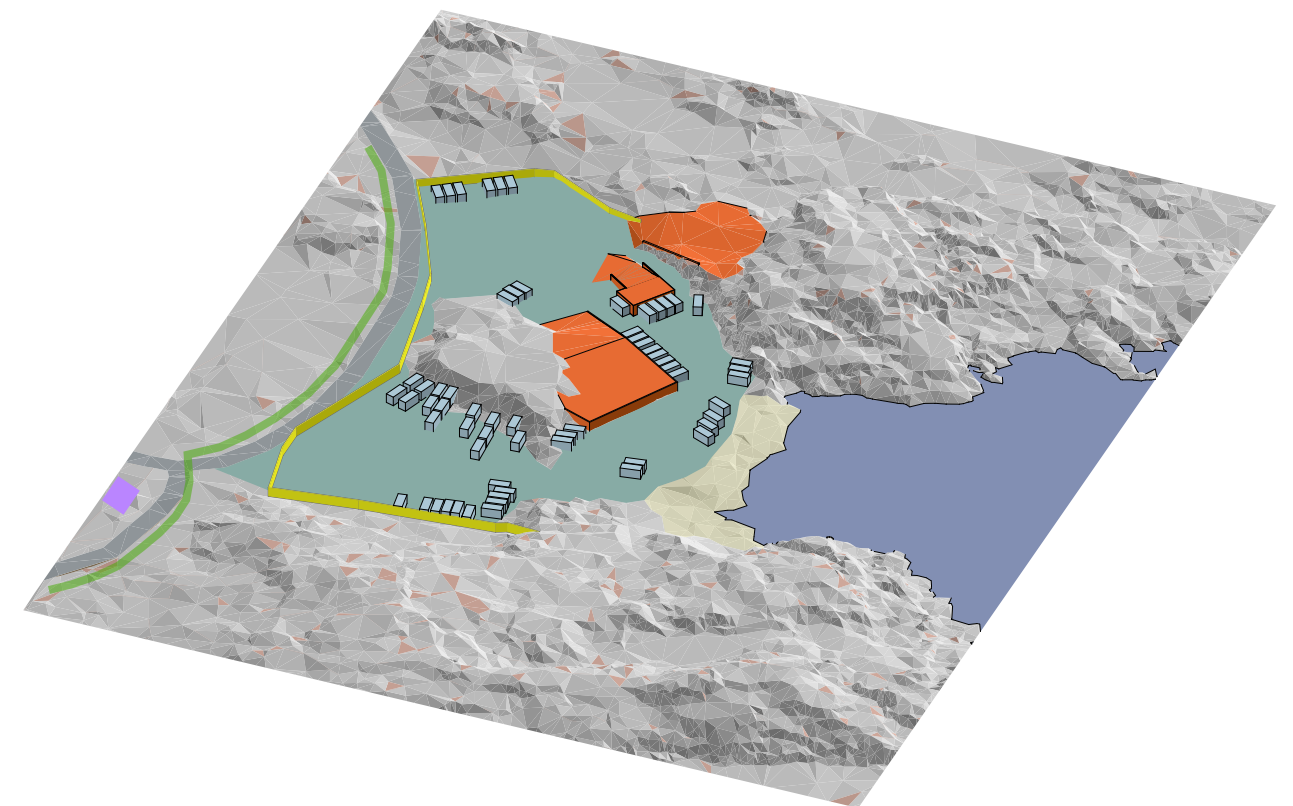
THREATS

LOCAL CONDITIONS: Strong winds making the place hard to experience

OVERSIZING: for the local commune. Threat of becoming too touristic, rather than building for the locals.

DEALING WITH NATURE: wrongly - imitating nature to renaturalize instead of working with the current state and distinguishing between human made and nature.

- **Built Structures:**
Concrete structures built for the flow of waste disposal.
Ramps going up the rock up to 3,4m high throw the trash down to the containers standing in front of it.
- **Fences:**
Since its a place to be managed the plot has opening hours over the week and therefore makes the water not accessible (boundary)
- **Containers:**
Blocking views and are used for the current function of storing and moving trash.
- **Bohus Granite formations:**
Framing the entire west coast of Öckerö and surrounding islands.
- **Shoreline:**
Rocky transition area towards the ocean.
- **Natural path:**
On the opposite site of the trafficked street and far away from the water.
- **Bus station:**
Leading directly from the Hönö ferry to the plot.
- **Tarred ground:**
Since the west coast is dominated by the rock formations, the ground is by nature very uneven. Likely the ground has been filled up and then tarred to make the area easier to move through, especially by car or truck.



IMPRESSION CURRENT STATE

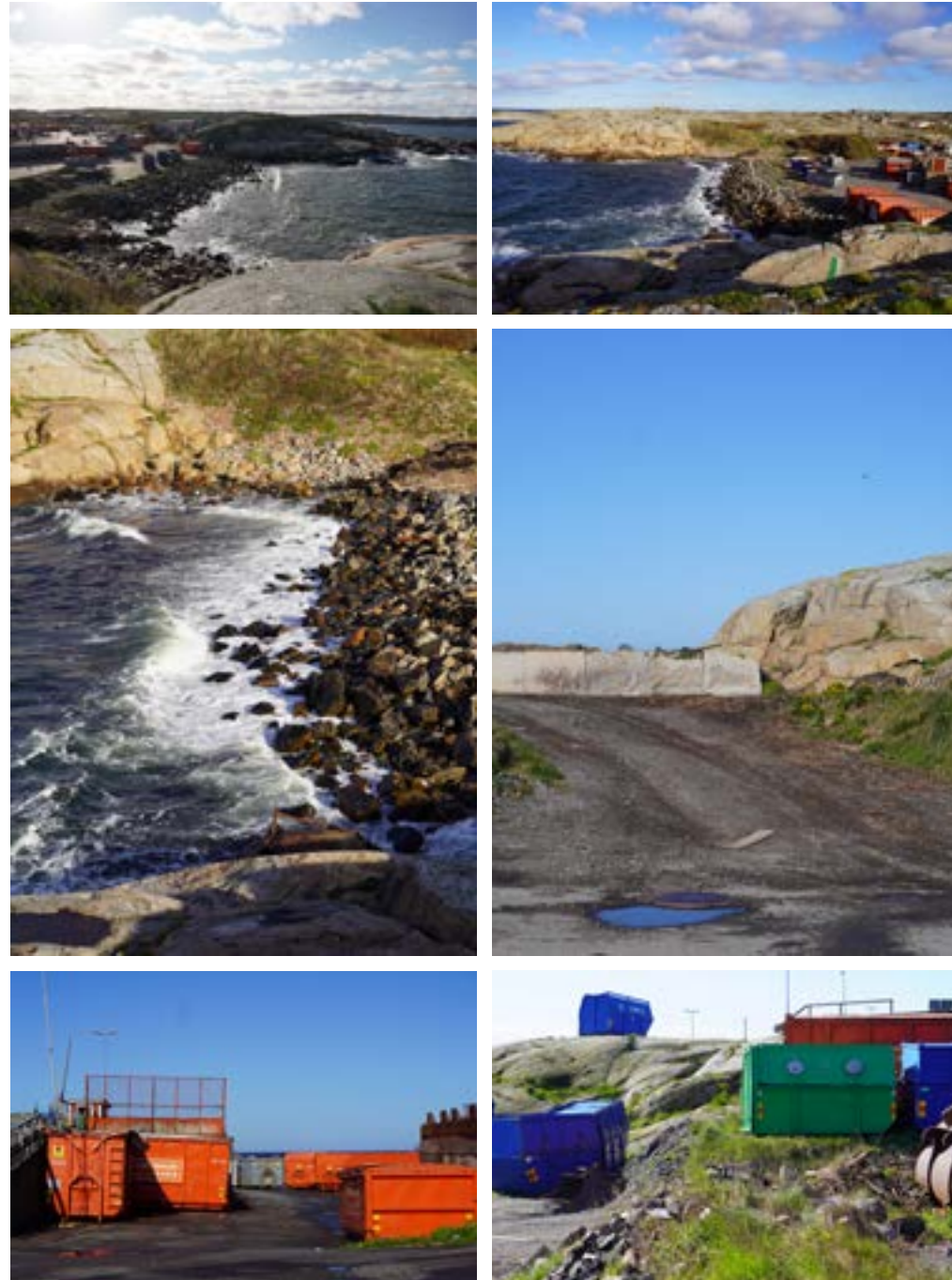


Figure 15: Collage Current State

IMPRESSION TRAVEL



Figure 16: Collage Impressions to Plot

IMPRESSION LOCAL MATERIALS



IMPRESSION ROUGH NATURE



CONCEPT GOALS

REVITALIZING THE PLACE

Revitalizing by bringing back nature to the plot - digging up spaces from tar to make room for plants with that shape the place into areas. But also by making it accessible and creating a connection to the nature.

Using a new function to draw in people to make Öckerö a more attractive place especially in winter times.

Connecting the immediate natural path to the plot.



SHELTER AND EMPHASIZE

Shelter FROM and emphasize ON Nature.
Placing architecture and walls in order to create different spaces of experience and shelter.

Emphasizing views on nature and also enhance the appearance of the plot within nature by adapting to the landscape.



BUILDING UPON EXISTING

Using the existing infrastructure as an opportunity to create new architecture for the expanding Öckerö community rather than exploiting new natural areas.

Finding qualities in the existing structures and utilize the prepared ground for further usage.
Natural features like the rock formations are preserved and celebrated.

Adapt to the beauty of the landscape and existing structures to support and inspire new building typologies.



SPACE ANALYSIS

The plot is shaped by boundaries like its rocky landscape to the north and south, the open ocean and its shore to the west and the public street and natural path to the east. Also by the rock formation in the middle of the plot, which is supplemented by two concrete structures from the previous function.

The place can be divided into four different zones and two transition zones.

Zone A is the first area you will see from the plot when coming from the ferry on Hönö and came here by any vehicle. From here various directions are possible - continuing the natural path and street towards north, walking towards the water or up any of the structures ramps for an overview of the site.

This zone will be accounted as the entrance and communication point of the plot where loading parking and moving will take place.

Zone B is the concrete and stone plateau, which has a strong location for over viewing the plot and is going to be a main communication place for the plot, but will most of the time not be suitable for staying due to the strong winds.

Zone C is the prime zone of the plot, facing out towards the open ocean the transition zones in the back. It is directly connected to the water and sloping towards the water.
The architecture will be placed in this area to get the most out of the views.

Zone D has high qualities because of the rock formations towards the north while also receiving the unblocked south sun and being sheltered from the wind. Its proximity to the street and bus station make it a zone for communication and sections of lingering in good weather conditions.

Transition zone E is naturally a barrier because of an rapid elevation of topography of 1,5 meters with a slope in the middle.

Transition zone F is shaped by the narrow passage created by the existing concrete structures.
There is a big potential of extending this corridor for an opening scene of the ocean.

Figure 21: Space analysis

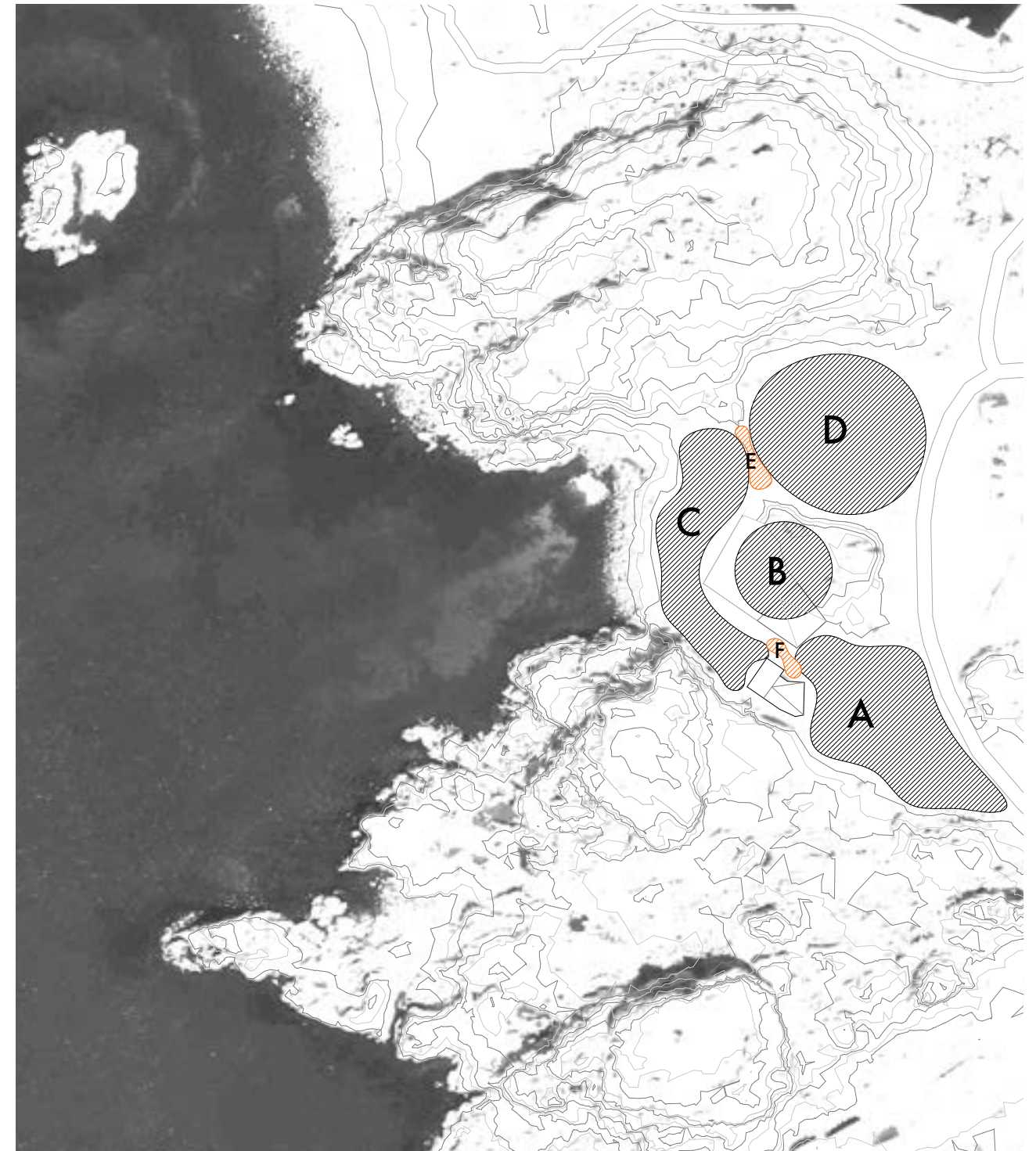


Figure 22: Space Analysis Plan

VOLUME PLACEMENT

Using Zone C for architecture directly connecting with the transition zones.

This program consists of two buildings placed on the west side of the plot, opening up towards the ocean and guiding towards it with its structural features.

Building 1 (southern) will be extending narrow path on south side emphasizing on the exterior experience walking a corridor with a set view towards the ocean, while opening slightly towards it.

Building 2 (northern) reaching forward from the transition zone towards the ocean, opening its structure on the way and getting close to the water. In front of the existing concrete wall facing the water an additional offset with a ramp to make a round path possible. Connecting Zone A and D through walking an experience of the plateau.

The placements have been carefully selected through iterative sketching, model building and site visits.

Both buildings are adapting to their immediate surroundings, such as nature, structures and topography.

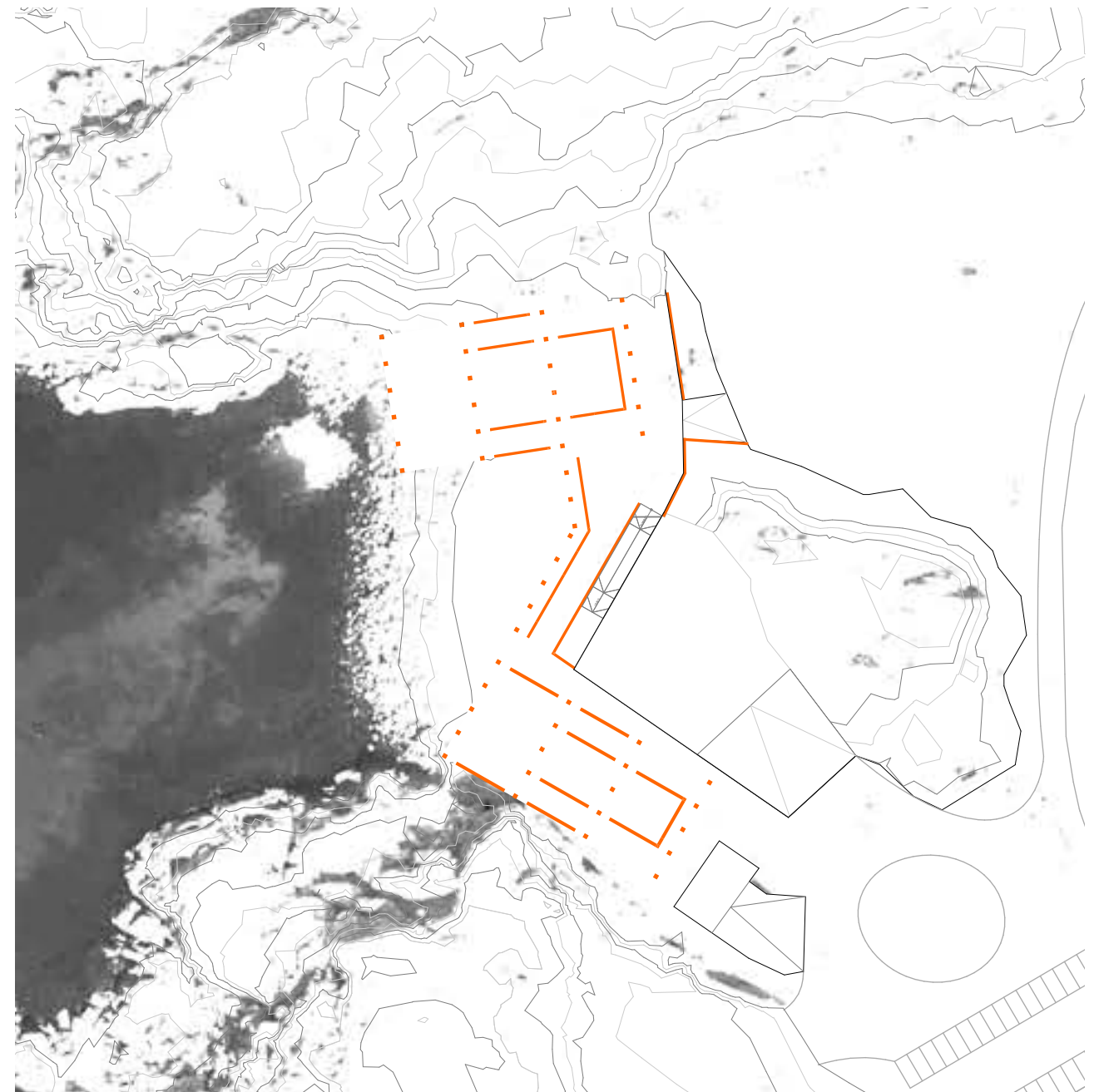
In-between the buildings the landscape has been modified by digging up asphalt in certain parts, placing walls and creating seating areas and parking spots.

The strong geometry placed in the landscape resembles the idea of Zumthors (2010) design strategies to contrast the natural forms in landscapes with clear geometries, while also integrating into nature.

Building 1 Restaurant (640m²)

Placed tightly between existing structure and the southern rock formation, creating a narrow corridor towards the water. The Building faces directly towards to water and will have sunsets directly facing it in the late summers. The building extends even further towards the water with outdoor wooden decks.

Building 2 Spa (740m²) is tilted for an optimal view. Due to its close position to the water, the sloping topography enables different height levels in the building for an architectonic interplay.



ROOM PROGRAM

SPA:

Entrance Area	
Reception staff	12 m²
Wind breaker	20 m²
Reception, Lounge and Drying, Toilet area	65 m²
Transition Area	
Changing	30 m²
Showers	25 m²
Toilets	12 m²
Communication	25 m²
Spa Area	
Spa upper floor	180 m²
Spa lower floor	160 m²
Pools 40 m², 12 m², 24 m², 30 m² = 4,2x9, 1,8x6,6, 1,8x13,2, 3,6x8,4	106 m²
Staff Areas	
Office	25 m²
Staff rooms	15 m²
Break rooms	15 m²
Staff Toilet	4 m²
Back of House Areas	
Storage	45 m²
Technical	60 m²

RESTAURANT:

Entrance Area	
Wind breaker	20 m²
Reception, Lounge	50 m²
Service Area	
Service area indoor	220 m²
Service area outdoor	140 m²
Toilets	30 m²
Kitchen and Bar	
Bar	8 m²
Kitchen	70 m²
Food and Beverages storage	30 m²
Staff Areas	
Office	20 m²
Staff break room	20 m²
Staff lockers	5 m²
Staff toilet	4 m²
Back of House Areas	
Technical	40 m²
Storage, Delivery and Trash	40 m²

SCHEMATIC ROOM PROGRAM



REFERENCE RELATIONSHIPS LANDSCAPE

Movement and Moments

The architect plays with the possibility of experiencing the place in different ways by choosing different ways to walk. Therefore there are multiple spots of great views while the result of viewing the ocean always stays the same.

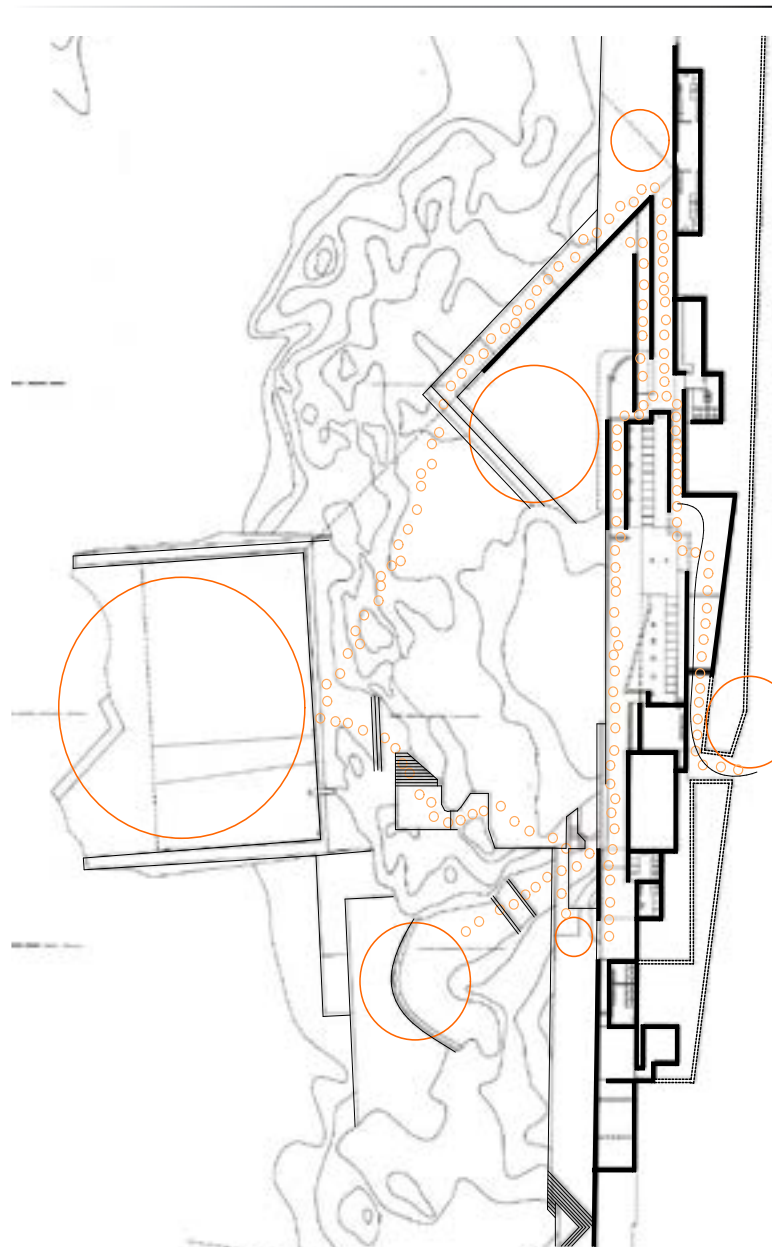


Figure 25: Leca Pools Movement and Moments

Movement and Moments

The same principle is used in this thesis project. By arriving to the plot in different areas there are multiple possibilities to continue the walk and therefore get the experience of standing on a plateau, walking behind a wall or walking straight towards or parallel to the ocean.

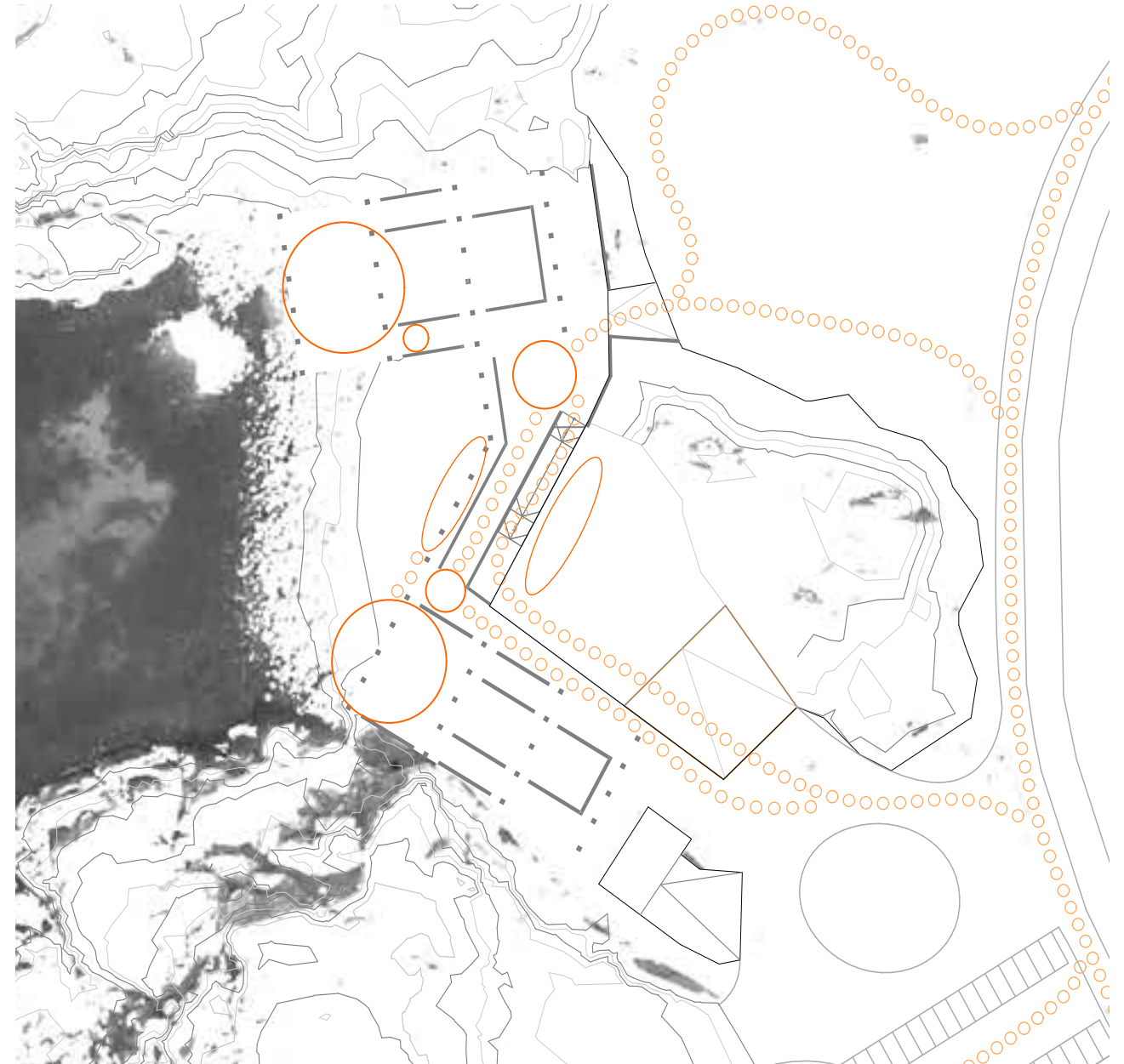


Figure 26: Thesis Project Movement and Moments

REFERENCE RELATIONSHIPS LANDSCAPE

Tension and release

Certain rooms and functions are completely avoiding the views and are especially narrow with high walls to create tension which will then be released at certain hotspots to emphasize even further on the views.

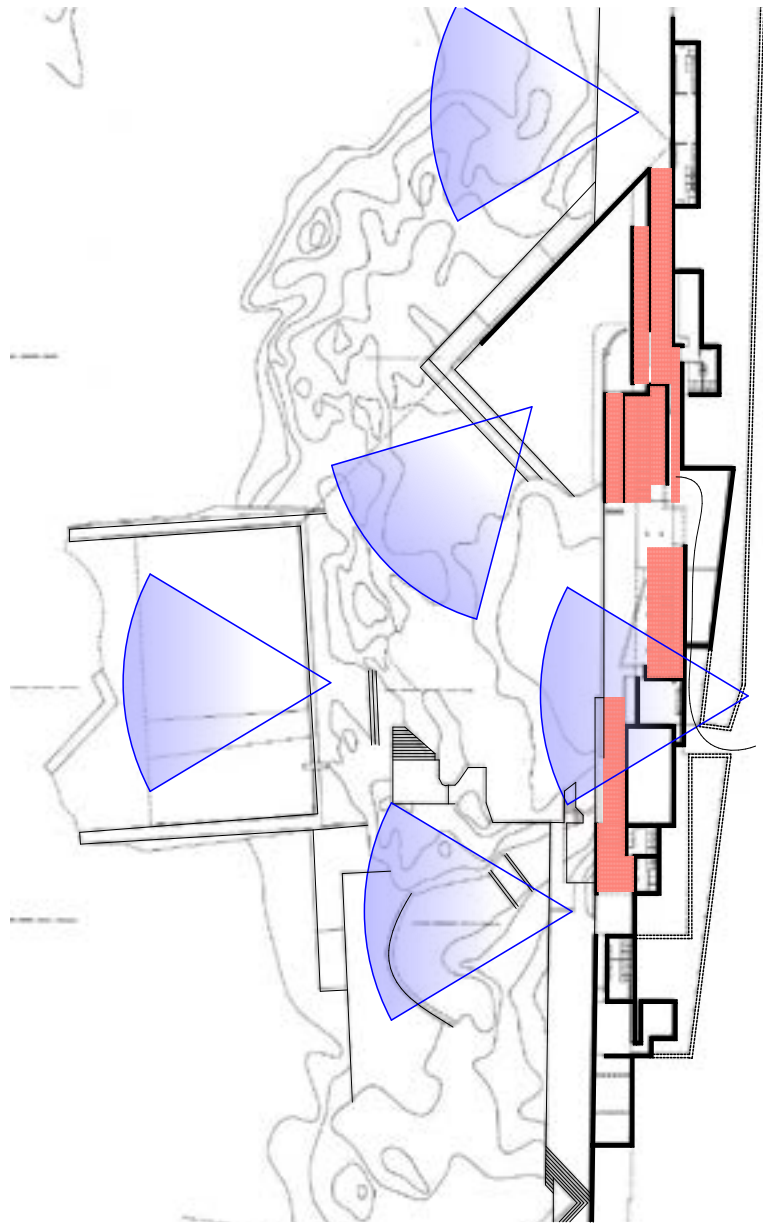


Figure 27: Leca Pools Tension and Release

Tension and release

Also here the same principle has been used. Especially the element of walking parallel to the view is an important element to the connection between the two buildings. But also the buildings themselves have this narrow and compact paths which end up in a open panoramic view in the front.

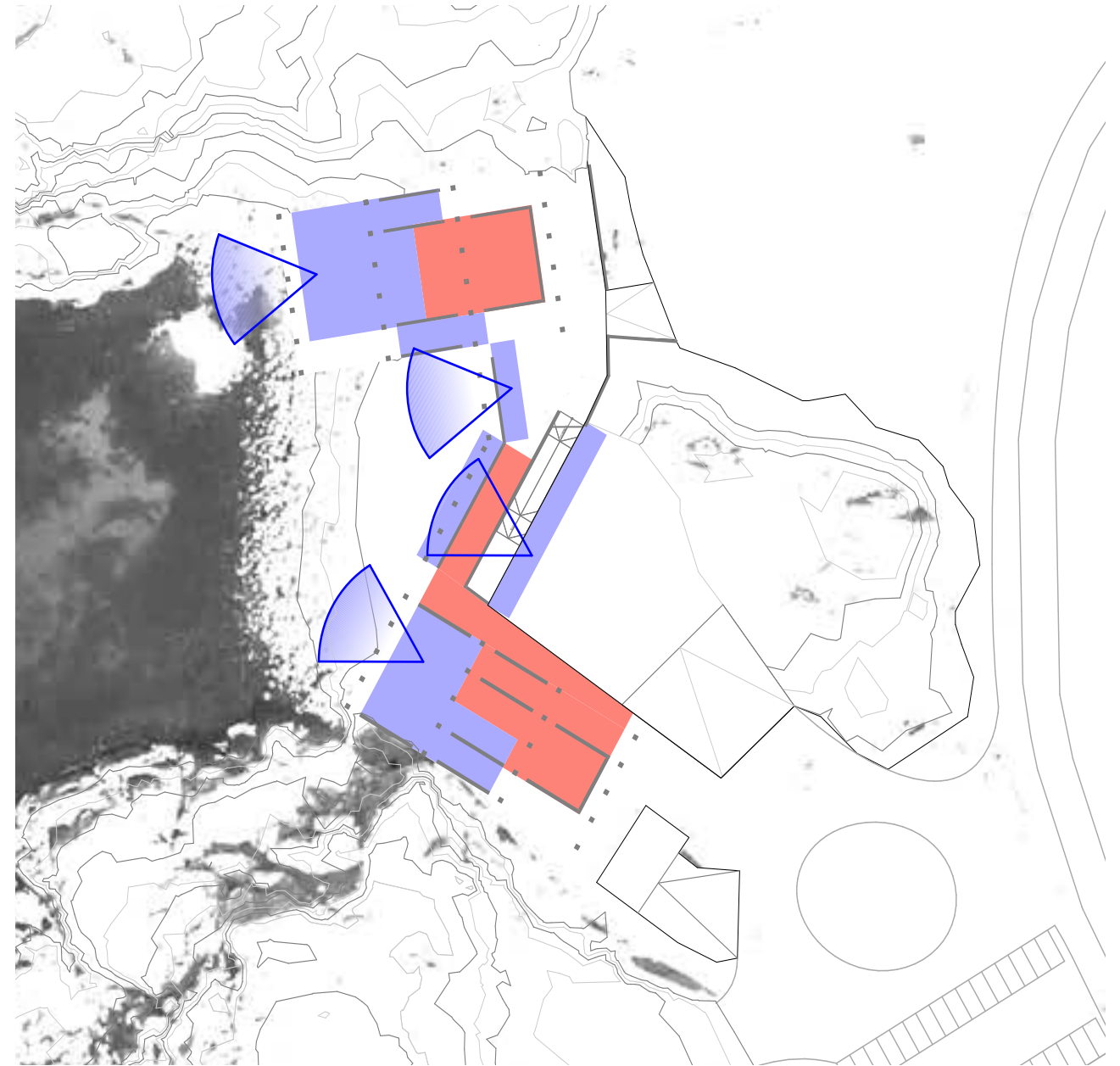


Figure 28: Thesis Project Tension and Release

SPACIAL SITUATIONS

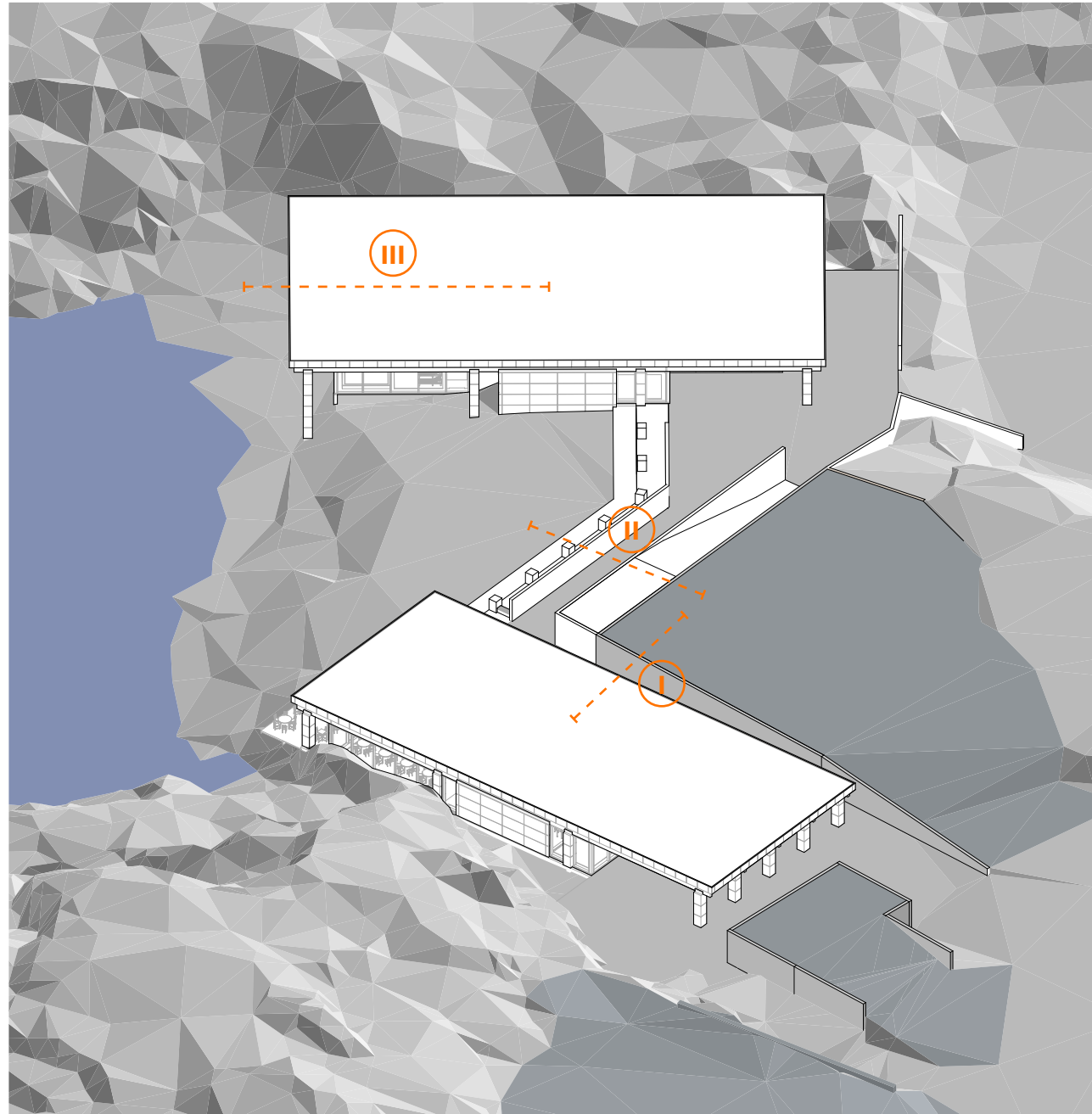
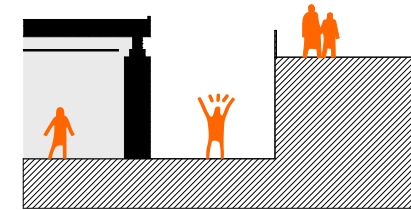


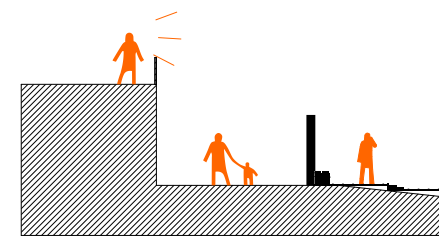
Figure 29: Isometric Interventions

I



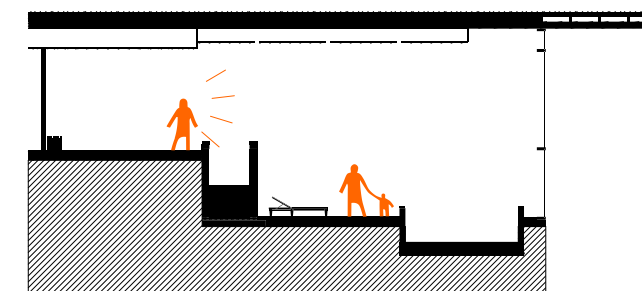
Enhance spacial situation by adding the building to create a spacial situation between existing structure and building wall, enhancing the view towards the water and also create interactions between different users.

II



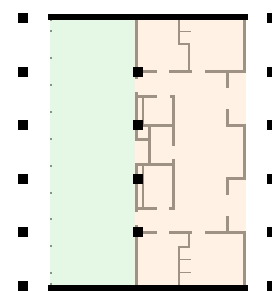
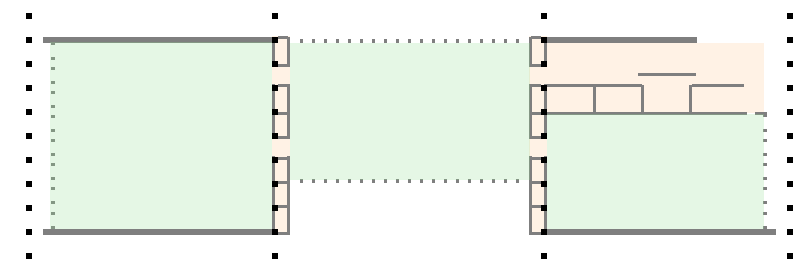
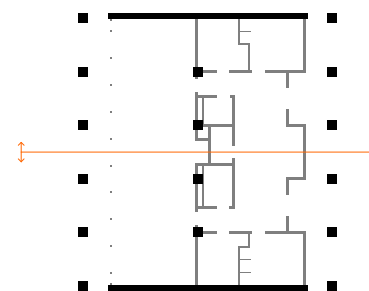
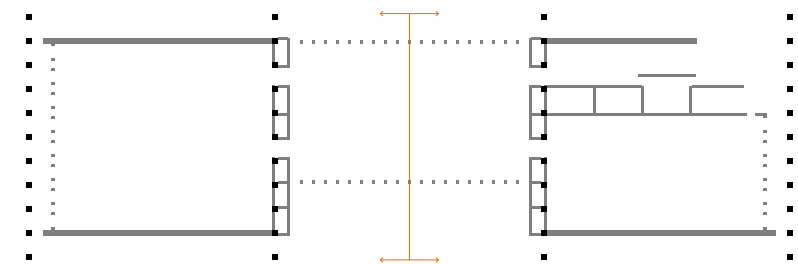
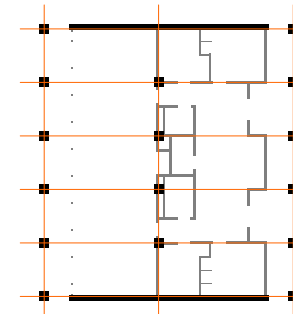
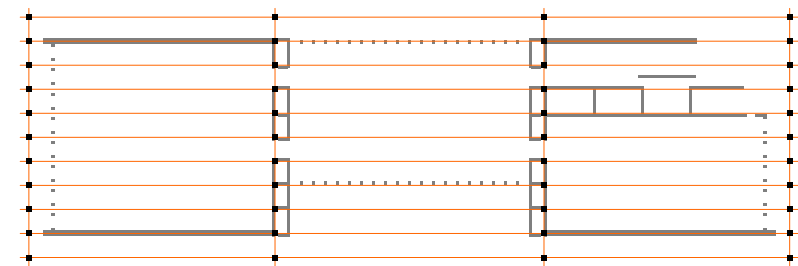
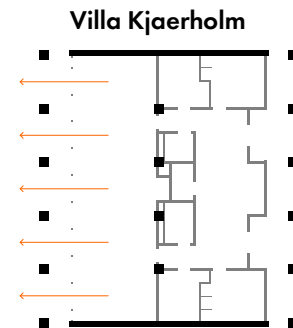
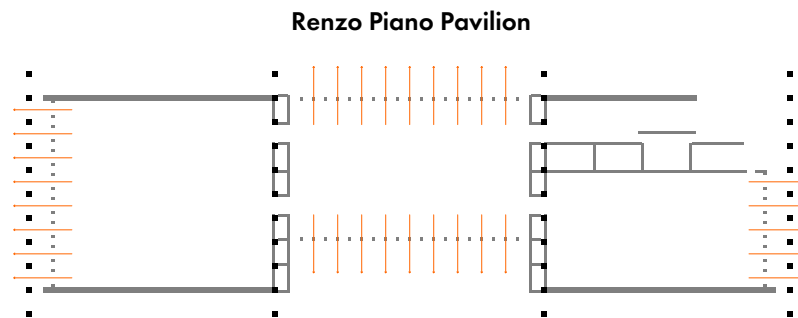
Placing walls parallel to the water, sheltering the pedestrians and also leaving a backside for people staying at the wooden platform to enjoy the water view.
The path creates tension by blocking the view which gets released around the next corner.

III



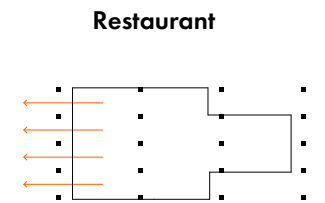
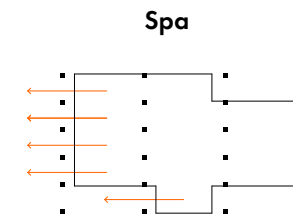
The same principle is used inside the spa building, creating different platforms to get un-blocked views which set up for different spacial situations.

REFERENCE RELATIONSHIPS STRUCTURE



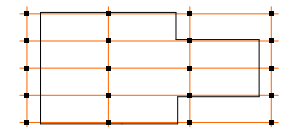
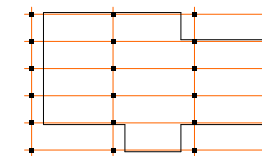
Direction of view

The direction of view is same as the references directed in the movement of beams and following walls.



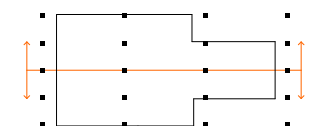
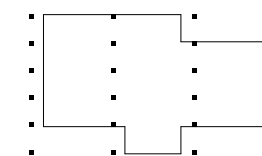
Structure column grid

The general structure is same as in the references, but because of the natural location of the plot the architecture makes exceptions to adapt to its surroundings.



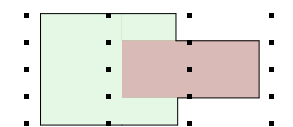
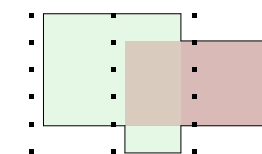
Symmetry

Due to the adaptation to the surroundings the architecture loses its symmetry compared to the references.



Private and public areas

Similar to the references the buildings have a clear backside and front side.



INSPIRATION LOCAL MATERIAL

The Image is one of the first photographs taken on the site.

It resembles the place by its views towards the ocean and the horizon, the waves crashing into the rock.

With a rusted, degenerating metal material connected by growing vegetation on top of the local rock formation, the foreground tells a story about the genius loci.

**“Buildings in the landscape have to be able to age beautifully”
- Zumthor (2010)**

A place that has been adapted for human use, but not been taken care of in a way of a place to stay. The human invention aging in the natural environment which gradually takes it back with the vegetation and slow degeneration of the material, while the local rock, the water and horizon seem timeless.

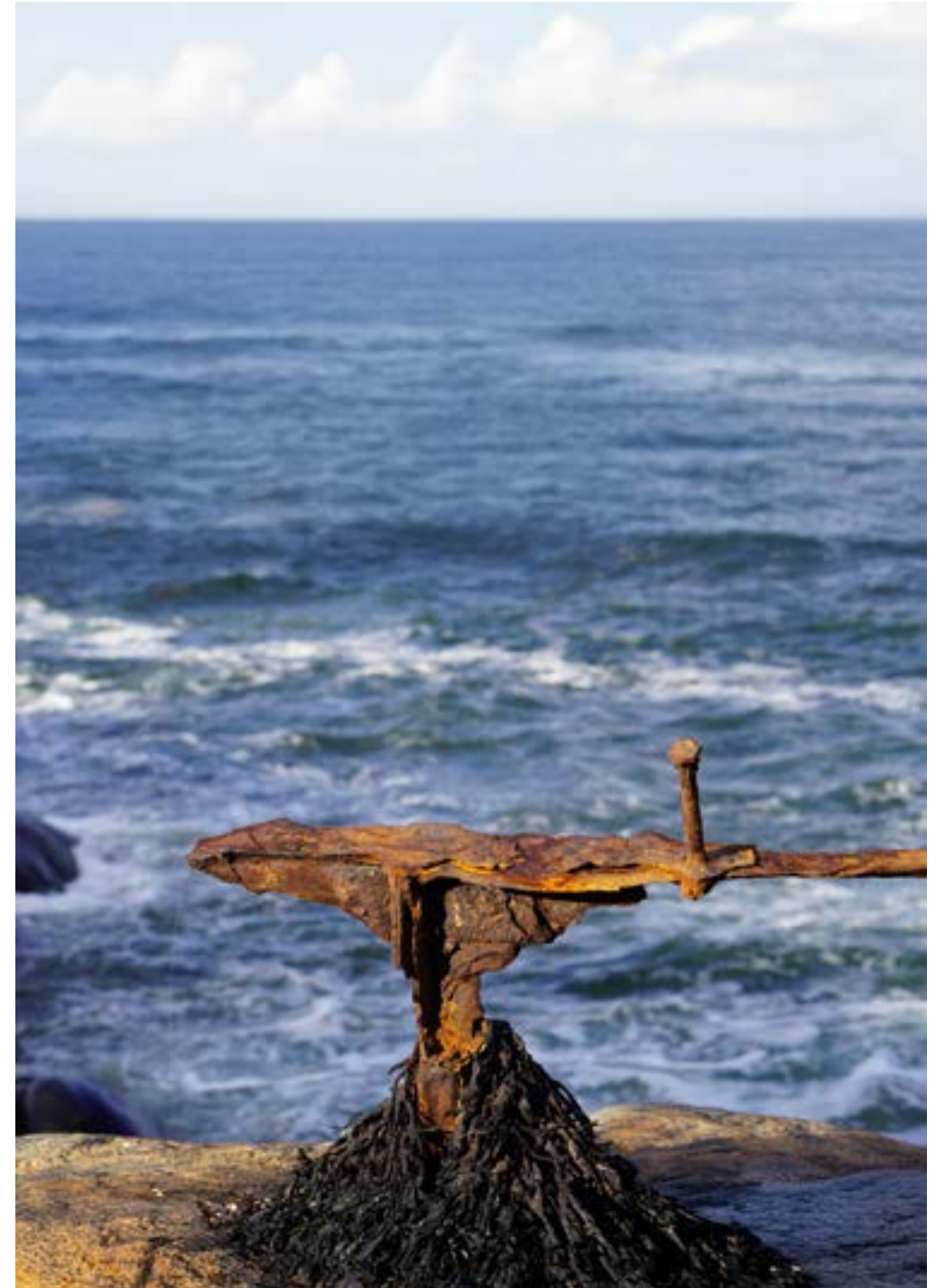
The picture led to the decision of structure:

The architecture should embody the local timeless granite stone, “growing” out of the spoiled tar ground. Its straight geometrical shapes contrasts the organic nature and therefore is not imitating it.

“And when I’m building something in the landscape it is important to me to make sure my building materials match the historically grown substance of the landscape” - Zumthor (2010)

A wooden roof structure should be on top with a corrosion metal material finishing like the pictures composition.

The material should transition from thick walls to tectonic beams and a flat, thin roof on top, similarly to the references.



FINAL MATERIAL DRAWINGS



Figure 34: Site Plan 1:1000



Figure 35: Rendering Exterior

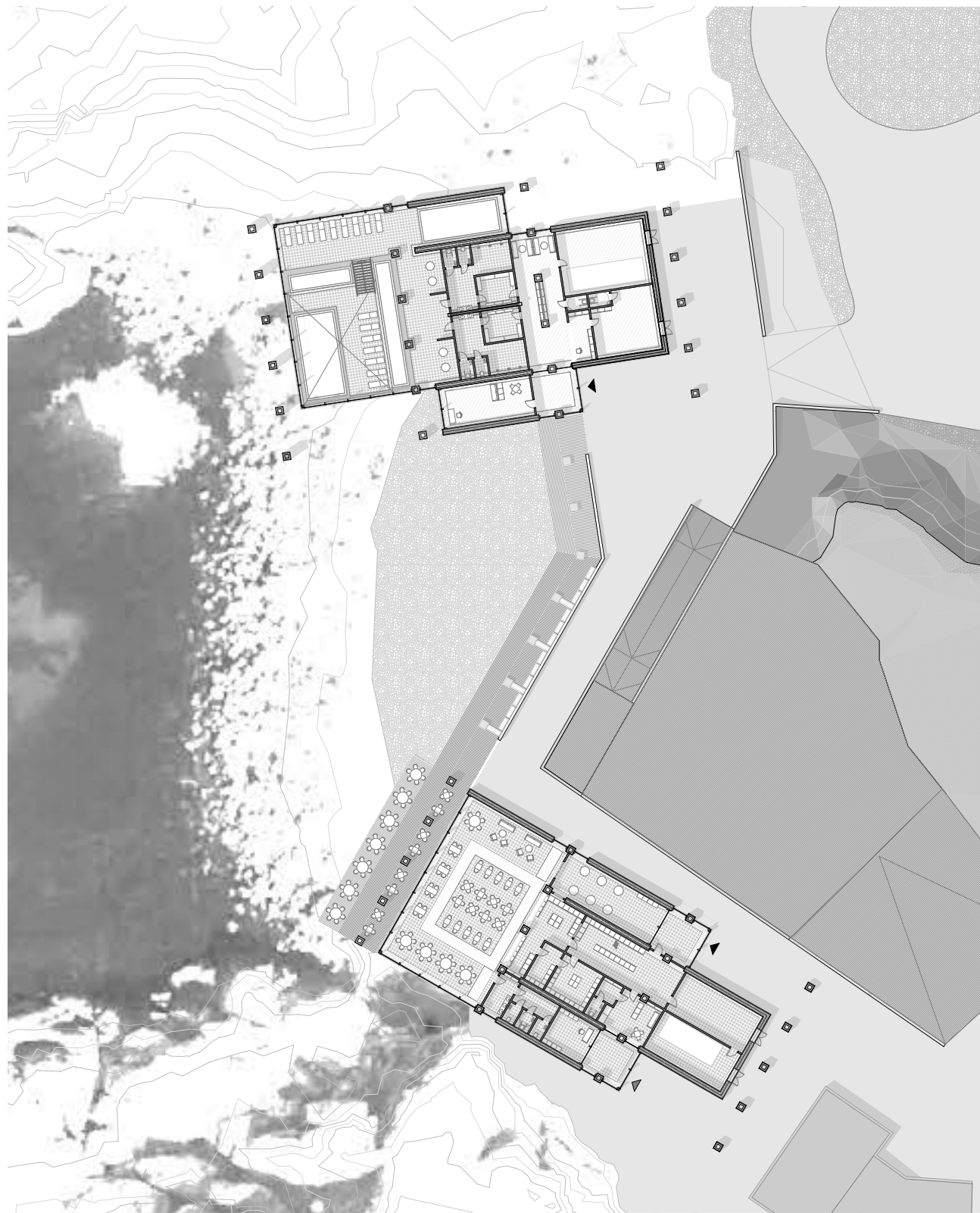


Figure 36: Floor Plan 1:400



Figure 37: Rendering Exterior Path

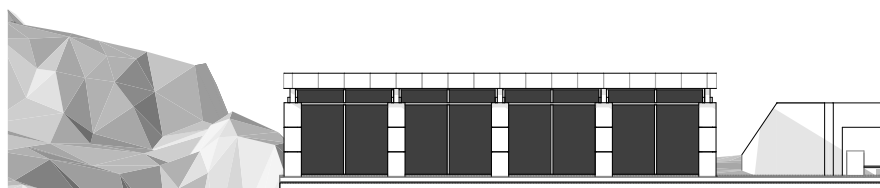


Figure 38: Elevation West Restaurant 1:350

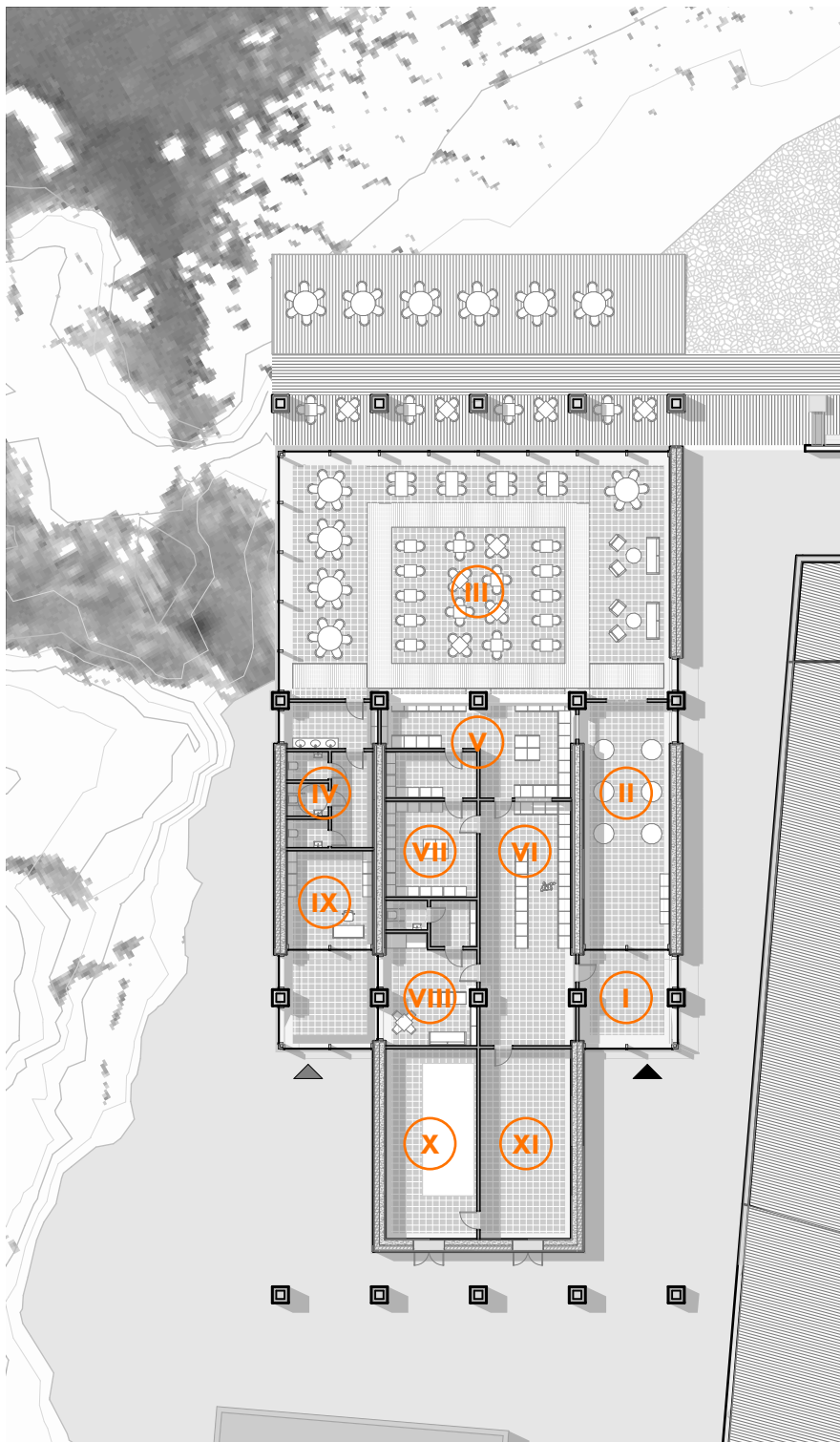


Figure 40: Floor Plan Restaurant 1:350

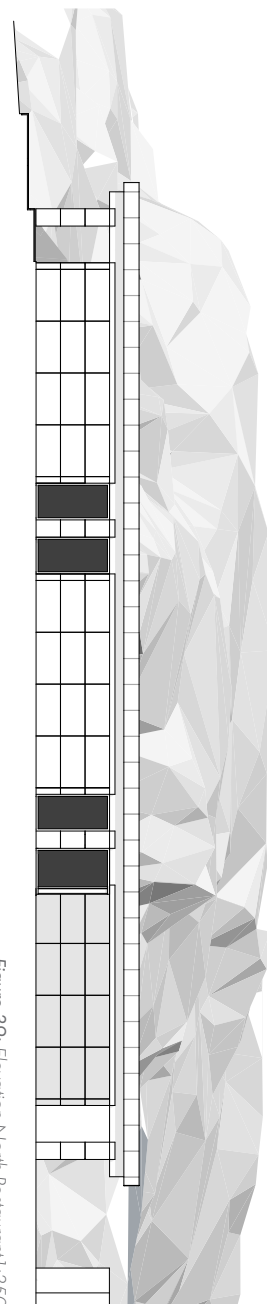


Figure 39: Elevation North Restaurant 1:350



Figure 41: Rendering Interior Restaurant

- | | | | | |
|--------------|-------------------|------------------|-----------------|------------------|
| I Vestibule | III Dining | V Public Cooking | VII Storage | IX Office |
| II Reception | IV Public Toilets | VI Kitchen | VIII Staff Area | X Technical Room |
| | | | | XI Delivery Zone |

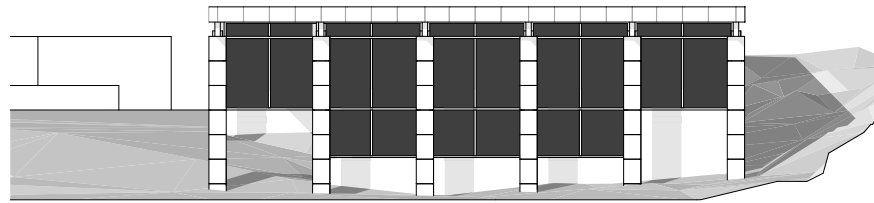


Figure 42: Elevation West Spa 1:350

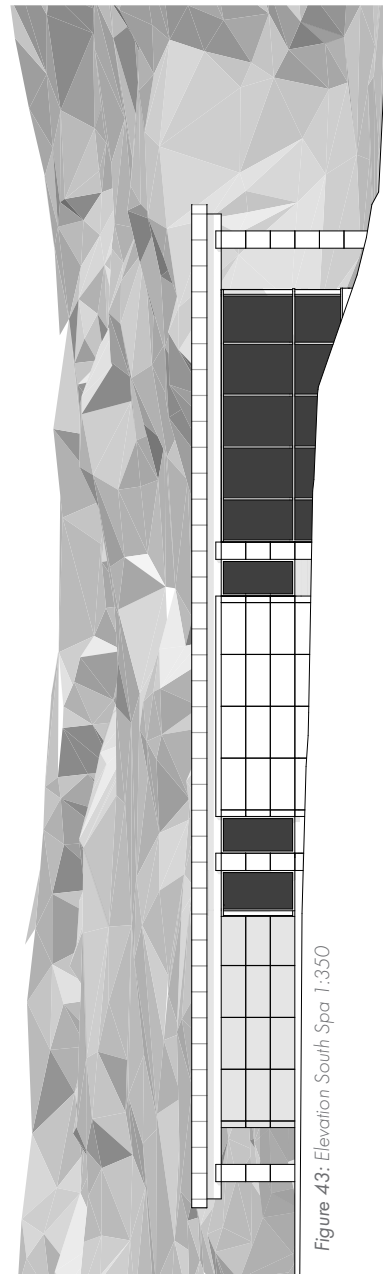


Figure 43: Elevation South Spa 1:350

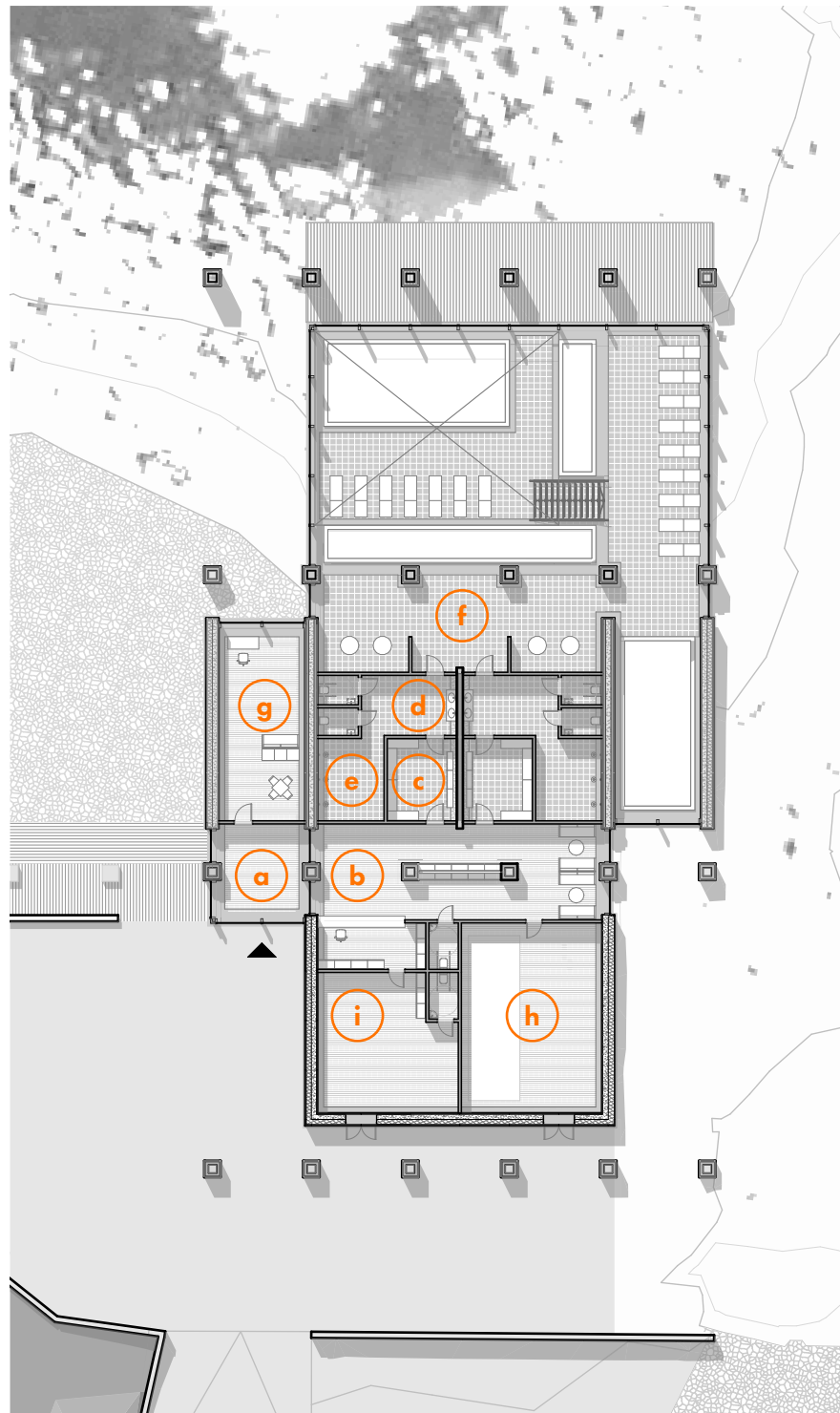


Figure 44: Floor Plan Spa 1:350



Figure 45: Rendering Interior Spa

- a Vestibule b Reception d Public Toilets f Bathing Area h Technical Room
- c Changing e Showers g Staff and Office i Delivery, Storage



Figure 47: 3d Section Restaurant

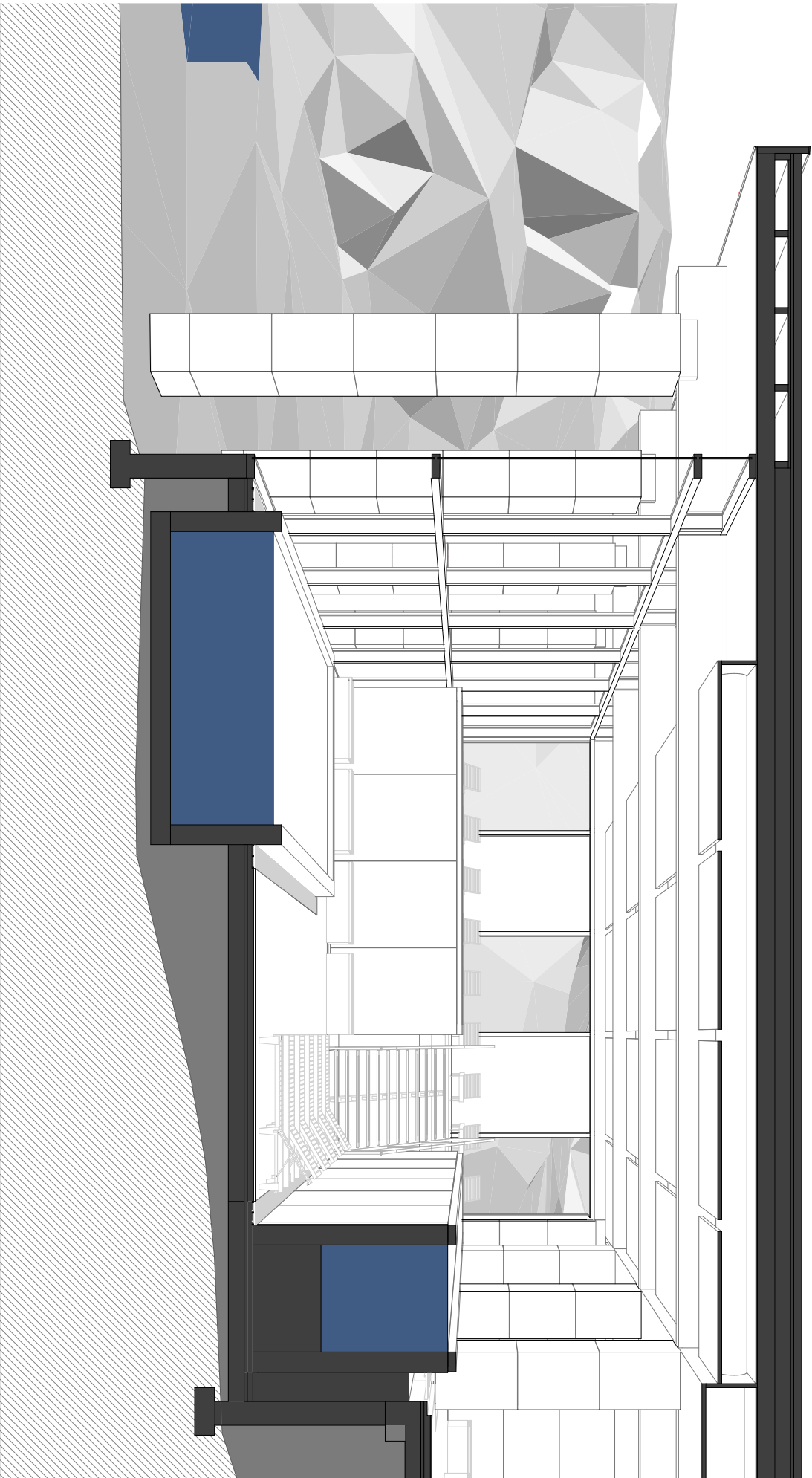


Figure 46: 3d Section Spa

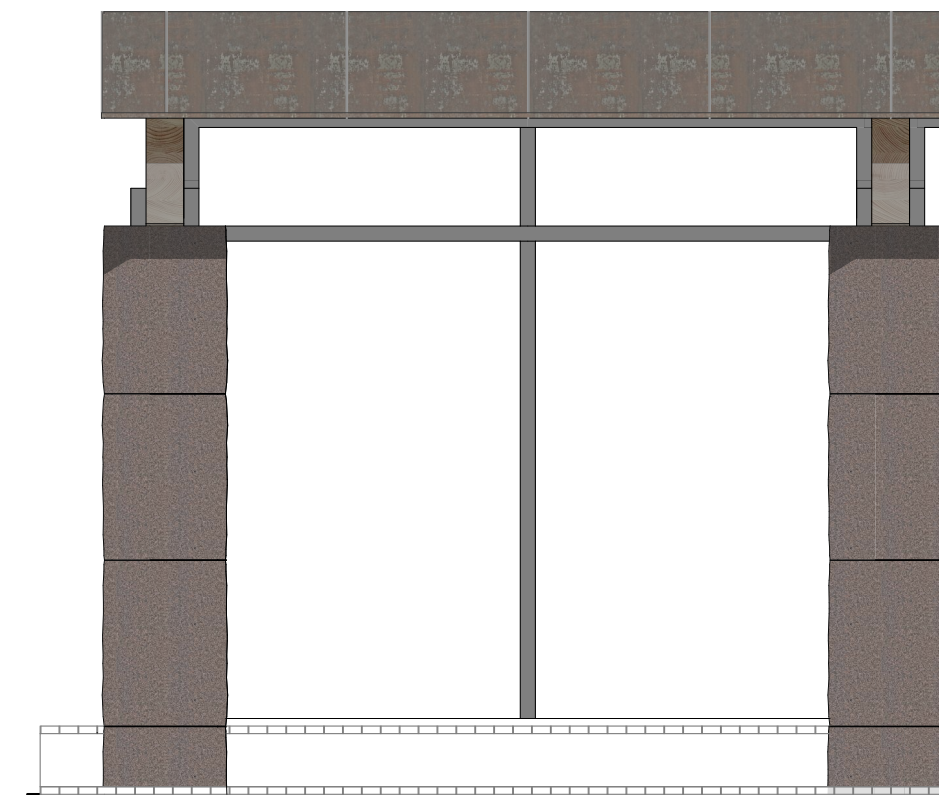
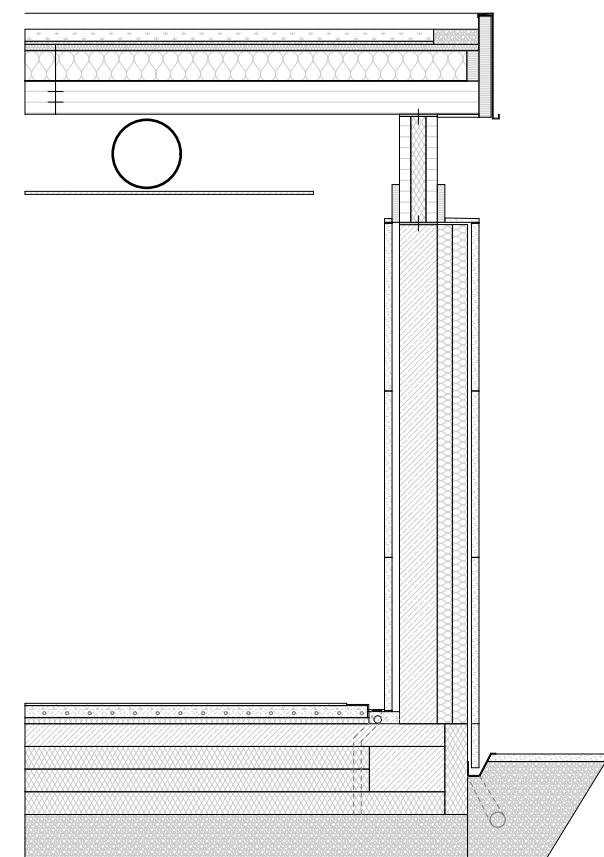
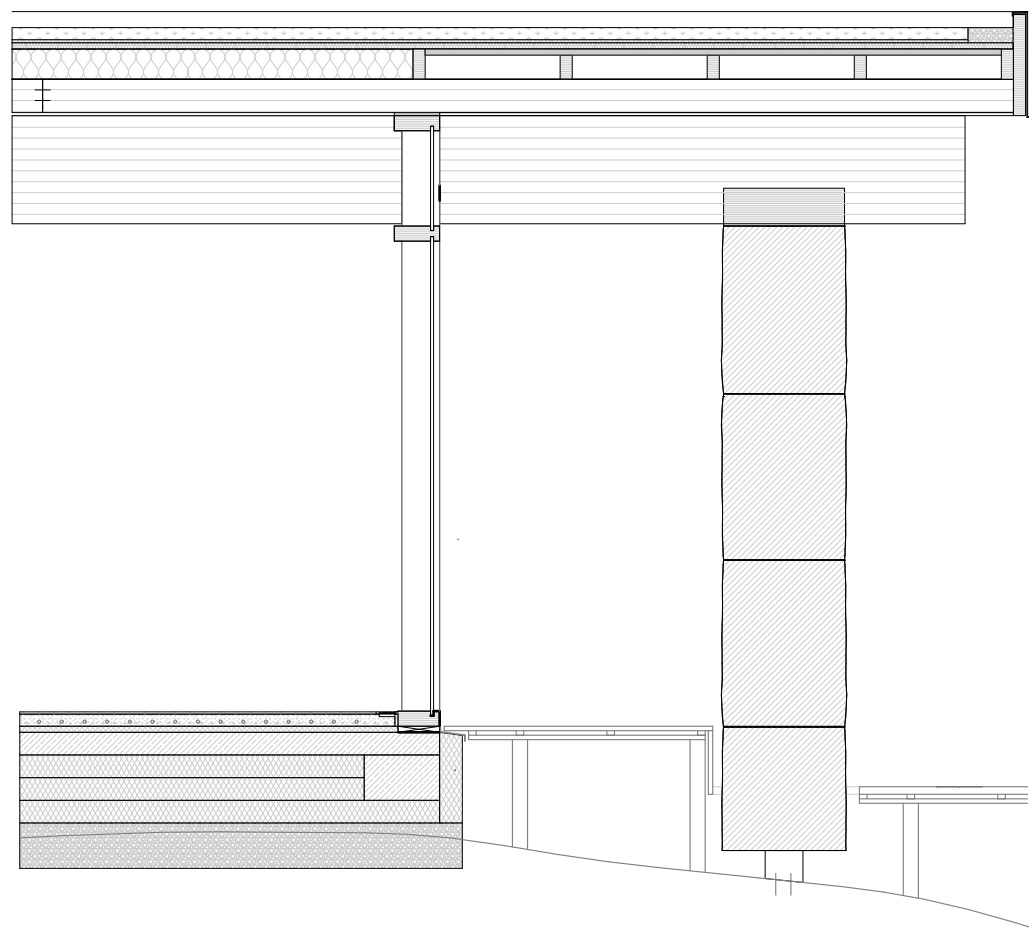


Figure 48: Facade Section Elevation 1:50



Figure 49: Facade Section Elevation 2 1:50

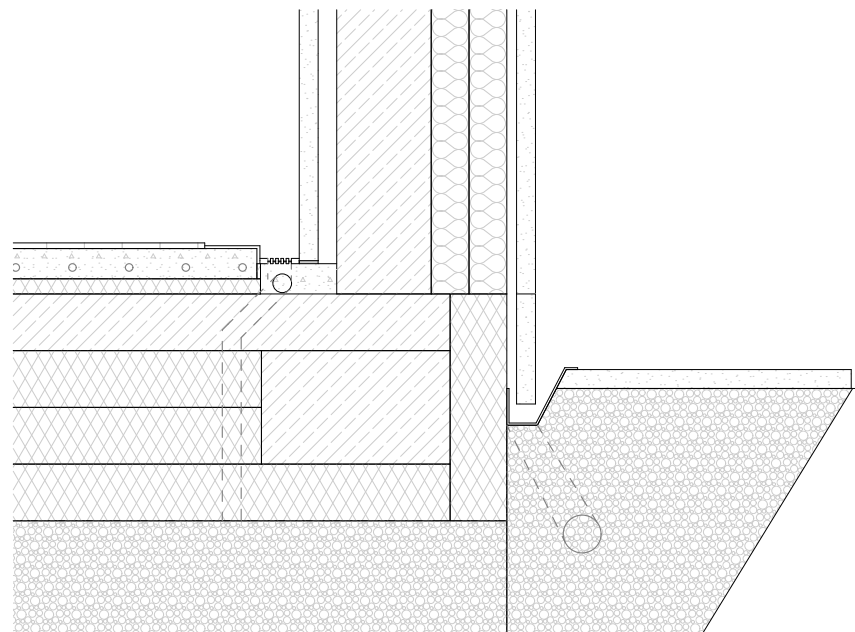
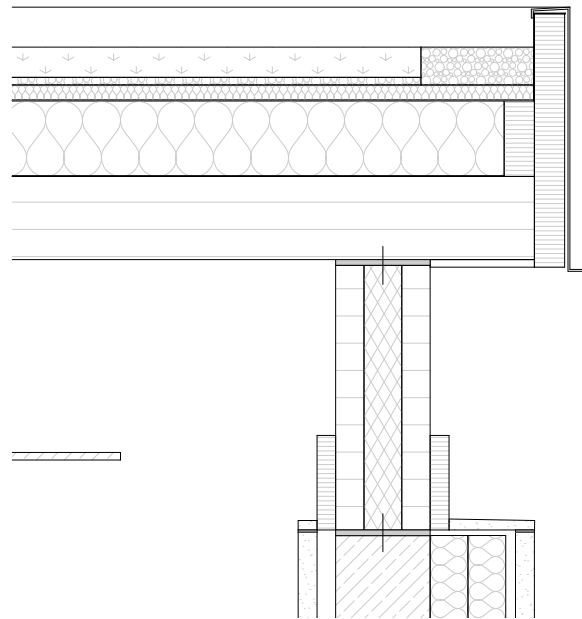


Figure 50: Details 1:20

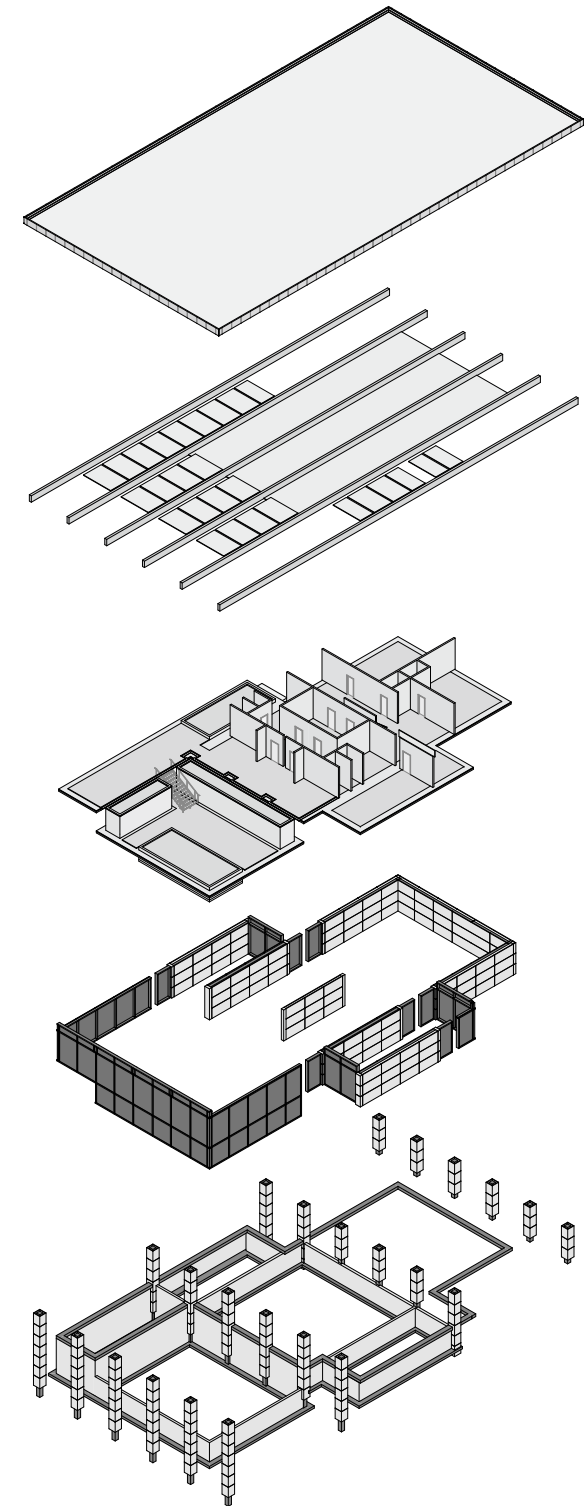


Figure 51: Structure Isometric

DISCUSSION

This thesis has demonstrated, that architecture can help undesired structures to be revitalised by carefully implementing architectural interventions as a tool for space making, which concentrate on finding spacial qualities within the current state of the site.

Strategically placed walls in various heights and two building typologies helped the place to become an asset for the community and travellers seeking shelter in bad weather conditions while emphasising on the beautiful nature and the places history.

Therefore by preserving the memory of the site and respecting its context, the project has revitalised the place.

By using the local material granite to clad the shape giving walls, careful placement and low volume of the buildings, they create a deeper connection with the natural surroundings.

However, the design methodology also revealed significant constraints, narrowing the range of design possibilities. While the result makes the intervention a coherent addition to the place, it is a theoretical thesis without a real client, who might have had different opinions about the exact sizes of the interventions and its financial scope.

One of the key lessons from this thesis is that as written in the theory of Zumthor (2010) and Norberg-Schulz (1980) a strong understanding of the local conditions, landscape, materials and context are needed to create architecture that can fit into the genius loci. The challenge to combine this design methodology with the commune goals and general needs for shelter made the project a complicated but also interesting design.

By reading the theory of the genius loci, it became clear that the theory can be interpreted in different ways, originating in different individual views and preferences shaped by the persons own cultural and historic background. While Norberg-Schulz (1980) clearly supports the adaptation to the local context, he also emphasizes on the possibilities of architecture to shape the genius loci. Therefore the genius loci could have been seen as something to leave behind in order to create a new one, shaped by the new architecture. It hasn't been the focus of this thesis, but can be an interesting approach to the design methodology.

Since the scope has left out the local building traditions, this might be a cultural impact of the genius loci which could be further researched in. By working with more traditional methods of stone stacking architecture, the genius loci might have been even further emphasized, with the constraint of limited freedom of building in the landscape. For future research this part could be further worked on, as well as financial calculations as a driver of architectonic decision making.

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