



SENSE THE SEA

a sea bath in Grebbestad

a Master's Thesis by Sandra Ström
Chalmers University of Technology, HT 2013



CHALMERS

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special thanks to: Ingeborg Carlsson (chairman of Grebbestad
Kallbadhus), Olof Jönsson (Plan och Byggavdelningen, Tanums
Kommun), Staffan Greby (local profile with a lot of stories to tell)



Postcard view, 1960. Showing Sövall, outside Grebbestad, and the islet where my great grandmother was born.¹

I spent my childhood summer holidays running barefoot on hot granit, fishing crabs and splashing in salty water. A glimmering ocean, sunburned skin and time that stood still. Grebbestad, a small fishing community at the Swedish west coast, was my paradise growing up.

I remember my dad pointing out a small skerry, just a couple of meters from the mainland. He told me my great grandmother was born on that islet in 1917, how she had to wade in seaweed or walk on ice to get there and that you still could see the foundation of their small cottage. She and her family lived closely linked to the sea and made a living out of what it could provide.

Today, when I visit Grebbestad, I perceive great identity struggles. I ask myself: how can the narrative and the healthy relationship between man and water be revived?

/Sandra

1. Gustafsson, A. Torevi, A. (2010) p. 91.

ABSTRACT

The recreational benefits of bathing has long been known and utilised. As all our senses are enhanced through the bodily bathing procession, the act becomes a way to stress down and find inner peace. *Juhani Pallasmaa* proclaim a sensory architecture in his essay *The Eyes of the Skin*, an intriguing approach in such a versatile building as a sea bath.

Grebbestad has been a bathing resort since the mid-nineteenth century. In 1974 the last bathing facility was demolished and a local organization is now trying to bring a new bathhouse in to existence.

The aim for this Master Thesis is to propose a sea bath facility in Grebbestad by studying the interface between land and water and investigate bodily and sensory experiences.

How can we create a modern sequel to the Swedish bathing tradition, by enhancing the essence: the nature and water experience?

The project is explored through a design-oriented method. To understand the topic and potential, theory about bathing history, climate changeability and multi-sensory architectural philosophy is studied. The thesis starts with literature and reference research, interviews and model workshops, which altogether evolved into a design proposal.

The site is today a poorly maintained beach next to a heavily trafficked road from which you overlook the harbour entrance. *Sense the sea* include the waterside and adds a pier structure in which the program is incorporated.

By different approaches to light, water level and outlooks, different moods and areas are created.

In a time where stress and subsequent disorders is practice this project becomes an antipole. By offering the inhabitants and tourists a central space for recreation, the ambition is to encourage people to relax and contemplate. Nature experience and resilient principles have guided the project. In this way, is it possible to reach harmony of body and soul by creating harmony between architecture and nature? By gazing towards the sea horizon, bathing in seaweed and sauna, will people gain strength or even stay more healthy? At the same time, will Grebbestad get a new local meeting place by building onto its narrative?

<i>INTRODUCTION</i>	11	<i>PRESTUDIES</i>	33
delimitations	11	a swedish bathing history	35
aims & objectives	13	a multi-sensory experience	38
methods	13	changeability	43
definition of a sea bath	14	<i>METHOD</i>	45
<i>GREBBESTAD</i>	17	study visits	46
in pictures	18	model workshops	49
history	22	the program & flow	58
the bath houses	25	<i>THE PROPOSAL</i>	61
plans of the municipality	26	<i>DISCUSSION</i>	97
<i>Sense the Sea</i> suggestion	27	<i>REFERENCES</i>	101
site photos	28	<i>APPENDIX</i>	103
site inventory	30	architectural references	104
		the municipality's design program	104

INTRODUCTION

Already in Ancient Greece water was considered one of the fundamental elements of life and in religion and literature water has been the key symbol of purification.

The Swedish bathing tradition has changed character through history. For a long time past, architecture has been used to support the different bathing activities; from the Viking's saunas to the 1500's bathing huts, from the 1800's bathing resorts to today's popular adventure baths. In the contemporary Western world, where a fast-pace and a negligence against nature reigns, one can argue that the health aspects of bathing has been pushed aside in favor of water as an arena for sports and games.

Grebbestad, at the Swedish west coast, has been a bathing resort since the 1840's. In 1974 the last bathing facility was demolished, followed by major protests from the inhabitants. The central shoreline, from where you could reach the former bath house, is today a poorly unmaintained beach next to a heavily trafficked road.

Since 2007 a local organization, *Grebbestads Kallbadhus*, has been trying to bring a new bathhouse in to existence. The municipality has worked out a detail plan, but the funding is unsettled and due to geotechnical investigations of the contemplated site it seems that the project will fail. Furthermore the location, an already well used holm at the very harbour entrance, might not be the most suitable site for this program.

The project proposal of this master thesis aims to revive the identity of Grebbestad, the healthy relationship between man and water and the recreational benefits of bathing in sea water all year round. The proposal respond to the physical and historical context, as well as the contemporary living patterns and a growing public interest of spa and wellness.

DELIMITATIONS

With focus on design processes and a final proposal, the context of site, history and architectural philosophy are investigated. The architectural choices is to be seen as a response to these investigations, as to our present living situation where stress and subsequent disorders is practice.

WHAT

- a sea bath facility
- upgrade the public bath

WHY

- revive the healthy relationship between man and water
- build on to the narrative of Grebbestad
- encourage people to relax and contemplate

HOW

- theory about: bathing history, multi-sensory architecture and weather changeability
- investigate, by a research by design-method: interface between land and sea, bodily and sensory experiences

FOR WHOM

- the inhabitants of Grebbestad
- the tourists

AIMS AND OBJECTIVES

The aim for this master thesis is to question our contemporary relation to nature, tourist city development and a unhealthy bustling tempo by investigating the relation between land and sea, our senses, body and water. How can architecture contribute to recreation and a more lasting lifestyle? *How can we create a modern sequel to the Swedish bathing tradition, by enhancing the essence: the nature and water experience?* By proposing a new open-air sea bathing facility I have searched for answers.

In this project, that centers nature experiences, it has been natural to design from sustainable principles and avoid larger impact on the environment. The issue of how a community can build on its narrative, yet profile itself for the future, is approached by the site specific

design in Grebbestad. Consideration has been given to local wishes and dreams, thus also creates a new social arena that will benefit the city as a whole.

METHODS AND THEORY

The investigation of the site, bathing tradition and sensory experiences is applied by literature studies and a research by design-method. The analysis is presented as background and strategies by text, illustrations and model/photos. The final proposal evolves from this research and the strategies are implemented in the design.

Literature in the field of architecture but also architecture in relation to body and senses, climate change and Swedish bathing history has been guiding the process. Apart from the

theoretical studies, I carried through study visits, interviews with local stakeholders, time spent in Grebbestad and a lot of bathing.

The research by design-method is driven by model workshops in different themes. Such themes have e.g. been *exposure, water connection* and *materiality*. For each workshop I have given myself obstructions, such as *high above the waterline* or *see but not to be seen*. In this playful, yet structured way, the project design has evolved.

This final booklet includes the pre study, strategies and process overview, the design proposal and a subsequent discussion. The thesis has been displayed by a presentation at Chalmers in January 2014. The work has also been presented to the municipality of Tanum.

DEFINITION OF A SEA BATH

Sea baths are associated with nudity as they offer a tranquil and sheltered place to bath in open water without wearing clothes. It becomes a place of insularity, unexposed from the outside. However, the baths also works very well as social meeting places. The act of bathing becomes something that ties people together and the regular visitors often create their own culture on how to interact and behave.

Unlike other outdoor baths (such as public beaches) a sea bath is a man-made facility, by a lake or ocean, often operated by an association. The association answer for the maintenance and a membership will allow you to use the bath all year round. Other visitors have to pay an entrance fee to get access.

The program and openness varies, but usually the male and female department are equal and separated, each containing a changing area, sauna and sundecks. Some baths though offer gender mixed spaces and some reserves specific days when men and women are bathing together.

Besides functions as changing rooms and saunas, a sea bath provide qualities that you normally doesn't get if you bath in open water by a beach or from a rock. For example comfort and shelter. A sea bath facility also prolongs the bathing season by offering indoor spaces in direct connection to the water.

The tradition of sea bathing will be explained further on in this report. Examples of some existing Swedish sea baths will also be shown.

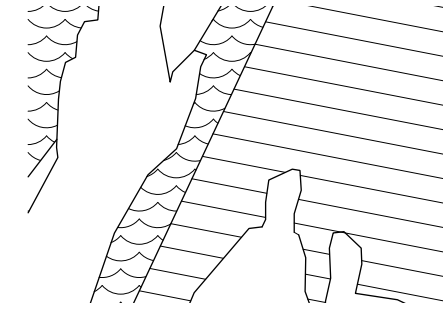
SENSE THE SEA

The sea bath in this proposal answers to the traditional use. It also adds an extra dimension of sensory experiences by offering sequences and places to just *feel* and *perceive* the atmosphere with body and mind.

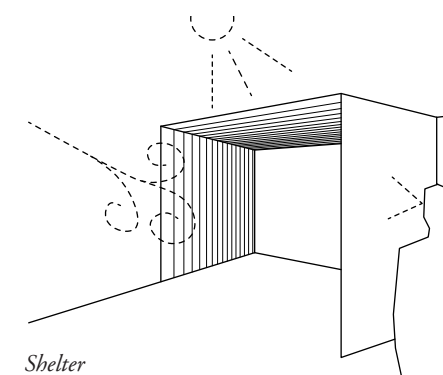
Due to the central location next to a public beach this proposal has, unlike many other sea baths, the possibility to invite all kinds of visitors. The beach is incorporated in the proposal and the added structure holds functions that also serve the public bath.

In this way the bath becomes a place for everyone. Inhabitants as well as tourists, elderly as well as families with children.

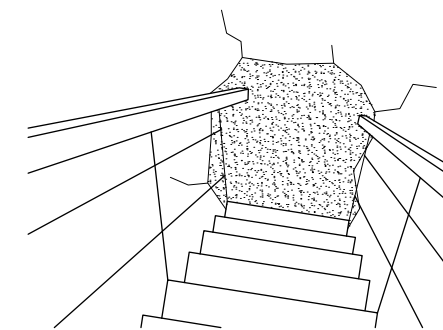
A SEA BATH OFFER



Comfort
The possibility to walk on even ground, lean and sit down.

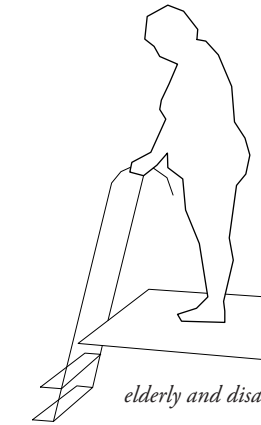


Shelter
The possibility to take cover from sun, wind and other peoples eyes.

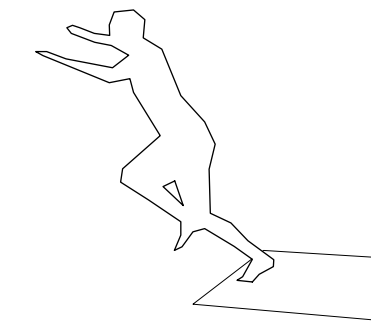


Prolonged season
The possibility to quickly go outside, take a dip in the cold water and rush back in to the sauna.

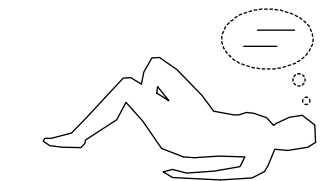
EVERYONE IS BATHING!



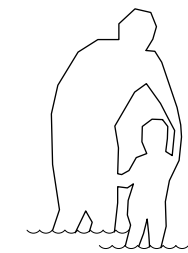
elderly and disabled people



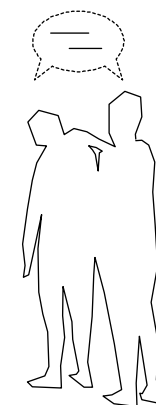
young and active people



people who want time for themselves



families and people with kids



people who want to socialize



GREBBESTAD

Grebbestad is a vivid coastal community at the Swedish west coast. Fishing boats regularly arrive with their draught and during summer the marina is crowded with leisure boats and people.

Many of the older buildings have been preserved and Grebbestad has kept the characteristic Bohuslän pattern with winding streets and white painted houses. However, the strong tourist industry leaves a lasting impression. At summertime the number of inhabitants almost double from the 1400 all-year-round-living¹, which allows shops to shut down and places to feel desolate during the colder part of the year.

A sea bath could be a way to prolong the season and offer a place for recreation throughout the whole year.

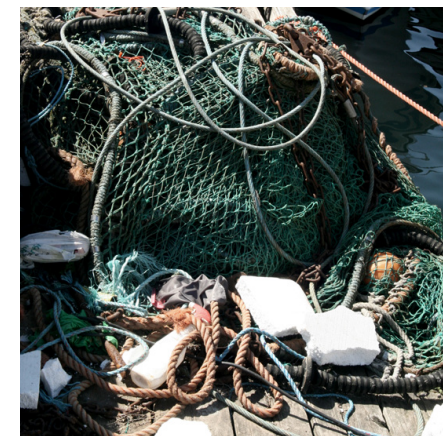
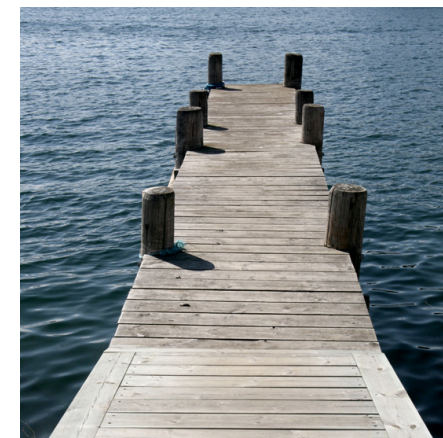
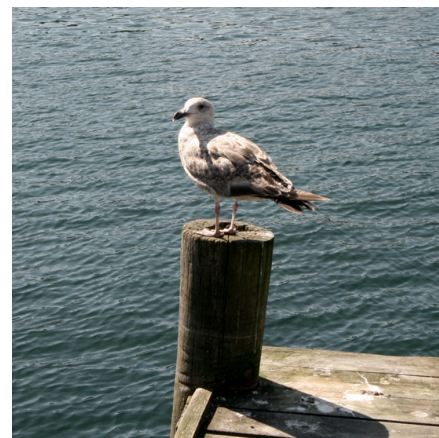
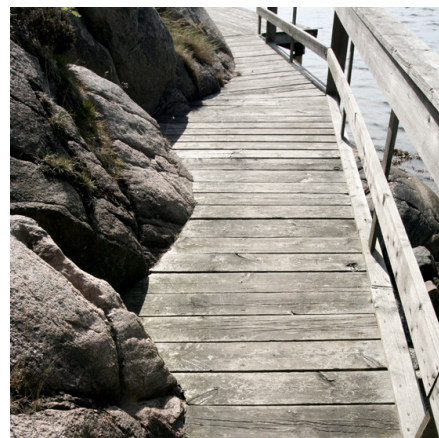
1. Statistiska Centralbyrån. (2010)



GREBBESTAD TODAY
photos: Sandra Ström



DETAILS AND MATERIAL IN
GREBBESTAD
photos: Sandra Ström



From Svinnäs, 1880. ¹



Storgatan, postcard view, 1903. ²



From Stöberget, postcard view, 1911. ²



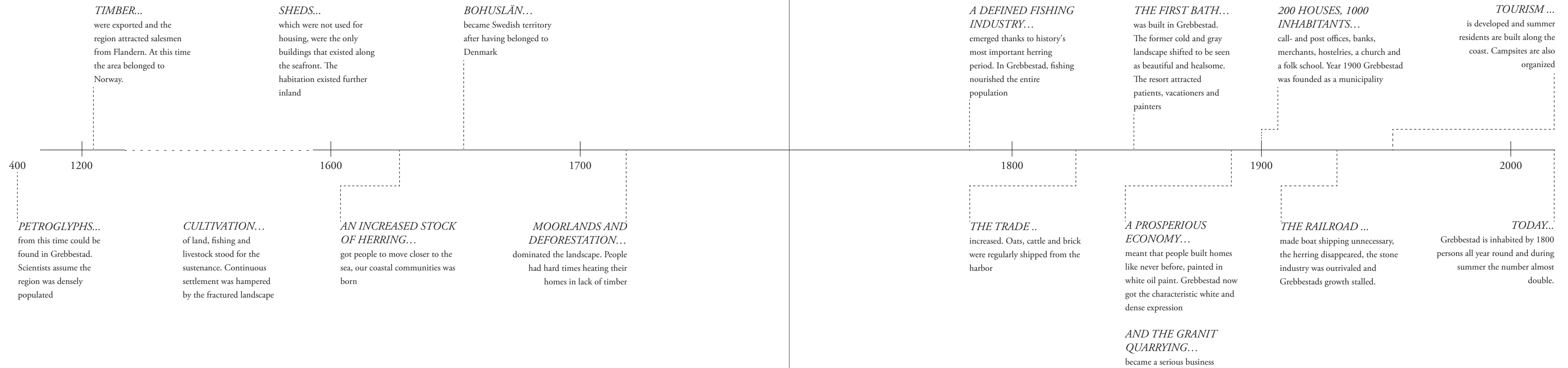
Bus station and post office, postcard view, 1920. ¹



Women working in cannery factory, 1924. ²

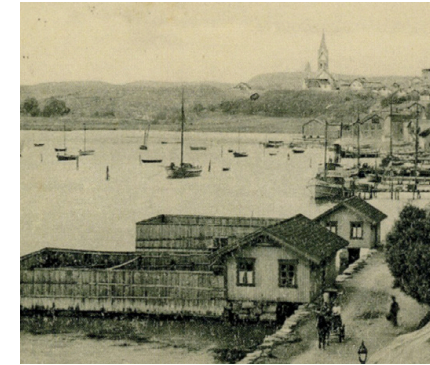


T-piren, postcard view, 1970 ¹



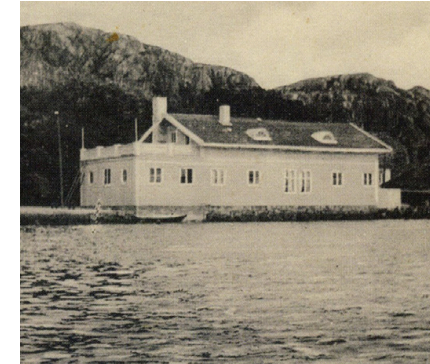
THE FIRST SEA BATH

*Postcard view, 1909.*¹



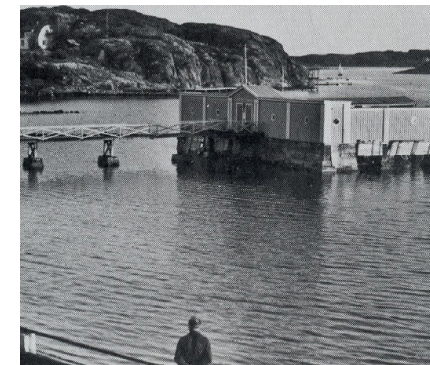
THE THERMAL BATH

*Postcard view, 1930.*¹



THE SECOND SEA BATH

*Postcard view, 1954.*¹



1. Photos from Gustafsson, A. Torevi, A. (2010) p. 44, 49.
2. Krantz, C. (1956) p. 109-110.

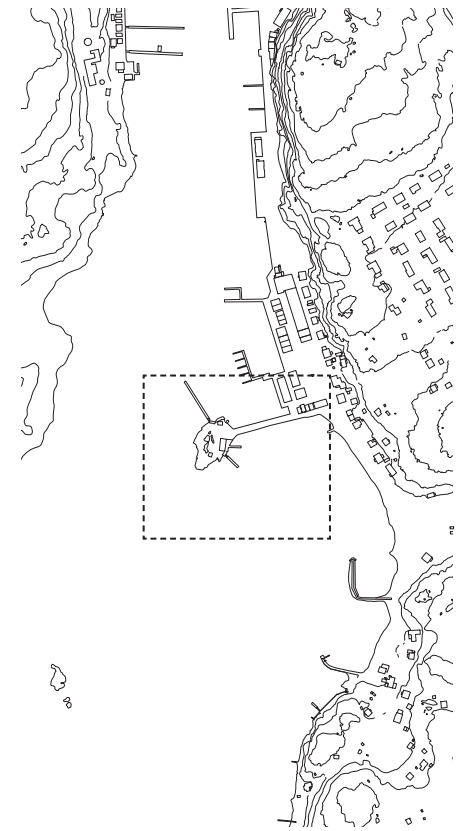
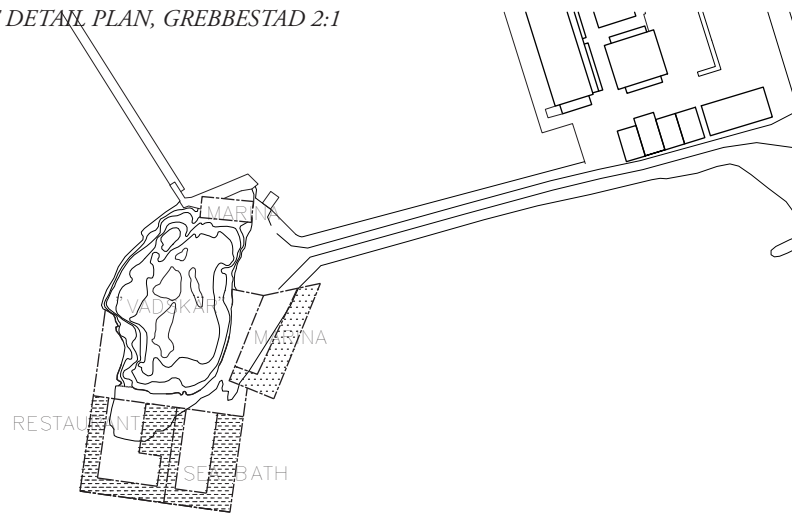
GREBBESTAD AS A BATHING RESORT

When the bathing resorts evolved along the Swedish west coast in the nineteenth century, with Strömstad and Marstrand as predecessors, Grebbestad latched on to the trend. *Claes Krantz* describes in *Sommarland* how the salesman *A. J. Lundblom* in 1844 arranged mud-baths to cure half-witted and deceased people with the local health bringing sea mud. He claimed to have cured himself from several illnesses by bathing, and from now patients from both *Sahlgrenska* in Gothenburg and *Serafirmerlasarettet* i Stockholm was sent to Grebbestad to gain health.²

Since then there have been several bathhouses in Grebbestad, both cold and tempered. The two sea baths, now demolished, was both simple and built upon traditional principles. The male and female departments were separated and protected from each other and the outside. They contained changing rooms, decks and stairs down to the sea.

The later sea bath was demolished in 1974 and no new bath facility has been built since. Even so, during summer Grebbestad is still a popular tourist attraction, with sea life and bathing in focus.

CUT OUT OF DETAIL PLAN, GREBBESTAD 2:1
1:2000



Vadskär

A detailplan propose a new sea bath at Vadskär, a holm at the harbour entrance connected to the mainland by a pier. The bare granite knob provides a panorama view of the surroundings. Today, the guest marina, the sailing club and public visitors frequently use the area.

Some +

close to city center, good sun conditions

and some -

already well used, very exposed, close to waterway, geotechnical challenging

The design program

A design program has been created by the municipality. It illuminates the importance of adaptation to the local topography and the typical Bohuslän building character. (see appendix)

In total the decks and facilities cover 670 sqm, of which 280 is indoor. It contain:

a sea bath

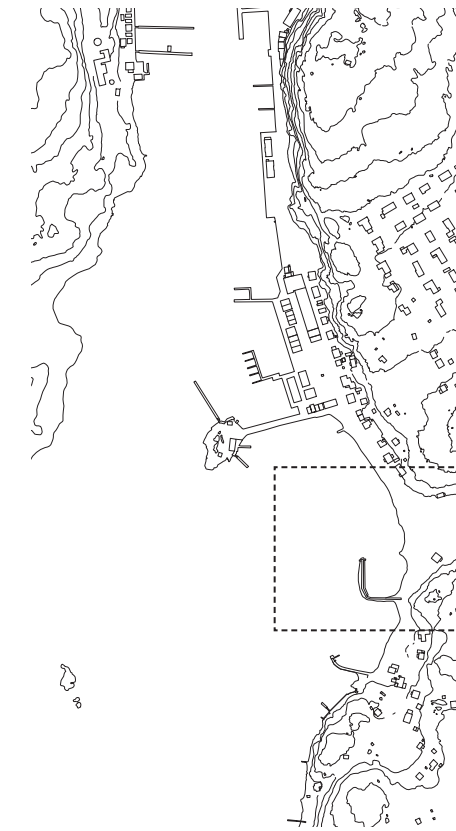
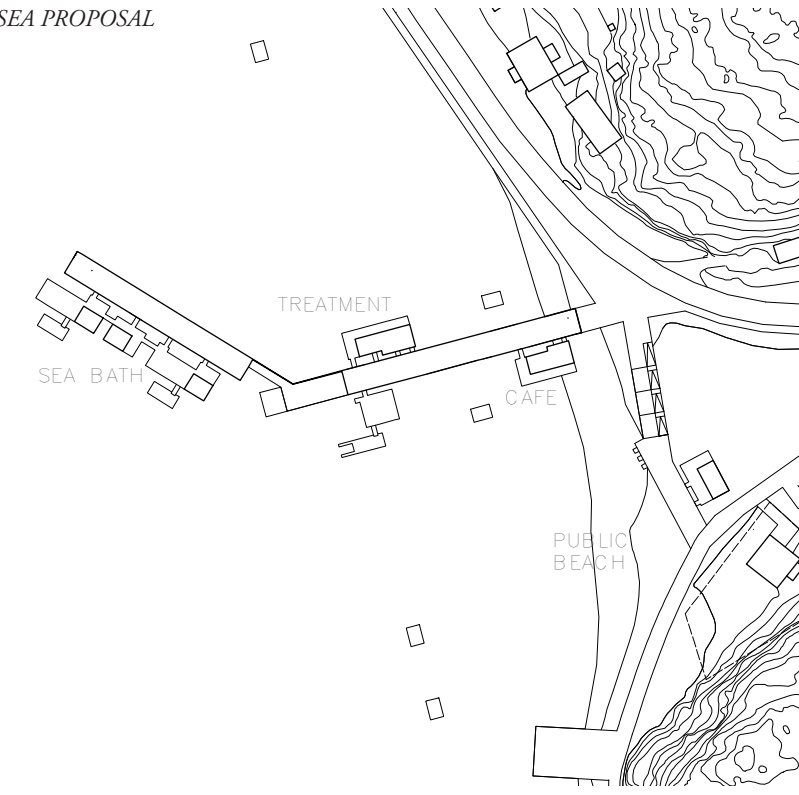
reception/foyer	40
two changing rooms	64
wc	9
two saunas	30

indoor seating area (50 guests, no kitchen) 65

a spa department

wc	7
three treatment rooms	35
a relax room (25 guests)	30

SENSE THE SEA PROPOSAL
1:2000



The bay

The bay south of Vadskär is municipally owned land. The former sea bath was located in this area, today it holds a poorly maintained public beach. When you arrive to Grebbestad, it is in this spot you first meet the sea.

Some +

already in need of an upgrade, has a history of public bathing, great outlooks, not exposed, good sun conditions

and some -

exposed to wind, quite standstill water.

The ambition

The ambition is to prolong the walkway from the public pier promenade, to upgrade the public bath and add a sea bath. To create a local meeting space and a place for recreation all year around.

The program

Beside the main functions, the structure holds public changing rooms, toilets, sun decks, a diving tower, workout equipment, a ramp and stairs/ladders that meet the sea.

In total the pier and decks cover 1500 sqm, of which 500 is indoor.

a sea bath

reception	9
changing rooms & showers	80
wc	10
saunas	68
relax rooms	76

a treatment facility

changing rooms & showers	28
wc	5
treatment area	50
office space	9

a café

seating area	55
supportive functions	30

public wc	15
staff	15
public changing rooms	40



A.
The bay seen from north



B.
The bay seen from entrance road



C.
The bay seen from south





SITE INVENTORY 1:10 000

CHURCH

PEOPLE'S HOUSE

PARKING LOT,
BUS STOP AND
GROCERY STORES

OLD TOWN CENTER

MARINA

FISHING BOAT PIER

VIEWPOINT
45 M ABOVE SEA LEVEL

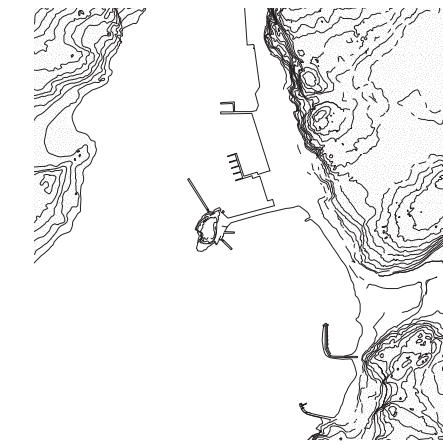
PUBLIC BRIDGE PROMENADE
WITH RESTAURANTS AND SHOPS

GUEST MARINA

SAILING CLUB

PUBLIC BATH

CAMPING



HEIGHT DIFFERENCES

The high and steep *Stöberget* (north east in the picture) defines Grebbestad in many ways. The peak offers an incredible view of the archipelago and vast horizon. The bay is formed just in the valley between *Stöberget* and a second height (south in the picture).



ROADS AND PATHS

The height differences very much decide where and how you can move at the site. The entrance road to the city is led through the valley, and continue along the mountain side and seashore. The boat traffic passes outside of *Vadskär*.



BUILDINGS

The development around the bay is varied; single family housing from 1970-2000 on *Stöberget*, a camping with plots and permanent cottages (south east). The smaller building along the sea front are mainly housing in painted wood. Some of them are used as shops. There are also a former factory building in brick and a public pier promenade with wooden buildings, the latest built in 1980's.



PRESTUDIES

Water is vital and one of the fundamental sources for life to exist. Our relation and attitude towards water is, and has been, everything from reverent to something that should be mastered to curative to playful.

Regardless your approach, the bathing's effect on bodily and sensory sensations is the essence. Architecture have the possibility to create different moods and enhance these experiences.

Where man and nature, land and sea, meet - challenges of climate adaptation and rising sea levels arise. Both architecture and ones body is exposed to the changeability of weather. The approach to these conditions becomes fundamental.



People bathing in Grebbestad. photo: Sandra Ström

A SWEDISH BATHING HISTORY

Since pristine times we can assume people has been acquainted with open waters and swimming skills.¹ During the Stone and Bronze Age, when climate was hot and people were nomads, it seems likely that bathing and swimming to cross bays and watercourses took place.²

Olaus Magnus and bathing huts

The swedish exile *Olaus Magnus* describes the nordic bathing tradition in his book *Historia om de Nordiska folken [History of the Nordic People]* printed in 1555. He tells about public baths in the cities and private ones, held by wealthy people close to streamy water and herb gardens.³ The bathing huts, which kept men and women apart, was not only associated with bathing but also social intercourse, indulgence, hygiene and health. Blood-letting and

1. Kindblom, I. (1995) p. 10.
2. Dahlberg, M. (2004) p. 11.
3. Kindblom, I. (1995) p. 10-11
4. Lindström, J. (2005)

childbirths were common in bathing huts as it was the most clean and warm place at the residences.⁴

The larger public baths, lead by bath attendants, could later provide thermal baths, steam baths and pools. They also offered brides baths and social events in relation to weddings.⁵

Thermal spas

Even though Olaus Magnus contradicted that sexual activities existed at the public baths the proliferation of syphilis lead to the end of the era as baths became illegal and had to close in the beginning of the eighteenth century.⁶

At the same time the swedish thermal spa resorts evolved. People traveled to these resorts to engage in social life, drink the healthy spring water and use thermal baths. The buildings were often lavished and worked very much as an arena for the upper classes to enjoy themselves at.⁷

Carl Curman and cold water

In the nineteenth century *Charles Darwin* claimed ache and diseases to disappear when taking a cold bath. Already in the ancient Rome coldwater physicians existed, proclaiming the benefits of bathing as medical treatment, but until now bathing was mostly exercised in tempered tubes.

Carl Curman (1833-1913) was the swedish equivalent, a coldwater doctor working in Lysekil. He and his contemporary colleagues stated cold sea baths to be significant for medical purposes. Though, the baths should not be performed without an attending physician. Cold baths was always carried out with great caution and ones life at stake.

5. Kindblom, I. (1995) p. 13.
6. Lindström, J. (2005)
7. Kindblom, I. (1995) p. 12.

Carl Curman was also the originator behind *Sturebadet* in Stockholm, a luxurious bath institution with *Oscar II* as a regular visitor.

Nowadays no one is aiming at health risks and precautions when it comes to sea bathing. However, the medical curing qualities of taking a cold bath is less observed. *Vijay Kakkar* at *Thrombosis Research* in England has recently confirmed that cold baths helps the body to raise blood circulation and combat virus diseases by increase the number of white blood cells. Besides the obvious recreational benefits by sea bathing one can therefore assume bathing to be good for your health.⁸

Swimming suits and nudity

When sea bathing first was introduced the women wore long robes in wool, stockings, shoes and bathing caps. Gradually the outfits became more narrow and later the wool was exchanged by cotton. Not until well into the twentieth century it was relatively discreet to bath in less clothes. After World War II USA introduced the bikini and even though moralists opposed the two-piece bathing suit was here to stay.⁹

Very little literature describe the males bathing fashion and standards, but in 1932 the association *Hälsa genom nakenhet [Healthiness through nudity]* was founded, with *John Almkvist* as the characteristic spokesperson. He and the members thought the benefits and experience of bathing became stronger wearing no clothes.¹⁰

Today many of the former bath houses is used by people who want to swim, sun bath and take a sauna wearing no clothes.

8. Dahlberg, M. (2004) p. 13-15.
9. Dahlberg, M. (2004) p. 16-17.
10. Kindblom, I. (1995) p. 20.

SWIMMING...
was considered one of the medieval arts, with knights, men, women and children as practicers

BOTH RICH AND POOR...
used bathing huts for hygiene, social interactions and even childbearing, as the facilities were clean, warm and private

SYPHILIS...
proliferation and a new hygiene attitude - to regularly change clothes reduces the need for bathing - lead to prohibition of public baths

1500

1600

1700

THE VIKINGS...
brought the sauna tradition to Sweden from slavic territory

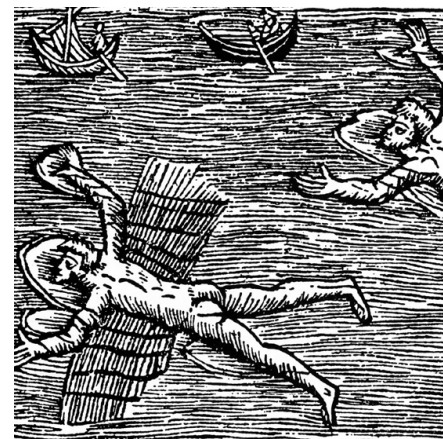
AND THE MONASTERIES...
had bath facilities for monks, nuns, patients & guests

BATHING HUTS...
became common. Private ones, often next to streamy water and public ones, due to sanitation in the cities

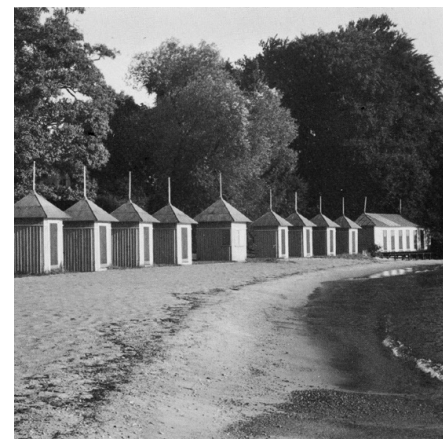
PUBLIC BATHS...
expanded. *Rosenbad* in Stockholm became an unusually large and luxurious bath house, with different medical water treatments and brides-baths before weddings

AT THE SAME TIME, KURORTER...
(i.e. thermal spas) became popular. Wealthy people traveled to e.g. *Ramlösa* to drink the curative fresh water and bath in beneficial tempered tubs

Swimming devices from 1500's. ¹



Bathing huts, Hjo, 1800's. ¹



Ronneby Brunn, 1880. ¹



1. Photos from Kindblom, I. (1995) pp. 11-19.

THE SOCIAL LIFE...
at the spas was as relevant as the medical treatments. The main buildings were often shaped as minor palaces to emphasize their importance

THE GENERAL PUBLIC...
did seldom bath in the sea. The resorts were exclusively for the richer families and the respect and fear of the ocean were rife

BATHING SUITS...
became fashion

DESPITE DISSUASION...
by priests and doctors, sea bathing became generally exercised. Still, one called for caution; the cold water could cause a range of health disorders

OPEN AIR BATHING...
was now considered safe. A more easy attitude made the sea bath facilities unnecessary. Everybody could take a bath wherever appropriate

1800

1900

2000

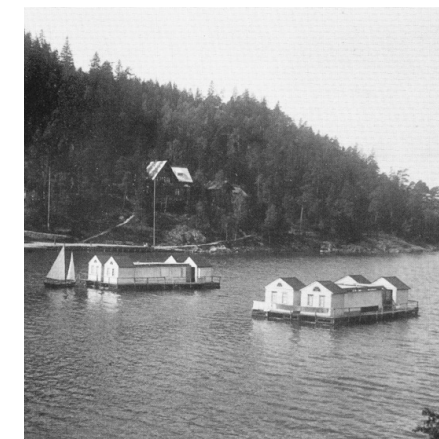
BATHING RESORTS...
at the west coast emerged. In contrast to the thermal spas, you bathed in open water

THE SEA BATH FACILITIES...
were at the beginning bathing floats with small cabins. Later they were enlarged and connected to the shore. The male and female department were always separated

NUDITY...
proclaimers founded the association *Hälsa genom nakenhet*. They did not need bathhouses, just changing cabins

TODAY...
the former sea bath facilities, still in use, is visited by people who want to swim naked and move more freely

Bathing floats, Gustafsberg, 1900. ¹



Bathing suits from Allers Mönstertidning, 1919. ¹



Skinny-dippers at Saltjöbadens Friluftsbad, 2004. ²



1. Photos from Kindblom, I. (1995) pp. 11-19.
2. Photo from Dahlberg, M. (2004) p. 164

BATHING WITH ALL SENSES

To visit and use a sea bath is very much a sensual journey; to see, feel and experience different temperatures and moods. But how does the senses function, what is an emotion and can architecture enhance such experiences?

Emotions and the body

The professor of neuroscience *Antonio R. Damasio* define emotions and emotional experiences in his book *Descartes' Error: Emotion, Reason, and the Human Brain*. He describe it as something, in contrary to intellectual reasoning, closely interlaced with one's body.¹

It is easy to understand if you for example dip your foot into cold water; the skin will be cooled down and you will feel a freezing sensation. What is interesting is that your brain and body create the same loops of

impulses also when you *imagine* a situation. Try it, imagine holding a smooth sun-warmed stone in your hand and you could almost feel the *real* sensation in your fingertips. Therefore, a sensory experience will not always have its origin in or through the body, but could be a result of your imagination.

Architecture can, in that sense, create sensations beyond reality and/or enhance the already existing experience further.

A multi-sensory experience

Juhani Pallasmaa proclaim a sensory architecture in his essay *The Eyes of the Skin* first published in 1996. He wants to deviate from the superior position of vision, given by most architects, and heighten all our senses. He writes:

*"The eye collaborates with the body and the other senses. One's sense of reality is strengthened and articulated by this constant interaction. Architecture is essentially an extension of nature into the man-made realm, providing the ground for perception and the horizon of experiencing and understanding the world."*²

Further on he states that every touching experience of architecture is multi-sensory. Space, matter and scale are equally measured by ear, nose, eye, skin, tongue and body. To create an overall experience the architect should be aware of all these sensory channels to design her vision.

With that said, it is not always about to improve all impressions instantly. For example, when tasting a good piece of food or listening to enjoyable music we tend to shut our eyes, this to give more focus to taste or hearing.

Like a japanese landscape painting, with areas covered by mist and shadows, a mysterious and intriguing atmosphere can be created by architecture that not reveal everything at once.

Creating atmospheres

The architect *Peter Zumthor* centered the sensory experience in *Therme Vals*, a spa and hotel in Graubunden Canton Switzerland. In his book *Atmospheres* he describe how he in general creates moods and presence by architecture, and how he always is aware of the human sensibility.

*"We perceive atmosphere through our emotional sensibility - a form of perception that works incredibly quickly, and which we humans evidently need to help us survive."*³

He define some themes that he use when he tries to generate a certain atmosphere. They concern *material compatibility, sound, temperature and light*. But also *the body of architecture, tension between inside and outside and levels of intimacy*. When he talks about how architecture involve *movements* he mention the thermal baths he has been working with:

*"It was incredibly important for us to induce a sense of freedom of movement (...) I'd be standing there, and might just stay a while, but then something would be drawing me round the corner - it was the way the light falls, over here, over there: and so I saunter on - and I must say I find that a great source of pleasure. The feeling that I am not being directed but can stroll at will - just drifting along, you know? And it's a kind of voyage of discovery."*⁴



Therme Vals by Peter Zumthor, photo: dailyicon.

1. Damasio, A. (1999) p. 153-186

2. Pallasmaa, J. (1996) p. 43-76

3. Zumthor, P. (2006) p. 13

4. Zumthor, P. (2006) p. 41-43



Fossil at Pinnö (island) outside Grebbestad, photo: Sandra Ström.



Bjärred Saltsjöbad, photo: Sandra Ström.



Marks of tide, Arrholmen, photo: kajakrapporten.

CHANGEABILITY

To build at exposed sites by water requires a deliberate approach and carefully made choices. The basic conditions is the *nature, sea* and *weather* - architecture is subordinated and can only respectfully interact with these conditions. By a humble attitude, a sustainable future can be reached at several levels.

Rising sea levels

Our climate is changing. The global average temperature has risen with 0,6 degrees celsius during the twentieth century, a very high and rapid increase. This is shown all over the world by increased rainfall, vanishing glaciers and reduction of the ice cover. Ultimately it means rising sea levels, and large areas are under threat of being flooded.¹

In Bohuslän, where Grebbestad is located, the

county administrative board expects an ensured sea level rise of +1.35 meters in 100 years. If a number of uncertainties are included, the level could possibly increase to +2.35 meters.² Beside this forecasts, the natural tide offers water level variations with large differences during the day and year. In Grebbestad the average of low tide is -0.69 meters and high tide +0.95 meters.³

Temperature

When performing an outdoor activity as sea bathing, the shifting character of weather becomes substantial.

The temperature of air and water differs throughout the year. In summertime the surface water temperature at the west coast can reach 25 degree celsius. In the winter the top layer is turned to ice close to the mainland.⁴ This is of course affecting the act of bathing. During the warmer months one can spend a longer time in the water swimming or playing, while at winter one probably prefer to take a quick dip and rush inside.

Wind

As Sweden is situated in an area of mainly southwesterly winds, and Grebbestad is placed at the western coast, the wind primarily blows from south west. The wind force is shifting and perceived differently according to air temperature and sun radiation.⁵ A strong summerbreeze could for example be known as pleasant when spending a hot day in the sun. Instead, if the temperature is lower and the sun is behind clouds, one would probably prefer to stay sheltered from wind.

Sun

Wind, temperature and all weathers are results of the sun and its radiation. The solar radiation is always constant, but depending on how the Earth moves and the emergence of cloud the insolation is under constant change.⁶ The versatile changeability of sun and light - that spans from *over the year* to *over the day* to *quick shiftings* made by clouds - make the diverseness of situations immeasurable. The sun's highest point, the angle from which the light falls and whether the light is direct or indirect will all influence one's experience and the expression of space.

By providing different spaces, inside and outside, weather protected and exposed, the sea bath can be comfortable all year round.

The visitors

Due to the above mentioned weather disparities, the number of visitors in the sea bath could be assumed to vary over the year. Furthermore, even if the bath probably will extend the tourist season, the expected visitors has to be fewer during winter than summer. As the sea bath is situated by a public beach close to a pier promenade it will probably attract people that did not primary went here to visit the sea bath. To understand how this kind of visitor differ from, for example, one who lives in Grebbestad and frequently use the bath has been crucial to be able to create space where everyone can feel welcome.

1. SMHI, Klimat i förändring. (2013)
 2. Stigande vatten i samhällsplaneringen. (2009) p. 8-11
 3. Detaljplan för Grebbestad 2:1 med flera. (2010) p. 13

4. SMHI, Yrvattentemperatur i havet. (2013)
 5. SMHI, Vind i Sverige. (2013)
 6. SMHI, Solstrålning. (2013)



METHOD

Beside literature and site studies, the tools for further exploration have been study visits and reference analysis.

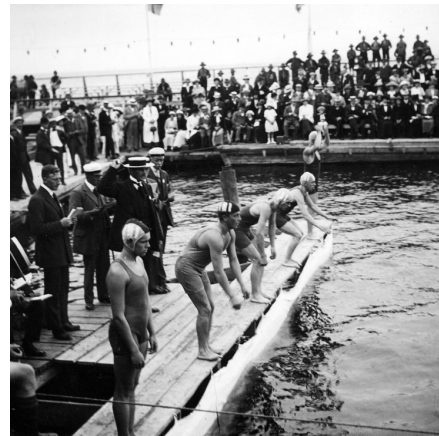
The sensory experiences and spatial configuration has been explored through sketches and model workshops in various scale.

RIBERSBORGS KALLBADHUS

Ribersborgs kallbadhus opened in 1889 and has been considered a heritage building since 1995. Apart from bathing, the bathhouse has been both an arena for the Baltic Games in 1914 and military purposes during the world war II.¹

The bath house stands on poles and is reached by a pier. The two almost identical departments (male and female) contain changing huts, outdoor pools, saunas and sun decks.

*Ribersborg, swimming competition.*¹



VARBERGS KALLBADHUS

This sea bath, built in 1903 as a replica of one built in 1866, is located by the harbour and fortification in Varberg. With an inspiration from the Orient, the bathhouse could be perceived as a mirage, a place for serenity.²

Below domes and behind ornamented windows you find a café and two departments with saunas, outdoor pools and decks.

*Varberg, society ladies.*³

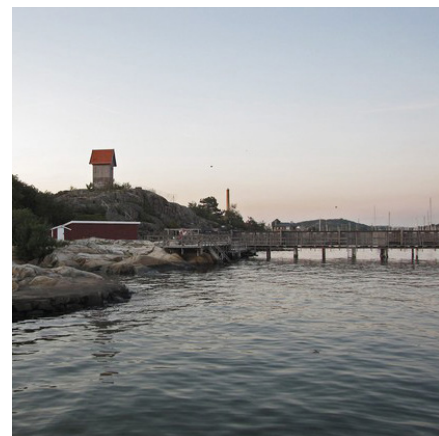


SALTHOLMENS KALLBADHUS

The open air bath at Saltholmen in Gothenburg was finished in 1908 and consists of wings with changing huts and decks. For the Gothenburg Exhibition in 1923 an additional swimming stadium was built (now demolished).⁴

The bath, constructed in wood, is located at the interface between land and sea. An openness toward the bay creates outlooks but also a feeling of exposure to the passing boats.

*Saltholmen, 1917.*⁵

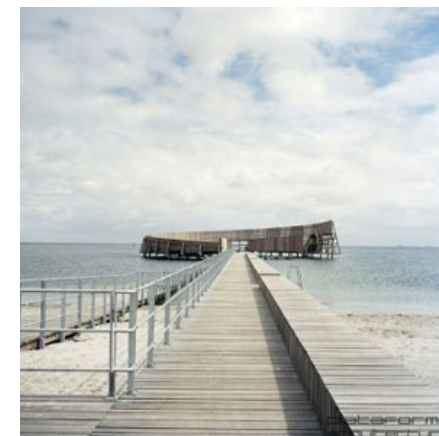


KASTRUP SØBAD

The circular shape of Kastrup sea bath, built in 2004, creates a sculptural expression. Entirely in wood, with a lightness and visible structure, the facility rise above the waterline and holds changing rooms and decks.

As this bath is completely open for the public, it is much more a place for games than nude bathing. With different widths of boards, views and the ability to move freely - to be under and on top - a playfulness is created.

Kastrup, gaps in the board

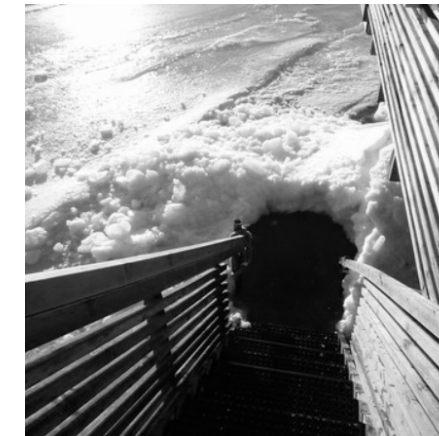


BJÄRREDS SALTSJÖBAD

Bjärred is one of the few newly built sea baths in Sweden. In 2004, the dream of renewing a local bathing tradition was realized.

The facility consists of several buildings on one platform, reached by a 500 meter long pier. The lingering approach makes the situation almost sacral, despite the buildings themselves are rough and simple. In this way the water and nature comes in focus, generate a relaxing atmosphere.¹

*Bjärred, winter bath*¹

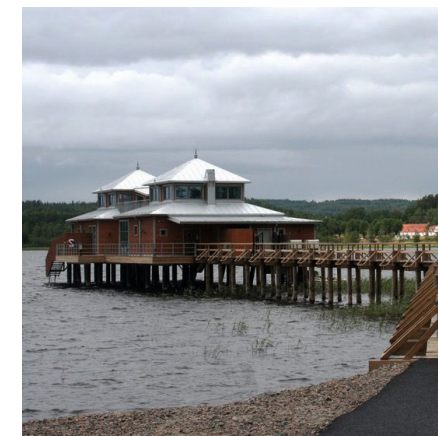


ULRICEHAMNS KALLBADHUS

This bath, built in 2005, offers food experiences, massage therapies and conference possibilities. The bath, restaurant and spa are runned as three separate businesses² and attract different kinds of visitors during the day and year.

The compact wooden building has separate units for men and women and a common sun deck where everyone can meet.

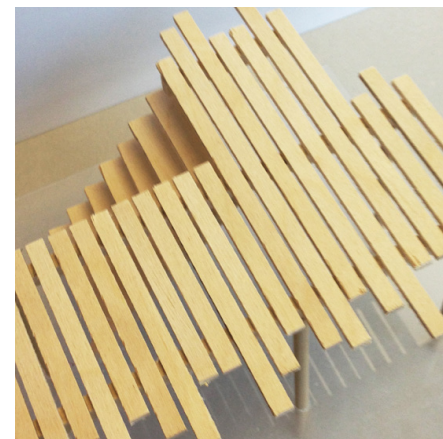
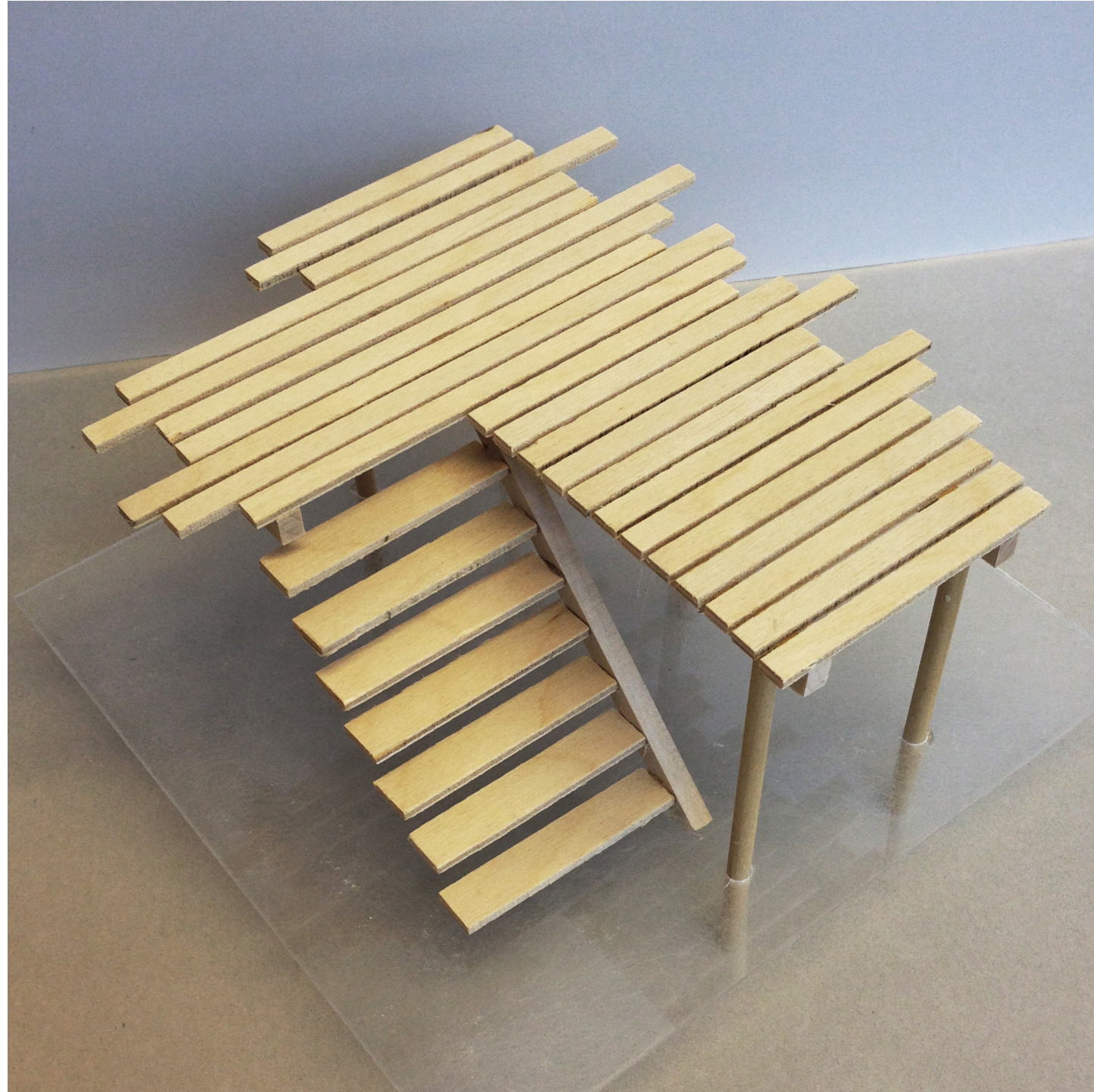
*Ulricehamn, the restaurant*³



1. Ribersborgs Kallbadhus (2013)
2. Kindblom, I. (1995) pp. 109-111

3. Marknad Varberg (2012)
4. Kindblom, I. (1995) p. 121
5. Carlotta (2013)

1. Bjärreds Saltsjöbad. (2013)
2. Sellberg, K-J. (2010) p. 50
3. Ulricehamns Kallbad. (2013)



WAYS OF ENTERING THE WATER

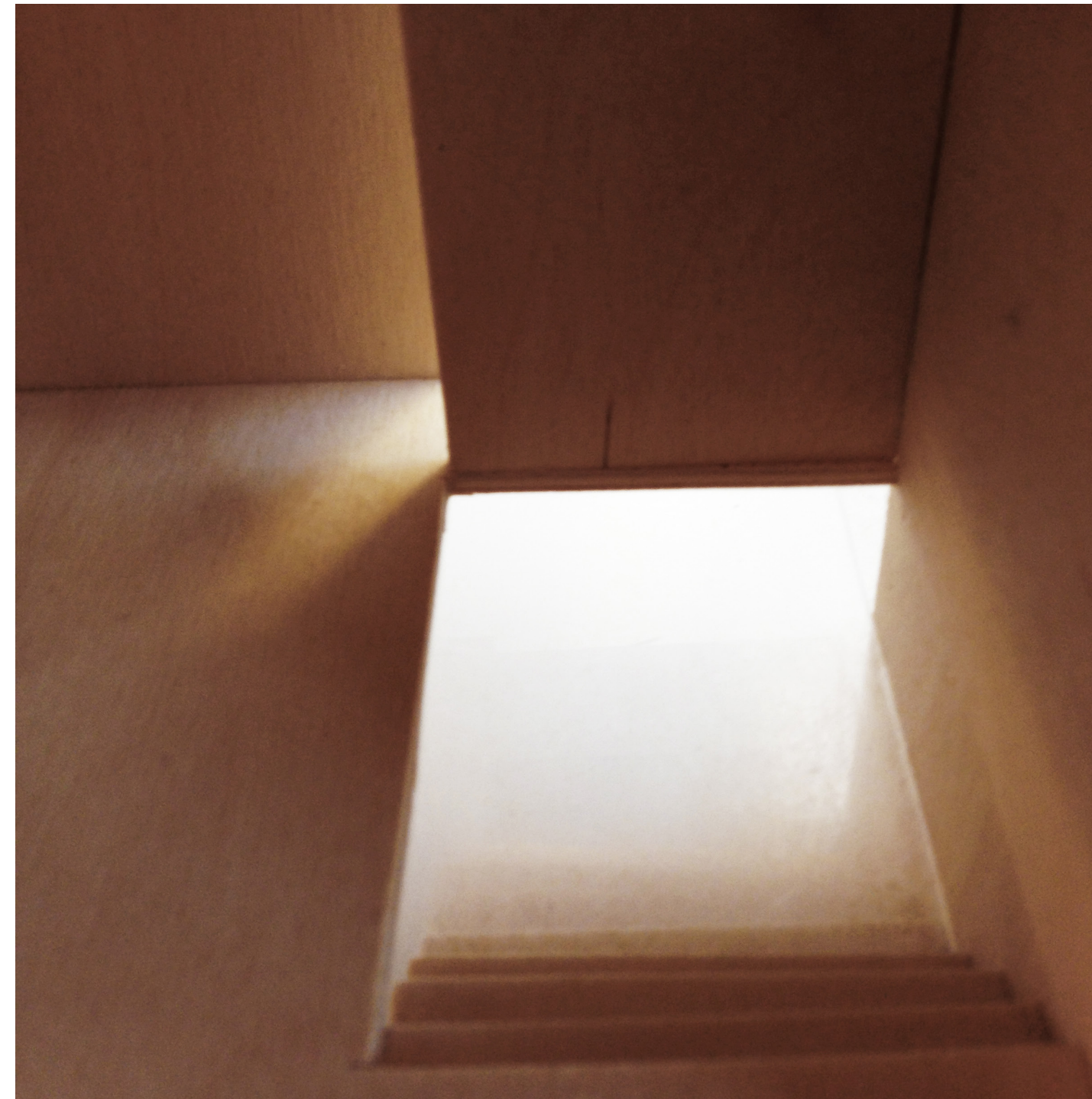
Stepping down

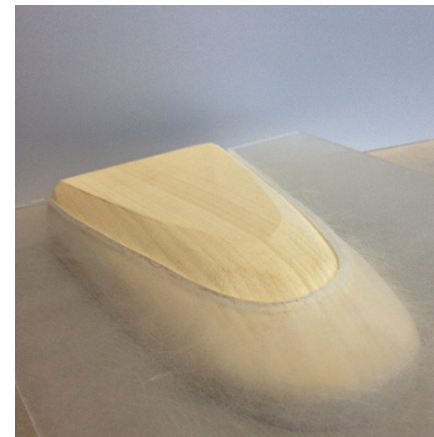
Standing high above the water line,
approaching with one step at the time.

WAYS OF ENTERING THE WATER

The baptism

A closed space with no outlooks, only raking lights on the walls and a opening to the sea beneath. The water becomes intrusively present, the submerging almost sacral.





WAYS OF ENTERING THE WATER

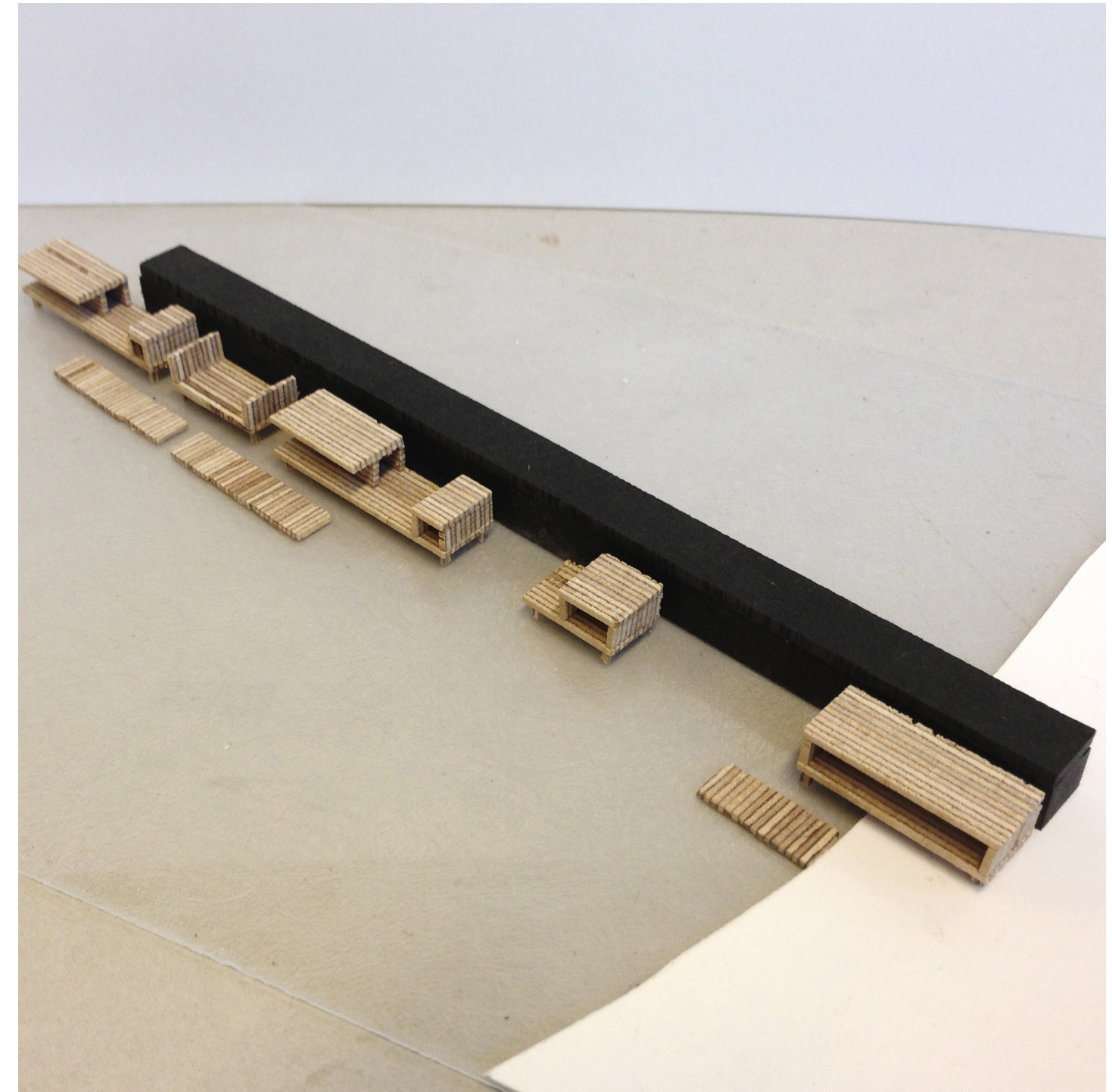
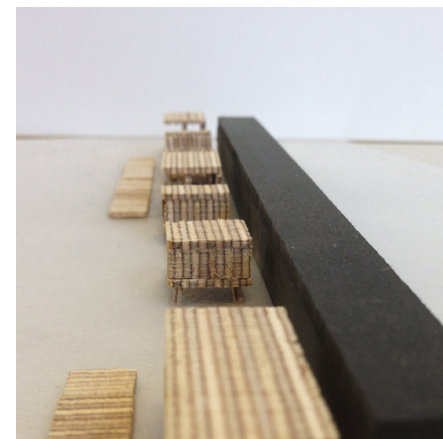
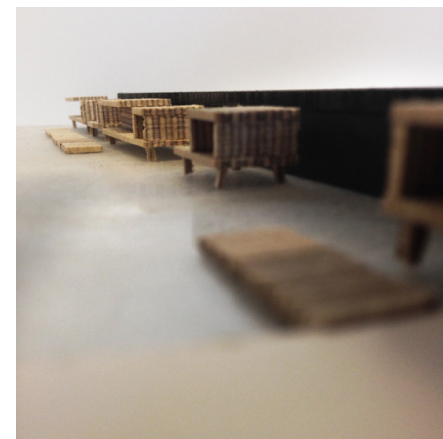
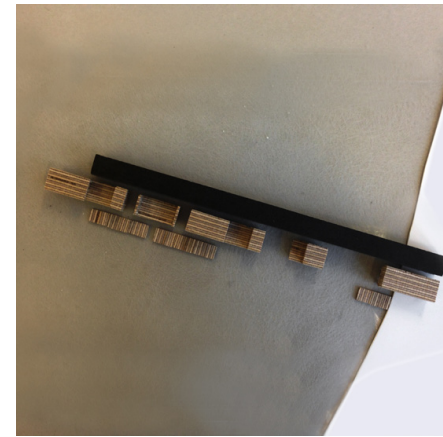
Walking on water

A floating bridge that descends slowly into the water, the transition between dry and wet becomes intangible.

CONCEPT

Three moods and five senses

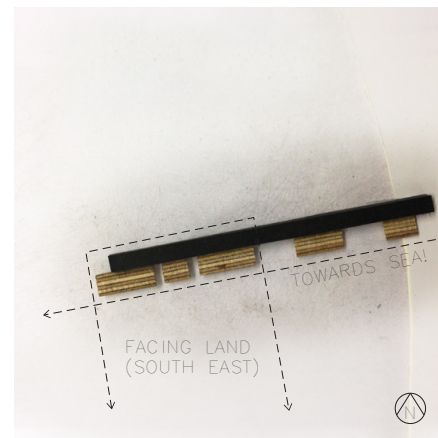
A robust and solid volume rising up from the sea. Enclosed, dark, wet. Lights playing, few great outlooks. Second; a wooden structure standing on poles. Open, warm, inviting. Sheltered from wind, a safe place to bath. At last; a floating deck. Completely open and exposed, like standing on water.



SAME CONCEPT, DIFFERENT SHAPES

The concept is tried out in different shapes, according to sightlines, exposure, sun and views.

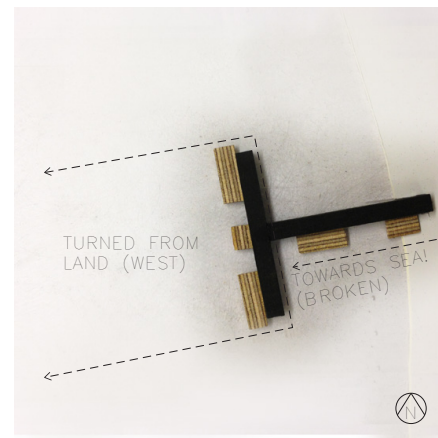
1.



STRAIGHT OUT

A pier that goes straight out, pointing out the direction towards sea, will face south east and the shore. This is not optimal according to insight and sunlight.

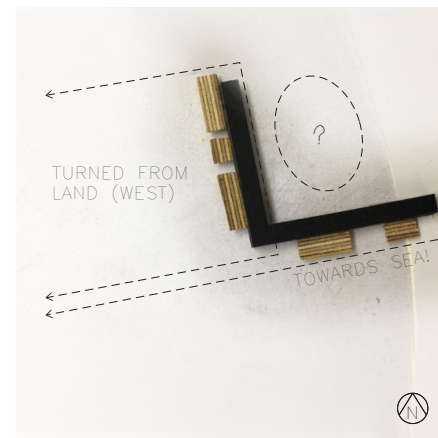
2.



TRADITIONAL T-SHAPE

When trying the concept in the traditional sea bath typology (t-shape), the sightline towards the sea will be broken.

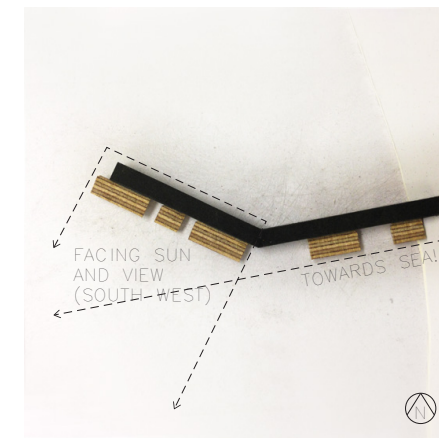
3.



L-SHAPE

The sightline is kept in the L-shaped version. Still, the bath is primary facing west, which does not take advantage of enough sunlight. It also creates an almost enclosed water areas in the north, inhospitable and hard to use.

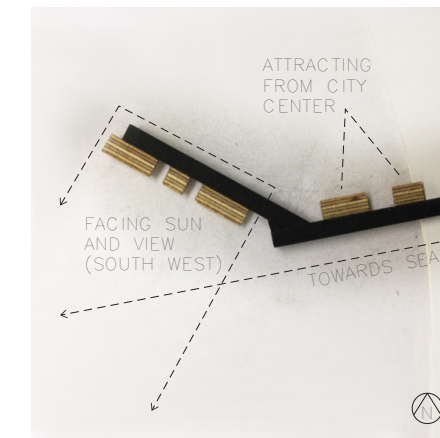
4.



A SMALLER TWIST

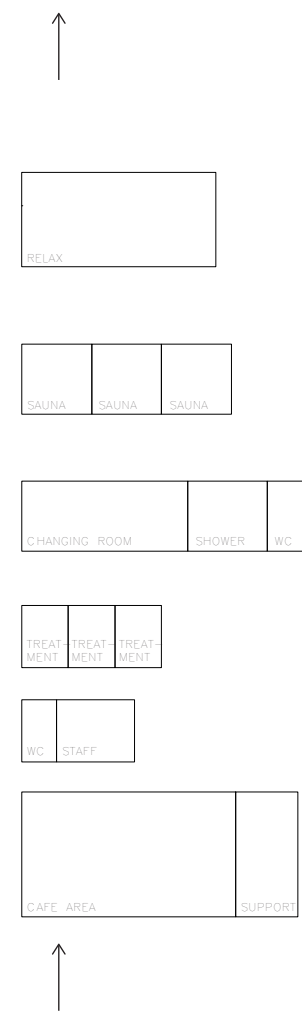
Good sun conditions and views are created when the pier is twisted sufficiently enough to prevent insight from the shore. Though, the sightline towards the sea loses some distinction.

5.



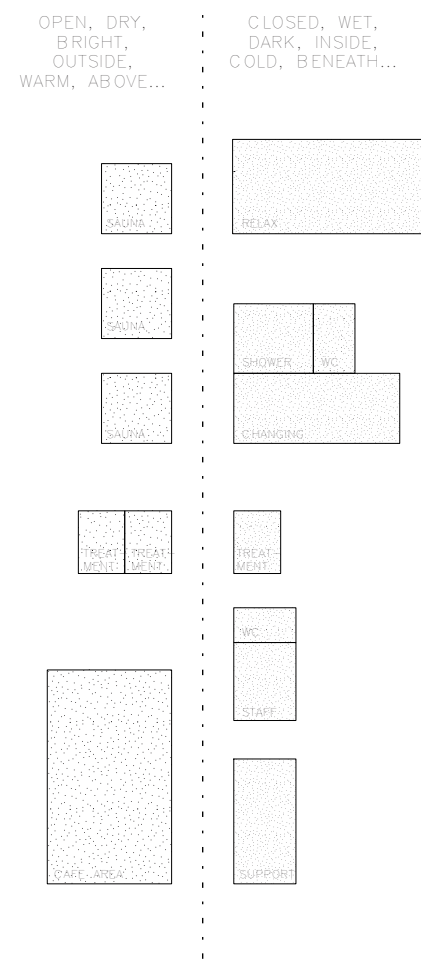
...WITH ADJUSTMENTS

When allowing the first part to *run past* the angled one, the sightline is made more clear. Further on, an attractive side towards the north (and the city center) is created by letting some functions switch side.



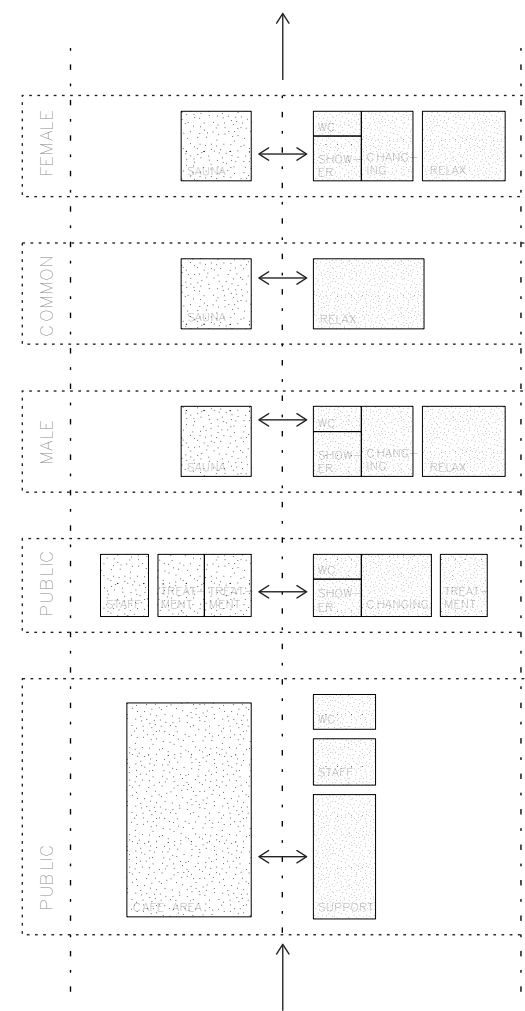
THE PROGRAM

All basic functions of the bath, arranged in the simplest way along a time axis (from base to top). In what order are the spaces used?



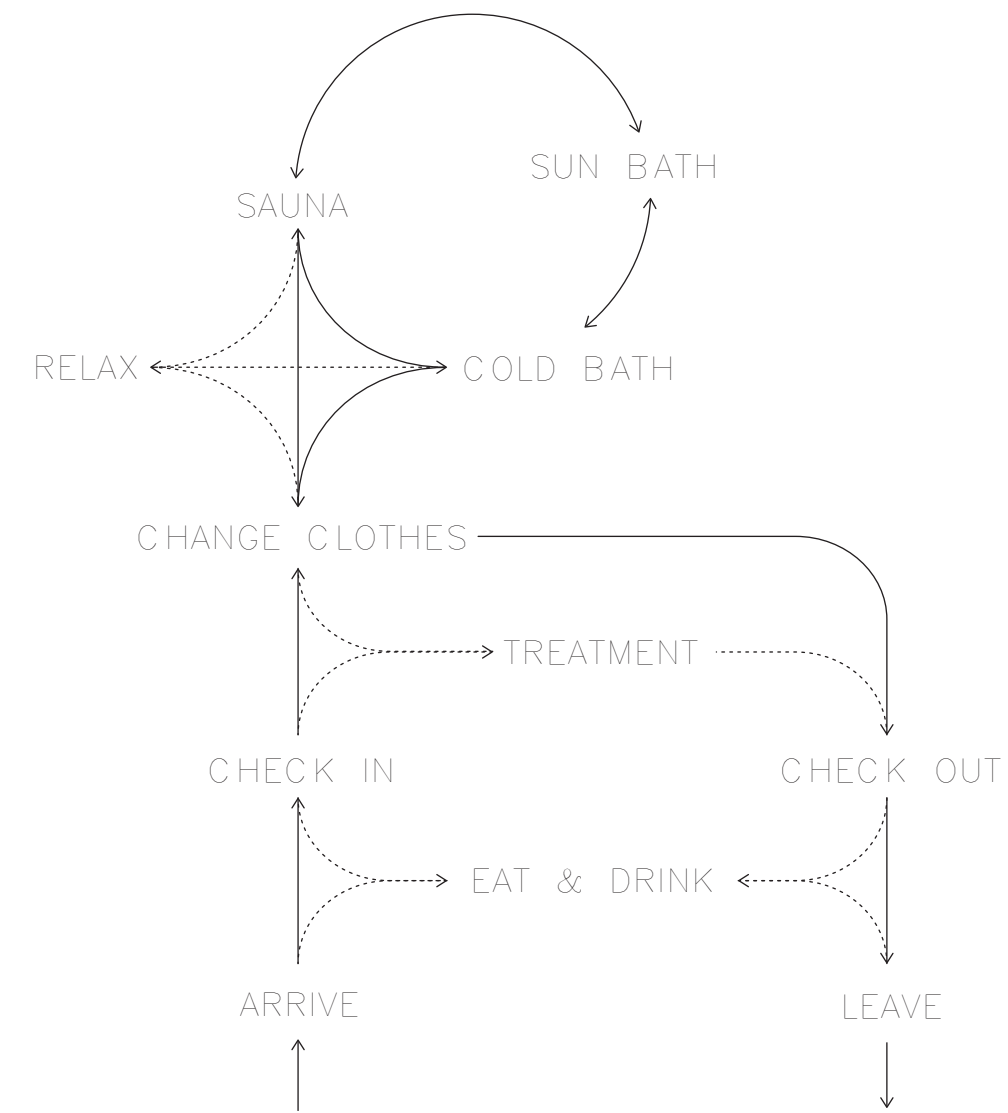
DIFFERENT MOODS

What are the different moods and which function belongs to which? A rough division of spaces according to open/closed, dry/wet, bright/dark, outside/inside, warm/cold, above/beneath...



WHO IS WHERE?

The program is further scattered. The linear movement is dissolved by traverse paths. The female and male department are separated, still many functions are common and the bath could be used without this separation.



THE FLOW OF PEOPLE...

...AND A SENSUAL JOURNEY

I arrive an early morning. Even though the sun just gone up, Ingeborg has already been bathing. I wave hello to her as we pass each other on the pier.

My mouth is dry after the short but intense bike ride. I sit down in the café drinking an apple juice, to rest my legs and gain energy.

When I am finished, I pick up the pass card from the bag and enter. A reflection of the sun blinds me shortly, to not lose balance I reach out and touch the wall.

The changing room is dark, it takes a while before my eyes get used to the little light passing through the narrow roof slit. Outside, a seagull is screaming and the waves are slowly lapping.

On my way to the sauna I glance up the sky; a storm is approaching from north and I can feel the increasing wind to my skin.

In the sauna, the steam is dense and blurs my view through the large window. It smells of heated wood and my own skin cream. I am alone, but can hear someone talking on the other side of the wall.

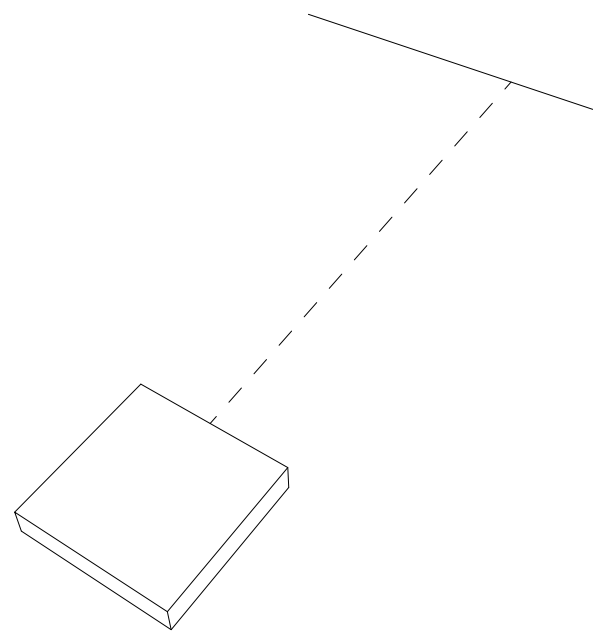
My skin prickles as I walk outside. The October sun has not yet warmed up the decks, I walk on tiptoe towards the bathing ladder.

Quick, with my eyes focused on the water surface, I dip myself in the water. It is not as cold as I expected. I take a few strokes, feeling the seaweed around my feet, before I get up, find shelter and overlook the sea curling.

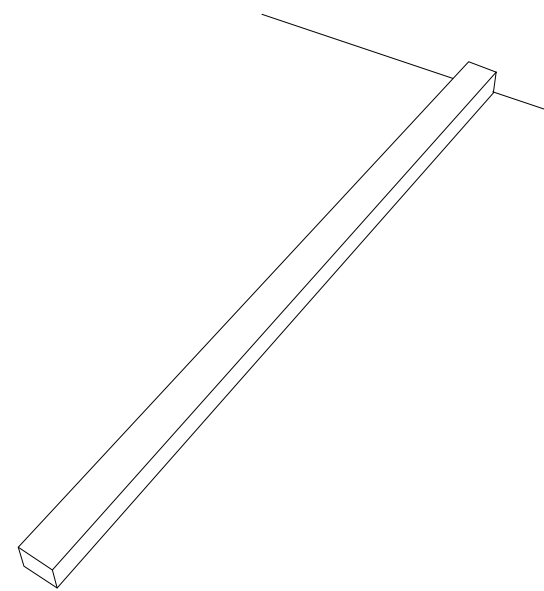
After another ten minutes in the sauna, my muscles feel relaxed and my mind clear. I take a quick shower, gather my clothes and ride back home.



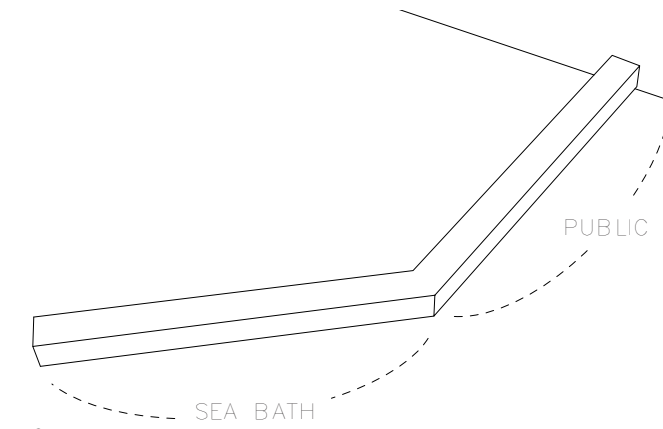
THE PROPOSAL



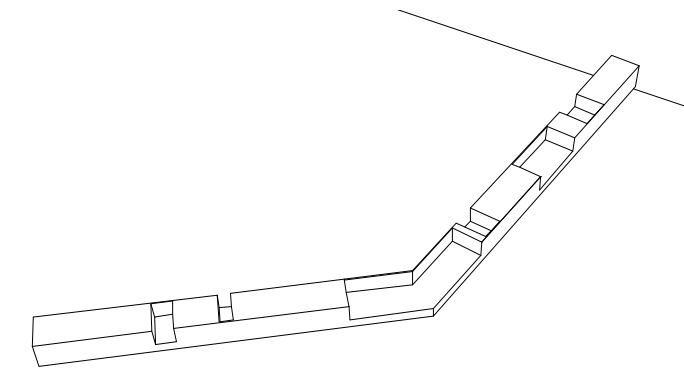
1.
The size according to program, as a compact volume placed offshore.



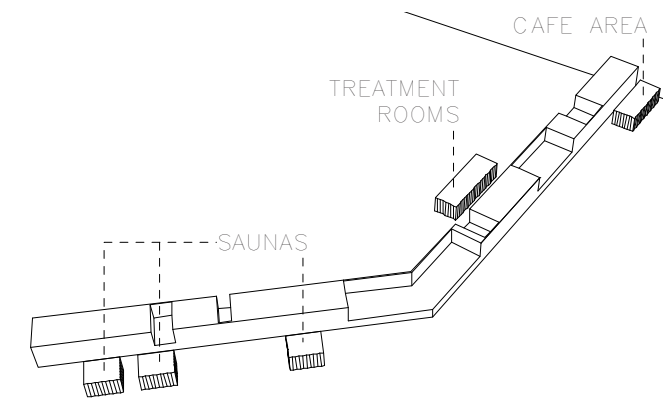
2.
By stretching out, the direction towards sea becomes accentuated. The walkway is no longer a distance with a goal, but a programmed journey of discovery.



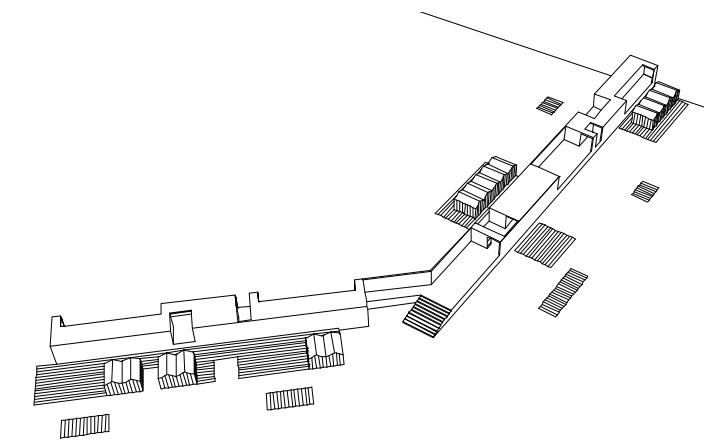
3.
The pier is divided into a public first half, and a second containing the sea bath. The sea bath is angled to catch sunlight, prevent insight and direct outlooks.



4.
Outdoor areas with different sizes and qualities is created, dividing the pier into sections. All wet areas (kitchen, toilets, showers etc) is located on the pier.



5.
A lighter structure is added (as boats that moor a bridge), giving room for warm and bright indoor functions.



6.
The roofs are pitched to break down the scale and associate to the local building tradition. Stairs and wooden decks provide space for sunbathing and sea dipping.

A SOCIAL MEETING PLACE

The new beach and sea bath become a social meeting place. A place that attracts people to visit Grebbestad to enjoy nature and sea bathing. By a prolonged bike and walk path the bath area becomes an extension of the public pier promenade, and one might stroll from the city center to the sea bath to just enjoy the view and atmosphere.

To the inhabitants the bath becomes something to be proud of, that build on to their narrative.

SPACE AND SCALE

In relation to the surrounding heights and buildings the added structure has a low altitude scale. The pier will be visible from above, to create an interesting roofplan has therefore been important.

The extended and angled volume points out important lines at the site, at the same time creating different water areas. The structure is spread out with changing rooms on land and floating bridges in the water.



SITE SECTION 1:2000



SITE PLAN 1:2000





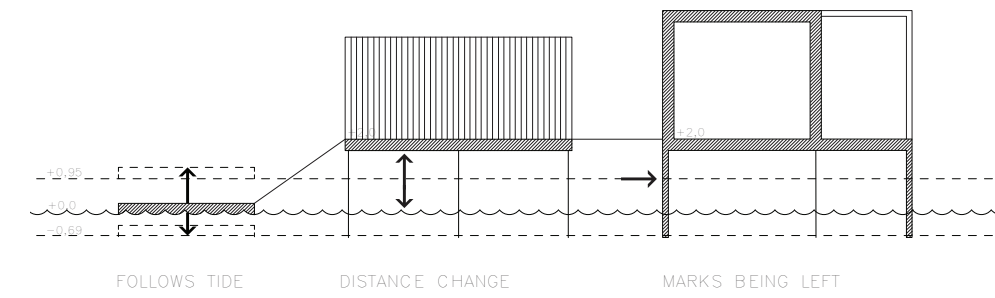
VIEW FROM ENTRANCE ROAD

CONCEPT

The concept, *Three moods and five senses*, enables a variation of atmospheres and experiences.

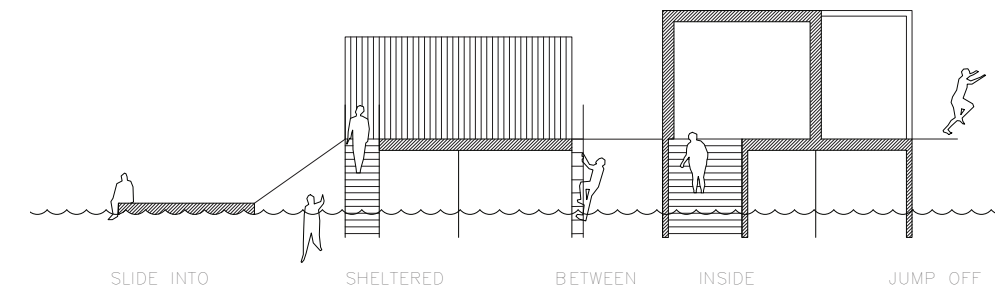
Water level

The expression of space will change as the water level vary. The floating bridges will always follow the tide. At the same time, the distance between the wooden deck and water will vary. The concrete pier sides enables marks to be left - whitening of e.g. last autumn's storm.



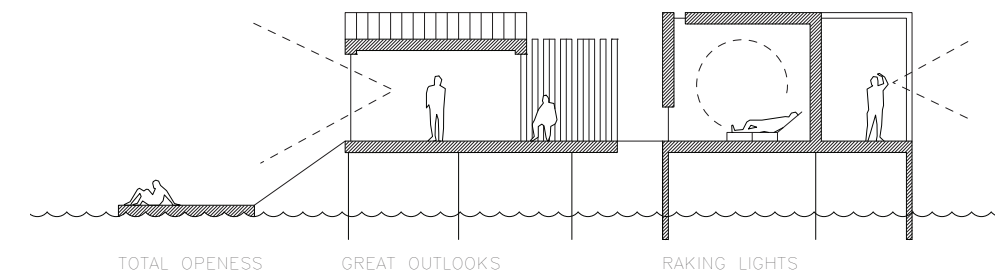
Bathing

Sense the sea provide several ways of bathing. At the floating bridges you are surrounded by water, at the decks you are more sheltered and inside the pier you only have connection to the water below.



Introversion / Extroversion

The connection to the outside water landscape will increase when moving from inside the pier, to the more open woodstructure and further out to the totally exposed floating bridges.



SEVERAL BUSINESS OWNERS

Beside a sea bath, the structure contain a café and a small spa facility. These functions is proposed to be runned as self-dependent businesses, renting the space from the sea bath association. In this way *Sense the Sea* will generate new enterprises, economic resilience and further attractions that bring people to Grebbestad.

The sea bath

The male and female unit are almost identical and holds changing area, relax, a sauna and sundecks. In between there is a common unit with sauna and relax. The many connections makes it possible to open up the whole bath and let everyone bath together if wanted.

The treatment

This facility offer you massages and seaweed baths. You might just drop in for a treatment while your family are bathing, or you might be a once-a-week visitor who needs this relaxation to gain energy.

The sundeck

The deck can be used by everyone who wants to come closer to the sea. A ramp allows people who have a hard time walking to dip safely.

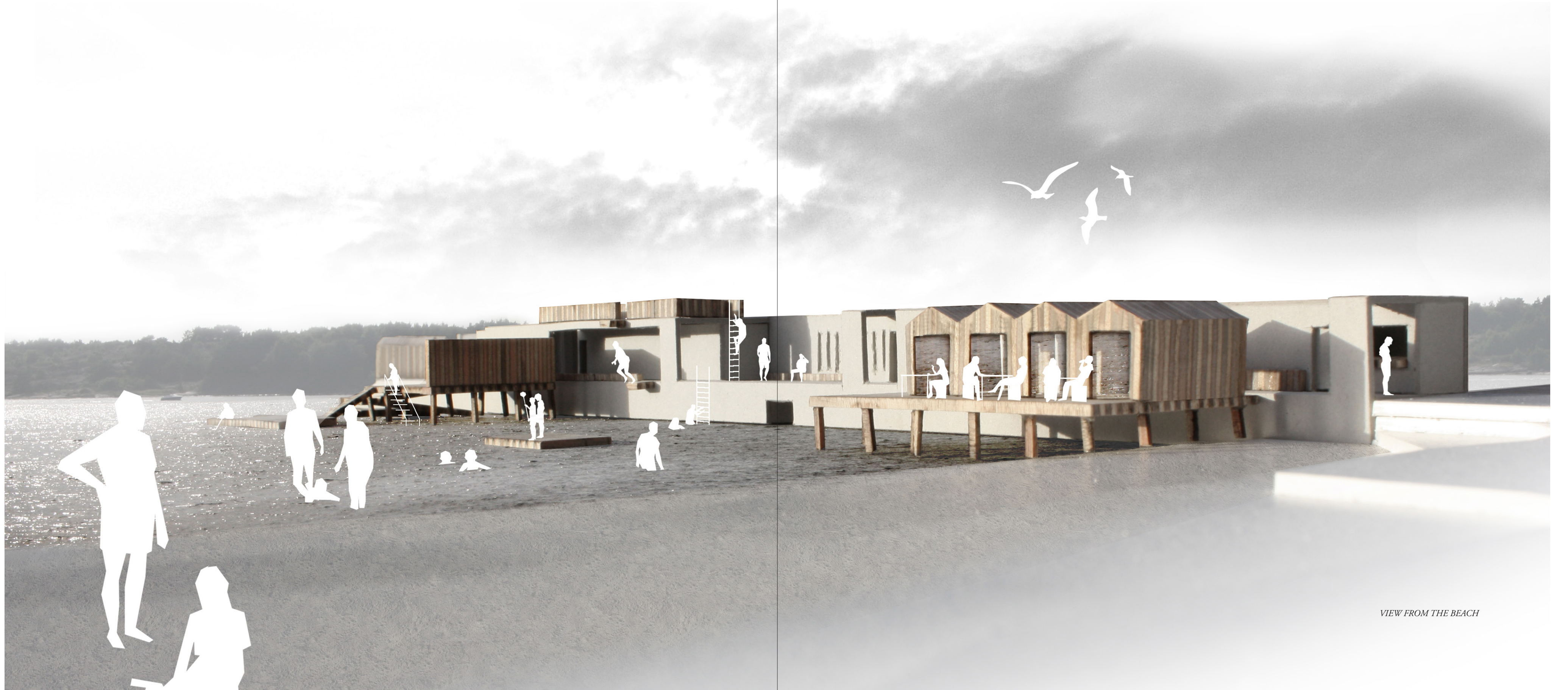
The café

The café is placed in the interface of land and sea. If you are looking for a place to have lunch, spending a day at the beach or visit the sea bath you can enjoy simpler food at the seating area indoors or on the outdoor deck.

loading area

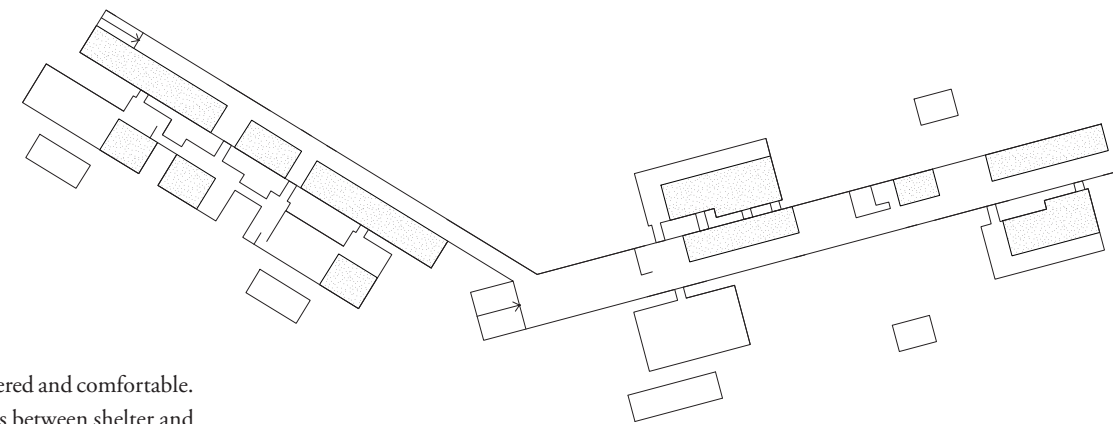
outdoor showers





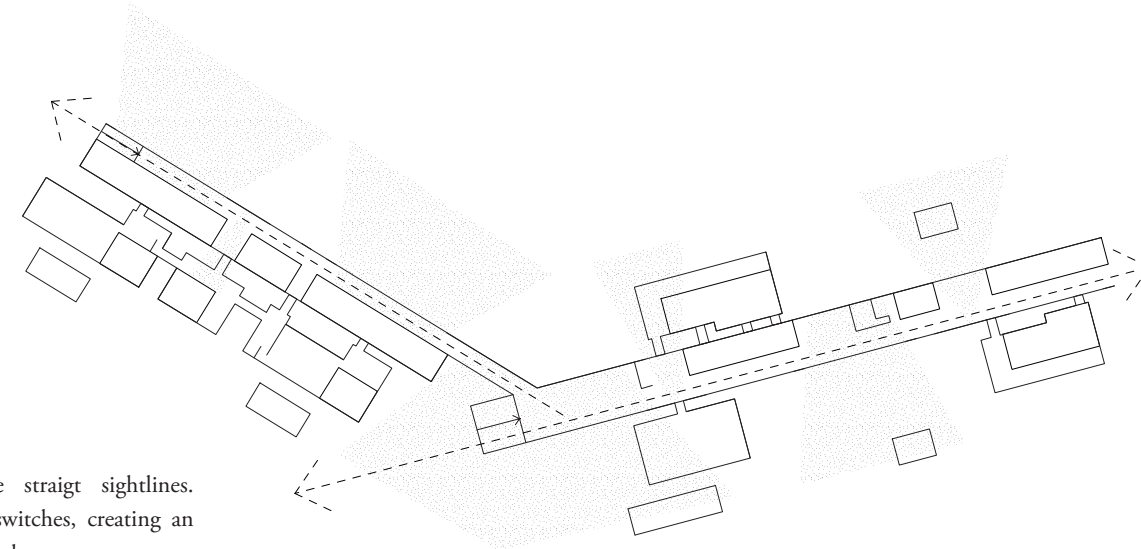
VIEW FROM THE BEACH

Sense the Sea derive from the site premises and creates a framework for nature and sea experiences. By creating spaces with different qualities, that increase or diminish different conditions - such as sun, wind and temperature - the journey through the building become rich and intriguing.



INDOOR / OUTDOOR

The indoor areas are tempered and comfortable. To enhance the differences between shelter and exposure, one might be forced to step outside when moving from one function to another.

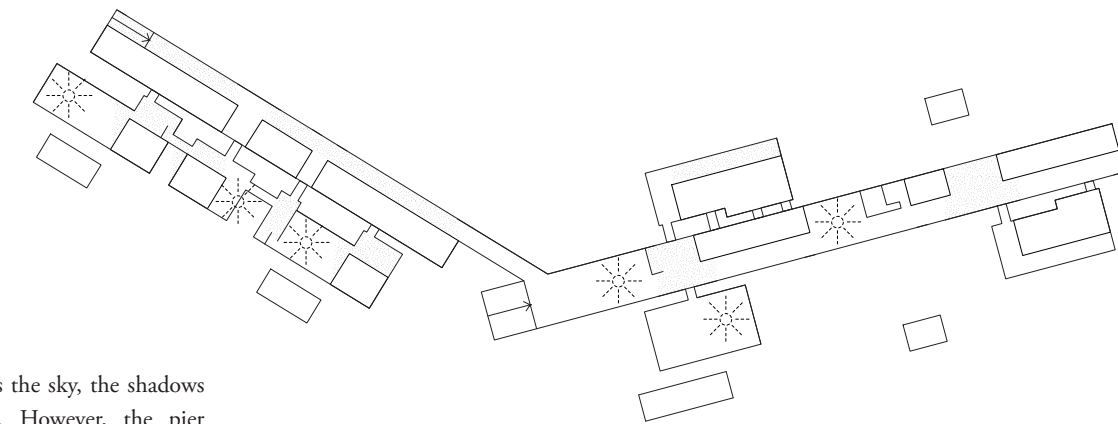


OUTLOOKS

The pier offer infinite straight sightlines. Sideways, the outlooks switches, creating an exciting journey and calm places to stop at.

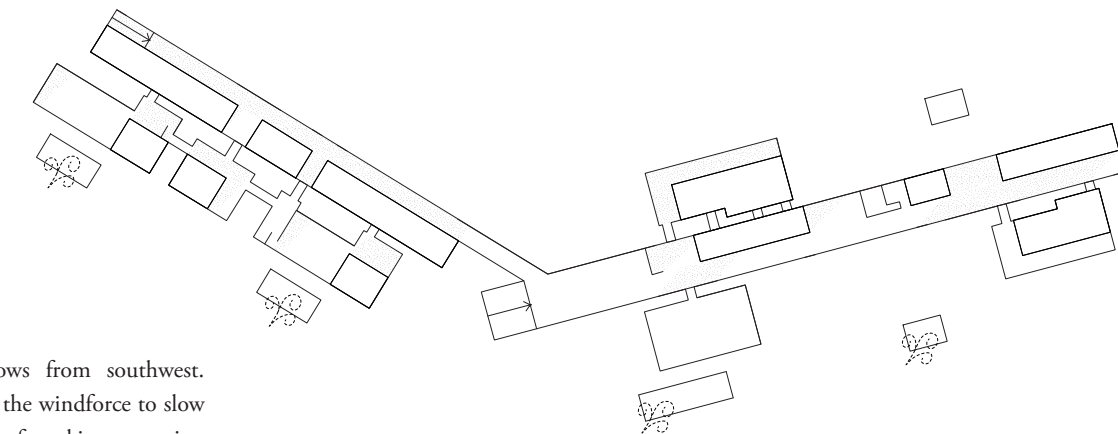
SUN / SHADOW

As the sun moves across the sky, the shadows will of course change. However, the pier contains space that usually will be reached by the sun's rays. As well as places that are most often are shaded, to make the experience as varied as possible.

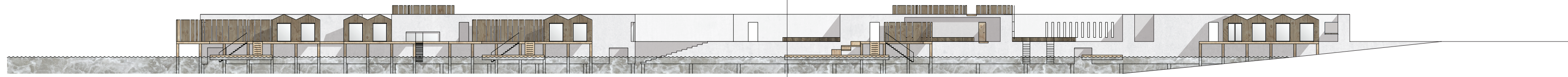


WIND / LEE

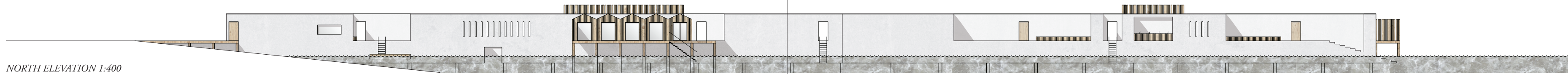
The wind primary blows from southwest. Planking and walls help the windforce to slow down and leewards can be found in connection to every function. The floating bridges are the most wind exposed areas.



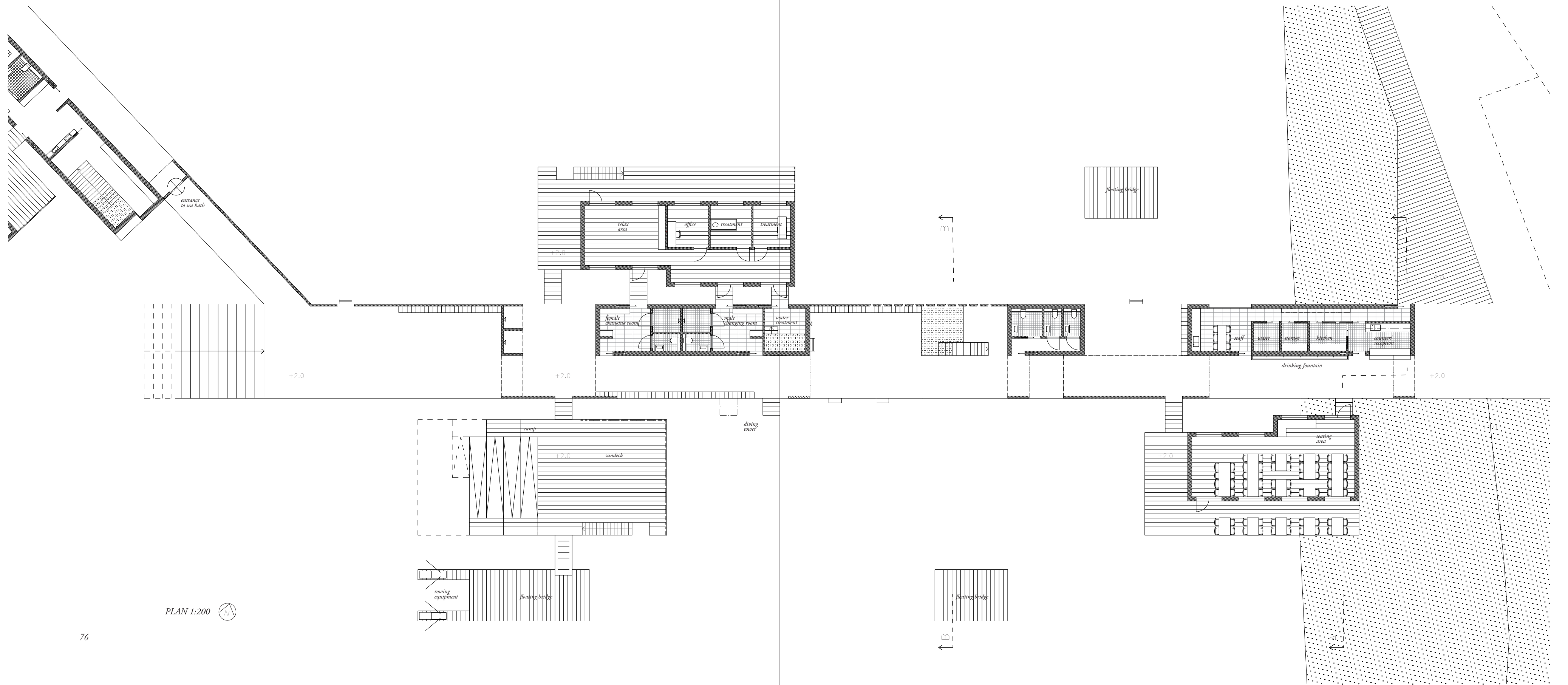
The wood structure contrasts to the elongated concrete pier, breaking down the scale and creating a playfulness. At selected locations you can swim into the pier, while one can easily swim and play beneath the wooden decks.
All exterior detailing - ladders, benches, railings, doors and windowframes - are made of wood to create a softness and inviting atmosphere.



SOUTH ELEVATION 1:400



NORTH ELEVATION 1:400

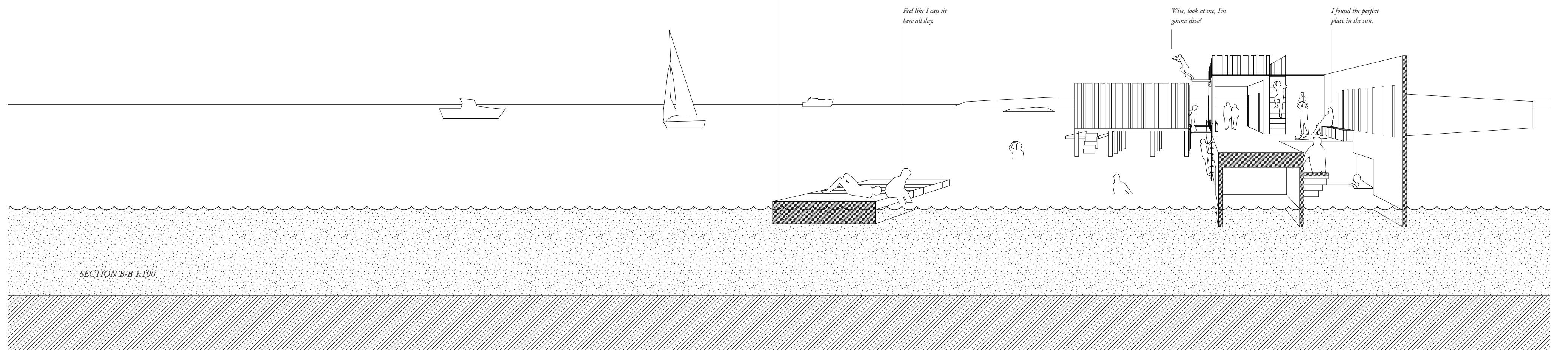
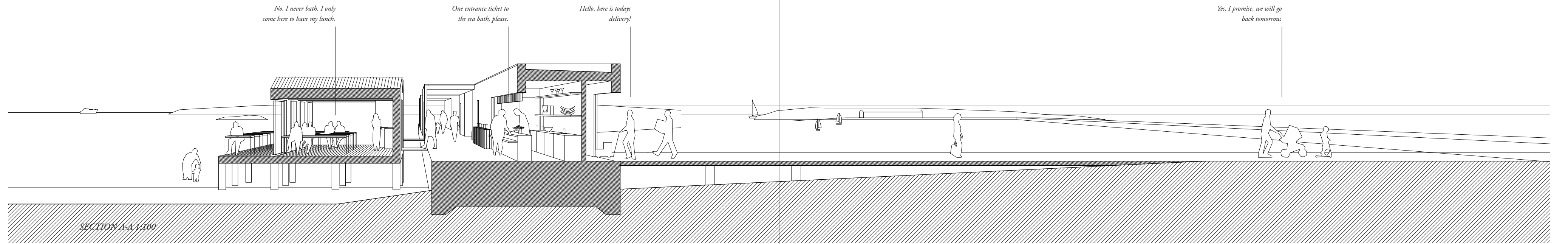




THE BIG STAIR



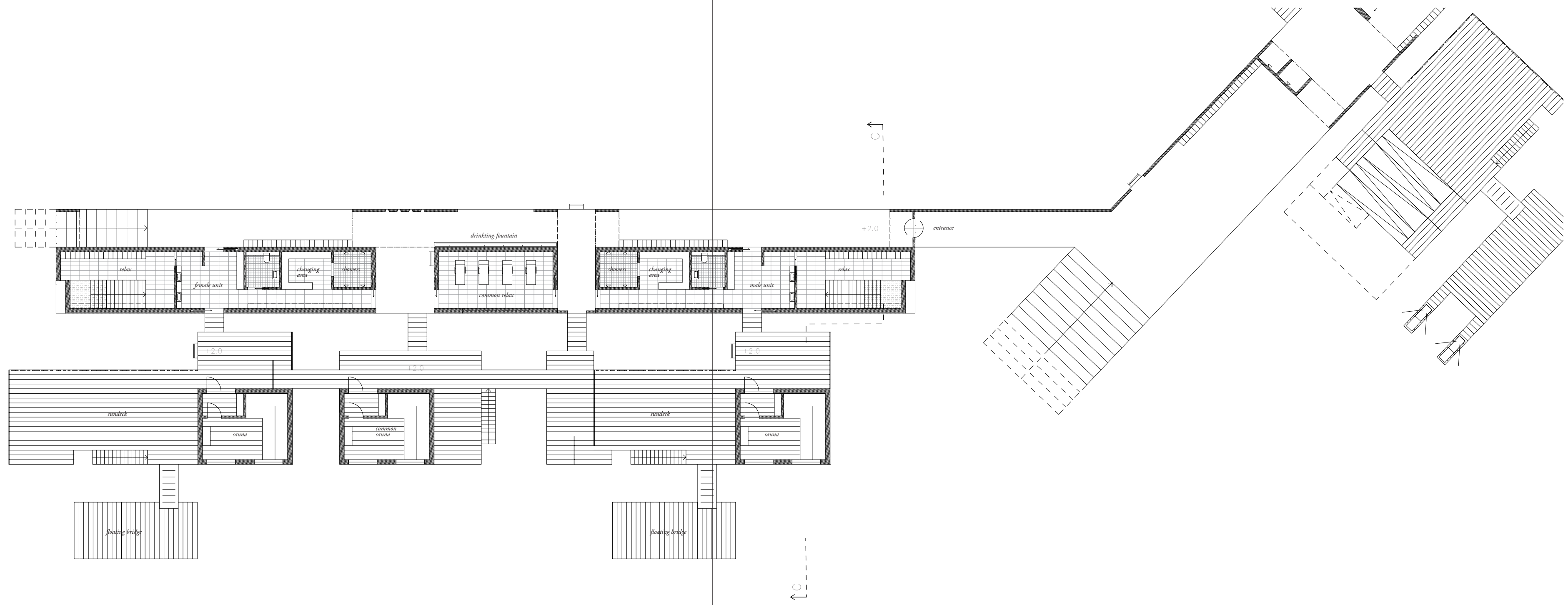
THE DIVING TOWER



A grey autumn's evening, the wind howls and the sea roars. Only fishingboats are leaving and entering the harbour.

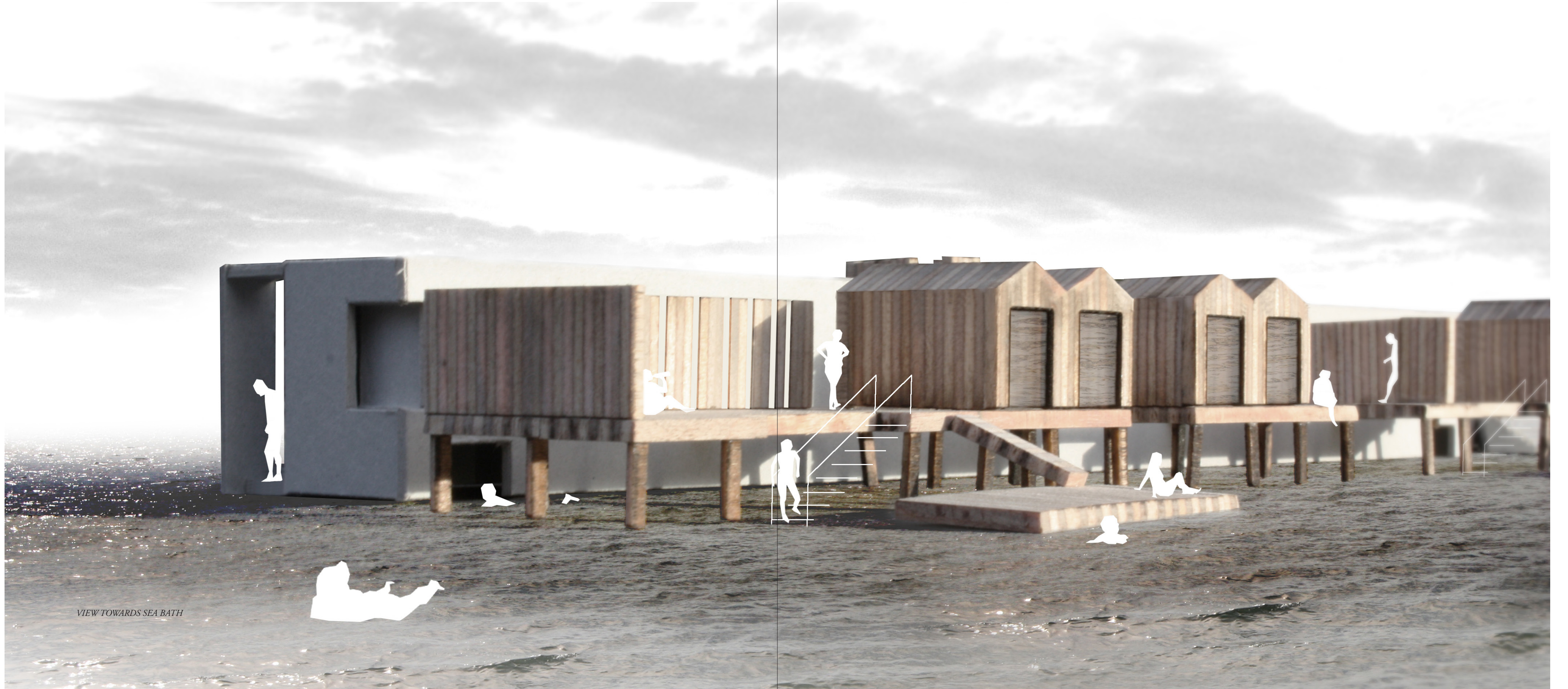
The treatment facility offers you a break from everyday life. A woman closes her eyes and enjoys a hot seaweed bath, to relax and recharge energy.





PLAN 1:200





VIEW TOWARDS SEA BATH



THE FEMALE SAUNA

*A frosty winter's day, the snow just started to fall.
Some women brave the elements, taking a dip in the ice cold water.
Inside the sauna, large windows open up towards the frozen sea and horizon.
The contrast between hot and cold is remarkable.
At the same time, the steam is intertwined with the snowfall, blurring the border
between inside and outside.*

MATERIALITY

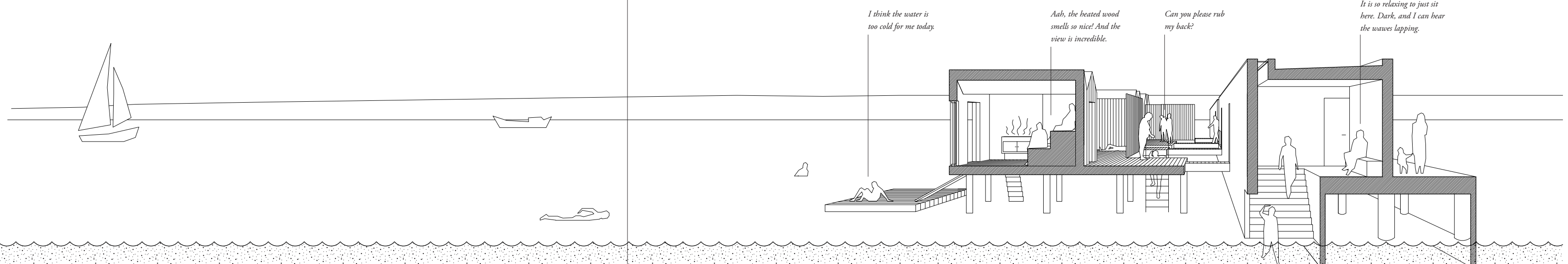
The material choices has been guided by a long-lasting approach. The building allows wearing without being destroyed and need little maintenance. In this way, the proposal aims to indicate the advantage of high quality and robustness regarding sustainability.

The contrast between the heavy concrete and the warm wood enhance a variation of mental and tactical experiences.

The tide variation is emphasized by the pier that rises up from the sea. As the water level vary, the expression of space will transform. Marks will be left on the concrete surface, testifying the changeability of nature.

The concrete is casted at site and classified as saltwater tolerant. The exterior is sandblasted and the interior is polished.

Untreated and certified Azobé wood is used for the exterior wood construction and boarding. Azobé is tolerant in marine environments and has a warm tone that throughout the years will turn gray without being destroyed.



I think the water is too cold for me today.

Aah, the heated wood smells so nice! And the view is incredible.

Can you please rub my back?

It is so relaxing to just sit here. Dark, and I can hear the waves lapping.

SECTION C-C 1:100

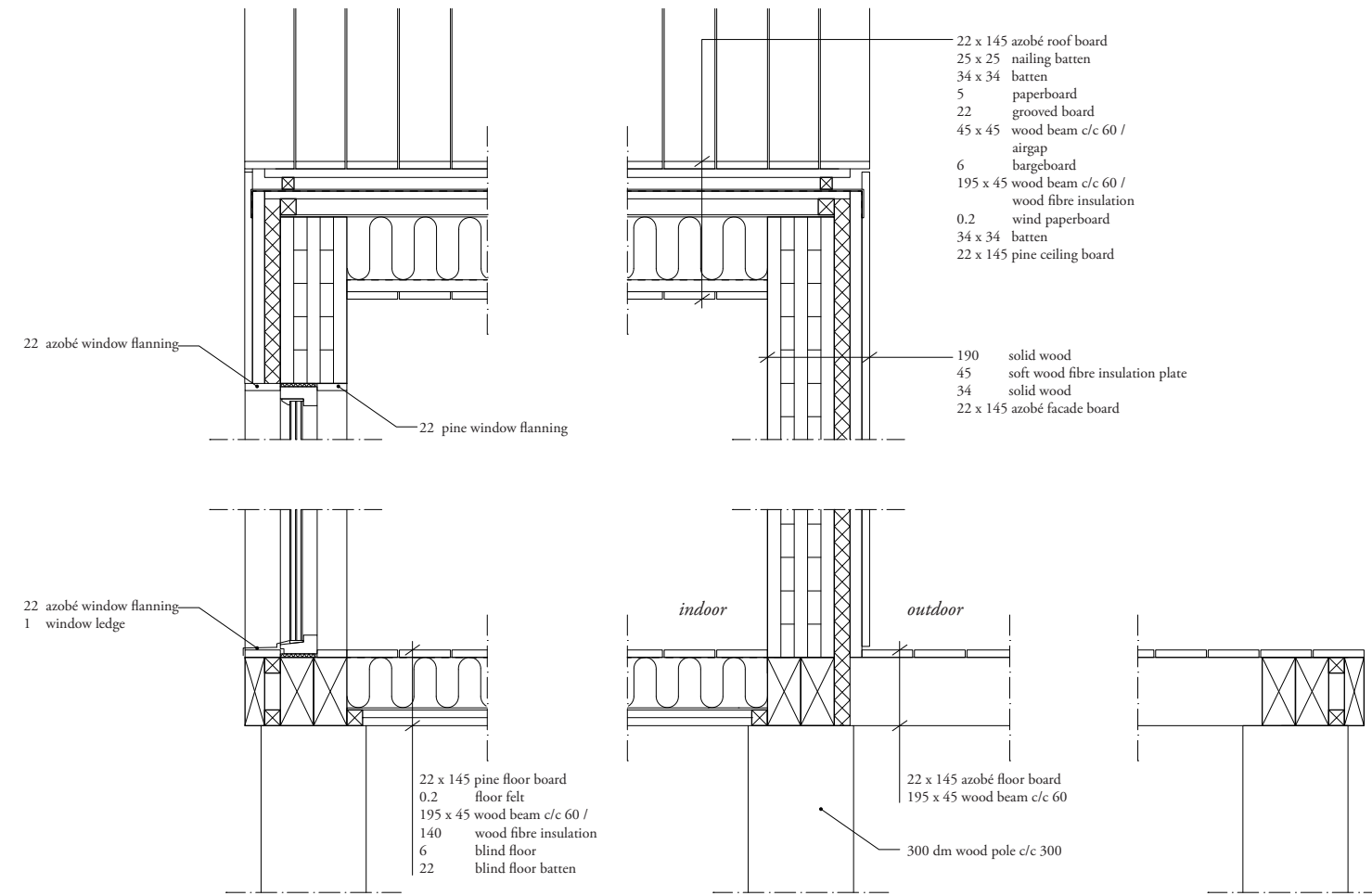
*A hot summer's day, the temperature is almost unbearable.
Outside the sun is shining, people are splashing and playing.*

*The relax room becomes a haven to enter, to get away for a while. It is dark and
quiet, without any outlooks.
Although, the sea is highly present and you can hear it's lapping. A man is about
to step down the stairs, enter the water and swim out to the light.*

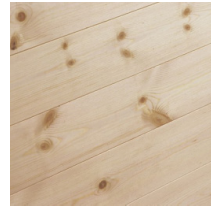


THE MALE RELAX

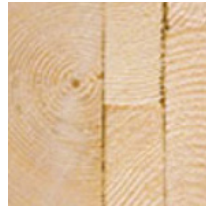
DETAIL WOOD CONSTRUCTION 1:20



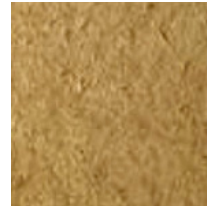
pinewood interior



solid wood construction



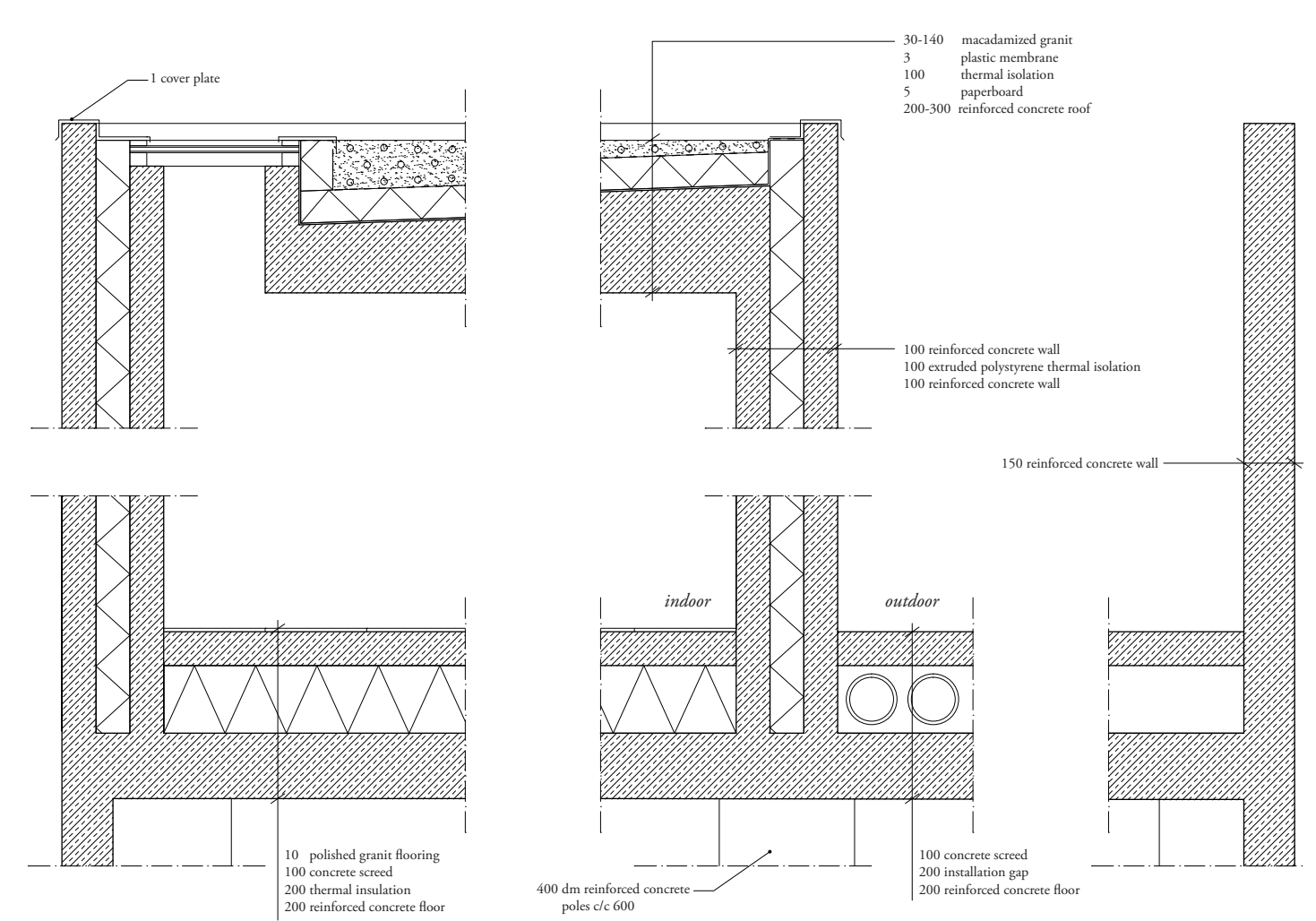
wood fibre insulation



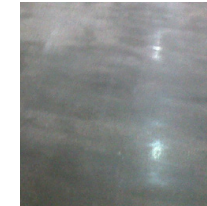
azobe wood exterior



DETAIL CONCRETE PIER 1:20



interior polished concrete



interior polished granit floor



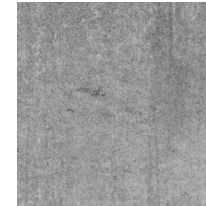
polystyrene insulation

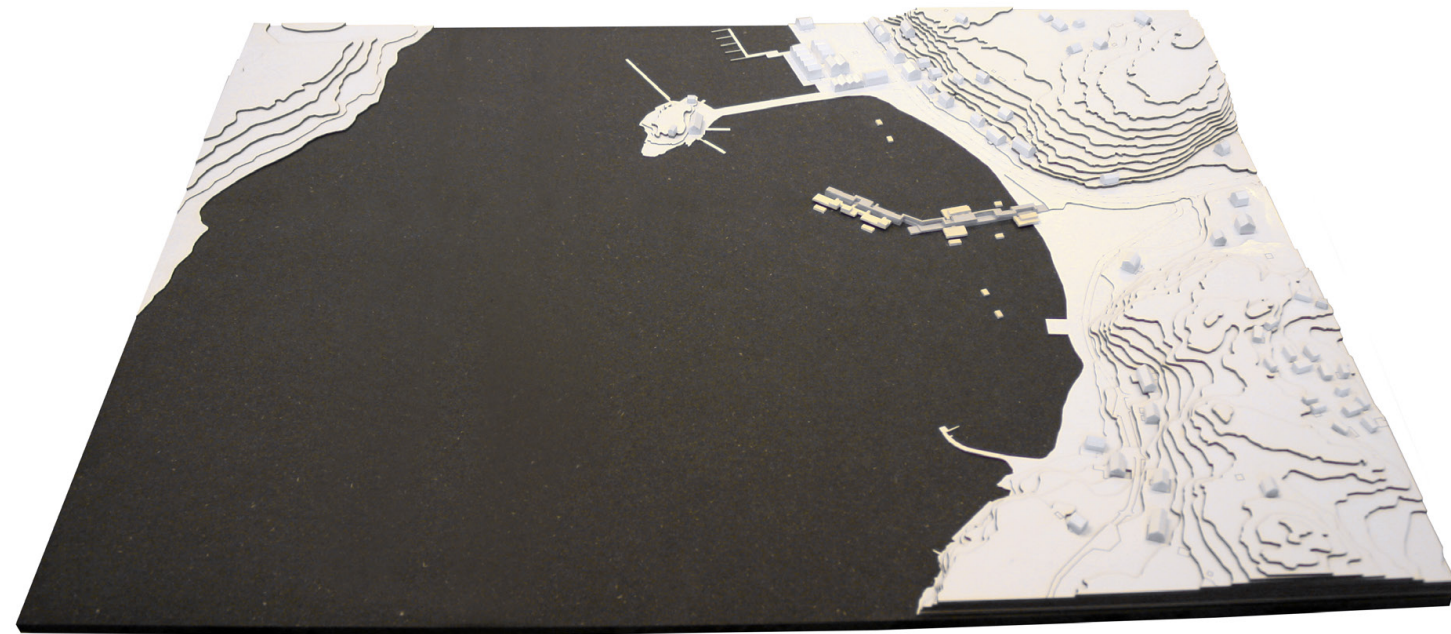


macadamized granite



exterior sandblasted concrete





PHYSICAL MODEL 1:1000

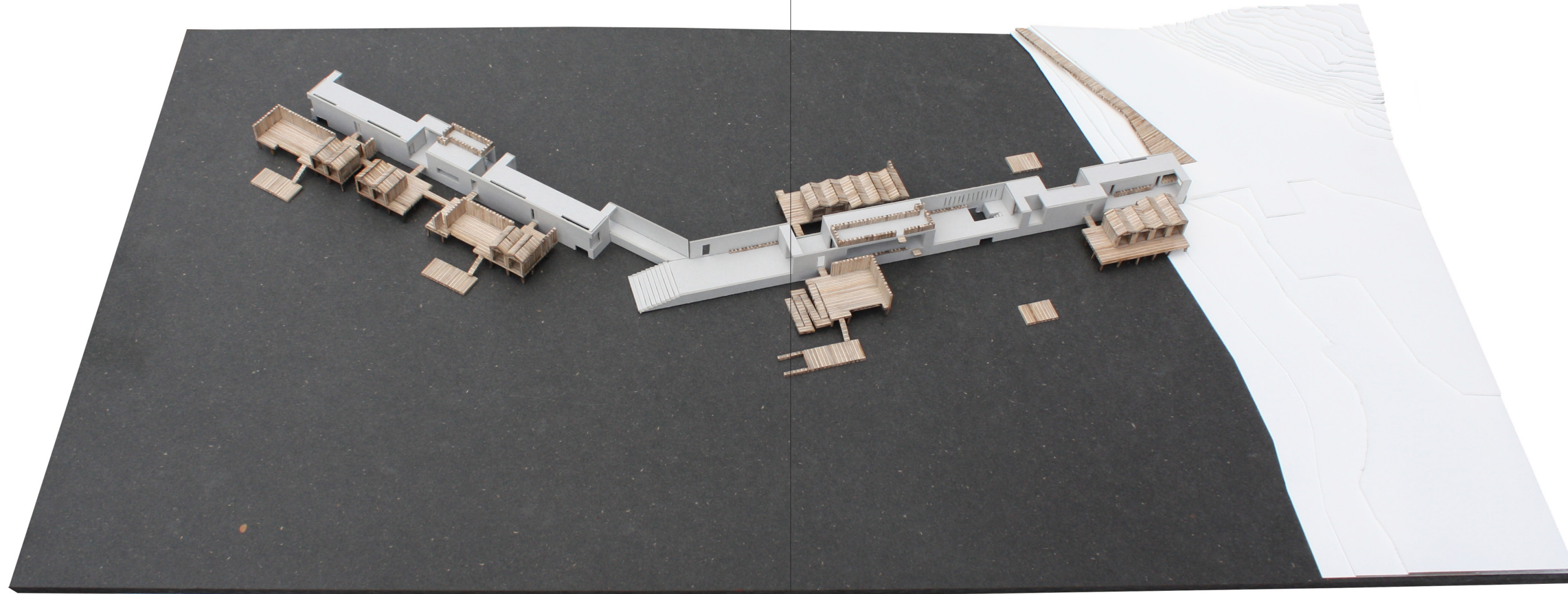
DISCUSSION

In this master thesis I have been working in a, for me, well known and emotionally charged context. I have been able to use my experiences, at the same time I learnt a lot about Grebbestad as well as the Swedish bathing tradition. During the project I have also gained a deeper understanding for sensory impressions and architecture. The approach has not been to design from *sight, hearing, taste, smell* and *touch* discretely. But to create an overall intriguing and sensual atmosphere where the experience of sea and weather is in focus.

I have investigated the subject, space and materiality through model workshops, empathy and imagination. The result is a project that connects to the narrative yet introduces a rethought sea bath-concept, a vision for the future.

Besides architects, this project aims to inspire the municipality of Tanum (Grebbestad) in their continuous work with the sea bath. By incorporating functions such as treatment department and café the sea bath has actual economic bearing. It would work as an attraction to the city as well as a place for the inhabitants to recreate and find peace.

I believe projects like this, that centers peoples well being needs to be highlighted. Stress is a national disease and to have someplace to go where you can relax and gain energy is fundamental in healthy society.



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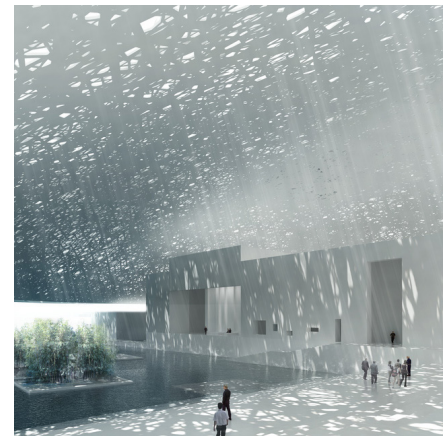
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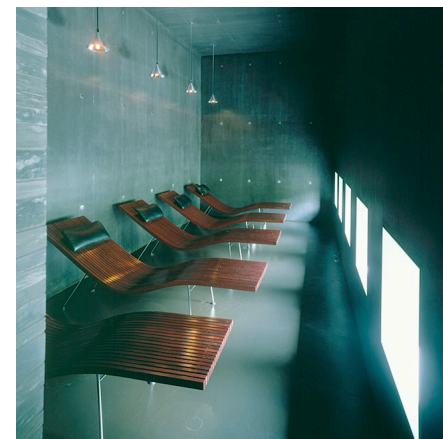
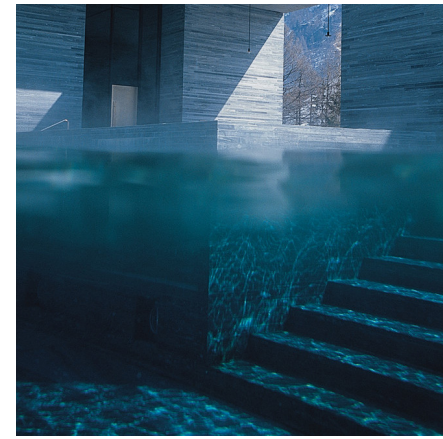
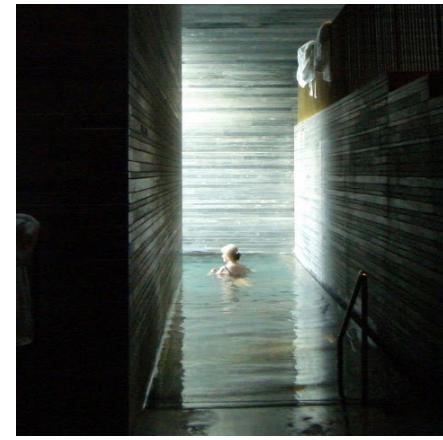
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APPENDIX

ARCHITECTURAL REFERENCES



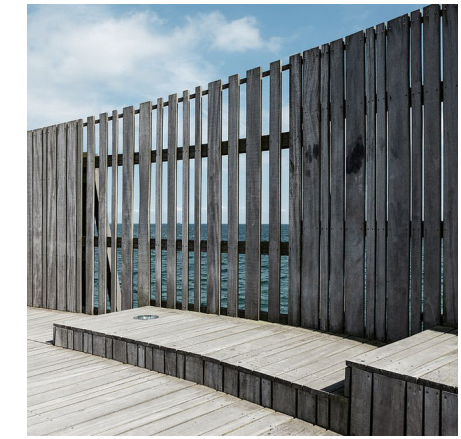
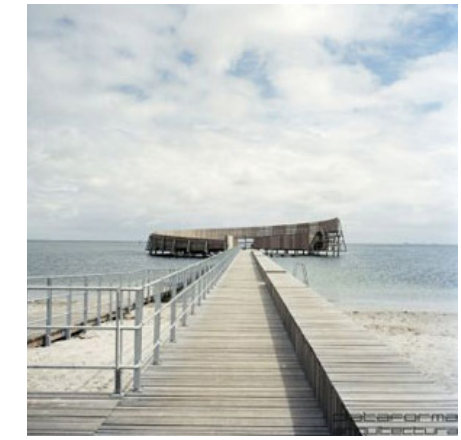
The Louvre Museum by Jean Nouvel
I like: the mysterious atmosphere, how the light hit the water. And that you do not know if you are inside och outside.



Copenhagen harbour bath by PLOT
I like: how an extension of the ground, steal a piece of the sea and capture it within decks.



Kastrup seabath by White
I like: the simplicity, the shape that barely touches the sea. And how the gaps between the wooden plank shift in size, creating different outlooks.



PICTURES FROM THE MUNICIPALITY'S
DESIGN PROGRAM 1

