



WEATHER SPACE

A SEARCH FOR AN ALTERNATIVE IMPLEMENTATION OF THE NATURUM CONCEPT WITH FOCUS ON THE EXPERIENCE OF NATURE

LISA HELLSTRÖM

*Chalmers School of Architecture
Department of Architecture
and Civil engineering
Examiner: Morten Lund
Supervisor: Erica Hörteborn
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CHALMERS
UNIVERSITY OF TECHNOLOGY

Weather Space
Author: Lisa Hellström

Chalmers School of Architecture
Department of Architecture and Civil Engineering
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ABSTRACT



The starting point of this thesis is to explore the Swedish concept Naturum as a tool for experiencing and informing about nature. The thesis is a comment on the contradiction of how a Naturum is a staffed building you enter to experience nature and how this limits the possibility to take part of the exhibitions. How the Naturum typology can be developed to be both informing and let us experience nature, both observing but also being a part of something, is explored. How can the function and aim of a Naturum be translated into architecture that focuses on the experience of nature? And how can the architecture be developed to be useful throughout the seasons even when not manned?

The method move between research for design and research by design. As the experience of nature is very dependent on the weather, this is used as a tool in the process. Weather is seen as something you are sheltered from or exposed to and it is also used in connection to atmosphere. Atmosphere is here understood as being present and experiencing what everything around you ra-

diates with all your senses. The weather has got a big impact on the atmosphere in nature which is explored in a site analysis using the method of creating a stop motion film. The film consists of sequences of photos from the chosen site meant to highlight its qualities. A reference study of existing Naturum display how the reference projects deal with the comment made on Naturum and the outcome is discussed in a reflection on the Naturum concept.

The result of the exploration is a design proposal with an exhibition of the Vrångö archipelago, a nature reserve in Gothenburgs southern archipelago, Sweden. The proposal is an alternative implementation of the Naturum concept where focus is on the experience of nature and making the exhibition available throughout the year.

Keywords: Site analysis, experience of nature, architecture, Naturum, atmosphere, weather.

Previous page: Figure 1. Naturum diagram.

STUDENT BACKGROUND

BACHELOR	First year KTH Royal Institute of Technology, Stockholm
	Second & third year Chalmers University of Technology, Gothenburg
MASTER COURSES	Sustainable development and the design professions
	Future visions for healthcare, housing and work 1 - Residential Healthcare - Housing for seniors
	Architectural Competitions
	Future visions for healthcare, housing and work 2 - Housing Inventions
	Master thesis preparation course 1 & 2
Matter, space, structure 3	
INTERNSHIP & WORK	Arkitektriangeln, Trollhättan Jun 2016 - Aug 2017
	Contekton Arkitekter, Vänersborg Sept 2017 - Aug 2018 & Jun - Aug 2019

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INTRODUCTION

BACKGROUND

STARTING POINT

The starting point of this thesis is to look at the Swedish concept Naturum as a tool for experiencing and informing about nature. A Naturum is a staffed building meant to function as a gate to nature, with purpose to provide information about a certain nature area and inspire people to experience it (Naturvårdsverket, 2019). The thesis is a comment on the contradiction of how a Naturum is a staffed building you enter to experience nature. This limits the possibility to take part of the exhibition, since the opening hours vary with the seasons. This thesis explores how the Naturum typology can be developed to be both informing and let us experience nature, both observing but also being a part of something.

The experience of nature is very dependent on the weather, which has got a huge impact on the

atmosphere in nature and this is why weather is used in connection to atmosphere in this thesis. Atmosphere is in this thesis understood as being present and experiencing what everything around you radiates with all your senses. Weather is also seen as something you are sheltered from or exposed to.

Combining the question of what a Naturum can be and connecting weather to atmosphere is the point of departure for the thesis. How can the function and aim of a Naturum be translated into architecture that focuses on the experience of nature? It will also deal with how the architecture could be developed to be useful throughout the seasons even when not manned, not limiting the exhibition to opening hours.



Next page: Figure 2. Background diagram



How can the function and aim of a Naturum be translated into architecture that focuses on the experience of nature?

How can the architecture be developed to be useful throughout the seasons even when not manned?

PURPOSE & AIM

The purpose of the thesis is to explore how the Naturum typology can be developed with focus on the experience nature. This is done by working with weather in connection to atmosphere and shelter. The purpose is also to explore how the use of an alternative structure can be extended throughout

the year, even when not manned. The aim of the thesis is to present a site specific design proposal of an alternative implementation of the Naturum concept. The proposal should fulfill the purpose of a Naturum, but provide a new perspective on how this can be achieved.

DELIMITATIONS

This thesis will not provide a updated overall concept of the Naturum and how to implement it, but explore and present a possible alternative implementation on a specific site. In order to be able to explore how the Naturum concept could be

something very different from what it is today, the design proposal will not follow The Swedish Environmental Protection Agency's guidelines and requirements for Naturum or Swedish regulations for accessibility completely.

Previous page: Top: Figure 3. Nötholmen in March. Copyrighted to the author.
Bottom: Figure 4. Nötholmen in February. Copyrighted to the author.

METHOD

WEATHER

In this thesis weather is seen as something you are sheltered from or exposed to. Throughout the project spaces are divided into three categories - protected, sheltered and exposed space. The protected space is temperature controlled indoor space where you are completely protected from the weather. The sheltered space is where you are partly sheltered from the weather and the exposed space is where you are totally exposed.

Weather is also seen in relation to atmosphere. In a building you control the mood with light, materials etc. but the atmosphere in nature is totally dependent on the weather. This means that the weather has got a huge impact on your experience of nature, which is why weather is seen in relation to atmosphere in this thesis.

SITE, ITERATIONS & STOP MOTION

As experience of nature is center of this thesis, experiencing and revisiting the site chosen for the design proposal is important. An iterative process that circles around the site, design work and reflection is used to always have the site as an input.

The method used to represent the experience of the site is a stop motion film. The method of creating flip boards, a type of analogue stop motion movie, was explored during a preparatory course for the master thesis. It was found to be a good

way of communicating the mood and atmosphere of a space in order to make the spectator feel closer to it. The method of doing a stop motion film using pictures from the site have therefore been used as a site analysis- and representation tool. The purpose of the method as a site analysis tool is to get to know the site and pay attention to its qualities. As a representation of the site it is used to be able to communicate the site in a different way than by using facts, trying to get closer to the experience and atmosphere of the site.

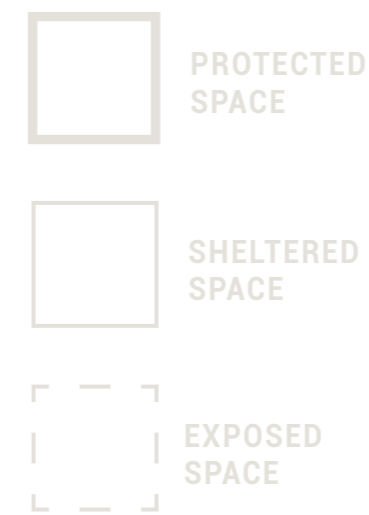


Figure 5. Weather spaces

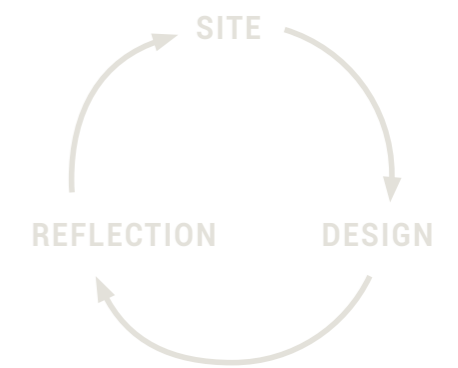


Figure 6. Process

REFERENCE STUDY

A site visit to Naturum Kosterhavet and reference study on existing Naturums and have been made in order to get knowledge in the field. The reference projects are studied in plan and two additional ones are studied in terms of opening hours. Other built examples in the fields of architecture and art are also used to get insights from other angles when working on the design proposal.

MODEL STUDIES

Models, both physical and digital, are used to understand the chosen site and as a sketching tool for the design proposal. The models are also used to generate drawings and perspectives of the design proposal.

READING INSTRUCTIONS

The thesis is divided into five main chapters, read from start to finish for best understanding.

The *Introduction* section of the thesis describes how this thesis explores the concept Naturum, which is a visitors center for a nature area. The exploration is based on the contradiction of how a Naturum is a staffed building, limited to opening hours, that you enter to experience nature. The work revolves around the question of how the function and aim of a Naturum can be translated into architecture that focuses on the experience of nature and how it can be developed to be useful even when not manned. This is explored by working with weather, which is described in the chapter *Method*.

The Naturum concept is described and studied through reference projects in the *Discourse* section of the thesis, along with an reflection of the

thesis standpoint and comment regarding the concept. The *Discourse* also include other architectural references that are relevant in relation to the subject and the reflection.

In the *Context* section the site for the design proposal is presented as well as the site analysis that explores the sites atmospheric qualities.

The process and concept of the design proposal is presented in the *Design Proposal* section of the thesis. The design proposal explores an alternative way of interpreting the function and aim of a Naturum. The project is represented in drawings, perspectives and text.

The *Discussion* section contains a reflection on the process of the thesis and the outcome in relation to the thesis questions and a conclusion.

THE NATURUM CONCEPT

BACKGROUND

The Naturum concept is developed by and a registered trademark owned by Naturvårdsverket, The Swedish Environmental Protection Agency, which is a government funded authority that deals with environmental issues. A Naturum is a staffed building, a visitors centre, placed in or adjacent to an area with valuable nature like a nature reserve or national park. Today there are 33 Naturum in

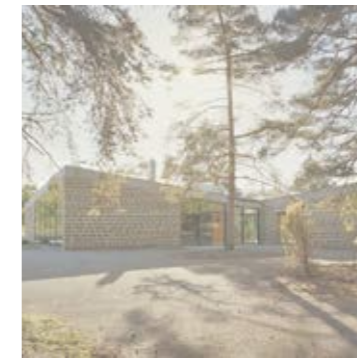
Sweden (Naturvårdsverket, 2019). To be able to use the Naturum trademark The Swedish Environmental Protection Agency's guidelines and regulations have to be followed. The guidelines include information about the purpose and aim, regulations about localization, managing, financing etc. (Naturvårdsverket, 2015).

REQUIREMENTS & GUIDELINES

A Naturum is required to have a minimum of 100m² exhibition space and a place to gather at least 25 people. The guidelines demand that it is open at least 1000 hours divided on at least 150 days per year and the staff should be well educated regarding the area connected to the Naturum. The purpose of the Naturum is to function as a gate to nature, providing information about a certain area and strive to inspire people to experience it. It should not replace a visit in nature, but benefit

visitors to its surroundings providing activities and information (Naturvårdsverket, 2019), both staffed and self guided experiences (Naturvårdsverket, 2015). The Naturum should be an attraction in itself and enhance the areas value and identity (Naturvårdsverket, 2019). The target group is the general public without any prior knowledge, aiming to attract both Swedish and foreign visitors (Naturvårdsverket, 2015).

REFERENCE STUDY



INTRODUCTION

The reference study of three existing Naturum give a brief background to the projects, their context and show how the projects work with the earlier mentioned definitions of spaces - protected, shel-

tered and exposed. A study of opening hours show the frequency of manned days each month since this is important in relation to the question of availability of the exhibitions that the thesis raises.

Left: Figure 7. Naturum Kosterhavet. Copyrighted to the author.
Middle: Figure 8. Naturum Trollskogen (Fowelin, 2018). Reprinted with permission
Right: Figure 9. Naturum Tåkern (Söderström, n.d.). Reprinted with permission.

NATURUM KOSTERHAVET

Naturum Kosterhavet is a 705m² Naturum by White Arkitekter, Ulla Antonsson and Mattias Lind, finished in 2012.

Naturum Kosterhavet is the main entrance to the national park Kosterhavet. It is located on the island Sydoster and is connected to the mainland by ferry from Strömstad. The exhibition is placed on the interior walls and in form of cubes placed on the floor. It consists mainly of printed infor-

mation, but have some interactive features and an aquarium where visitors can watch and touch animals from the sea. There is a sheltered space by the entrance where visitors can get brochures and some information, but this is the only weather sheltered space there is. The exposed outside part of the exhibition is a model of the national park and a small interactive feature. There are some activities outside connected to the Naturum, but they are restricted to the opening hours.

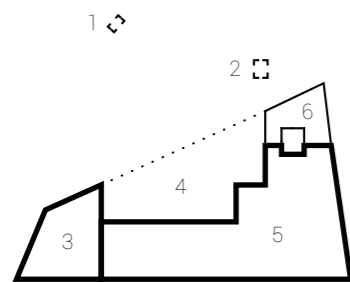
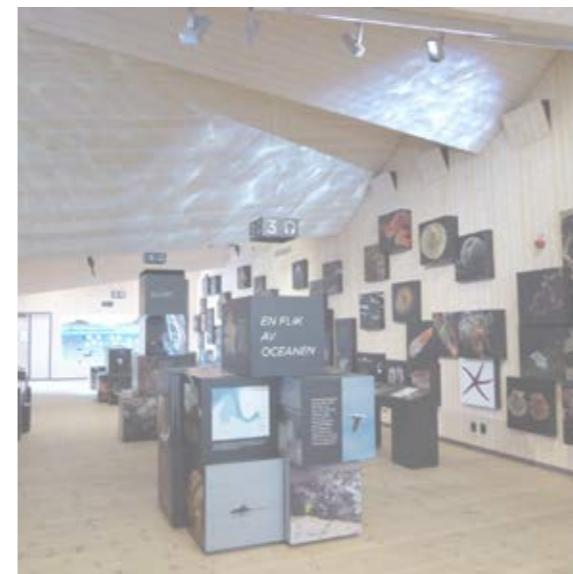


Figure 10. Spatial organization ~ 1:1000

- 1. EXHIBITION
 - 2. EXHIBITION
 - 3. AUDITORIUM
 - 4. STAFF AREA & WC
 - 5. EXHIBITION AREA
 - 6. ENTRANCE
- WEATHER PROTECTED SPACE
 - WEATHER SHELTERED SPACE
 - WEATHER EXPOSED SPACE
 - SUPPORTING FUNCTIONS

Next page: Top left: Figure 11. Exterior. Top right: Figure 12. Interior.
Bottom left: Figure 13. Exhibition. Bottom right: Figure 14. Sheltered space.
Naturum Kosterhavet. Copyrighted to the author.



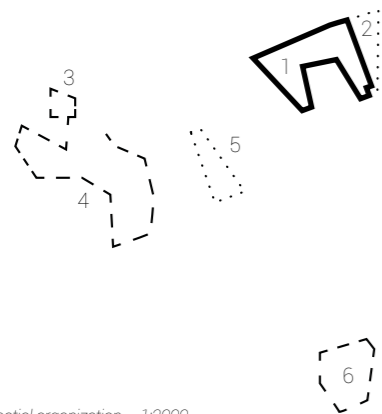
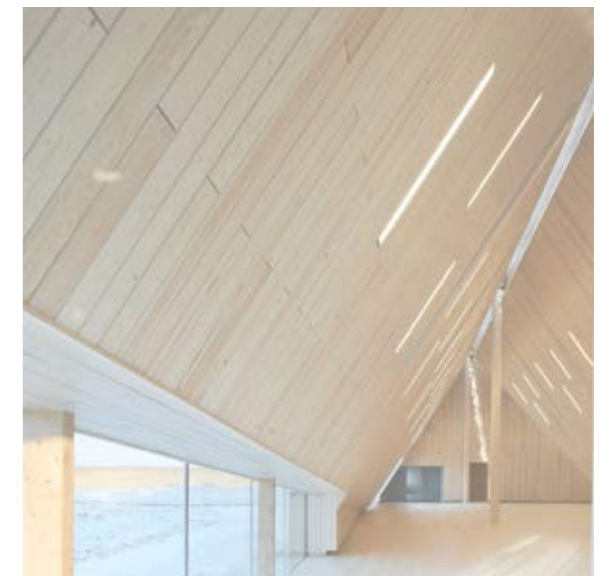
NATURUM TÅKERN

Naturum Tåkern is a 750m² Naturum by Wingårdh Arkitekter, Gert Wingårdh and Jonas Edblad, finished in 2012.

Naturum Tåkern is located by the lake Tåkern and the Tåkern nature reserve in Ödeshög. The nature reserve is mainly known for its bird life and shore meadows (Länsstyrelsen Östergötland, n.d. b). The project is a result of an architecture competition in 2007 by Länsstyrelsen i Östergötland, the

County Administrative Board of Östergötland, and Naturvårdsverket, The Swedish Environmental Protection Agency.

The project consists of a main building, a small additional building, a bird-watching tower and an outdoor area. The bird watching tower, a camp fire area and other outdoor features are possible to use when the main building is not open and manned.



- 1. EXHIBITION & AUDITORIUM
 - 2. STAFF AREA
 - 3. BIRDWATCH TOWER
 - 4. RAMP
 - 5. MEETING ROOM/WC
 - 6. CAMP FIRE
- WEATHER PROTECTED SPACE
 - WEATHER SHELTERED SPACE
 - WEATHER EXPOSED SPACE
 - SUPPORTING FUNCTIONS

Figure 15. Spatial organization ~ 1:2000

Next page: Top left: Figure 16. Facade. Naturum Tåkern (Söderström, n.d.). Reprinted with permission. Top right: Figure 17. Exterior. Bottom left: Figure 18. Bird-watching tower. Bottom right: Figure 19. Interior. Tåkern, Wingårdhs Arkitekter (Eson Lindman, n.d.). Reprinted with permission.

NATURUM TROLLSKOGEN

Naturum Trollskogen is a 420m² Naturum by Marge Arkitekter finished in 2018.

Naturum Trollskogen is located in the nature reserve Trollskogen on the island Öland. The nature reserve is the most frequently visited nature area on Öland and the Naturum is meant to connect to its ocean, forest and forest glades. Except from the Naturum itself, which is an exhibition building, there is an information hub outside and a shelter

with a fire place and a sun deck. These functions can be used together or by themselves depending on the opening hours of the Naturum. By the information hub visitors can get information about the area even when the exhibition building is not open and manned. The shelter is also always open to be used and allows visitors to take a break from the weather outside, which supports usage of the area throughout the seasons.

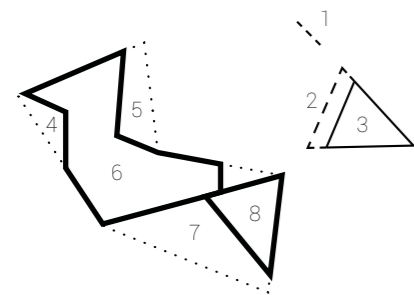


Figure 20. Spatial organization ~ 1:1000

1. INFORMATION HUB
2. SUN DECK
3. SHELTER
4. STORAGE
5. WC ETC.
6. EXHIBITION AREA
7. STAFF AREA & WC
8. AUDITORIUM

- WEATHER PROTECTED SPACE
- WEATHER SHELTERED SPACE
- WEATHER EXPOSED SPACE
- SUPPORTING FUNCTIONS

Next page: Top left: Figure 21. Exterior. Top right: Figure 22. Interior.
Bottom left: Figure 23. Sun deck. Bottom right: Figure 24. Sun deck facade.
Naturum Trollskogen (Fowelin, 2018). Reprinted with permission.

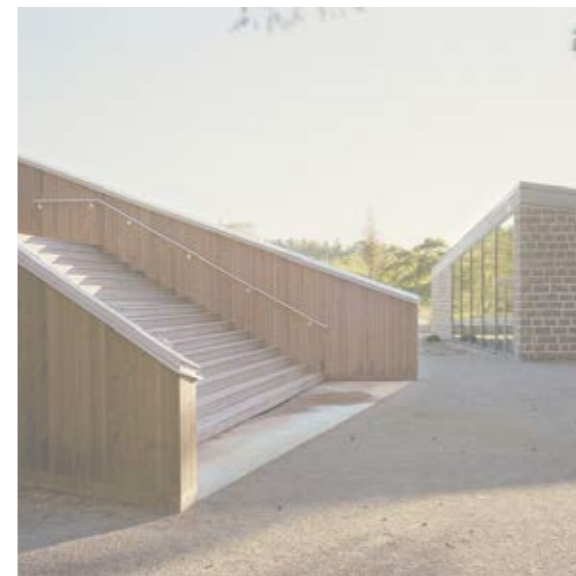
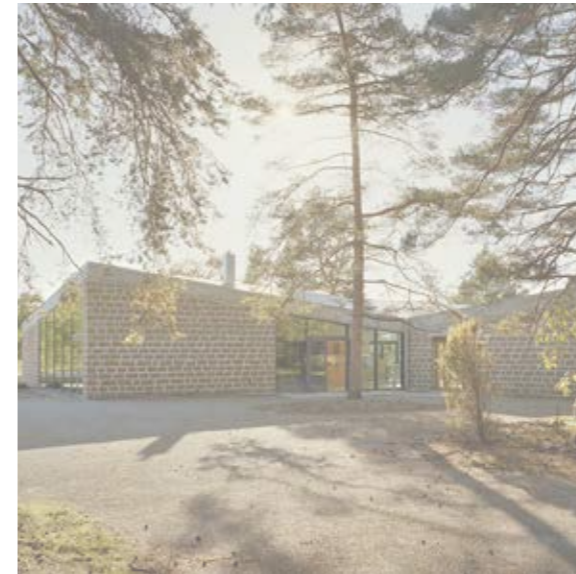




Figure 25. Frequency of open days Naturum Kosterhavet (Länsstyrelsen Västra Götaland, n.d. a)



Figure 26. Frequency of open days, Naturum Tåkern (Länsstyrelsen Östergötland, n.d. a)



Figure 27. Frequency of open days, Naturum Vänerskärgrården (Stiftelsen Läckö Slott, n.d.)



Figure 28. Frequency of open days, Naturum Fjärås Bräcka (Naturum Fjärås Bräcka, n.d.)



OPENING HOURS

The previously mentioned Naturum Kosterhavet and Tåkern, as well as two more examples, Naturum Vänerskärgrården and Fjärås-Bräcka, have been studied to understand how the open-

ing hours vary throughout the year. Figure 25-28 show the frequency of open days each month for the studied examples.

CONCLUSION

Although sheltered and exposed space is considered in some of the projects the reference study of existing Naturum show that the examples work mainly with protected space in their exhibitions. Naturum Trollskogen seems to have had an emphasis on the outdoor spaces and has got a relatively small amount of protected space, 420m², compared to Tåkern and Kosterhavet that are both over 700m². As Trollskogen Tåkern also has got some features that are possible to use when the main exhibition building is not manned, but Kosterhavet have few.

The protected space demand staff and the buildings are only open a limited amount of time, which limits the possibility to take part of the exhibitions.

The frequency of manned days vary throughout the year, see Figure 18-21. The diagrams show that the most frequently manned period is the summertime, when all of the studied examples are open 6-7 days per week. Some of the Naturums are not open at all during the winter and have very limited opening hours in the autumn and spring. The summer being the time with most open days during the year could have to do with the fact that this is a period when many people are on vacation and have the possibility to go on trips. It could also have to do with the fact that the weather in Sweden makes the summer, according to some at least, the most convenient period for trips in nature.

REFLECTION ON NATURUM



There are many examples of Naturum being celebrated for their architecture (Resmål Sverige, 2020; Svt Nyheter, 2012; Sveriges Arkitekter, n.d. a). One example is the earlier mentioned Naturum Tåkern that was nominated for the Kasper Sahlin price, a price rewarding architecture of high quality in Sweden (Sveriges Arkitekter, n.d. b) in 2012 (Sveriges Arkitekter, n.d. a). This thesis is not commenting on the quality of architecture of existing Naturum, but the fact that they are staffed buildings that are only open a limited amount of time, limiting the possibility to take part of the exhibitions.

The fact that the aim of a Naturum is to work as a gate to nature, while at the same time being a staffed building, is a contradiction that is explored in this thesis. This is in connection to opening hours, but also the fact that a building, an indoor space, is meant to inform and inspire you to explore nature, outside. The Swedish Environmental Protection Agency's guidelines state that a Naturum should enhance the area's value and identity (Naturvårdsverket, 2015). As an example White architects, the architects of Naturum Kosterhavet, explain how the red wooden facade of the building is reflecting the old settlement in the archipelago (White arkitekter, n.d.), see figure 11

and Naturum Tåkern is described as a camouflaging element in the landscape in the book *Sveriges Naturum* (Lauri, 2013), see figure 29. In the same book, it is stated that the indoor spaces of Naturum Tåkern focus on the shape of the interior, with just a few openings with views of the landscape (Lauri, 2013), see figure 30. This is another way of including the surroundings in the building, as Naturum Kosterhavet also does, see figure 31, or working with big sections of glass, as Naturum Trollskogen, see figure 32.

As this thesis is not a comment on the quality of architecture of existing Naturum, but it is exploring what a Naturum could be if you would do things differently, the common way of doing things has to be questioned. Does a Naturum have to be a staffed building? What if it could be open and available at all times. Isn't the best way of experiencing nature to simply be in nature? But then, is a Naturum really necessary? How big or small of an impact should it and could it be? These are questions relevant to the comment on Naturum that this thesis raises and is further explored in the design proposal.

Previous page: Top left: Figure 29 Facade & top right: Figure 30. Interior. Naturum Tåkern (Söderström, n.d.). Reprinted with permission. Bottom left: Figure 31. Naturum Kosterhavet. Copyrighted to the author. Bottom right: Figure 32. Naturum Trollskogen (Fowelin, 2018). Reprinted with permission.

REFERENCE PROJECTS

KIVIK ART MUSEUM, SWEDEN

The Norwegian architecture office Snøhetta have done a series of pavilions and installations at The Kivik Art Museum with the Swedish photographer Tom Sandberg. The project was finished in 2007 and consists of a series of concrete elements placed in the landscape of the Swedish Kivik. The "mother ship" is a flexible exhibition space made out of rectangular concrete elements with glass sides and openings in the ceiling, see figure 35.

REFLECTION

The project is used as a reference because of its way of working with a strict shape and form language as a contrast to the organic nature. The structures are not mimicking nature and the sim-

The view finders, see figure 33 and 34, and the photo-boxes, see figure 36, are a chosen view of the landscape framed by a concrete structure. The view finders are open on both sides and the photo-boxes have a print of Tom Sandberg on laminated glass.

ple forms are quickly grasped, which lets the nature be the main event. Their placement frames a specific view in the landscape, which is there either way, but is highlighted by the structure.



Next page: Top left: Figure 33. View finder. Top right: Figure 34. View finder motive. Bottom left: Figure 35. Mother ship Bottom right: Figure 36. Photo-box. Kivik Art 2007 (Johansson, 2007). Reprinted with permission.

KLEIVODDEN REST STOP, NORWAY

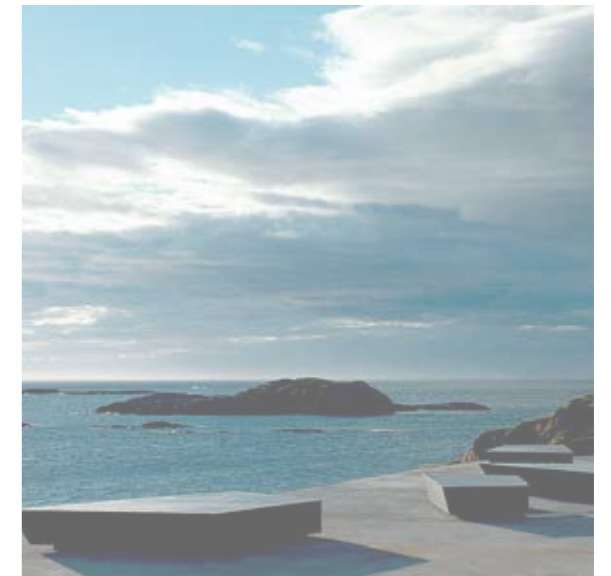
Kleivodden is a rest stop and vantage point in Andøya, Norway. The project was finished in 2013 and was designed by the architecture office Landskapsfabrikken and Inge Dahlman. The project consists of flat surfaces with seating places and space for parking. The architects Landskapsfabrikken describe that the simple sur-

REFLECTION

Kleivodden is one of many examples of interesting rest stops in Norway. The project is used as a reference because of its relatively small structure that highlights the nature and view of the landscape without drawing to much attention, where

faces and stairs in polished concrete connects the structure to its surroundings and lets focus be on the landscape and the view (Landskapsfabrikken, n.d.). Kleivodden rest stop was rewarded the Landskapsarkitekturprisen price, a Norwegian price for landscape architecture, in 2017 (Norske landskapsarkitekters forening. (n.d.).

the seating places on the big viewing platform is like an abstraction of the sea and the rocks, see Figure 38. The simple gesture of providing a place to sit enables the visitor to pause and take in the landscape.



Next page. Left: Figure 37. Kleivodden. (Dahlman, 2013). Reprinted with permission. Right: Figure 38. Kleivodden. (Dahlman, 2013). Reprinted with permission.

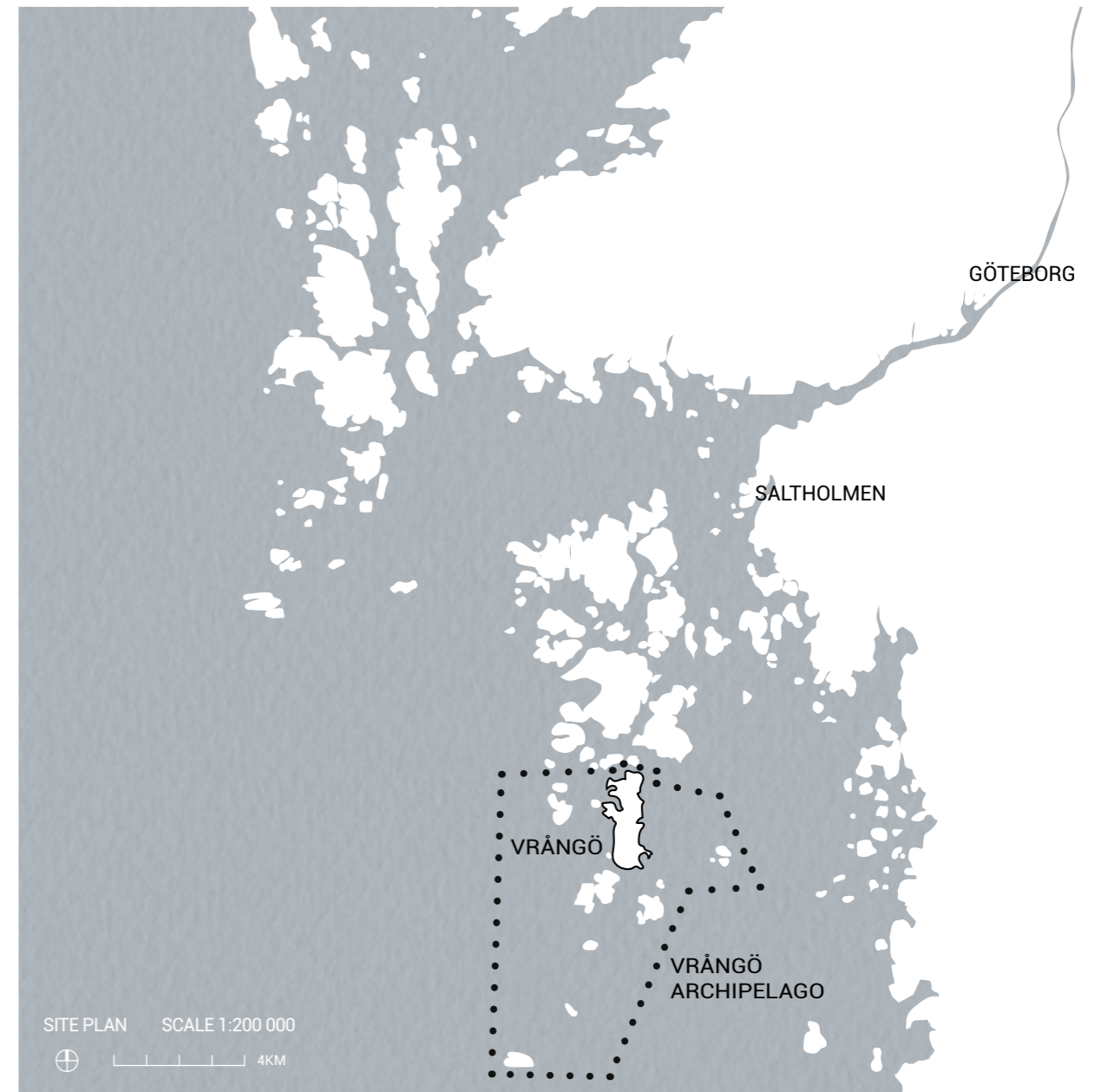
SITE

THE VRÅNGÖ ARCHIPELAGO

The project is located on the island Vrångö in Gothenburgs southern archipelago. Vrångö is the biggest island of the nature reserve Vrångöskärgården, the Vrångö archipelago. The nature reserve was founded in 1979 (Länsstyrelsen Västra Götaland, n.d. b) The area is about 50 km² and consists of multiple islands and a large water area. It is one of the Västra Götaland county's most frequently visited nature reserves, especially in the summertime (Västkoststiftelsen, n.d.). The area has got a rich bird life and the is-

lands Inre Tistlarna is a protected area for seals and birds. The nature in the reserve is varied and consists of barren rocky ground, beaches, valleys of leaf forest, meadows and on the islands you can find historical remains and traces from the ice age (Västkoststiftelsen, n.d.). Fishing is and have been important for the area for a long time and the cost pilot workers was also an important part of Vrångö until 1931 when the business moved to Vinga (Västkoststiftelsen, n.d.).

Next page: Figure 39.



VRÅNGÖ

Vrångö is known for its beautiful nature and sandy beaches and is therefore a popular destination during summertime. The car free island is reached by ferry from Saltholmen on the main land in around 30 minutes. By the ferry station Mittvik on the eastern side of the island is a café and kiosk that are open during the high season. The island's

THE SITE

The site of the design proposal in this thesis is located on a cape by the Nötholmen bay close to the ferry station on Vrångö, making it easy to access from the main land, see figure 40. The walking

small community is located in the middle of the island and the north and south part consists of the nature reserve Vrångöskärgården. In the center of the community, by the harbor on the west side of the island are small shops, a guest house and a hotel.

path from the ferry station passes Nötholmen on its way to the longer walking trails on the southern part of the island. The area consists of a big heath, an area with trees, sandy beaches and rocks.

Previous page: Figure 40.



SITE ANALYSIS

"... there is something irrational about atmospheres, literally, something inexpressible. After all, atmospheres are something utterly subjective. In order to say what they are, one has to experience them in one's overall mood.

Without the sentient subject, they are nothing"

(Boehme, 2018, p. 159)



Scan to watch stop motion film

The stop motion film made as a site analysis consists of sequences of photos taken on the site on different occasions. The sequences work with movement and tempo to display the atmosphere of the site and the variation in tempo allows the spectator to take a closer look at some

of the photos, as you would do if you were there experiencing the site. The sequences are arranged from zoomed out sequences in the beginning to zoomed in sequences towards the end as a way of showing how you get to know the site more and more in depth as you are there.



Figure 41. Sequences from stop motion film

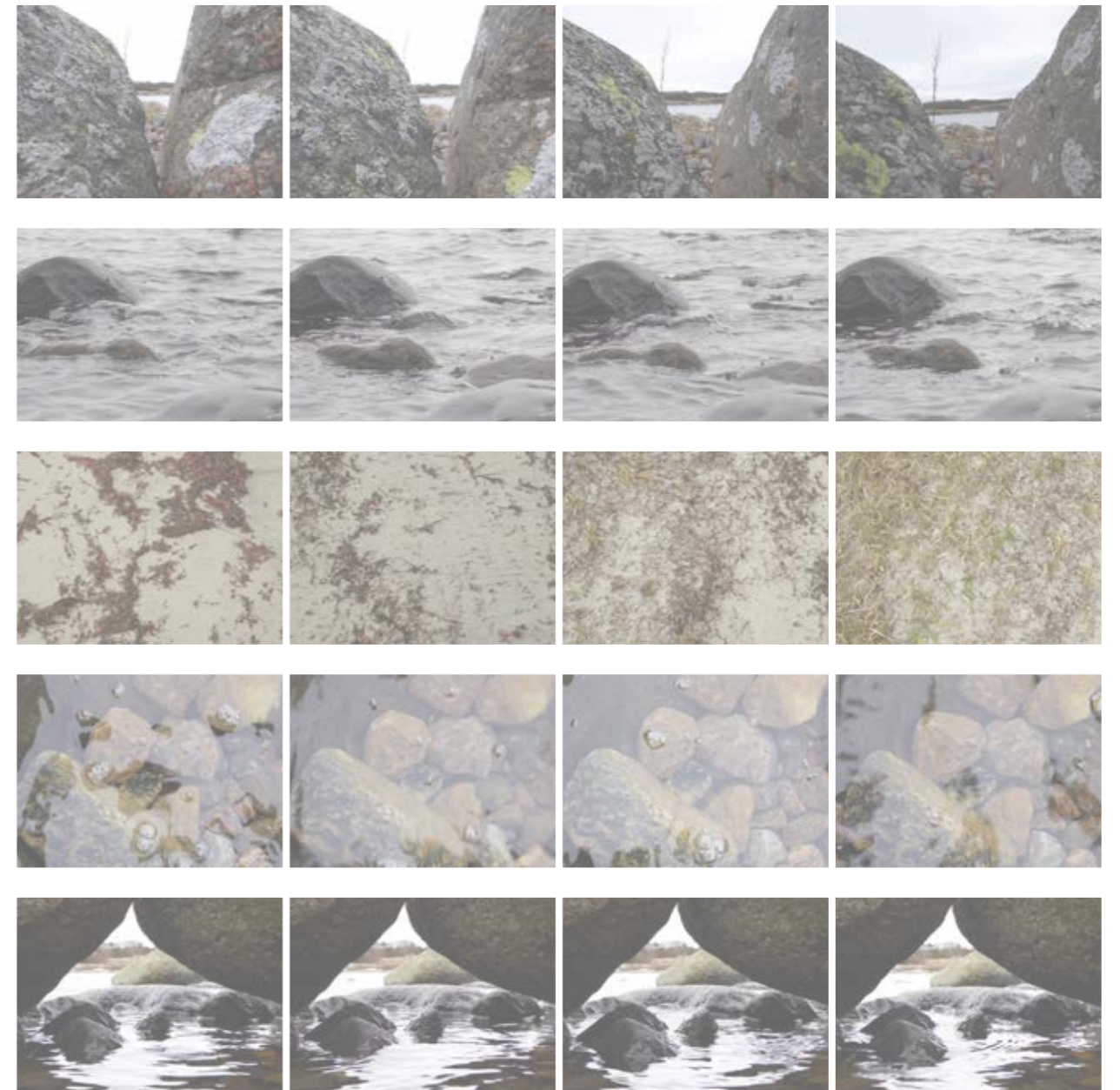
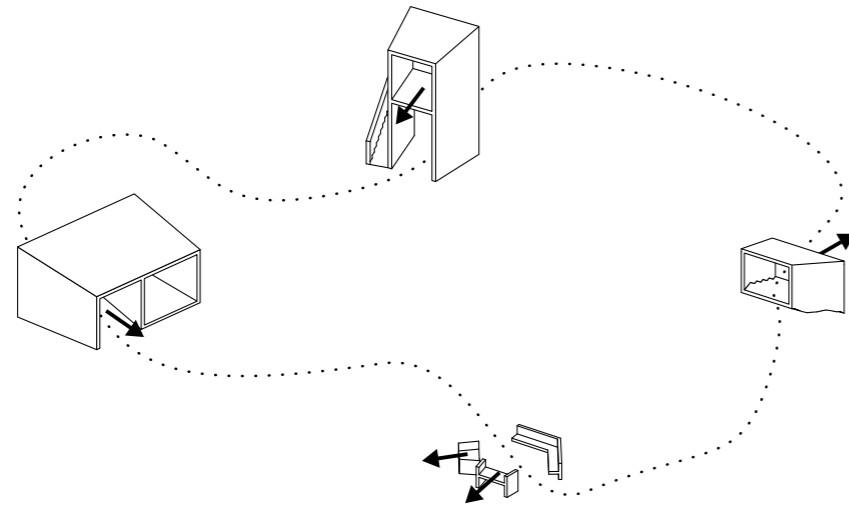


Figure 42. Sequences from stop motion film

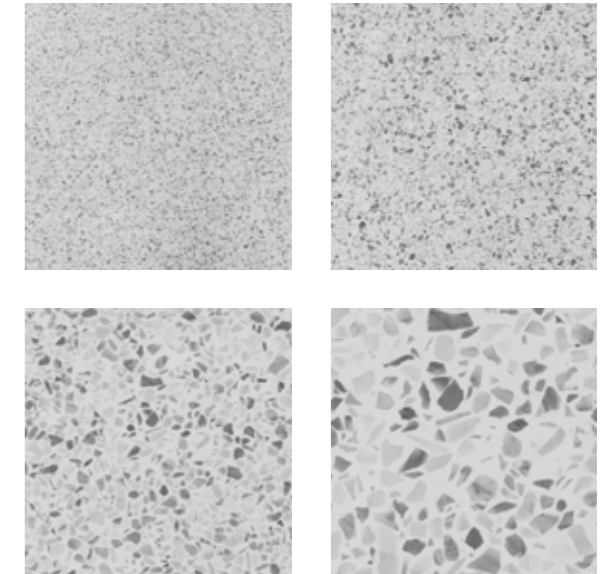
DESIGN CONCEPT



The design proposal is an exhibition of the Vrångö archipelago spread out in weather shelters on the site. The shelters have a strict shape that works in contrast to nature framing a view on the site, directing the attention to a motive in connection to the qualities of the Vrångö archipelago. The qual-

ities highlighted are the vegetation, the bird life, the sea, the protected area for seals and birds and the historical remains. Each shelter is seen as a starting point which purpose is to spark an interest that will encourage the visitors to explore the area further.

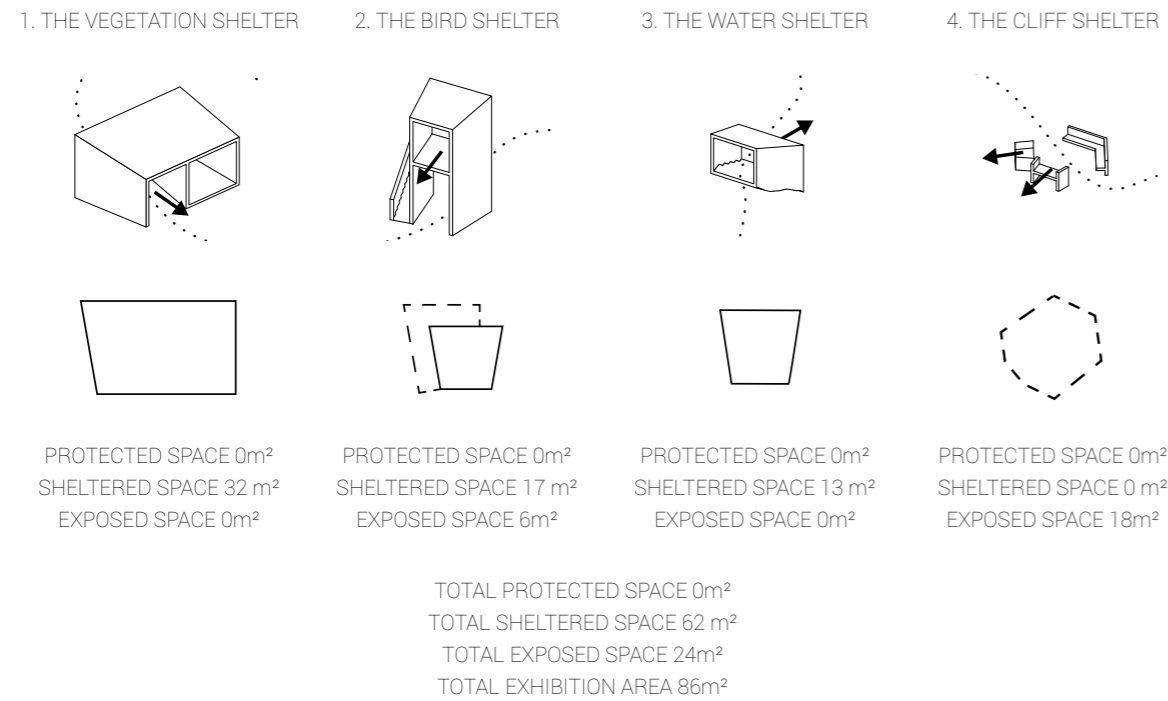
MATERIALITY



The shelters are made of terrazzo. This is due to its robust character, durability and aesthetic qualities, but it is also a comment to the contrast between what is nature and what is artificial. From afar the material will blend in with the grey tones of the landscape, but as you approach it you will learn that the material is actually not made by na-

ture, see images above. The shelters are made out of a in-situ foundation combined with prefabricated walls that are assembled on site. The assembly will leave visible joints between the elements that will further illustrate the artificial character of the material, visible only when you are close to the shelters.

SHELTERS & SITE

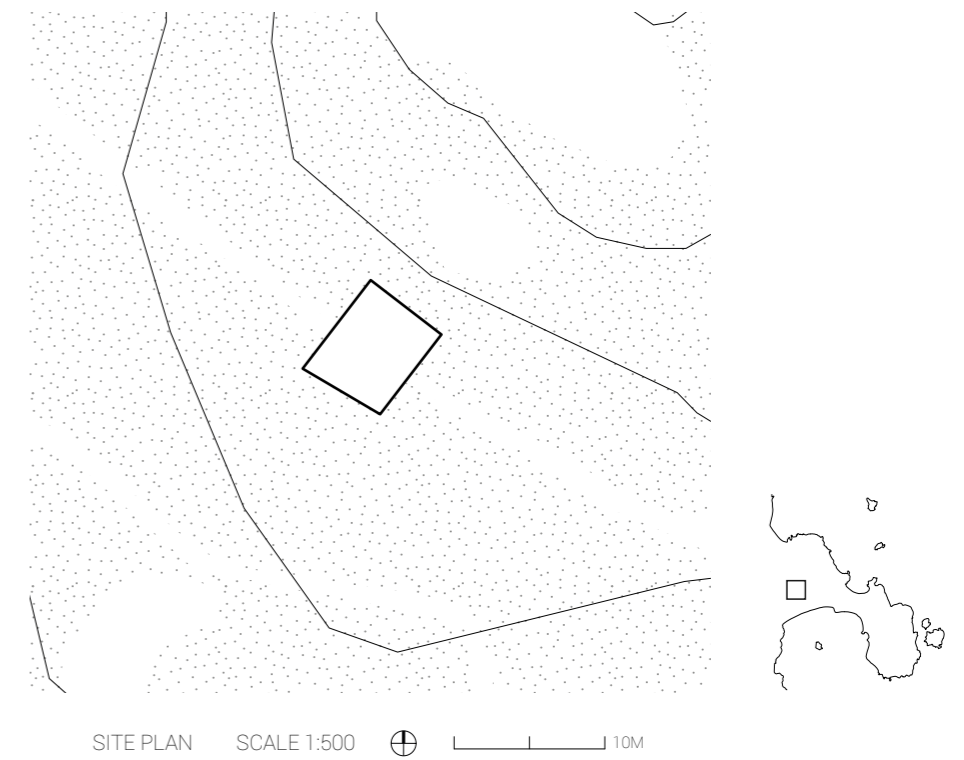


The shelters consists only of sheltered and exposed space. There is no protected space that would normally demand staff and therefore limit the exhibition to opening hours, which means that the exhibition is available for everyone at any time. The total exhibition area in the shelters are 86m², but the exhibition is really the entire nature area of the Vrångö archipelago, the exposed space listed above is the exposed space in direct connection to the shelters.

Some of the shelters are visible from the ferry station to give a hint of the exhibition at the Nötholmen bay. When you enter the site by the path leading to the walking paths on the south part of the island you spot the first shelter located on the heath, the vegetation shelter. When arriving to this shelter you can spot some of the other shelters on the site, encouraging you to move forward exploring the nature. The shelters are places freely in nature, using some of the existing paths.

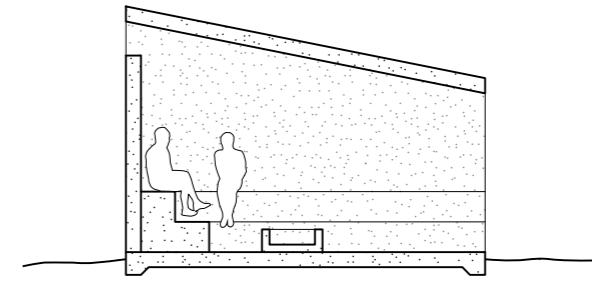


VEGETATION SHELTER

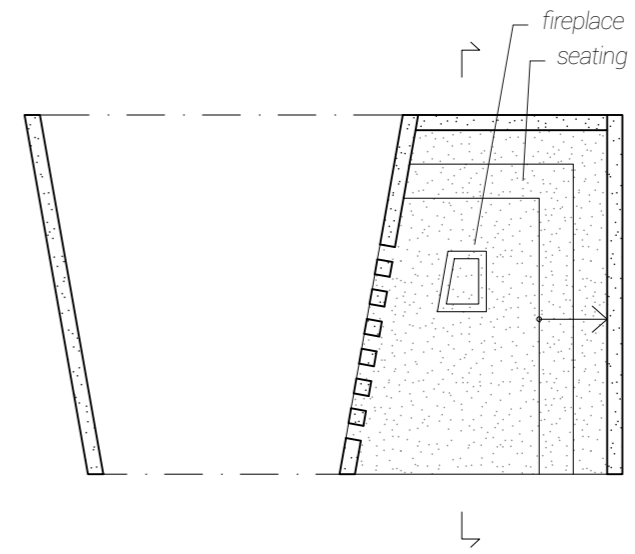


The vegetation shelter is located on the heath and it is the first shelter you spot when arriving to the site from the ferry station. The big frame structure frames an overview of the area and the unique vegetation on the heath by Nötholmen. The shelter is placed into an existing path, making it a gate

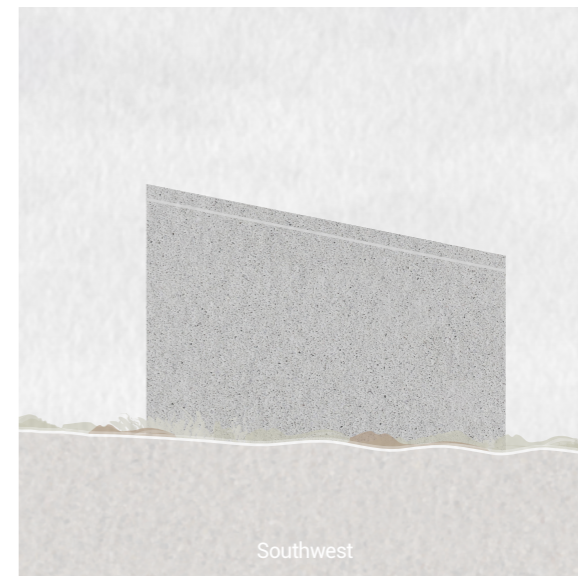
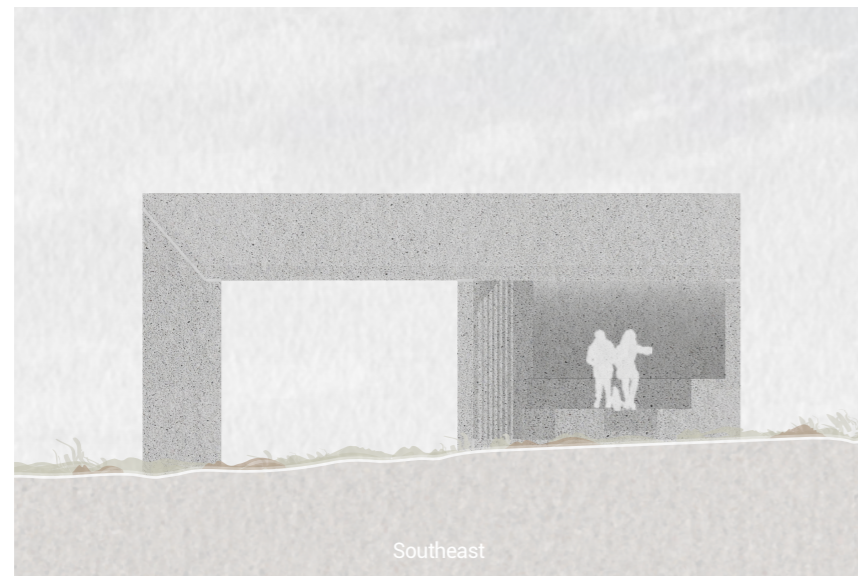
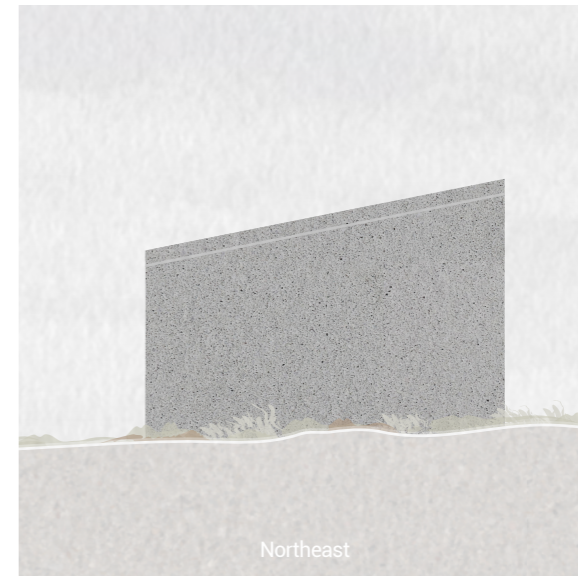
to enter the area. The frame works as a roof large enough to gather a group of people to take shelter from the rain and wind. There is also a fireplace with seating possibility for around 20-25 people with an view overlooking the heath and bay.



SECTION SCALE 1:100  2M



PLAN SCALE 1:100   2M



FACADES SCALE 1:100  2M

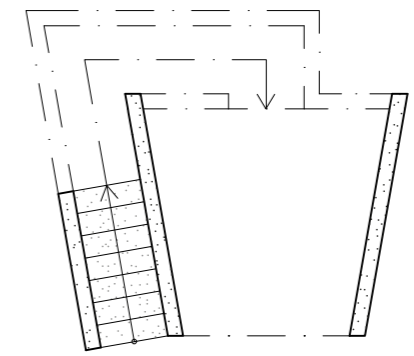
FACADES SCALE 1:100  2M

BIRD SHELTER

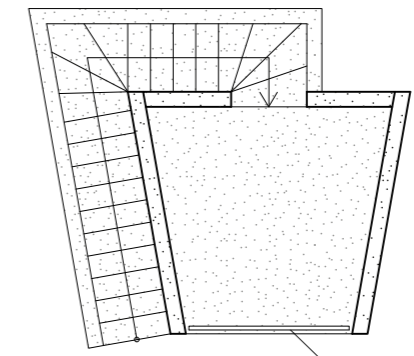


The bird shelter is a bird-watch tower placed among the trees on the site. The tower lets you get closer to the birds on the site, giving you the possibility to see the landscape from a different perspective. The shelter consists of a stair leading

up to a small room among the treetops. Its floor, angled ceiling and walls frame a view of the trees, highlighting the bird life of the Vrångö archipelago.




First floor



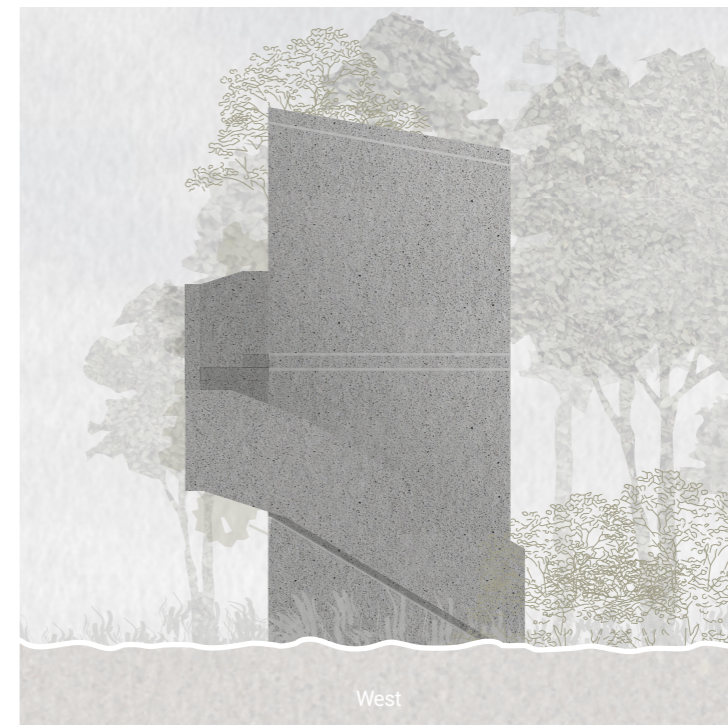
Second floor

railing

PLANS SCALE 1:100   2M



FACADE SCALE 1:100  2M



FACADE SCALE 1:100  2M

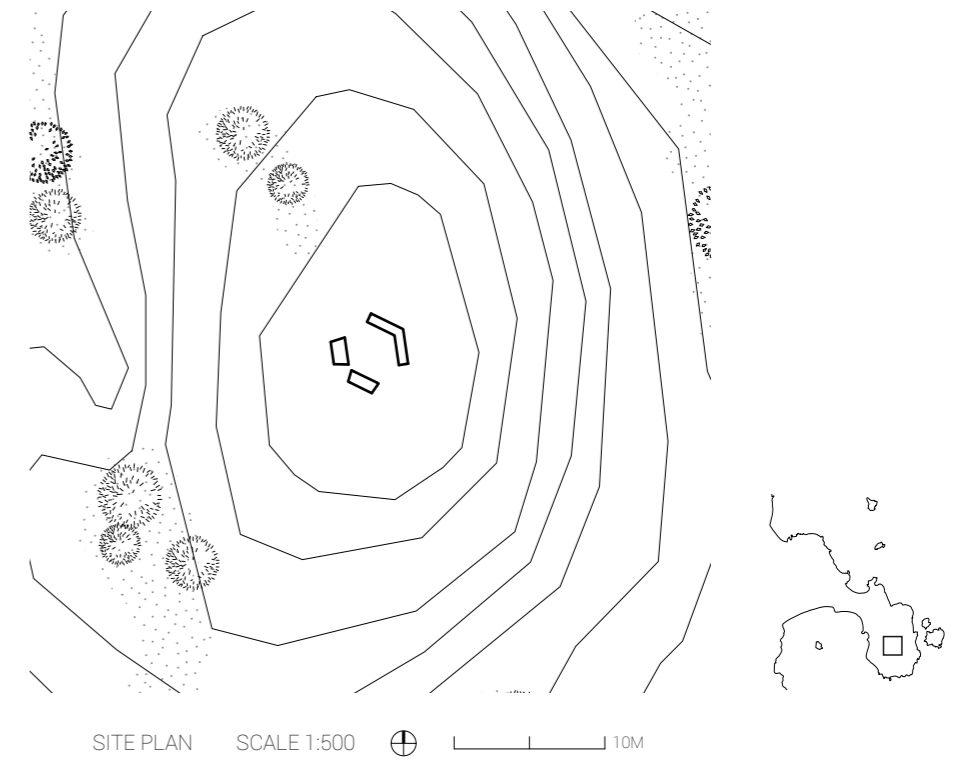


FACADE SCALE 1:100  2M



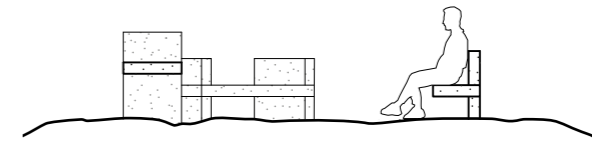
FACADE SCALE 1:100  2M

CLIFF SHELTER

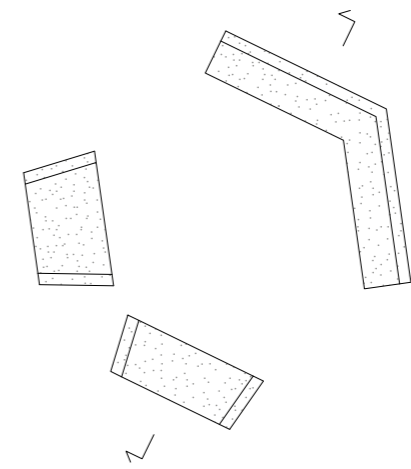


The cliff shelter is located on the top of the cliff by the Nötholmen bay. The climb to the top is rewarded with an amazing view and the shelter is a formation of benches, a place to sit down and take in the surroundings. The structure is low enough to not disturb the 360 degree view and two of the benches work as frames highlighting two specific

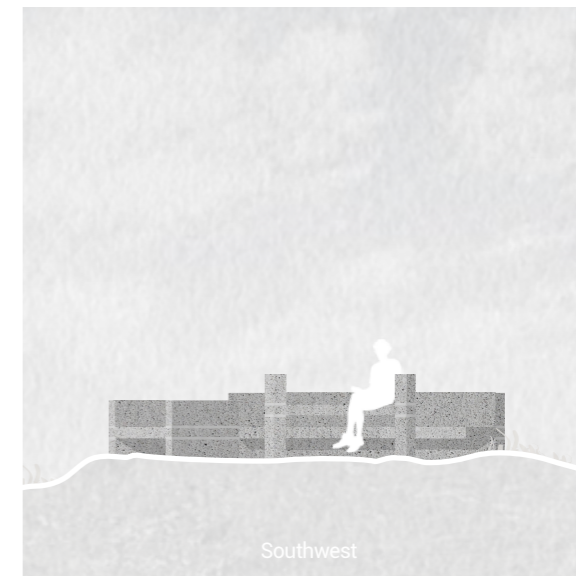
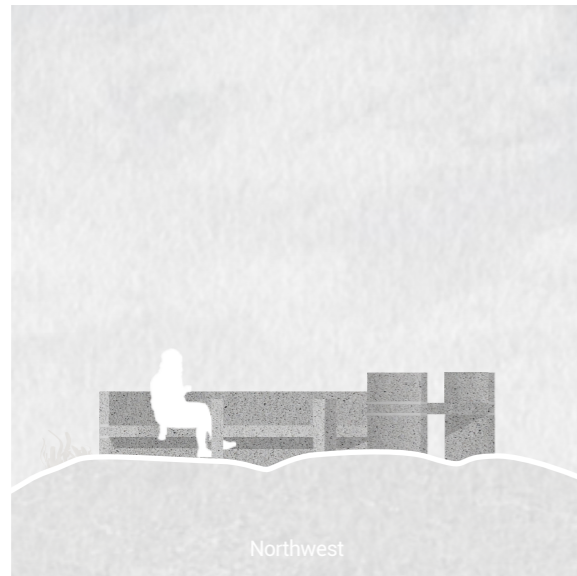
views. The frame benches put an emphasis on a view towards the group of island north of Vrångö, that is a protected area for seals and birds and the other one is made to display a view towards Storeröse, an area on Vrångö with historical remains.



SECTION SCALE 1:100  2M



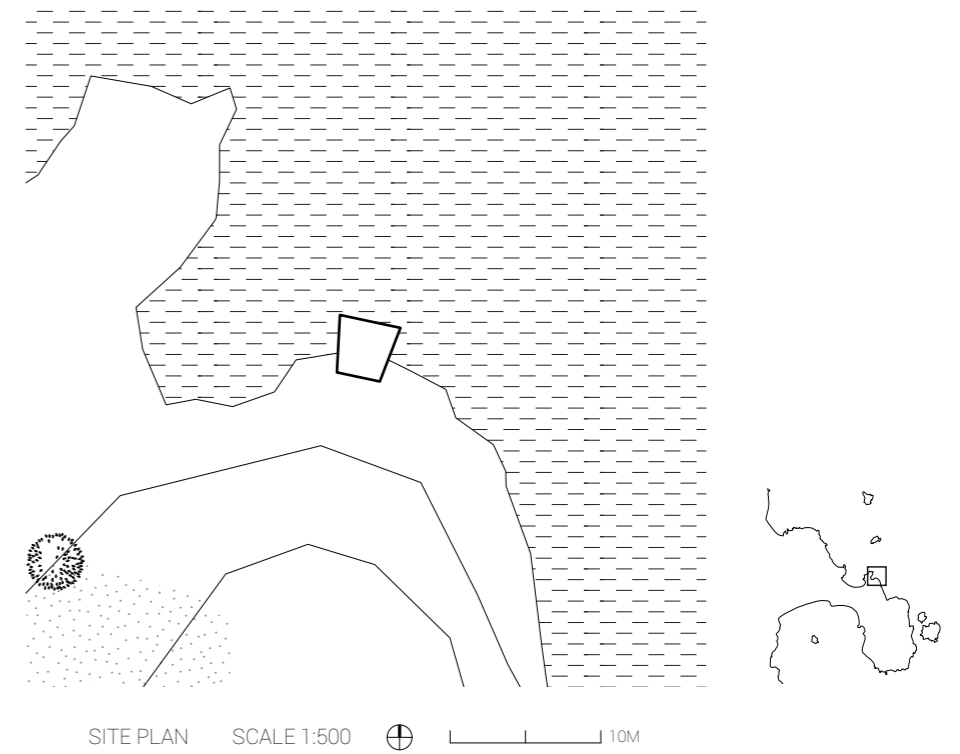
PLAN SCALE 1:100   2M



FACADES SCALE 1:100  2M

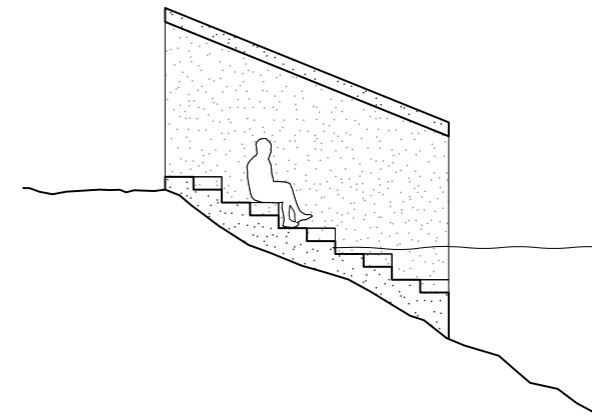
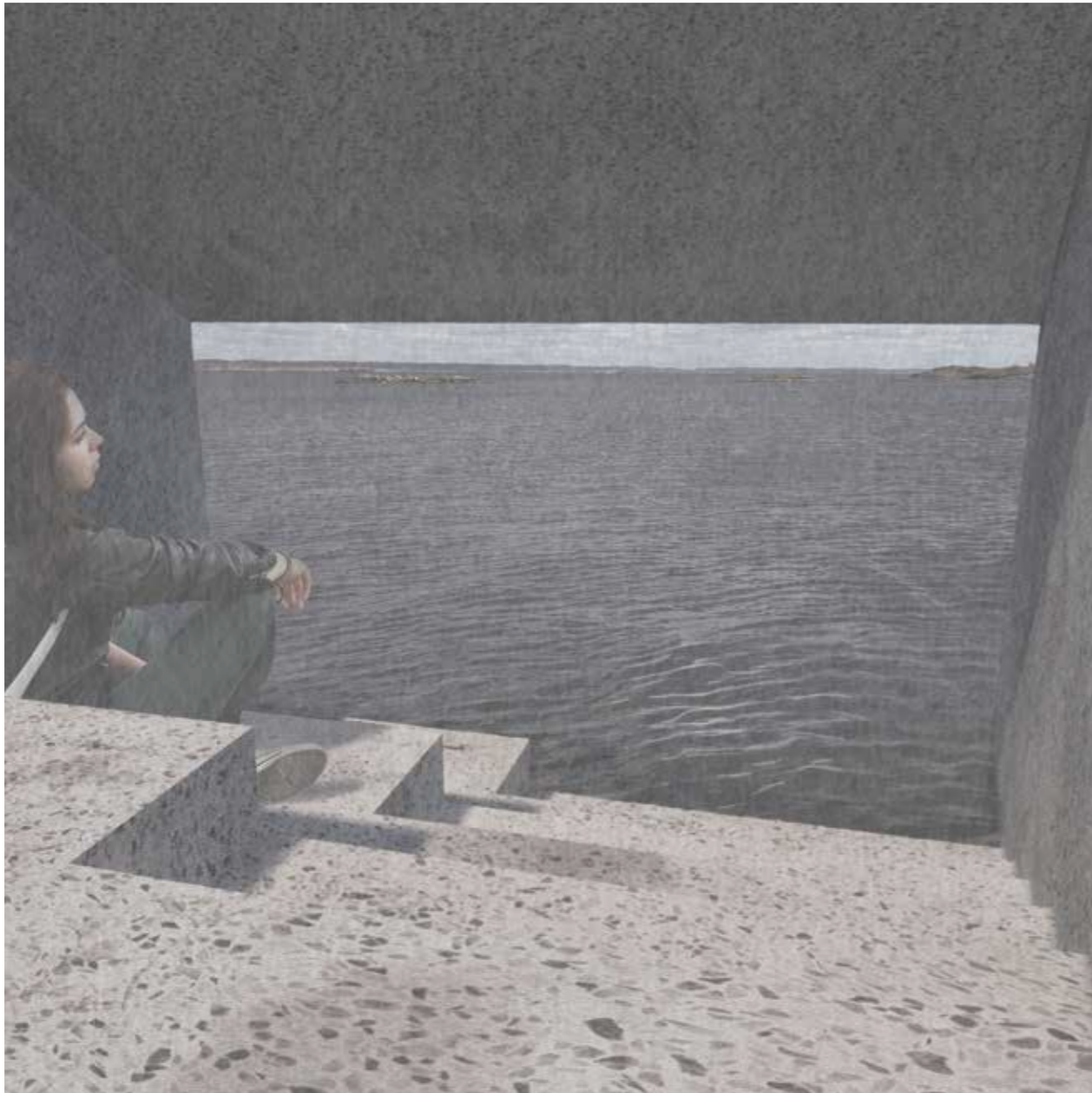
FACADES SCALE 1:100  2M

WATER SHELTER

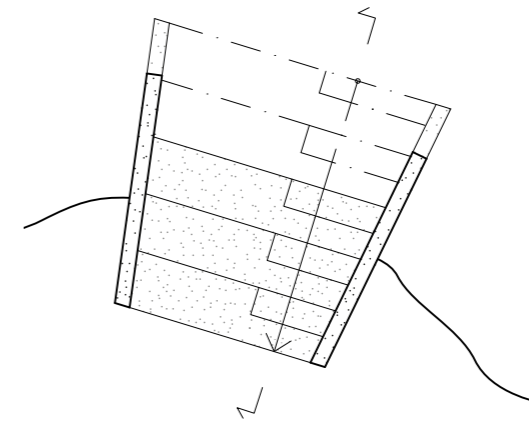


The water shelter is placed on a cliff by the ocean. The shelter lets you get closer to the ocean, highlighting the importance that the sea connected professions had and have for the area. The shelter is an intimate space directed towards the water,

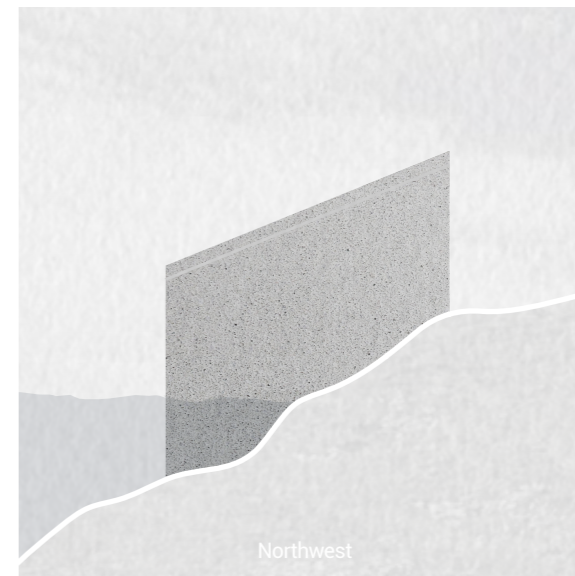
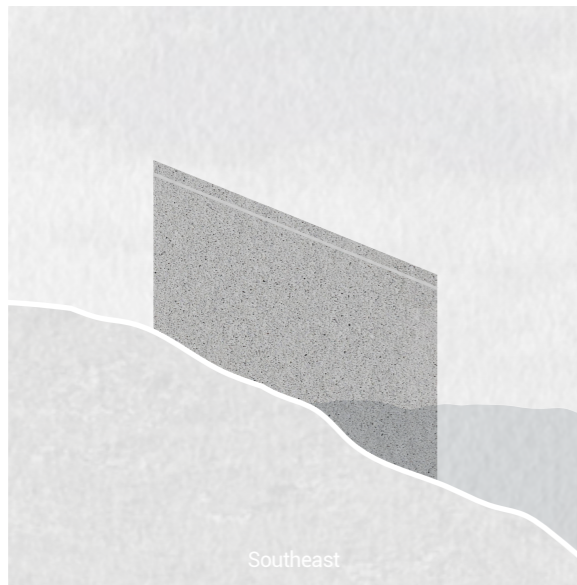
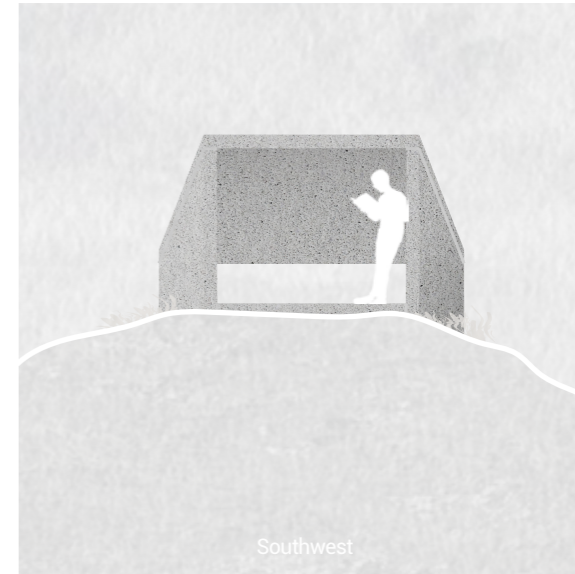
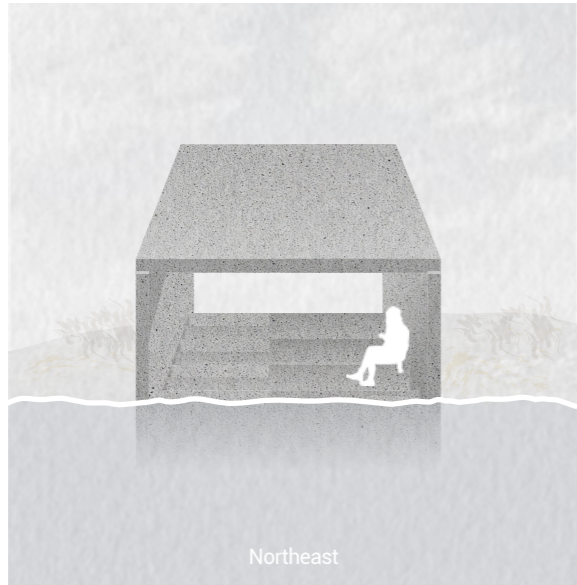
where you have to sit down in order to see the view. Sitting down in the shelter where the waves hit the structure lets you take in the sound and feeling of the water.



SECTION  2M



PLAN SCALE 1:100   2M



FACADES SCALE 1:100  2M

FACADES SCALE 1:100  2M

REFLECTION

During the process of this thesis the weathers role have changed many times. From the beginning weather was used as an atmospheric phenomenon and seen as something you could use in a building in order to get closer to the experience of nature. As the project progressed with the reference study and reflection on Naturum, designing a building with an indoor exhibition for the design proposal seemed less and less relevant. This made the weathers role change. It was still used for its atmospheric qualities, but seeing weather as something you are sheltered from or exposed to became more relevant than before.

Leaving out the demand of fulfilling The Swedish Environmental Protection Agency's requirements for Naturum provided a big freedom to explore how the Naturum concept could be something very different. This made it possible to question how small or big of an impact a Naturum could be. It also made it possible to take away the func-

tions that would be dependent on staff in order to go all the way in exploring how the structure could be useful even when not manned. These two aspects lead to the reflection of how a Naturum becomes a destination and what really is the destination of a Naturum. Trying to make nature the destination resulted in the design proposal being multiple structures placed freely in nature, not making one structure the main destination. The shelters should be seen as there to support the experience of nature, highlighting what is already there. This led to the exploration of framing that the shelters work with.

The method of framing was also generated from the site analysis. Revisiting the site and photographing sequences for the film made it possible for the site and the proposal to inform each other. The stop motion film is about seeing what is really there if you just take a close look. This is also what the design proposal came to be about, pointing

you in the right direction. As the experience of the site is central revisiting the site multiple times have been important and coming back allowed me to see new things each time. The stop motion method was a good way of saving that experience for myself and also to show others. The film became a very useful tool and affected the outcome more than expected.

The alternative implementation of the design proposal has got a lot of differences compared to the traditional Naturum concept. The biggest difference from a traditional Naturum is probably comfort. A building provides a type of comfort that the shelters of the design proposal does not, but the experience of nature is much more present in the design proposal than in a building. They are both good for the purpose, but very different in their function. Another difference is that in this thesis the shelters and the experience of the site is considered to be the exhibition, not information print-

ed on posters etc. as in a traditional Naturum. One could say that the information is lacking, but excluding it is in this case seen as making the focus on the experience instead. The shelters are made to spark an interest that will hopefully make the visitors explore further. Not having posters with information might also make the threshold smaller for people that would normally not visit a Naturum.

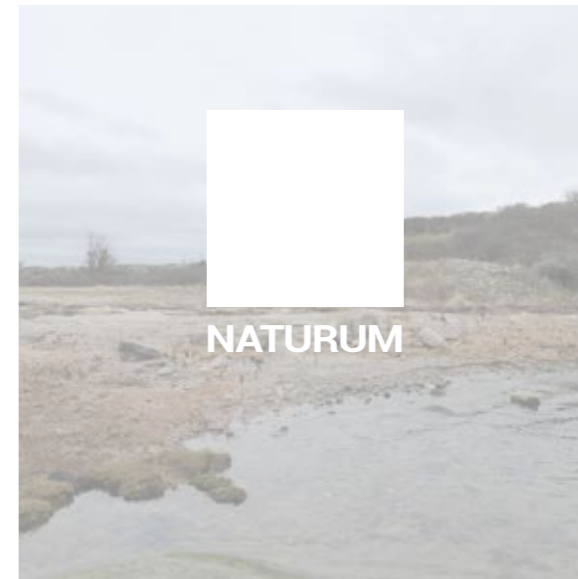
Although the shelters are less of a structured exhibition than in a traditional Naturum the exhibition is still choreographed. The shelters highlight specific views in the landscape that are based on my own knowledge and experience of the site. Like a window or poster in a Naturum the proposal is affecting what you see. Compared to experiencing the site completely on your own, the experience is somehow choreographed, but compared to a traditional Naturum it is not.

CONCLUSION

Just as a Naturum the design proposal of this thesis is a choreographed experience. In this case it is created from the viewpoint of my experience and knowledge of the site. To what extent the experience is considered choreographed differs with what you compare it to. Compared to experiencing nature completely on your own the design proposal is a rather controlled and directed experience. Compared to the traditional Naturum concept it is a very free experience. They can both be good and useful for the purpose of a Naturum even though

their functions differ. Having this said the purpose of a Naturum being a gate to nature and strive to inspire people to experience it is considered fulfilled in the design proposal of this thesis, although in a different way than in a traditional Naturum.

As this thesis is an exploration it should not be seen as the final answer to the questions raised, but hopefully it can provide a new perspective on how the purpose of the Naturum concept can be achieved and be an inspiration for future projects.



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FIGURES

All figures not included in the list of figures are copyrighted to the author.

Figure 8. Fowelin, J. (2018). *Naturum Trollskogen*. [Image] Retrieved 2020-05-06 from <http://www.marge.se/projekt/naturum-trollskogen/>

Figure 9. Söderström, T-R. (n.d.). *Naturum Tåkern* [Image] Retrieved 2020-05-06 from <http://www.tordrikard.se>

Figure 16. See figure 9.

Figure 17. E:son Lindman, Å. (n.d.). *Tåkern, Wingårdhs Arkitekter*. [Image] Retrieved 2020-05-06 from <http://lindmanphotography.com/?work=naturum-takern-vinter>

Figure 18. See figure 17.

Figure 19. See figure 17.

Figure 21. See figure 8.

Figure 22. See figure 8.

Figure 23. See figure 8.

Figure 24. See figure 8.

Figure 29. See figure 9.

Figure 30. See figure 9.

Figure 32. See figure 8.

Figure 33. Johansson, G. (2007) *Kivik Art 2007*. [Image] Retrieved 2020-05-06 <https://snohetta.openasset.com/Page/Download?code=d4fab27e6906689381a3a2ad788a4d>

Figure 34. See figure 33.

Figure 35. See figure 33.

Figure 36. See figure 33.

Figure 37. Dahlman, I. (2013). *Kleivodden*. [Image] Retrieved 2020-05-07 from <http://foto.turistveg.no/turistveg/start/images?fc=browse&queryid=4ada8235126a43797c553a8aa8603a86&-column=11&listview=overview&view=preview&fileid=1&-fuid=img2%2F005663.jpg>

Figure 38. Dahlman, I. (2013). *Kleivodden*. [Image] Retrieved 2020-05-07 from <http://foto.turistveg.no/turistveg/start/images?fc=browse&queryid=4ada8235126a43797c553a8aa8603a86&-column=11&listview=overview&view=preview&fileid=3&-fuid=img2%2F005661.jpg>

