E L E M E N T A L S T R U C T U R E S

JOHANNES LUCHMUN MASTER THESIS IN ARCHITECTURE MSS. MATTER, SPACE AND STRUCTURE CHALMERS SCHOOL OF ARCHITECTURE

CONTEMPLATIVE SPACES BY DELSJÖN

FOR REFLECTIONS,

ELEMENTAL STRUCTURES



CHALMERS

Elemental Structures For Reflections Contemplative Spaces by Delsjön, Göteborg

Johannes Luchmun Examinar: Morten Lund Supervisore: Daniel Norell

Master Thesis In Architecture Autumn 2014 MSS Studio, Matter, Space and Structure MPARC, Master Programme in Architecture and Urban Design Chalmers School of Architecture Chalmers University of Technology

CONTENT

S U M M A R Y			5
INTRODUCTION			6
SITE			6
ELEMENTS			8
PROPOSAL:			
AIR		2	8
WATER		5	6
FIRE		8	0
EARTH	1	0	6
SKETCHES	1	3	0
REFLECTION	1	3	6
E N D N O T E S	1	4	0

3



S U M M A R Y

Elemental Structures For Reflections Contemplative Spaces by Delsjön, Göteborg

Four structures focusing on the four elements of *Air, Water, Fire* and *Earth* of a site at Delsjön. Aiming at create sensual atmospheres that amplify phenomenon of nature through seasons.

Materials with a direct relationship to the site are put together easy readable, primitive tectonics, to create spaces and atmospheres.

Places for memories and dreams, for resting, reflections and thoughtful observations: contemplative spaces.

INTRODUCTION

This project explores architecture's ability to slow our pace down, towards reflection and contemplation by creating architectural instruments that capture and focus on natural phenomenon. Spaces for tranquility and reflection, a place in contrast to the hectic pace of contemporary urban society. An attempt to encourage visitors to engage in the landscape with all their senses. "Every touching experience of architecture is multi-sensory; qualities of matter, space, and scale are measured equally by the eye, ear, nose, skin, skeleton and muscle".¹ These structure aims at enriching the experience of the site, its wider context, direct setting and the specific characteristics of the region and place.²

Contemporary globalized societies is flattening out variations of regional expressions in the field of architecture. This investigation is in great contrast to this development and strive towards buildings of regionalety, relating to local context and building traditions of the site. The term *Critical Regionalism* was reestablished by Kenneth Frampton in 1983. "The fundamental strategy of Critical Regionalism is to mediate the impact of universal civilisation with elements derive indirectly from the peculiarities of a particular place".³

Critical regionalism seek to provide an architecture rooted in the modern tradition, but tied to geographical and cultural context, it is not simply regionalism in the sense of vernacular architecture. It is an approach to design that seeks to mediate between the global and the local languages of architecture.⁴

By focusing on regional and site specific characteristics this project propose structures that amplify qualities and phenomenon of the site. Framptons idea has been repeatedly raised by other contemporary architects, Juhani Pallasmaa write: "Previously, architecture was the most important means of concretizising cultural and social order, as well as expressing and materializising the specificity of place and culture".⁵

The danish contemporary architect Merete Lind Mikkelsen describes in an interview the importence of architecture that originates from a specific place. "As the construction industry has evolved, we have gained a global shape and material equalization that weakens both landscapes and buildings all the way down to detail level. It is very problematic. I want to create places that you do not want to leave and that holds far into the future".⁶ By observing historical exemples of regional architecture, buildings that last and still work today, we can learn and understand aspects of robustness in the tradition of architecture. The danish office Praksis Arkitekter describes their attitude towards tradition, place and renewal: "We seek neither a nostalgic re-creation of the story or the short-lived fashion trends. In contrast to create an architecture that last for a long time... but at the same time be aware that every culture solidifies if it is not confronted with renewable basis. It is therefore important to find the qualities of tradition that can provide meaningful answers to contemporary problems".⁷

Society needs a variety of spatial expressions, to give and strengthen people's varied needs and demands. In our secular society the necessity and effort of creating spaces for contemplation and reflection needs to be explored and developed. It is difficult to find existential spaces, spaces for reflection, in the fabric of the existing Swedish cities without any religious connotations. This investigation explores spatial qualities of contemplation in the area of Gothenburg.

One of the major public health diseases in Sweden are stress related psychological illness and it is the main reason for sick leave of the labor market according to The National Board of Helath and Welfare.⁸ This project aims at investigating how architecture could contribute in assisting us to be more present and aware, to slow down, to take a break, to reflect and contemplate. Questions to explore through this thesis is:

How could architecture support situations towards contemplation and reflection? What role can architecture as physical space and place play?

SITE

The beginning of this project was the character of the site.⁹ A place¹⁰ close to the city but yet connected to the wildness of nature. The proximity to the city of the site is important to broaden the spectrum of a potential visitor to the structures. Delsjön is a well-used area for recreational purposes and this project intends to invite people who would not search for structures or experiences that slow our pace down. The remoteness and at the same time the proximity of the city and society, a border situation, was influenced by life and experience, in a little cabin by the Walden pond, of Henry David Thoreau. His novel: *Walden: Life in the woods*,¹¹ is a reflection upon simple living in natural surroundings. He lived by himself close to a little pond, Walden, in the forest of Concord, Massachusetts in the United States, to experience and reflect upon life. His purpose was, as he describes in the book, "to grasp essentials of life". In the same spirit this project aims at essential, elemental or even primitive or primeval¹² aspects of existence, conditions that connects us to our surroundings and makes us aware of being a part of our environment and universe. Sensual experience and phenomena's in nature is used to focus and make us aware, a state of presence and tranquility that could help us reflect and contemplate over life.



The site is located 8 km east of the central town of Gothenburg by a small lake, Lilla Delsjön, in the nature reserve of a recreational area close connected with a sport center, Skatås. The site is set on a small headland facing south towards the lake with low hilly mountains in its back. The environment is a typical south Swedich lake situation, close to the water you find small Aspen and Birch trees and higher up the hills you find pines and spruce. The water of two small springs are cutting through the headland and giving parts of the site a rich soundscape.

The choice of site was made to locate the structures outside of the lighted tracks, in a area less active then other tracks, and provides the possibility to see the the moon and the milky way a starlight night.

It is a common, almost generic lake situation maybe even taken for granted. With that in mind I tried to regard it with new eyes by using the method of defamiliarization. A way of looking for beauty in the ordinary and familiar, established by Viktor Shklovsky in his essay: Art as Technique; "by compliance things as if you saw it for the first time, generating awareness and prolonging perception of a moment." ¹³ I tried to look closer to the actual place by continuously visiting and spending time there together with collecting plants in a Herbarium, a method towards awareness of the qualities of the existing place.

Springs of water together with the lake creates a strong presence of water of the site. The presence of water guided the investigate of the site by the four elements of *Air*, *Water*, *Fire and Earth*. A way to understand and investigate the sensually information the sites actually consist of.

The elements are found in many cultures and are metaphysics and mysticism. Maybe there are knowledge to be found in this prescientific philosophy? When traveling in China and Japan i came in contact with the elements, they are culturally so fundamental that they influence everything, also in the physical environment of buildings and gardens. As a turist i came with interest and openess towards the unfamiliar. Buddhism and Daoism conception of life produce physical places of silence, reflection and meditation. Spaces and places that create meaning with existential aspects of the build environment, the elements are used to put emphasis on these qualities. This was very inspiering experiences of rituals in the Japanese tea ceremony and staged sequences of movement inside gardens and temples in Kyoto. Kristina Fridh describes this in her book; Japanska Rum (Japanese Spaces): "The void formed by our well-defined structural components must be filled with a spiritual content to find and create meaning in architecture".¹⁴

This division of sensual stimuli and information led to a focus and to be aware of the sites qualities through each element. The proposals aim at amplify these experience in four individual structures.

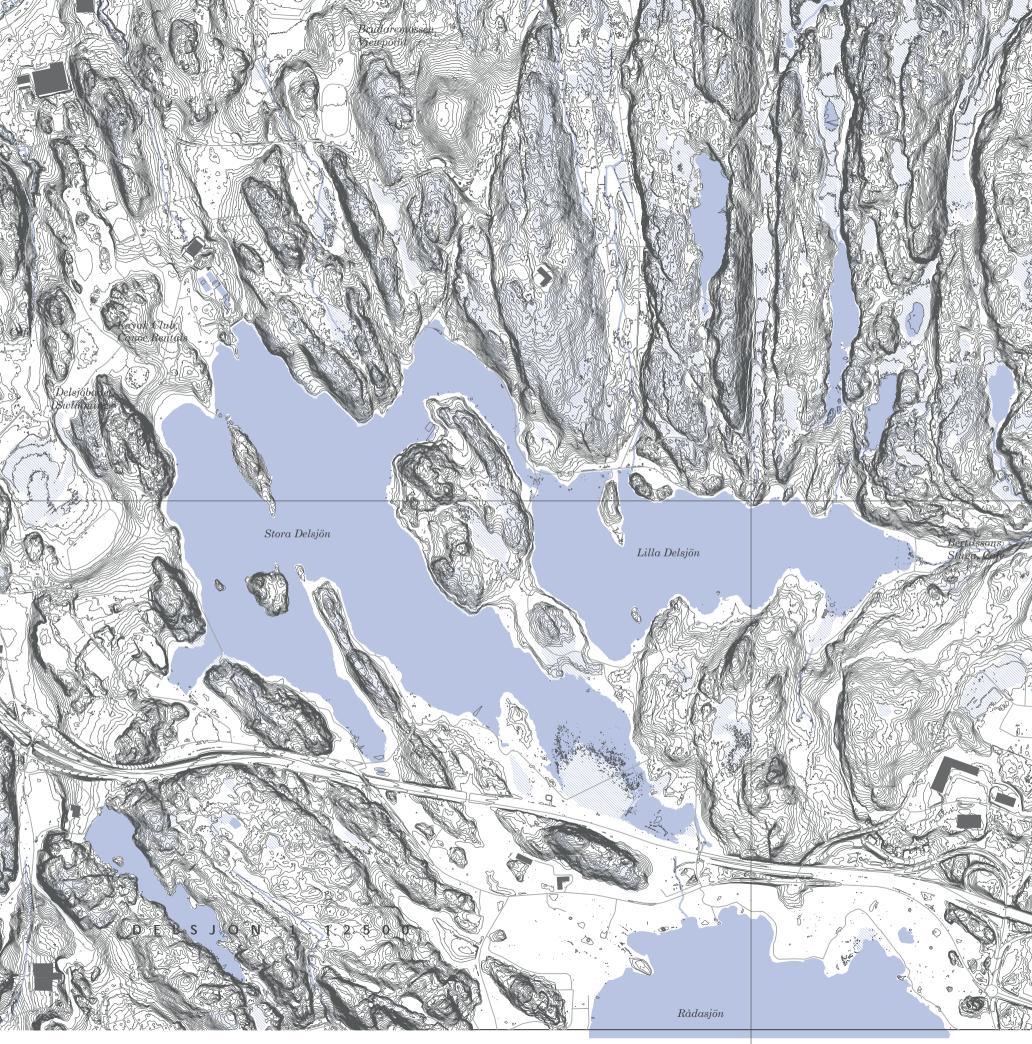
ELEMENTS

The classical elements occur in many cultures throughout history. From Chinese ancient and contemporary culture, with a range from philosophy, cosmology and medicine. The five elements or phases, Wu Xing, are the process or change to explain events of existence; the five dimensions of earth life. The elements of: *Wood*, *Fire*, *Earth*, *Metal* and *Water* are agents of conditions, different types of energy in a state of constant interaction with one another, with the general aim of balance, yin and yang.¹⁵

Wu Xing do not describes concrete properties of the matter, it should be considered as phases in eternal processes that make up the universe. The five phases are arranged in different sequences where every phase is the mother and have impact to the direct following phase; Wood gives fuel to Fire, Fire generates Earth by leaving ash etc. The elements can also defeat each other in a opposite relation. Wood defeat Earth by getting nourishment from it. Earth defeat Water by sucking it up. If the destruction process is left unrestrained the balance of existence would be disrupted. Therefore the five phases consists of two processes, the first process the child defend the mother to restore balance and in the other reparation process the defeted phase mother maintaing balance. Wood defete *Earth*, but *Fire* amends the loss by creating more *Earth*. These two processes could be seen as feedback beetween seperated parts in a system that is self-regulating. These early Chinese abstract models could be helpful in understanding ecological processes as self-regulating. And the beliefs are the basis of understanding chinese alchemy from with also chinese medicine build its framework.¹⁶

Many of these aspects are inspired and inported from Hinduism, Buddism came and derive from Indian thinking. *Pancha Bhoota* is the description of the basis of all cosmic creation: *Earth, Water, Fire, Air* and *Ether* (Space). In Indian philosophy, the human body is considered to be made of these five elements, the overall health of human being. Any disorder in human body indicates imbalance of one or more of these elements. Eatch element is also related to a sense organ; *Ether*: sound and ear, *Air*: touch and skin, *Fire*: sight, color and eye, *Water*: taste and tongue, *Earth*: smell and nose.¹⁷

We also find the same elements in the Japanese Buddhist expression Godai, litterary the "five great": Earth, Water, Fire, Wind (Air), Void (ether). Earth represents the hard, solid objects of the earth, like the stone, and indicate a desire to have things remain as they are; a resistance to change. Water represents the fluid, flowing, formless things in the world and mental or emotional tendencies towards adaptation and change. Fire represents the energetic, forceful, moving things in the world and in the mental and emotional realms, it represents drive and passion. Wind represents things that grow, expand, and enjoy freedom of movement. Aside from air and smoke, it represent the human mind, as we grow physically we learn and expand mentally. Void is the most



common translation but it also meaning "sky" or "Heaven" and represent spirit, thought, and creative energy often also those things beyond our everyday experience. $^{\rm 18}$

Contrary to the Chinese interest with process and change the western or Greek elements were concerned in fundamental substance and natural qualities.¹⁹ The search for the basic parts off matter goes back at least to the Greek philosophers of the fifth century BC. Empedocles is credited with the concept of the four basic elements; Air, Earth, Fire, and Water, from which all substance of the universe was to be made in different propotions. This idea was followed by Aristotle, among others, and was an accepted part of the medieval world view in Western Europe. It was not until the sixteenth and seventeenth centuries that natural philosophers started to challenge the idea and look for more precise view of the nature of matter, based on empirical evidence. The modern idea of a chemical element was formulated in the seventeenth century with the distinction between elements and compounds. Compounds can be resolved, by suitable chemical procedures, into their constituent elements. Elements themself cannot be separated chemically into simpler substances. In late eighteenth century 30 elements were reliably distinguished from compounds.²⁰ This was the begining of the periodic table of the chemical elements as we know it today with 118 confirmed elements.

In the middle of the twentieth century the French philosopher and historian of science Gaston Bachelard explore the four elements in a series of books²¹, a study of the four elements material qualities in relation to imagination. For Bachelard the four elements are creative principles of consciousness and imagination.²² Bachelard divides imagination into two distinct different axes; *The formal imagination*, with association origines from object and form. "There are those who are stimulated by what is new...of change and of unexpected events." And the other, *The Material imagination*, that evoke direct images and reactions from the material substance itself. "For those who go to depths of the spirit of existence, while at the same time finding the origin and the eternal".²³

Bachelard collected speculations from popular science literature in alchemy of the seventeenth century and presents a context between attitudes to the primary sensations in human mental experience of immediate everyday experience: the *Fire* both warms and burns; the *Water* cools and can drown, solidify ice and cook our food. The *Air* can drive windmills and ships, get birds to lift and mountaineers to fall; that the *Earth* gives rest in the grave and metals in the mine. All these experiences are universally and elementary as primary or primitive.²⁴ When he turns to pre-scientific experience it is to point to an area with equal dignity and expression of "logos" that characterizes the specifically human. For Bachelard the pre-scientific experience is a permanent feature of the human consciousness.²⁵ There is a direct correlation between what we see and what we imagine. We activate the same part of the brain when visually reading and recognizing objects, and when we are imagining and dreaming. So to enhance the capacity of dreaming and imagining we could make our reality better by using substance and materiality bound to the four elements.²⁶ For Bachelard everything with poetic qualities is related to the substance and matter it self. "...all poetics must receive ingredients... of material essence".²⁷

The classical elements could help us concentrate and focus on sensual experience and of natural phenomena around us. The physical space have the capacity to enable us to enter a mental space of dreams and imagination.

The four proposed structures are working as instruments to capture phenomena of nature of the elements at the site. The structures aiming to create sensual atmospheres that amplify phenomena of nature through season and time. The term atmosphere used by the contemporary architect Peter Zumthor referes to experience of architectural quality, when a building manages to move us.²⁸ The sequence of movement, walking in varied landscapes, is a bodily experience, we measure and interact with the enviornment. The topography, leaning surfaces, makes us aware of our self, we sense our weight and balance, by moving we are measuring ourselves and the action is getting us closer to reality and ourselves.²⁹

The sequence, contrast in movement and finding rest and pause on a bench with varied atmospheres of spaces that evoke tranquility, reflection and contemplation, is the aim of these structures.

Materials with a direct relationship to the site, as granite stone and pine wood, are put together easy readable as primitive tectonics to create spaces and atmospheres with light and shadow. The sensual qualities and the presence of materiality is intended to create spaces for memories and dreams, for resting and reflections, for thoughtful observations: contemplative spaces.

If you walk along the area and by curiosity finds these structures, when sitting down finding a mental space of tranquility and recovery; then the project fulfilled its purpose.



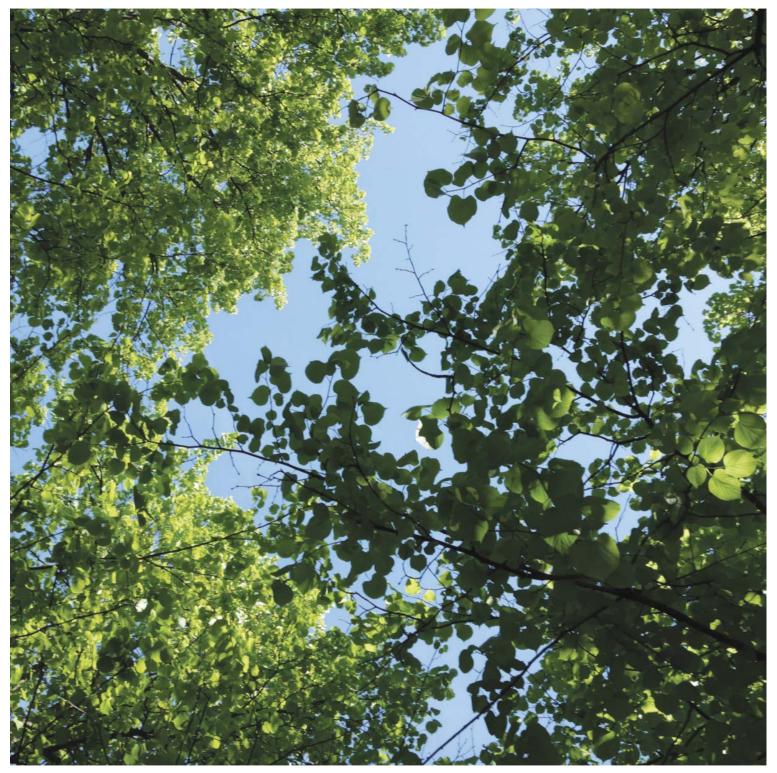
Summer evening view over Stora Delsjön





W I N T E R





S P R I N G





S U M M E R





A U T U M N



SITE HERBARIUM



Aspen, Populus tremula



Lingonberry, Vaccinium vitis-idaea

Blueberry, Vaccinium myrtillus



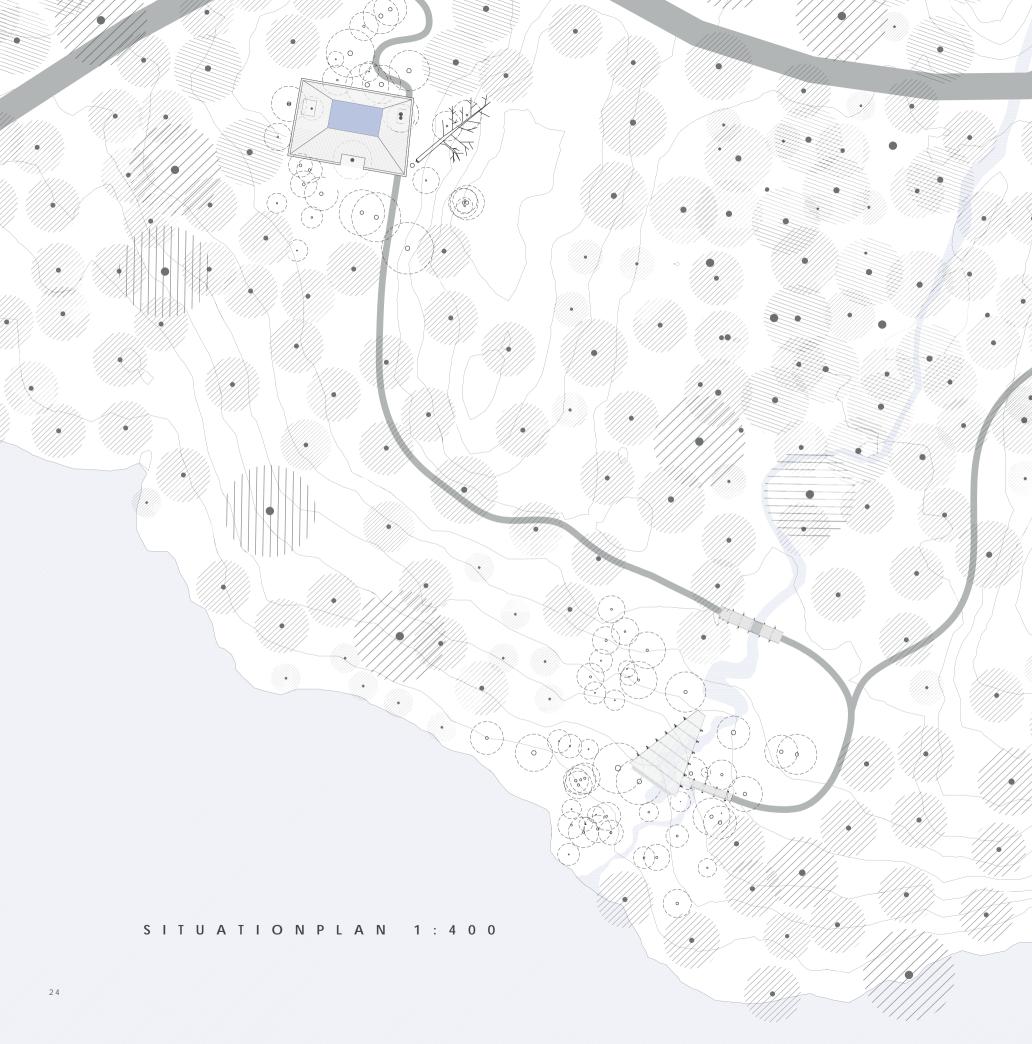
Birch, Betula pendula

Aspen, Populus tremula



Spruce, Picea abies

Pine, Pinus sylvestris



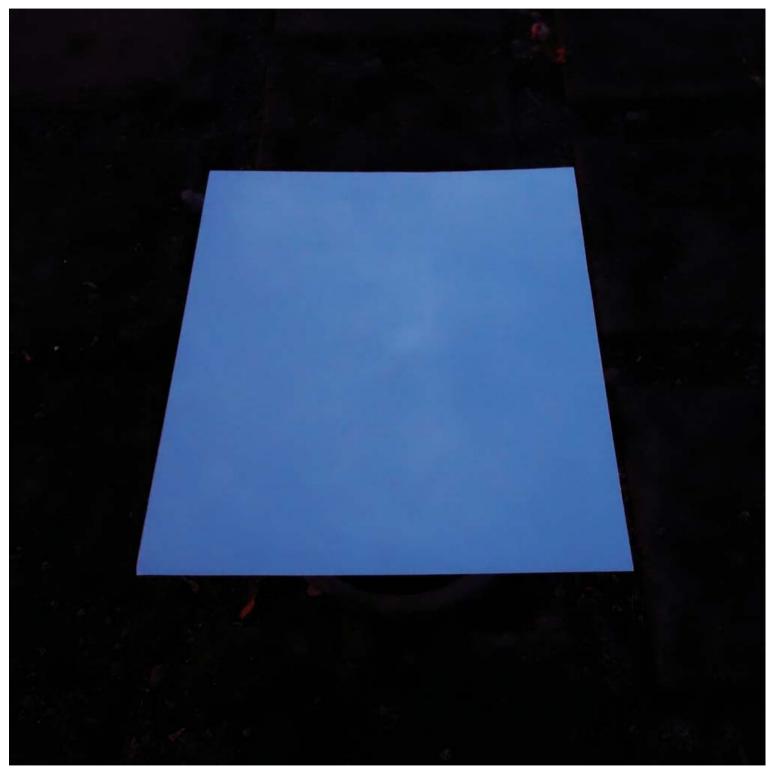




SECTION 1:400



AIR



Water mirror reflection study, autumn evening.





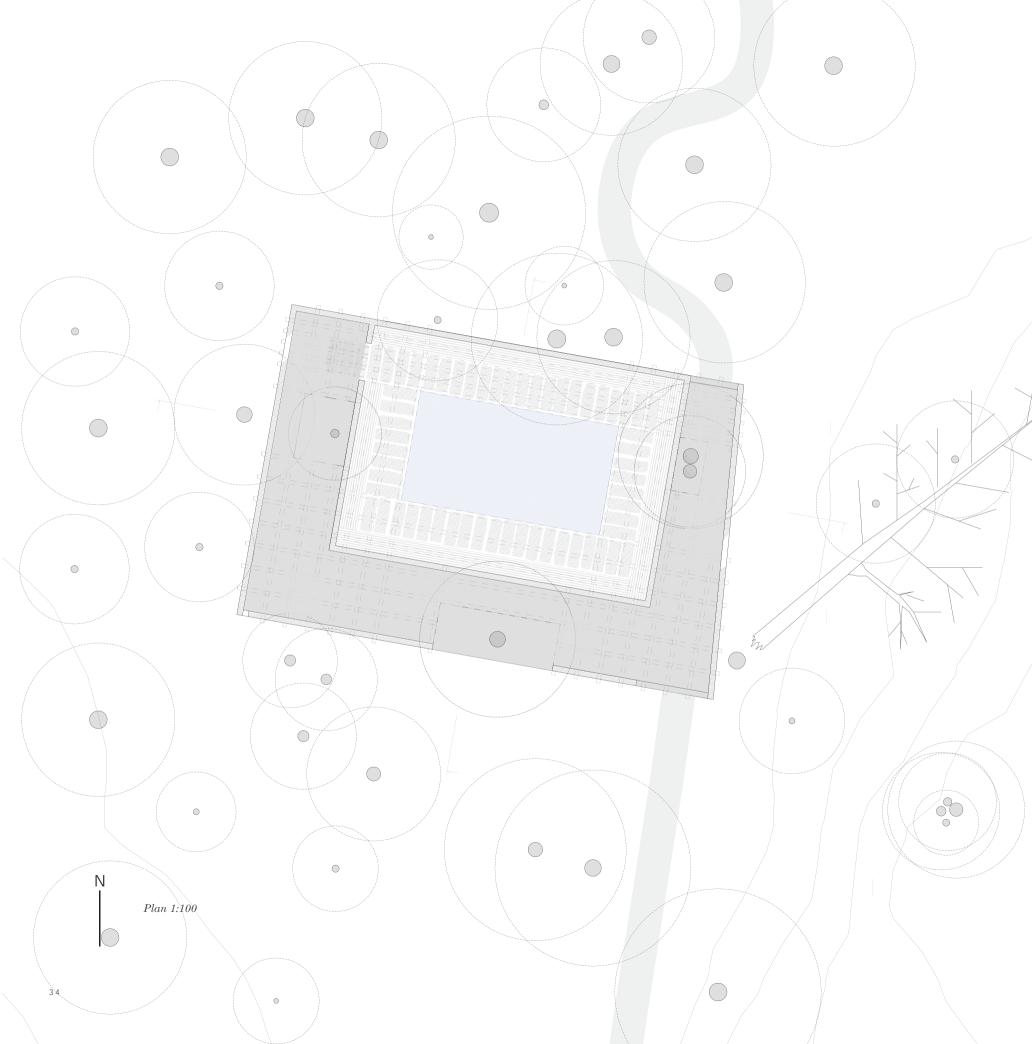
AIR

Framed glare in the forest

A dark structure in between tree trunks contrasting the surrounding forest is visible from the existing walkway. A narrow gravel path leading you towards a opening of a building. A building, made out of stacked pine timber, resting on heavy granite socle. A passage following a slight inclination of the existing ground with one opening to the sky where two birch trees are cutting through the roof and letting light in, ahead there is an opening towards the lake collecting wind through the passage. Turning right the pathway continues where light will guide you, a small opening in the wall projects a ray of light on a sunny day. Turning right again a soft diffused rooflight are opening towards the sky and treetops where branches and leaves declare the wind condition outside. An opening in the wall leads to a windless atrium, a hole in the roof is framing the sky and collecting rainwater in a low water mirror that reflects passing cloud and the sky.

The fragrance of tared pine timber stacked on top of each other is giving the space a distinct scent. The sound of walking on gravel in the passage will inform you if another visitor is approaching. The outside of the structure is rough treated with an ax while the interior texture have a softer and smooth planed pine surface. The water mirror basin is casted in brass, a craft where great care and concern been put in giving it form. The smoothness of the rounded edges hopefully attracts many hand to touch the water and the basins radius, and eventually the luster of brass will appear under the water mirror can lift your gaze towards the sky. Hopefully the reflections on the still water, the presence of the sky helps you to relax and contemplate over your life.





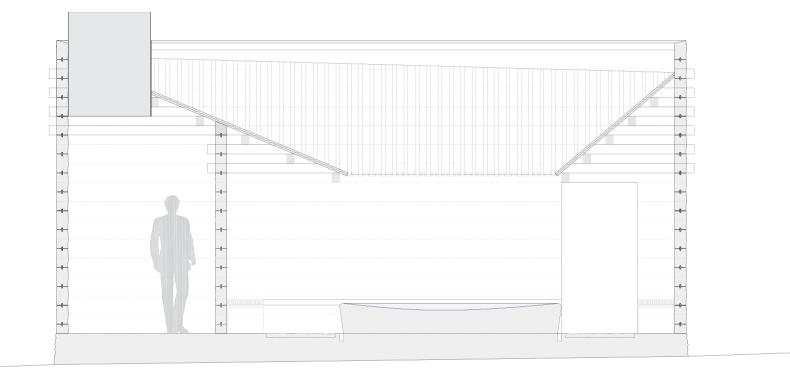


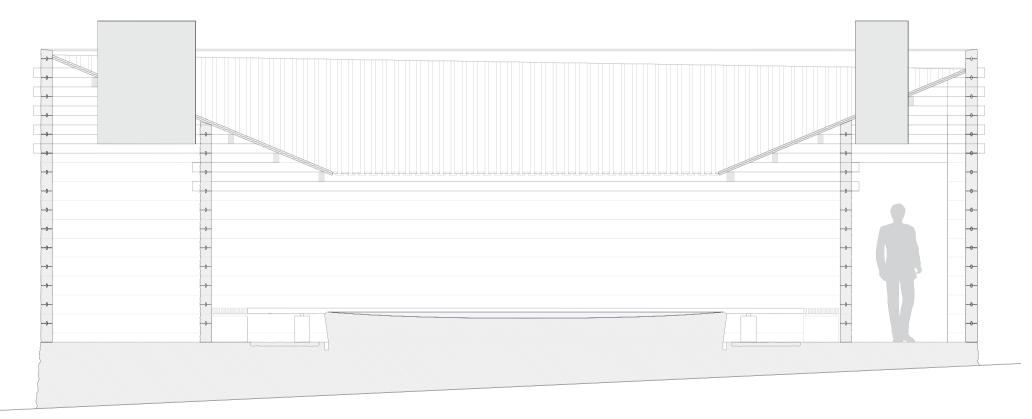
Section 1:100

Elevation North Facade 1:50

										772
		//////////////////////////////////////					<u> </u>			
									11	
	+									
							14 E E E E			
										. [2]
								+ <u> </u>		1697
-1 - 1 + 1 - 1 - 1 + 1		-1 = 1 + 1 + 2 = 1 + 1 + 2 = 1	+				1 + 1 - 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 +			-169-
ii /\	ii ii									
	: :; 11									
· — · — · · _ / / 										
- M - M										
A L										
- /31 /										
										_! _! []
										- + 🦷
\rightarrow \downarrow \downarrow										
N i /								i i i		11
/I										
S/I										
<u> </u>										
$(-1) \neq (1) + (1) = (1 - 1)$	† · = · = \= · = =									i i 🖡
() () () () () () () () () ()								i i i		
	ii 🛛 🔪 🗌									
	ii Ail									i i l'
<u>/- · - · - · - · - · - · - · - · - · - ·</u>		- + + - · - - -						- +		
	i i 🔪 🕴									
	i . L L . [[
	+ + + + + + + +									-1-+
	ii ii\									
		11118181111111181811								
			(-) - (-) + (-) - (-) - (-)	- · - · - · /- · + i						
				/ i						
				/ I						
-1 - 1 + 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		- $ - $ $ - $ $+$ $-$			111111		1+1-1-1+1			

Plan 1:50







North elevation, part of model 1:25.



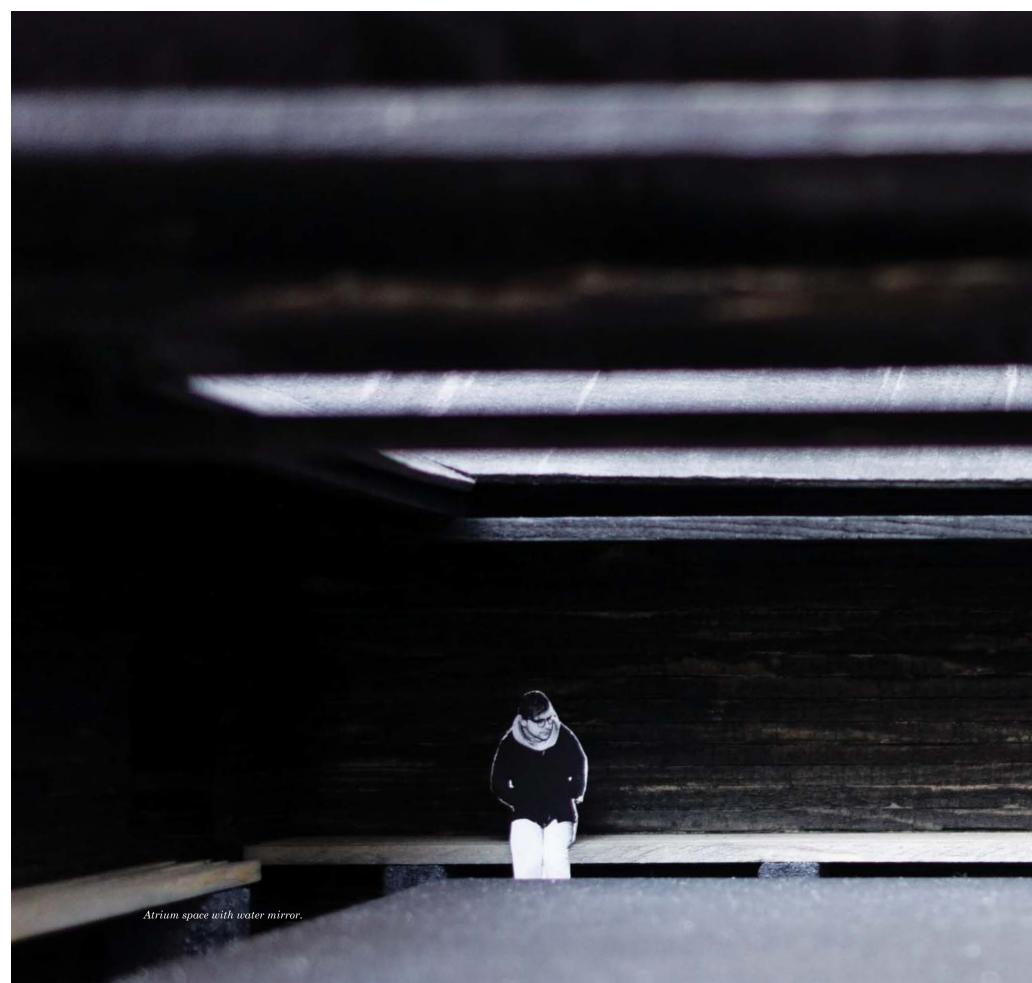
Wind passage along with two birches.

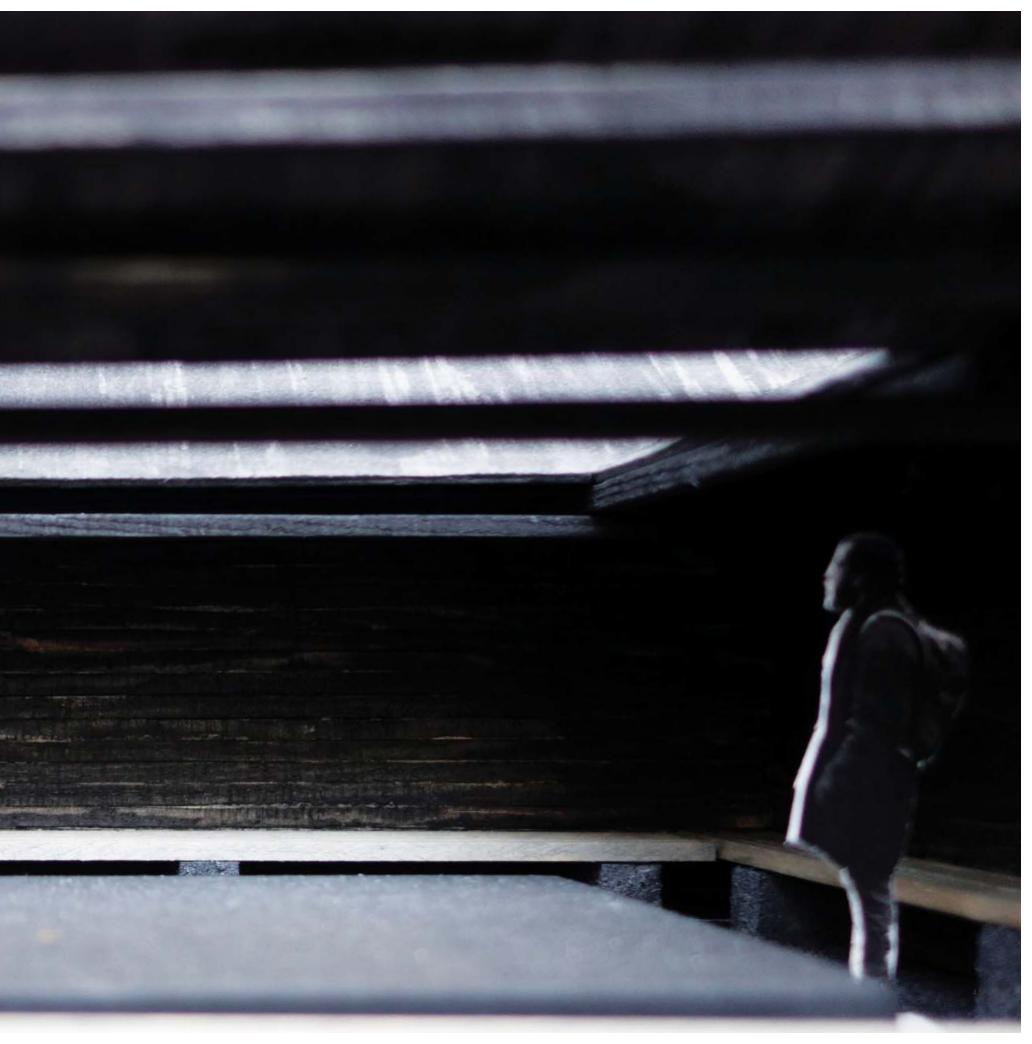


South facade, Modell 1:25



Transitional space along a spruce with a opening to the sky.





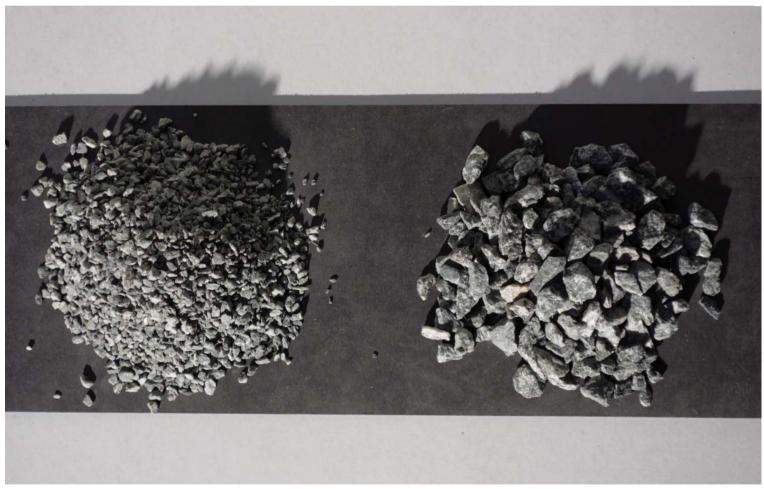
MATERIALS AND REFERENCES



The sky and trees reflected in the water of A-dammen, Chalmers.



Flamed granite from Tossene, Bohuslän.



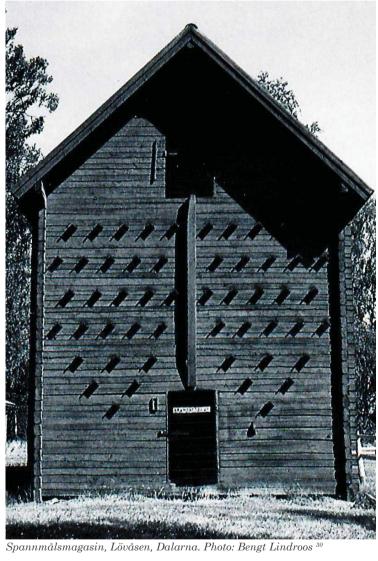
Granite gravel, size and sound variations.



Material study, texture of ax carved tarred pine.



Log house in Rättvik, Dalarna.





Sun melted tar off the roof of Skogskapellet, Skogskyrkogården, Stockholm, Gunnar Asplund.



Margareta Krok statue cast in brass outside Dramaten Stockholm, Sculptor Heinrich Muellner.



Drinking water fountain of stone, Stockholms Stadsbibliotek, Gunnar Asplund.

W A T E R

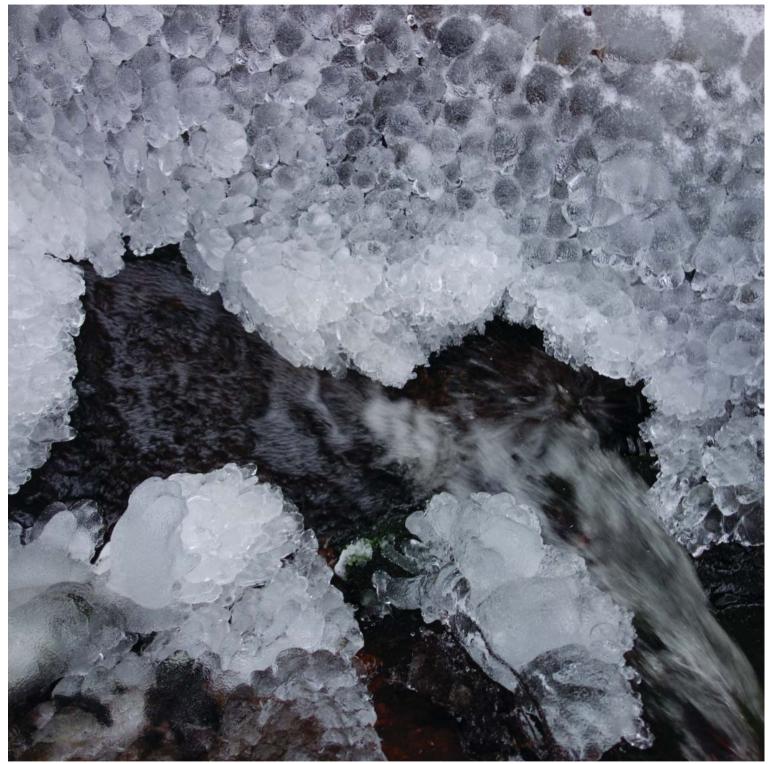








View of sunset towards north west from veranda of the water pavilion.



Focus point of spring in winter.

WATER

Sound frame of stream

Walking down a gravel path towards the lake you find a corten steel cone, lightly placed on the ground by a wooden structure. A small bridge is leading you between trees towards an opening in the wall. You walk through a short passage that gives you a glimpse of the lake on your left and leading you inside an enclosed space. There is one opening in front, towards a small spring that leads and amplifies the sound of the spring. The sound of the spring changes character by seasons and are constantly dripping at this position, creating a changing soundscape. On the right side, southeast, punched holes are letting small rays of light through that traces and move along the opposite wall and floor, making you aware of the subtle movement of the sun. Opposite direction of the enclosed space you find benches under a roof with a view towards the sunset over the lake.

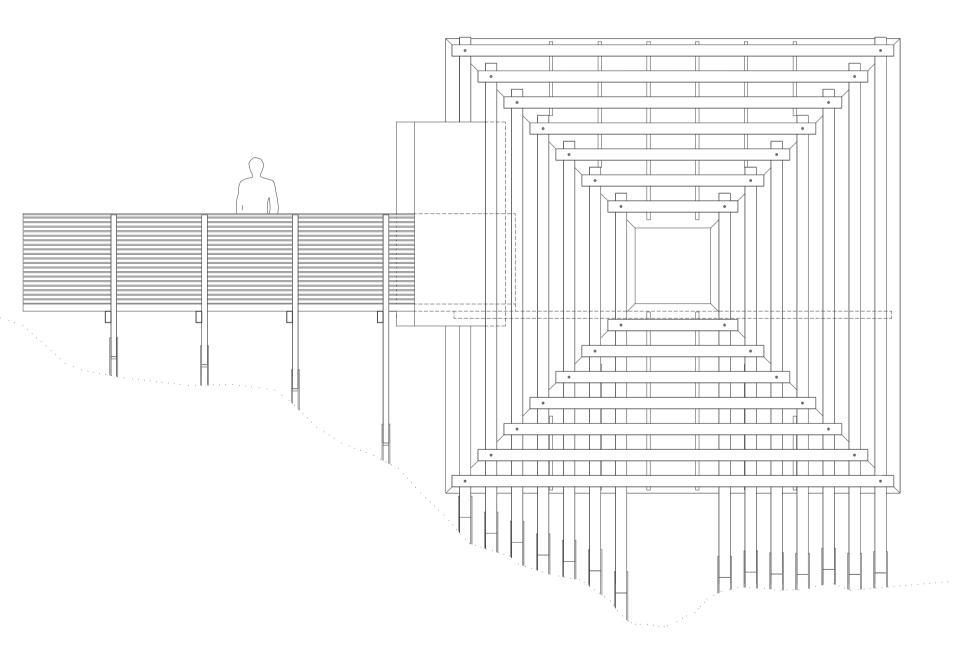
The hard corten steel helps sound to bounce and amplify, gives the structure an overwhelming soundscape a rainy day. Corten steel creates its protection when exposed to weather, it create rust that is its own protection, and over time the varied degree of exposure of natural forces will be darkening and deepening the color of the material. The wooden frames interconnect on top of each other easily readable, and are left on the outside of the building to focus on the quality of the interior of the space.

The reflection of a quiet lake or a water collection in the dark forest; reflections over life. Drinking fresh cold water from a running spring. Weightless floating in the refreshing lake in late summer. The sound of a rippling stream. Waves lapping against the granite rock. Our life on earth is based on the combination of water and energy, sea and sun. Water is absolutely crucial for our existence and one major reason why we, humans, exist. Perhaps our experience and attachment to water is to be understood through this notion.

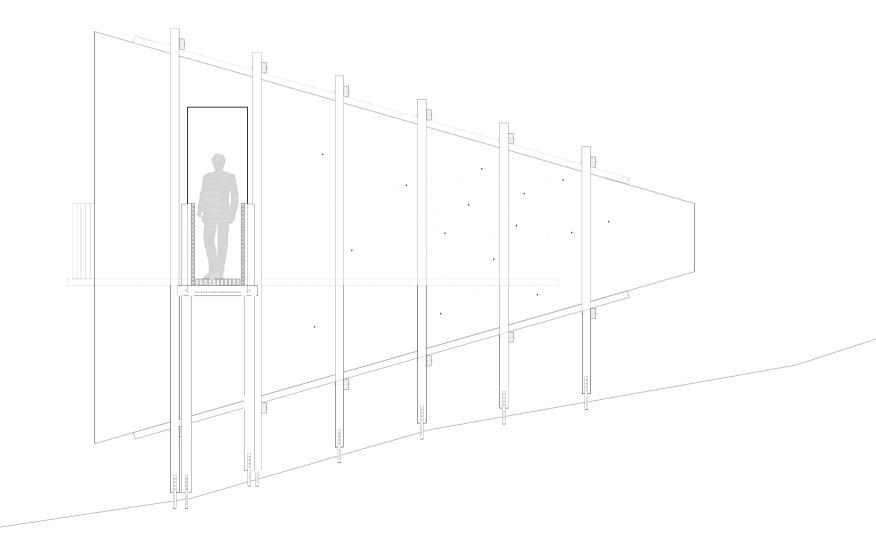




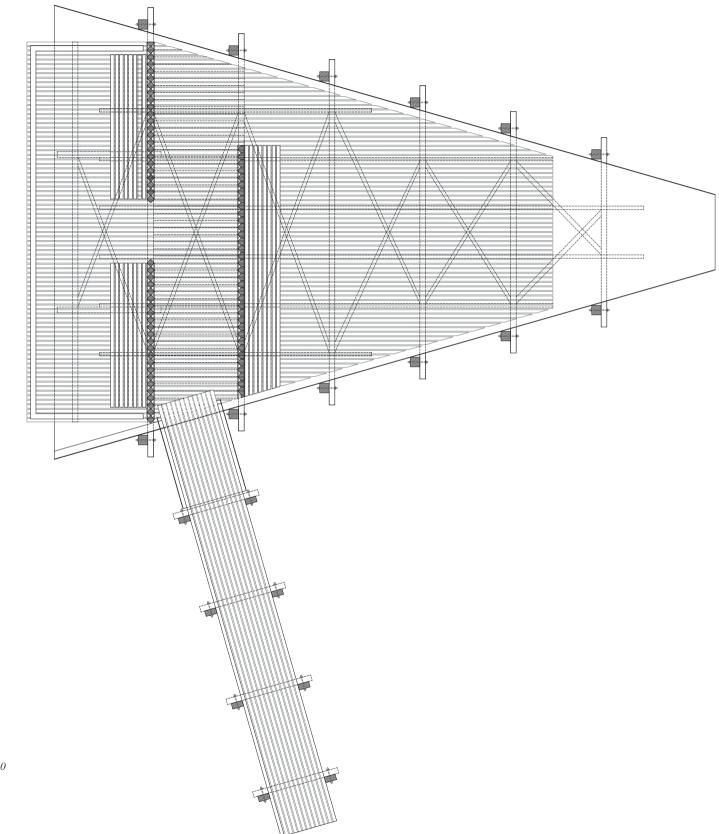




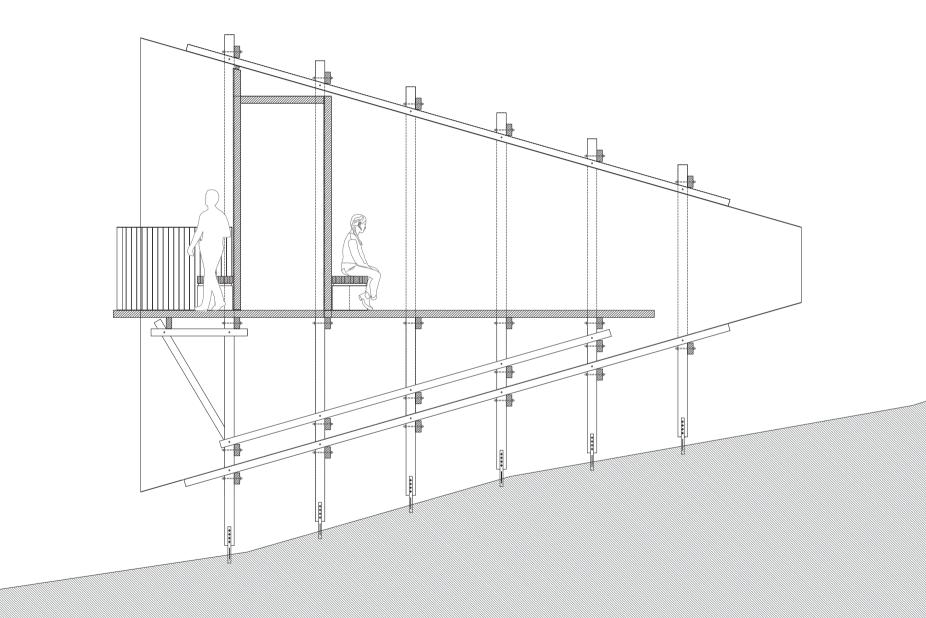
Elevation North fasad 1:50



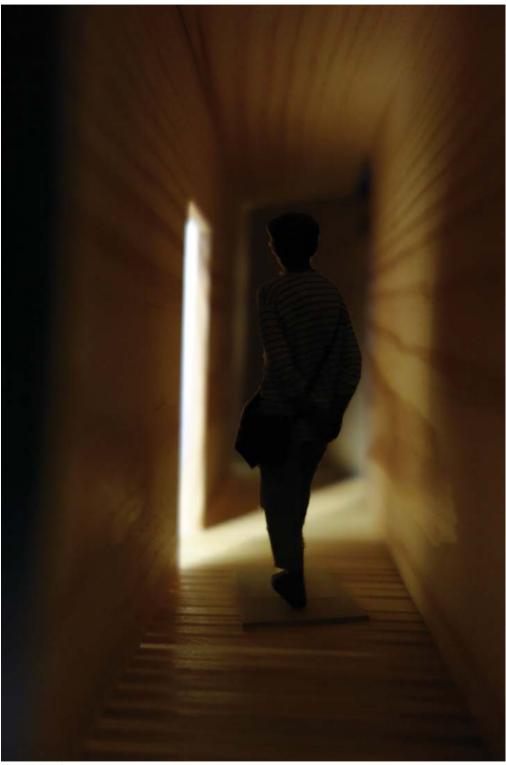
Elevation South Fasad 1:50



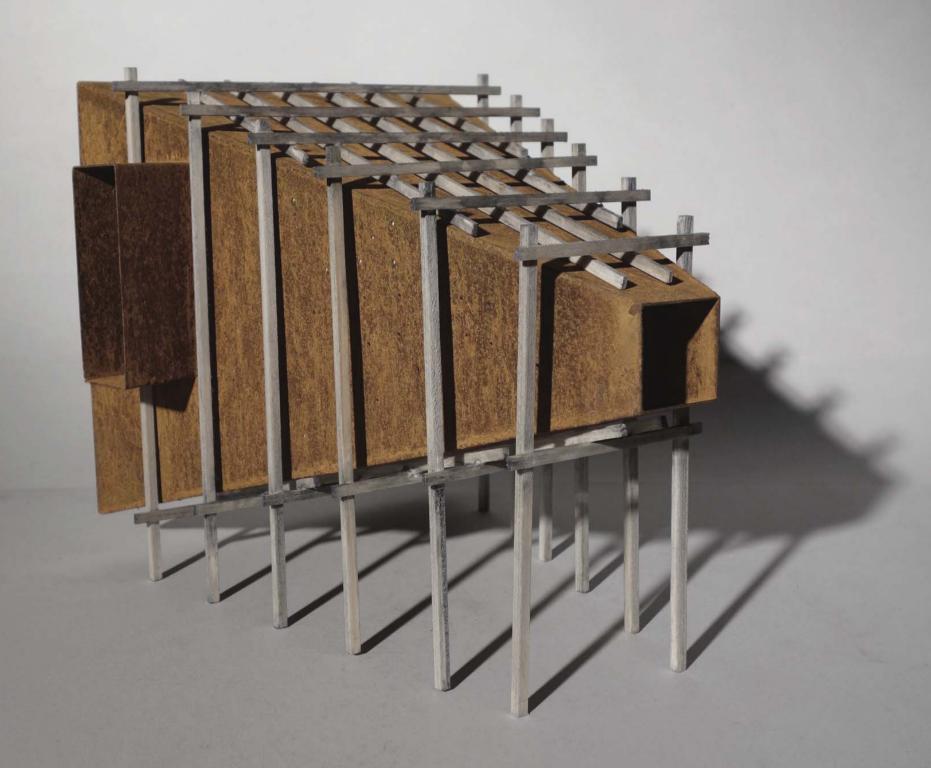
Plan 1:50





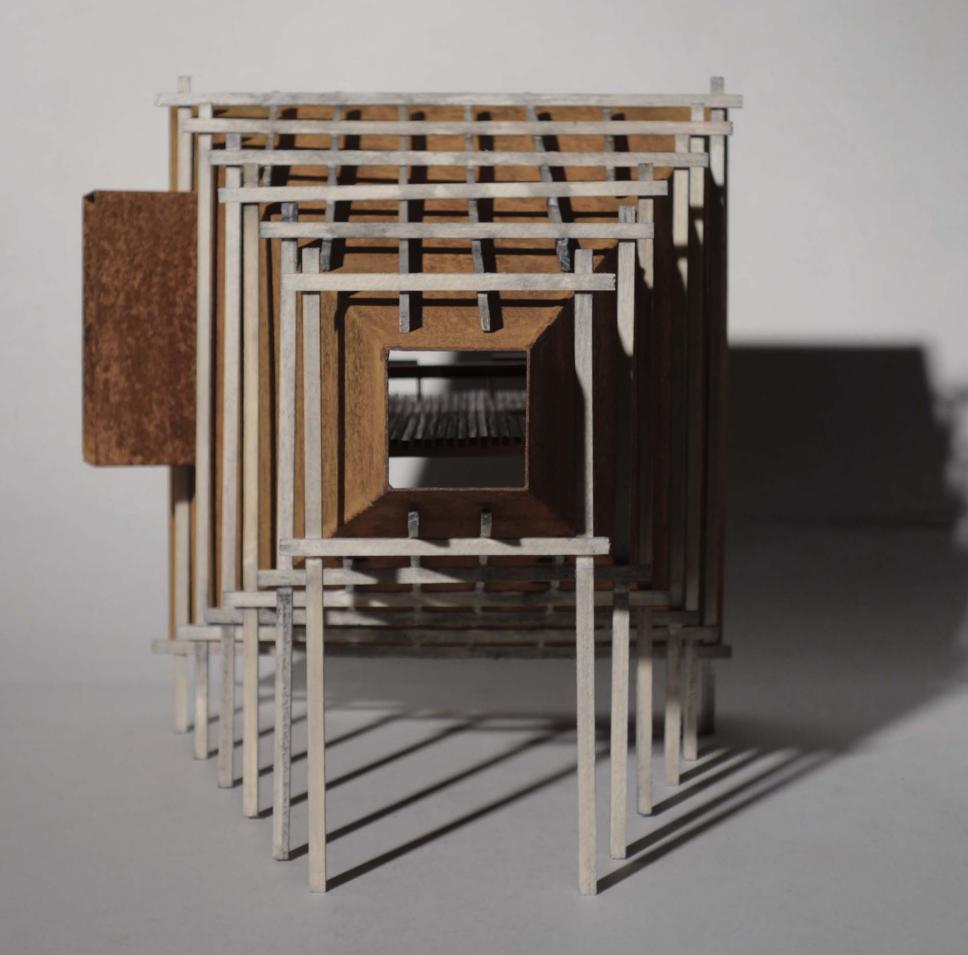


 $Transitional\ space$





Space for the sound of the water from the spring, low sun in the afternoon, thin rays of light.



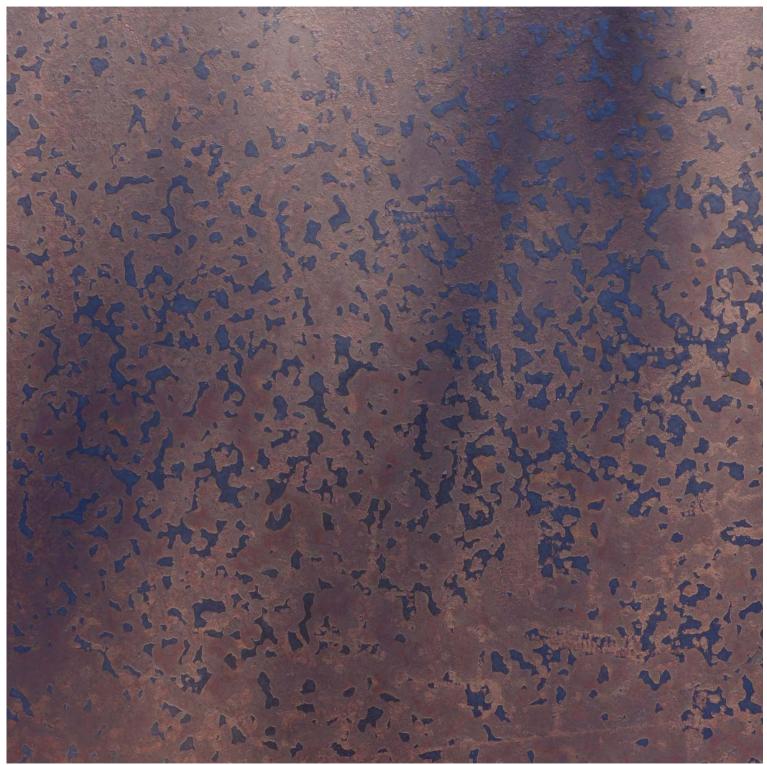
MATERIALS AND REFERENCES



Joint of graying wood at Vardø, Norway. Peter Zumthor.



Structure of wooden roller coaster Balder, Liseberg, Gothenburg.



Corten steel, worn by weather and time, layers partially peeled off.

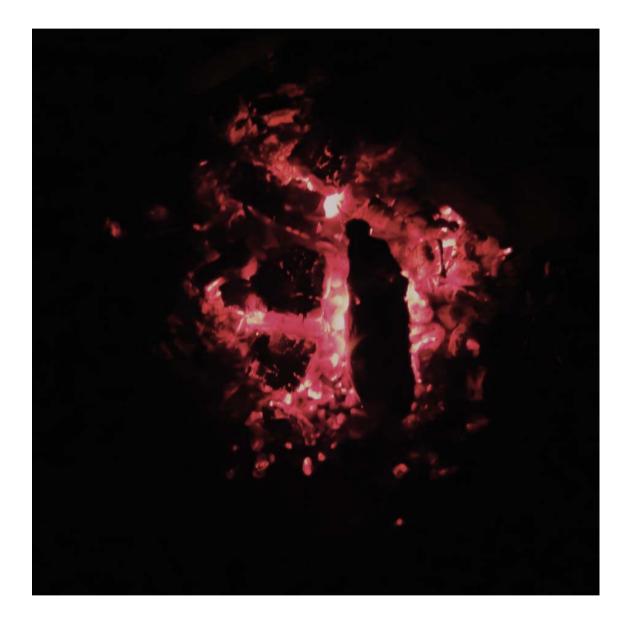


Corten steel, the color darkens after time into deeper brown.

FIRE







FIRE

Gather around the open fire

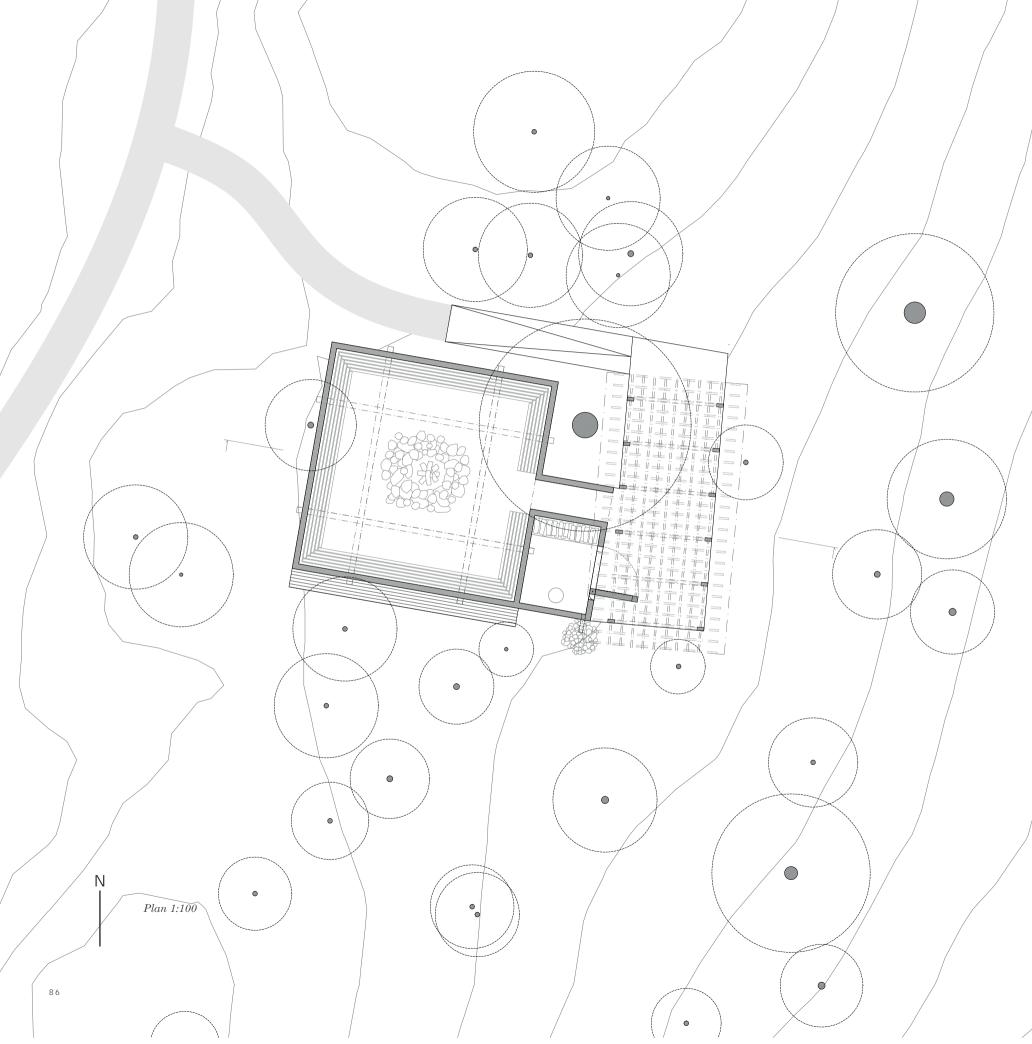
Walking uphill a dark building is visible on top of a small mountain in between pine, spruce and small oaks. The warmth of a burning fire is sensed through small slits in the walls and the smell of the smoke reveals and invite you to gather around the fire. A pathway leads you along a closed building, a turn takes you under a roof out looking the slope towards the lake. On the right you find a narrow passage guiding you towards an open fire.

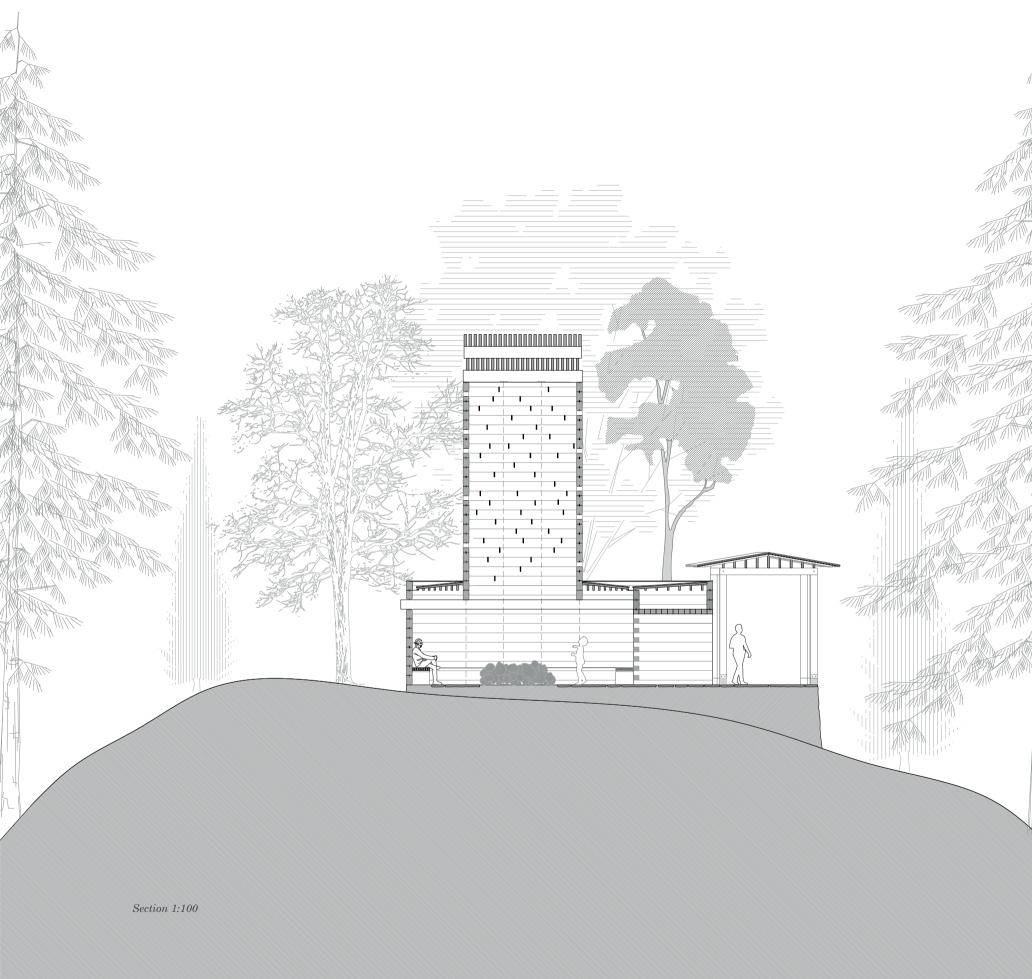
The building has one intimate space created by the fire, following the rising smoke you are part of an expanded space, a major chimney. The building produce shadows and darkness that enrich color, temperature and movement of sparks and flames of the fire. The roof structure creates small holes and openings that collects snow and lets rain fall on the rough granite floor, creating fragments of reflections of the sunlight entering the roof.

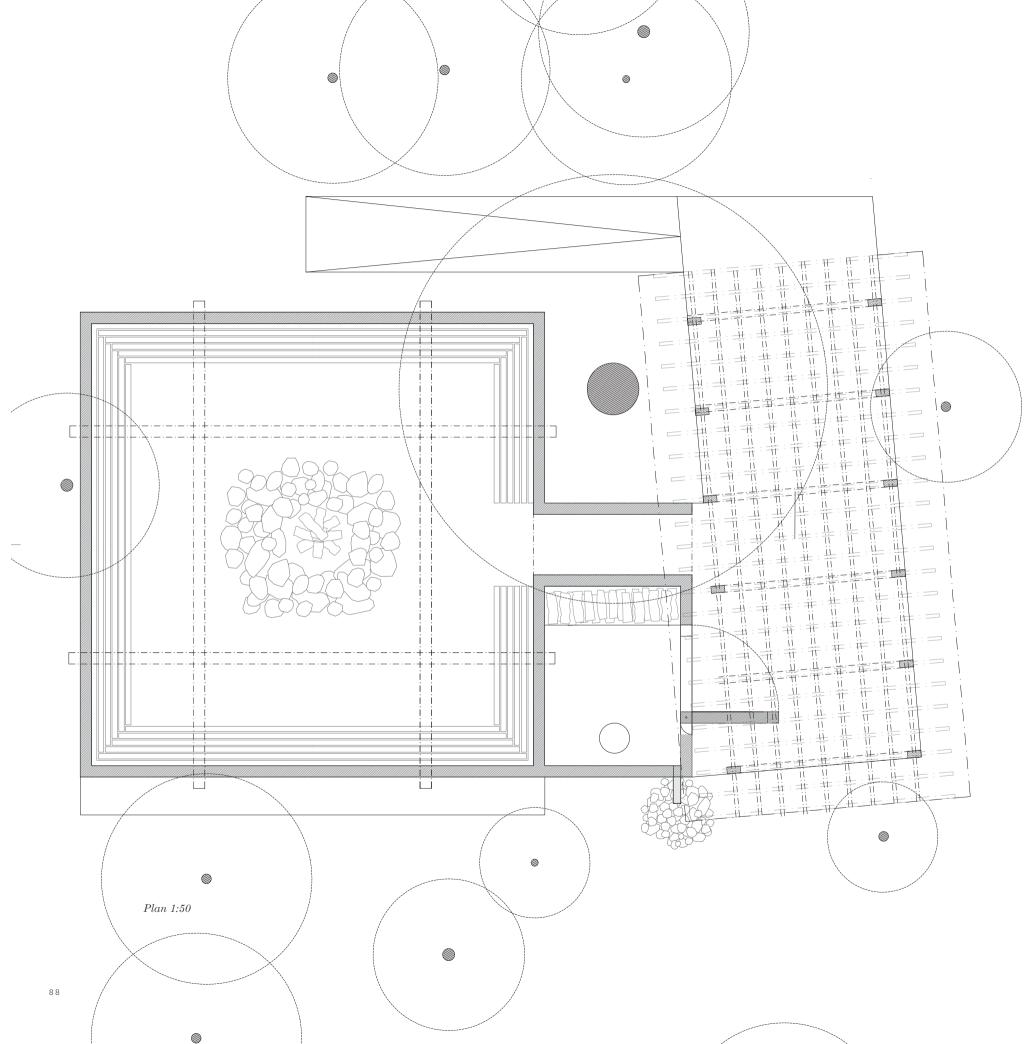
The structure is pine timber stacked and compressed with steel rods, this construction creates the opportunity to make slits in walls to let rays of sunlight through the smoke. The pine wood is charred, a protection relating to fire that give the building a long timeframe without maintenance and a richness in reflections from varied distance to the material.

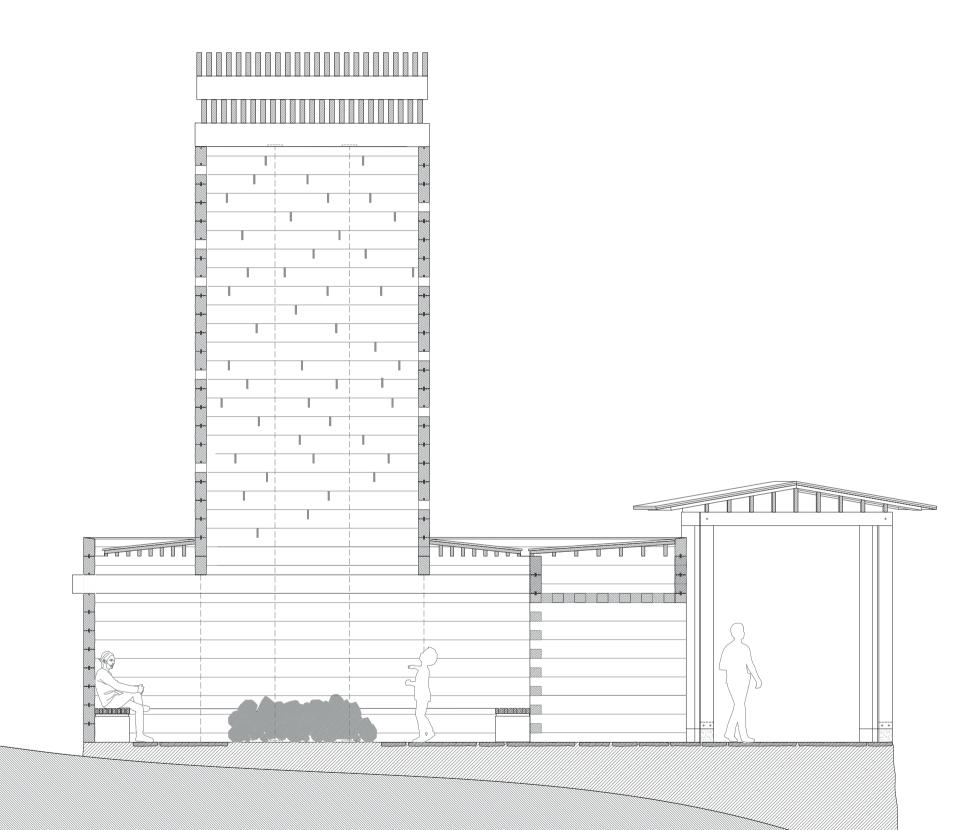
An ancient activity, gathering around the fire. Maybe someone will prepare food on the open fire, and maybe someone will share an intimate story with you.











Section 1:50





Roof protection, view towards the lake.



The light of the fire reflected on the walls on the narrow passage space.



The fire as space defining and focus point to gather around.



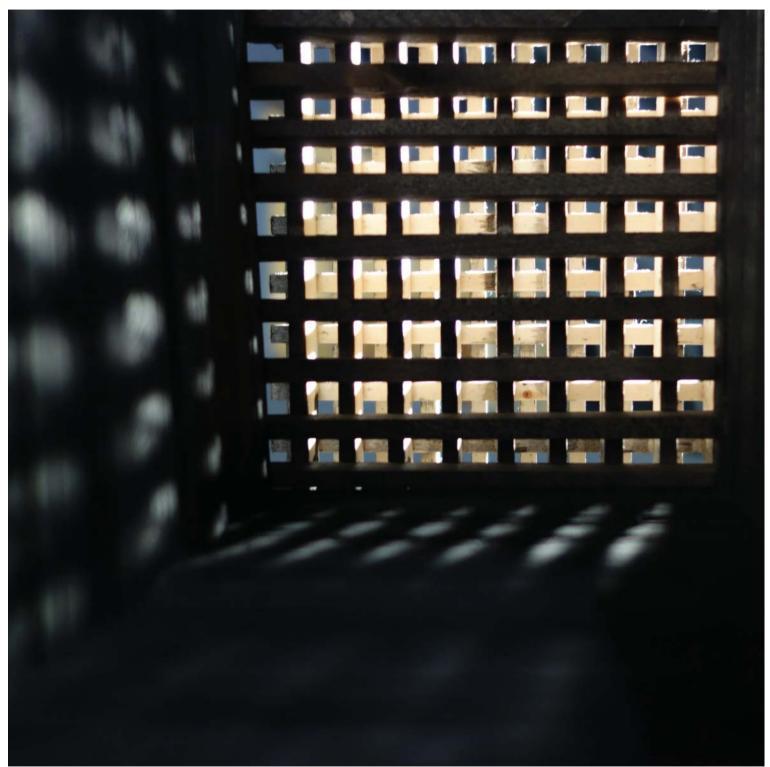
Smoke rising from the fire letting light through from the small gaps in the wall.



Rays of light through the smoke a sunny day.



Entrance passage towards stones around the fire.



Looking up into the higher space and the roof structure that leads the smoke out.





MATERIALS AND REFERENCES



Japanese tradition of charred Cypress - Yakisugi, Shou-Sugi-Ban. Inujima, Japan.



Material study, sawed charred pine.



Material study, planed charred pine.





Ruff Granit, holes in the floor gathering water that reflects the sky, 1:1 study: Götaplatsen.

EARTH







EARTH

Framing of a flyttblock*

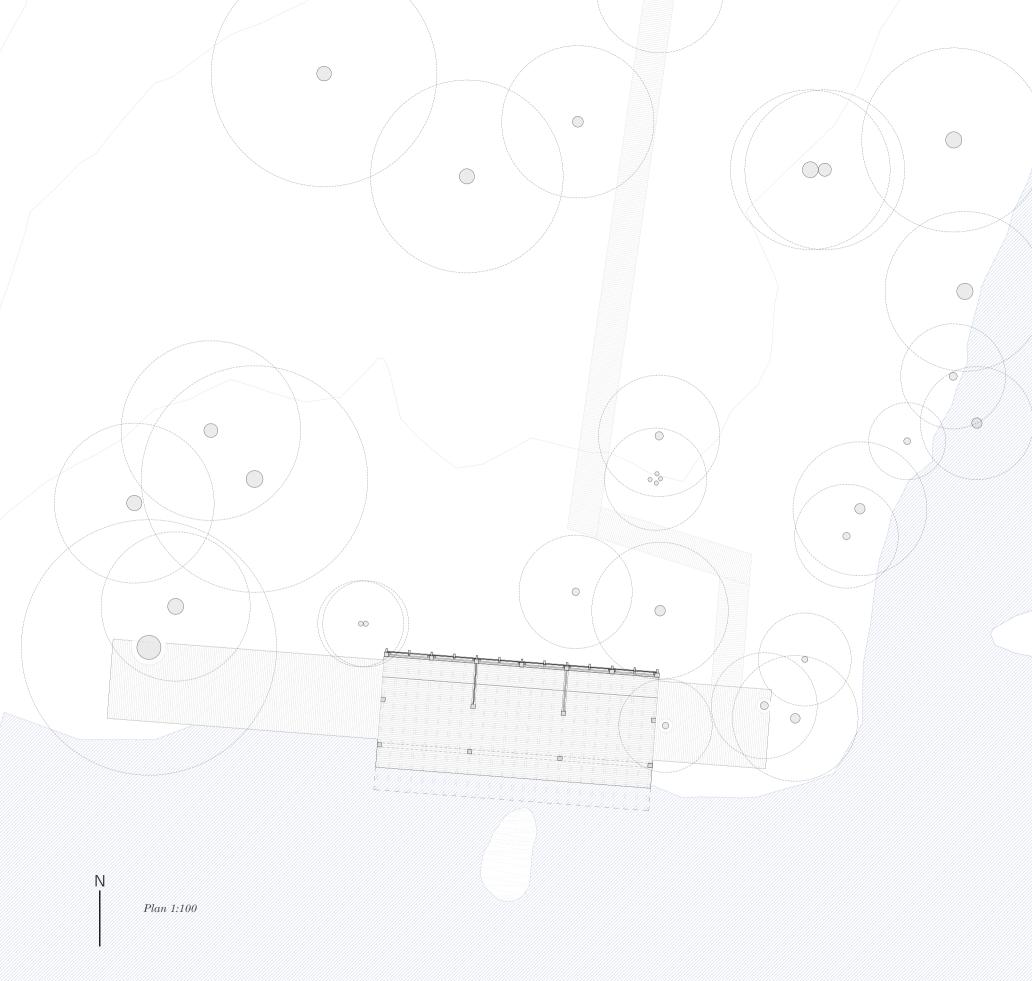
From the existing gravel tracks, going around Delsjön, you find a wooden *spång*, a swedish word which only can be translated into footbridge, leading you between trees and along a slope on your right side, offering views between trees towards the lake and taking you towards the back of a enclosed building. The spång is leading you around the building on a wood deck offering various perspectives of the surroundings. A small step up on a roofed shelter, a veranda, making a big stone in the water present and visible. The rough texture and the moss on the north side of the stone together with its position in the landscape are associated with the wide timeframe and movement of the object through time. Hopefully these qualities of the stone emerge when sitting down to reflect and contemplate over time.

The shape of the central space with walls creates an air container that makes it possible to be protected and safe while having an overview, and being inside an autumn storm over the lake. The space will be filled with air and the wind will go around the structure and creating turbulence around and in the back of the building.³¹

The roof stretched out towards the lake and the stone to create shadow. The inside of the structure is treated with dark tar, making light reflections of the water visible on the roof and walls. The proximity of the water makes it possible to sit on the edge of the deck letting your feet touch the water. A deck continuing towards west, a slightly more private deck under a pine tree for sunbathing in the summer breeze. The deck also provides a potential restingplace and docking for canoe and kayac journeys on the lake.

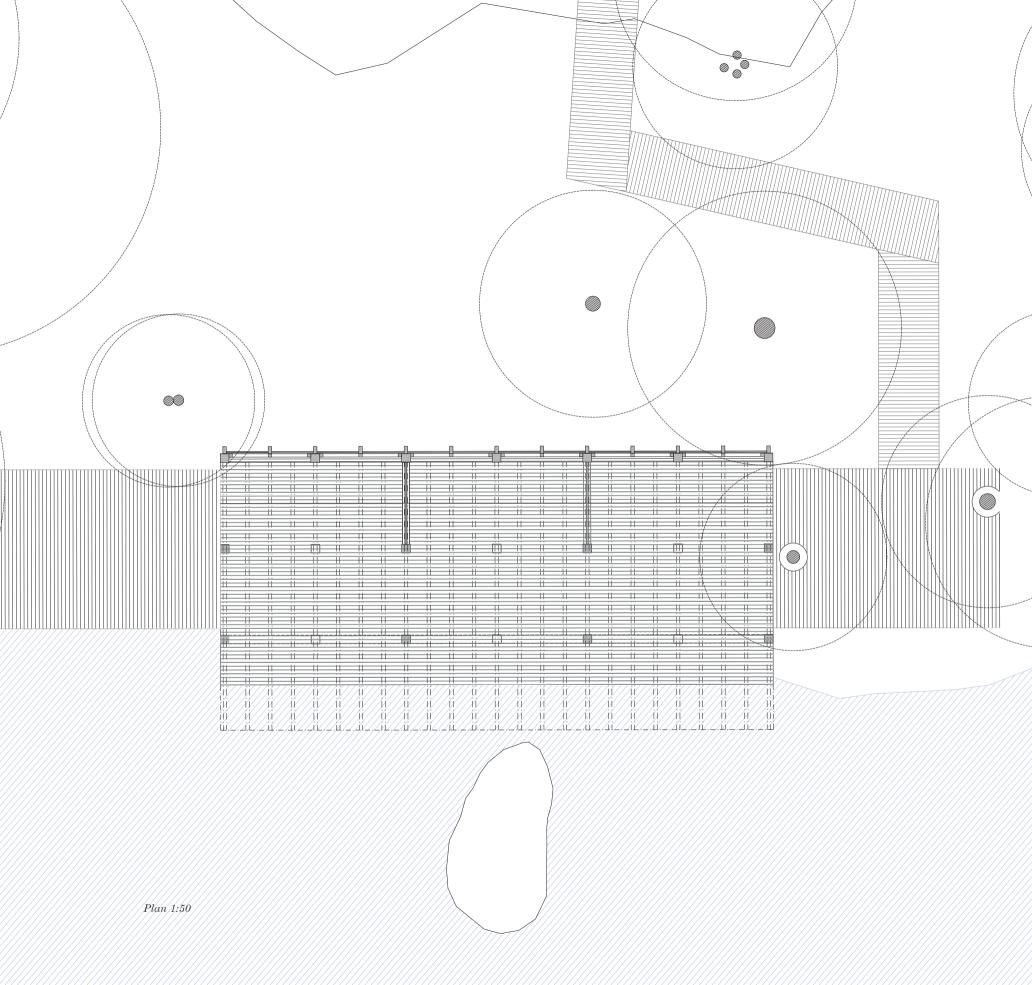
* A boulder or glacial erratic is a rock torn from its original mountain and carried away by glacial ice, ice sheet as Inlandsisen. Inlandsisen began about 115,000 years ago and the last remains disappeared from northern Sweden nearly 10 000 years ago.³²



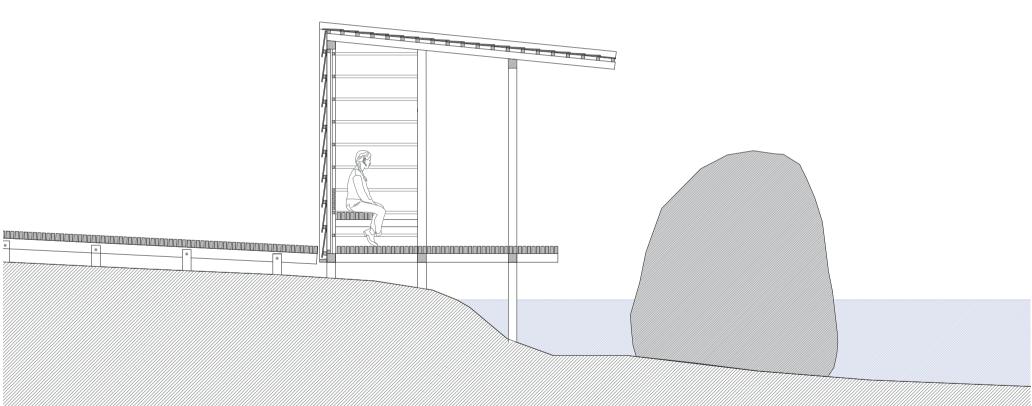


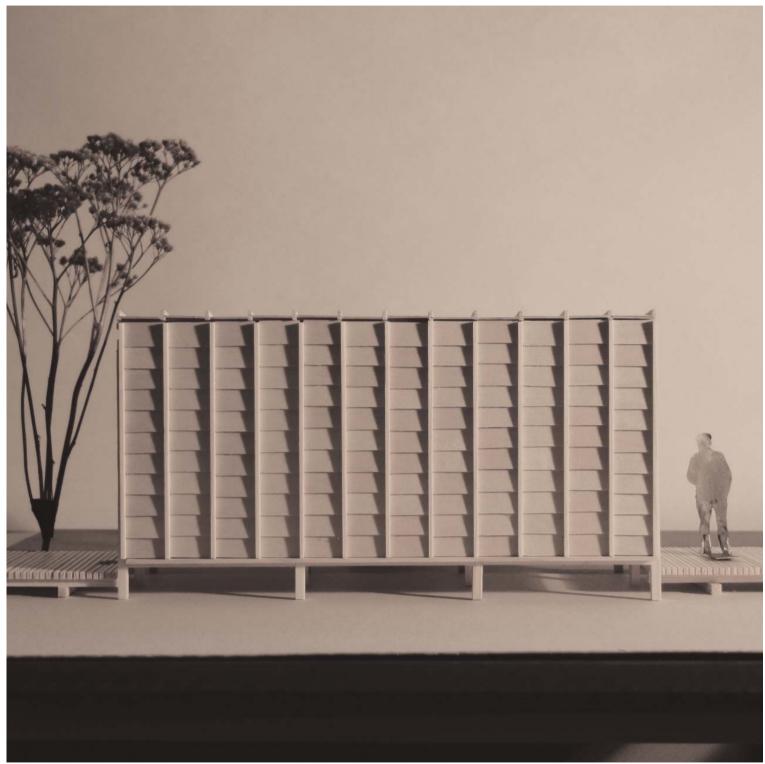


Section 1:100









North facade, hidden stone.



Getting around, revealed stone in summer afternoon sun.



Relationship of the structure and the stone in the lake.





South facade from the lake.

MATERIALS AND REFERENCES



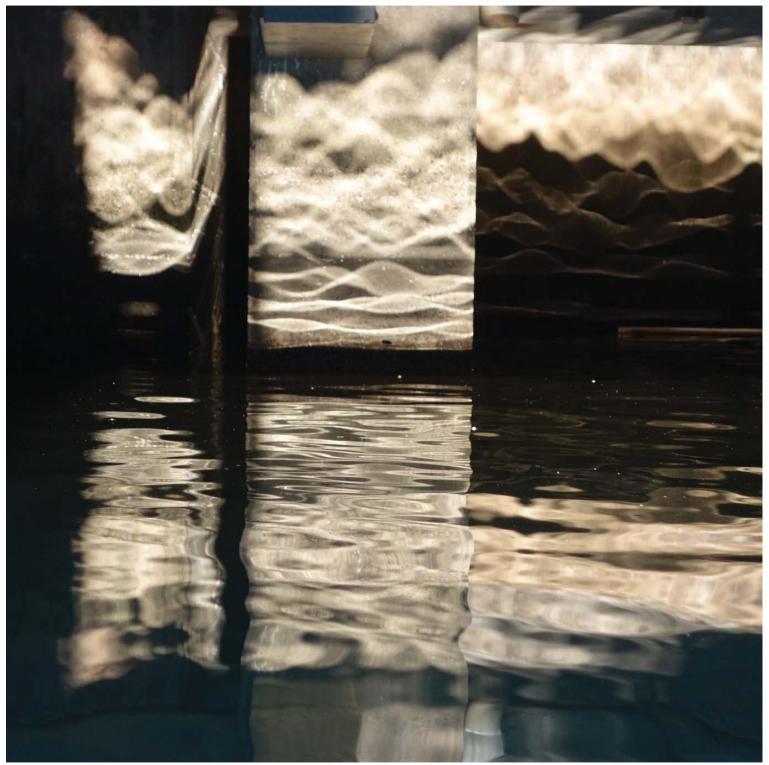
Scattered stones in the terrain, once carried away by Inlandsisen.



Engawa, Japanese veranda, view to te garden, Shosei-en Garden Kyoto.



Enjoying the sound of a light rain under a spruce tree by Delsjön



Water reflections under a pier, Eriksberg Göteborg.



Material study, "tjärvitriol" an combination of copperas and tar. Dark inside to catch the reflections of the lake.



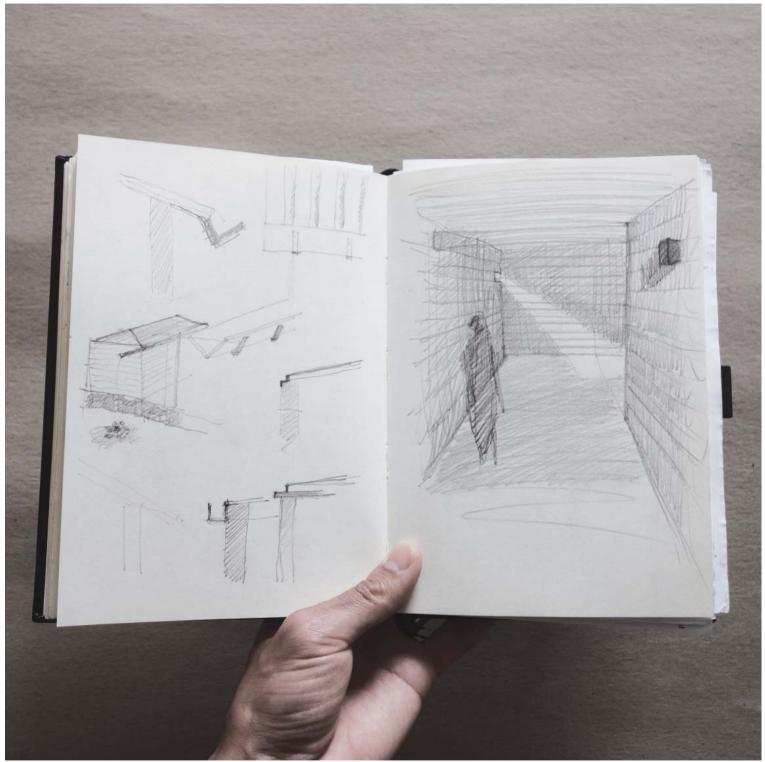
Spång, wooden deck, Nature reserve Rya skog, Göteborg.



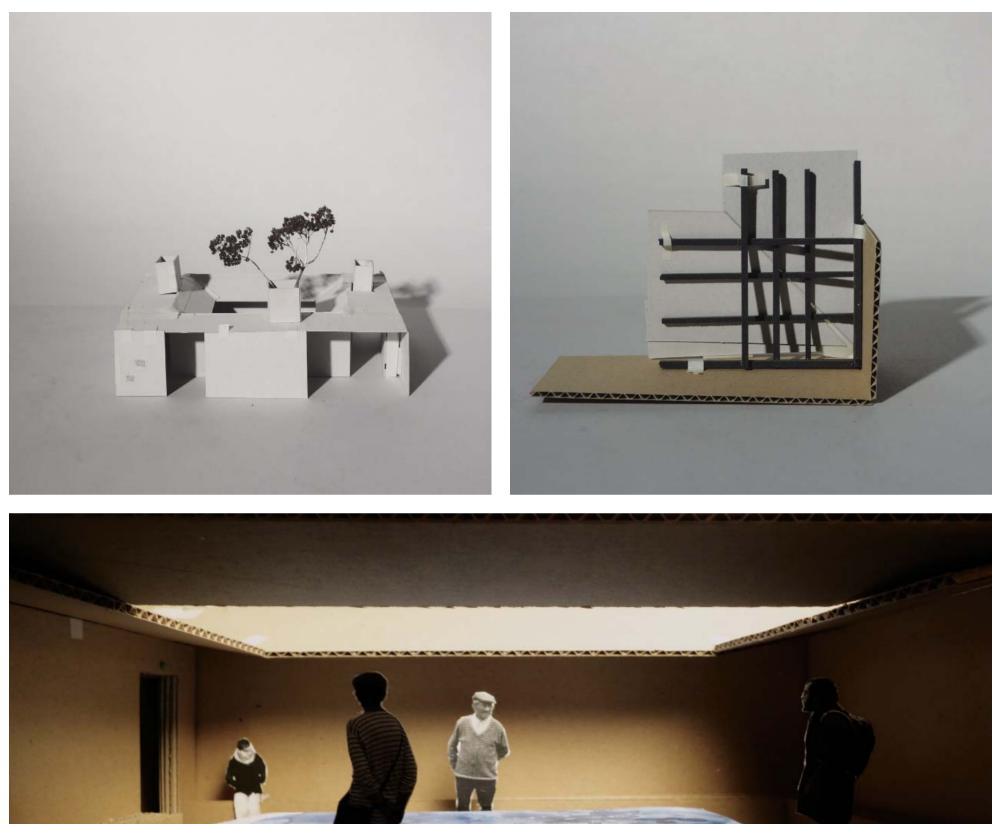


Walls of Kyoto.

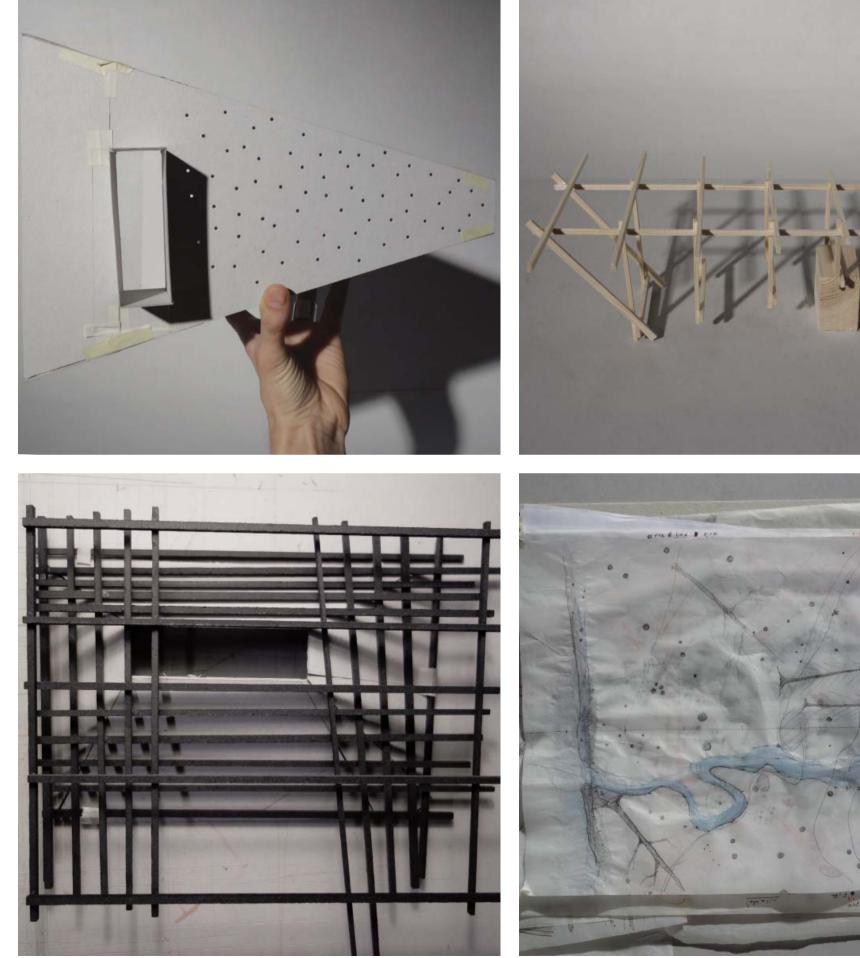
SKETCHES



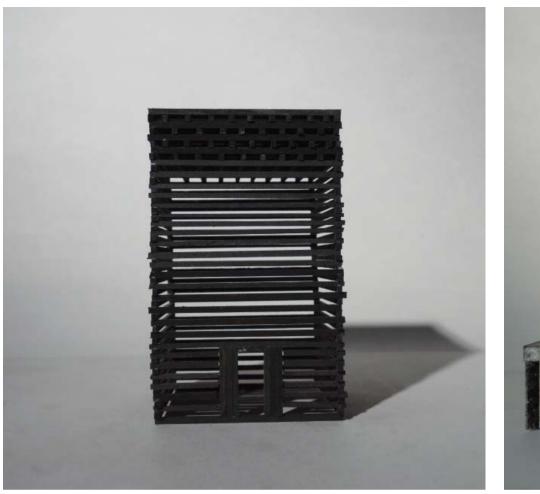
Sketchbook, Waters way, Path study: Air.

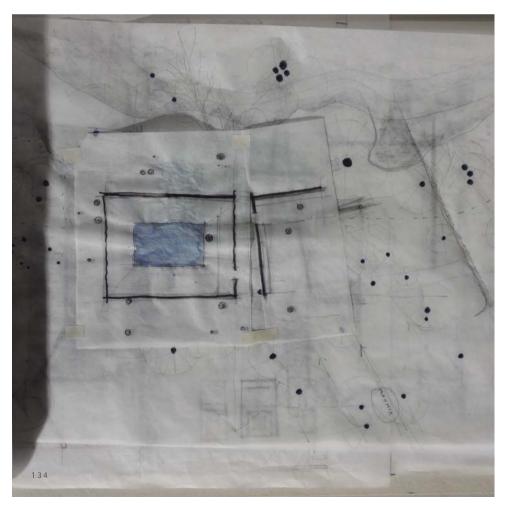








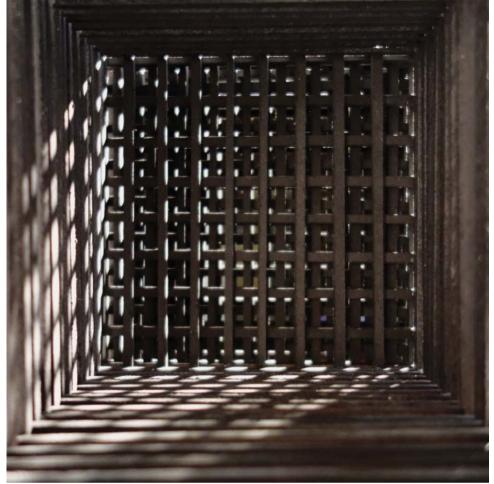


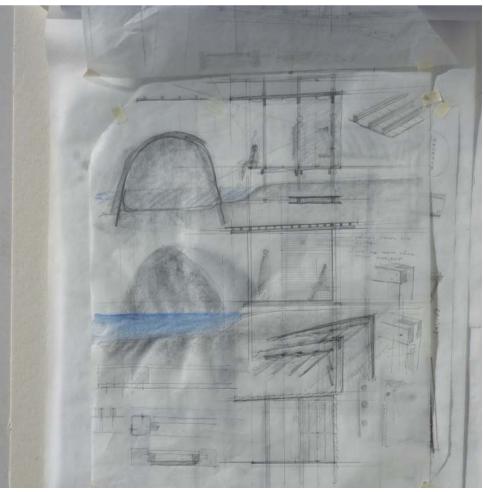














REFELCTION

Through the process of this master thesis I found a deeper understanding of how sensory experience and natural phenomena can impact how we perceive a spatial atmosphere. How architectural spaces and staging of sequences can contribute in our experience and understanding of a place. Architecture is in its nature concerning physical limitations, relationships between limitating obstacle and focus points are explored, the structures would establish a tension between surrounding site and interior space.

By considering sequence; movement and relations between spatial parts, indoor and outdoor, choices of relationship to surrounding; outlooks and framed views along with sound scapes of trees and water springs as focus points are supporting the understanding and atmosphere of the place. The walk in the landscape and inside relational spaces are staged for preparing and inviting the visitor to engage in the environment and the structures. This interest of movement and staging was influenced by a study visit to Japan, for example: the garden of Villa Katsura in Kyoto and the installation at Teshima art museum by artist Rei Naito and architect Ryue Nishizawa, also how Asplund and Lewerentz worked in the Woodland Cemetery in Stockholm to stage the progression of relationary-spaces both outside in the landscape and inside there buildings. It is a theme also inspired by Le Corbusiers : promenade architecturale. "Architecture constitutes the space of processes of movement".33

To put together material into structures in a easy readable and understandable way, a traditional simplicity, bearing and carried parts counteracts gravity as primitive tectonic. This "simple" act radiates and refers to its historical context and creates a relationship to lived lifes of the past. The treatment and textures of the materials are enriching smell and tactile qualities, creates a material presence by its density and massiveness, together with the aspecs of time and change, materials will develop as "architectural wrinkles" when patina and textures gently occur and change over seasons and time. The materiality of the structures are aiming at "aging with grace". The material presense and change of seasons are putting awareness towards perishability, an eternal question to contemplate ower. Evenually the only leftower will be the stone foundations of two of the structures, leaving the site with a new layer of ruins that radiates lived life.

Archictecture have the capasity and possibility to enhance and direct our experience of a place, a sequential focus that direct awarness towards contemplation. This awareness and presence influence our thinking and understanding of our self, a space for existential contemplation.

It is my hope that these structures will help individuals in differcult life situations to find their own inner space for reflection. A mental space to rest in and find inner strength, act preventive, and to to get back to society and every day life whitout being a patient on a clinic.

NEW QUESTIONS

Making, models as a tool

Sketch models speaks about the beginnings and about a relationship between *thinking* and *doing*. Ideas can be tried out in a physical form, with a startingpoint of a hunch or intuition, before verbalisation. In this way a sketch modell also have a inherent openess for interpretation because of its non verbal qualities. They are representations of ideas and feeling that not yet found a descriptive vocabular. The Artist Olafur Eliasson speaks about this around the modell making in his studio.³⁴

The development of a method driven by physical models as a tool and base for discussions was fruitful. The method made thoughts and design understandable and communicable. The physical nature of the model makes possibilities and aspects available. An important, yet simple lesson: the bases of a discussion about architecture is what is physically shown in models and drawings, not any intention or description.

Relations and distance

On the public presentation it was possible for the first time to look at what was produced with a distance and new questions arise. The invited opponent, Professor Catharina Dyrssen, brought up questions about distance and relations. Distance and walk between the structures, the amount of steps and obstacles in the landscape. The relationship with the site and the interventions is of high proximity to each other and perhaps the site only have the capacity to handle one of the four structures. The intervention will also benefit from greater distance in the landscape to give each of them the correct attention and focus, a possibility for major presence and contemplation.

Meeting the ground

Two of the buildings, air and fire, are heavy in their presence which is substantiated by stacked granite stone socle as a base of with the dark structures are set by gravity. This heaviness has a long tradition in architecture, aspects of lasting qualities of fortress and bastions we still find in the city of Gothenburg. The building set itself on the site, a certain pride and presence of existence, giving a quality of durability. It is possible to understand the lifespan of the granite socle, it will over live the timber structures and create a stone ruin.

The other two, water and earth, set lightly on the precious ground, making the smallest possible impact on the soil and ground. Standing light on thin stilts with steel fitting connecting the building with the ground and trying their best to conquer gravity. These



Granite ruin of Fire Structure

aspects of lightness are amplified by the heavy corten steel cone of the water structure. To perceive and understand the forces of gravity is key to experience lightness, both bodily and metaphorically. By standing and putting your weight on your left leg, you can feel the lightness of your right leg, in this way heaviness and lightness are intimate intertwined.

Two very different ways to connect the building to the ground yet appropriate in there direct context.

Symmetry- asymmetry

Another aspect that was brought forward on the presentation was the aspects of symmetry and asymmetry. Vitruvius writs in his first book about: *Ordinatio* (order), in direct relation to another concept: *Symetria*, (symmetry). These term are frequently used in his texts and are considered to be the most central in his writing.³⁵ Vitruvius influence on architecture can be understood in relation to te impact of symmetry trewout the history of architecture. In Renaissance architecture we find the interest in symmetry as perfection and harmony,³⁶ highly influenced by the construction of central perspective by Brunelleschi³⁷ and simultaneous art of painting. This interest has followed western architects for a long time and in the Modern movement the rational aspects of symmetry and repetition was brought forward.

In Japanese traditional aesthetics and architecture, we can not find any symmetry. The principle of asymmetry and balance is the base for Japanese garden, imperfection plays an important role in Zen Buddhist philosophy. The notion of impermanence, everything that exist are impermanent and inevitably possesses change. "Working with asymmetry means leaving a form incomplete and open to the possibility of movement and change, and apparent disorder increases the tension between the different parts and the pulse between ying and yang".³⁸

The concept of *Wabi Sabi* derived from Buddhist teaching, an expression of beauty where imperfect, impermanent, and incomplete describe aspects of beauty.³⁹ "Wabi-sabi is a beuty of things imperfect, impermanent, and incomplete. It is a beuty of things modest and humble".⁴⁰ These aspects could also be understood in the context of "subtle biases", *subtila skevheter* ⁴¹ in Swedish. An interest shared by Swedich architects in the beginning of the twentieth century Gunnar Asplund, Peter Celsing and Sigurd Lewerentz among others, for askew and wry aspects that we find in organicly growing vernacular or medieval cities and buildings.⁴² These aspects of asymmetry could be understood in the context of this project to create a dynamic whole between individual parts. And maybe it is the important "small stone in the shoe", something of a "finished" character.

Nature reserve

Question regarding the use of natural reserve was developed over

the time of the project. Today nature reserves are treated in the context of recreation opened for visitors to interpret. The municipality maintaining running tracks, providing benches, docks and providing facilities for changing rooms and showers. The focus of the programmed activities and events are around sports. This project questioning this monopole of activities and propose an alternative program in the understanding of recreational area. I would like to celebrate the qualities of having wild nature in proximity to the city. Natural reserves possess qualities that we can amplify and make accessible for additional purpose and use for other groups of people. This project is an attempt to upgrade recreational areas for our time with high ambitions on the role as a place for reflections. A place that many people are in great need of in contemporary frenetic society. Hopefully these architectural-instruments are able to defamiliarize the mundane and makes us aware of the inherent qualities of our enviorment. Architecture as an instrument that capture and focus on our environment, on the natural phenomena and how they alter through the changing of seasons.



Presentation, Atrium, Chalmers School of Architecture, Göteborg

ENDNOTES

1.Pallasmaa, Juhani, *The Eyes of the Skin: Architecture and the Senses* (Chichester: John Wiley & Sons Ltd, Third edition, 2012) p.45

2. Durisch, Tomas (editor), *Peter Zumthor : Buildings and Projects. 3, 1998-2001* (Zürich : Scheidegger & Spiess, cop. 2014) p.11 On the project: Poetic Landscape, Bad Salzuflen, Germany, Zumthor describes one way of approaching the landscape of a place. ...the connection of architecture to landscape and the creation of buildings that serve less a practical purpose than a spiritual need. Zumthor continues; The landscapes are quite literary remarkable... they do not feel so much unique or grand as they do characteristic and typical.

3. Kenneth Frampton, 'Towards a Critical Regionalism: Six Points for an Architecture of Resistance', in The Anti-Aesthetic. Essayson Postmodern Culture, ed. by Hal Foster (New York: New Press, 1983), p. 17-34

4. https://en.wikipedia.org/wiki/Critical_regionalism, (2016-04-17)

5. Pallasmaa, J, The existential task of architecture, p.98 (2010) Publiched in: Pallasmaa, Juhani; MacKeith, Peter (ed.), Encounters 2 - Architectural Essays, (Rakennustieto Oy, 2012)

6. Merete Lind Mikkelsen, Interviuv by Tomas Lauri och Julia Svensson, *Den Lågmälda generationen*, (Arkitektur 5/2014), p.72 *Translation:*

Jag anser det avgörande att arkitekturen har sitt ursprung i platesen. Som byggindustrin har utvecklats har vi fått en global formoch materialmässig utjämning som försvagar både landskap och byggnader ända ner till detaljnivå. Det är mycket problematiskt. Jag vill skapa platser som man inte vill lämna och som håller långt in i framtiden.

7. Mads Bjørn Hansen and Mette Toni (Praksis Arkitekter), Interviuv by Tomas Lauri och Julia Svensson, *Den Lågmälda generationen*, (Arkitektur 5/2014), p.74

Translation:

Vi söker varken ett nostalgiskt återskapande av historien eller kortlivade modetrender. Däremot att skapa en arkitektur som håller för lång tid, som fungerar ur en annan utgångspunkt. Till traditionen hör också en rad regionala kännetecken, som riskerar att försvinna i en tid av ökad globarisering. Vi menar att ett hus bör berätta om den plats och den historiska kultur den är satt i, men är samtidigt medvetna om att varje kultur stelnar om den inte konfronteras med förnyelse utifrån. Det handlar därför om att finna de kvaliteter i traditionen som kan ge meningsfulla svar på nutidens problemställningar.

8. http://www.socialstyrelsen.se/psykiskohalsa, (2016-09-05)

9. Norberg-Schulz, Christian, *The Phenomenon of Place*, (London: Architectural Assosiation Quarterly 8, 1976) Translation to Swedich by Wallenstein, Sven-Olov, *Fenomenet plats*, Skriftserien Kairor: Arkitekturteorier, (Stockholm Raster förlag 1999) p.14

Norberg-Schulz writes about the importence of the relationship between architecture and natural environment of the site.

The Building existential purpose is to make the "site" to a location (place), to uncover the meaning of the available potential in the natural environment. ...towards our initial contact with the world, if we take a step back from the modern technology and the modern planning. ..."Loss of place" is a fundamental experience of modernity, ... which must be countered with a new architectural practice. *Translation:*

Byggandets existentiella syfte är att göra "orten" (site) till en plats (place), att frilägga den mening som finns potentiellt i den naturliga miljön. ...till vårt ursprungliga kontakt med världen, om den tar ett steg tillbaka från den moderna tekniken och den moderna planerandet. ..."förlusten av plats" som modernitetens grunderfarenhet, ...vilket måste motverkas med en ny arkitektonisk praktik.

10. Ibid p. 91

What do we mean by the word "place"?... We mean a totality of concrete things having material substance, shape, texture and color. Together these things decide an "environmental character", which is the site being. In general, a given place such as a character or "atmosphere". (p.114) It's just poetry in all its forms (also as the "art of living") that makes human existence meaningful, and fulfilling the basic human need. ...generaly this means to concretize the genius loci. ...this is done with the building that gathers characteristics of the site and bringing those closer to man. Architecture's basic opera-

tion is to understand the site's "vocation" or "calling". *Translation:*

Vad menar vi då med ordet "plats"? ...Vi menar en totalitet av konkreta ting med materiell substans, form, textur och färg. Tillsammans bestämmer dessa ting en "miljökaraktär", som är platsens väsen. I allmänhet är en plats given såsom en sådan karaktär eller "atmosfär". (s.114) Det är bara poesin i alla dess former (också så som "konsten att leva") som gör den mänskliga existensen meningsfull, och *mening* är det grundläggande mänskliga behovet. ...I allmänhet betyder detta att konkretisera genius loci. Vi har sett att detta görs med byggnaden som samlar platsens egenskaper och för dem närmare människan. Arkitekturens grundläggande operation är altså att förstå platsens "kallelse".

11. Henry David Thoreau, *Walden: Life in the woods, (Boston: Ticknor and Fields 1854)*

12. Primeval: from Latin primaevus "in the first or earliest period of life", https://en.oxforddictionaries.com/definition/primeval (2016-09-05) and therefore *uncorrupted* by civilization. https://www.youtube.com/watch?v=6QTBT1Qr8YE (2016-09-05) 2012-11-15 - Sami Rintala: Forelesning i AAR4300, en del av serien: Introduksjon til Arkitektur-Rom-Struktur og Form. Av: Fakultet for arkitekur og billedkunst, NTNU Trondheim

13. https://en.wikipedia.org/wiki/Defamiliarization

Viktor Shklovsky *"Art as Technique"*: pages 15–21 Literary Theory: An Anthology. (Malden, MA: Blackwell Pub, 2004)

Icame incontact with his thinking from a short introduction text about the Italian film "La Notte" by Michelangelo Antonioni, written by the swedich filmdirector Roy Anderssons for the program of Göteborgs filmfestival. https://festival.giff.se/events/the-night-1 (2016-09-05) Roy describes how Antonioni manage to take the viewer on a night walk through Milan, we follow the protagonist aimless walk, her interest and observation of the cityscape, activeties but also empty and desolate streets. She observed all this as if she saw it for the first time, the familiar have become defamiliarized for her but overpriced for the viewer.

14. Fridh, K, *Japanska Rum*, (Göteborg: Chalmers tekniska högskola, 2001), p.9

Translation: Tomrummet, som bildas av våra väldefinierade byggnadsdelar måste fyllas med ett andligt innehåll för att finna och skapa en mening i arkitekturen.

15. Nationalencyklopedin, wuxing.

http://www.ne.se/uppslagsverk/encyklopedi/lång/wuxing (2016-09-05), https://en.wikipedia.org/wiki/Wu_Xing, (2016-09-05)

16. Wu Cheng'en, Översättning: Malmqvist, Göran, *Färden till västern, Den gyllene Cikadan (Original titel: Xi you ji), (*Stockholm: Tranan, 2012), s.25.



Med hjälp av de fem faserna försökte kineser redan 300-talet före vår tidräkning förklara hur allting är uppbyggt och fungerar.

Trä (träd och växter) ger näring till åt Eld. Eld alstrar Jord genom att efterlämna aska. Jord alstrar Metall, som i sin tur alstrar Vatten. Vatten alstrar Trä, som ger näring åt Eld. De fem faserna kan också besegra varandra; Trä besegrar Jord genom att hämta sin livskraft ur den. Jord besegrar Vatten genom att dämma upp eller suga upp det. Vatten släcker Eld. Eld besegrar Metall genom att smälta den. Metall besegrar Trä, liksom yxan fäller trädet.

De fem faserna följer även årstidernas växlingar; Trä - Våren, Eld - Sommaren, Jord - Sensommaren, Metall - Hösten, Vatten - Vintern.

Om denna förstörelseprocess skulle pågå ohämmad skulle balansen i tillvaron rubbas. De fem faserna medverkar därför i två processer, *vedergällning* och *gottgörelse*. I den första processen uppträder barnet till moderns försvar för att återställa balansen: Trä, besegrar Jord, kan näpsas* av Metall; Metall, som besegrar Trä, kan näpsas av Eld; Eld, som besegrar Metall, kan släckas av Vatten; Vatten, som besegrar Eld, kan dämmas upp av Jord; Jord, som besegrar Vatten, kan utarmas av Trä. **Stark tillrättavisning, SAOB*

I gottgörelseprocessen ser den besegrade fasens moder till att jämnvikten vidmaktshålls:

Trä besegrar Jord, men Eld gottgör förlusten och skapar mer Jord:

Eld besegrar Metall, men Jord skapar mer Metall; Jord besegrar Vatten, men Metall skapar mer Vatten*;

Metall besegrar Trä, men Vatten ger näring åt mer Trä; Vatten besegrar besegrar Eld, men Trä ger näring åt Eld. *I forna dagar sattes metall speglar ut om natten för att samla in den livgivande daggen. Metall skapar vatten genom att fånga upp daggen.

Dessa tidiga kinesiska funderingar kring de fem faserna skilda funktioner tillhandahåller abstrakta modeller. I de fem faserna är återkopplingen mellan skilda delar av ett system ett centralt begrepp.

17. https://en.wikipedia.org/wiki/Pancha_Bhoota, (2016-09-05)

18. https://en.wikipedia.org/wiki/Five_elements_(Japanese_philosophy) (2016-09-05)

19. Nationalencyklopedin, elementlära. http://www.ne.se/uppslagsverk/encyklopedi/lång/elementlära (2016-09-05) https://en.wikipedia.org/wiki/Classical_element, (2016-09-05)

20. Cox, P.A, *The elements : their origin, abundance and distribution,* (Oxford: Oxford Univ. Press, 1989) p.1

21. Bachelard, Gaston, The Psychoanalysis of Fire, Eldens

psykoanalys; översättning Marianne Lindström, Skarabé, 1993 (La psychanalyse du feu 1938),

Water and Dreams, *Vattnet och drömmarna: essä över den materiella fantasin*; översättning Marianne Lindström, Skarabé, 1991 (L'eau et les rêves 1942),

Air and Dreams, *Luften och drömmandet: essä över föreställningen om rörelse*; översättning Marianne Lindström, Skarabé, 1996 (*L'air et les songes* 1943),

Earth and Reveries of Repose, Jorden och drömmerier om vila; översättning Hans Johansson, Skarabé, 1994 (La terre et les rêveries du repos 1946),

Earth and Reveries of Will, Jorden och viljans drömmerier; översättning Hans Johansson, Skarabé, 1992 (La terre et les rêveries de la volonté 1948).

22. Nationalencyklopedin, Gaston Bachelard. http://www.ne.se/uppslagsverk/encyklopedi/lång/gaston-bachelard (2016-09-05)

23. Bachelard, Gaston, Vattnet och Drömmarna, Essä över den Materiella Fantasin, översättning: Marianne Lindström, L'eau et les rêves (originaltitel, 1942) (Stockholm: Skarabé, 1991) s.13

24. Ibid p. 21

Inledning: Fantasi och Materia

Translation: Vårt sinnes bildskapande krafter utvecklas utefter två helt olika axlar. Utefter den ena axeln finns de som stimuleras av det som är nytt, roas av det som pittoreska, av omväxling, oväntade händelser. Den fantsi som den sporrar har alltid en vår att beskriva.

Utefter den andra axeln finns de som går till djupet av väsendet, de vill i väsendet samtidigt finna det ursprungliga och det eviga.

25. Jørgen Dehs, Arkitektur och fenomenologi, s.413, ur: Caldenby & Nygaard (Redaktörer) *Arkitekturteoriernas Historia*, (Stockholm, Forskningsrådet Formas 2011)

26. https://www.youtube.com/watch?v=6QTBT1Qr8YE (2016-09-05)

2012-11-15 - Sami Rintala: Forelesning i AAR4300, en del av serien: Introduksjon til Arkitektur-Rom-Struktur og Form. Av: Fakultet for arkitekur og billedkunst, NTNU Trondheim

27. Bachelard, Gaston, Vattnet och Drömmarna, Essä över den Materiella Fantasin, översättning: Marianne Lindström, L'eau et les rêves (originaltitel, 1942) (Stockholm: Skarabé, 1991) s.24 Translation: -all poetik måste ta emot beståndselar... av materiell essens.

28. Zumthor, Peter, *Atmospheres*, (Basel: Birkhäuser 2006) P.11: What do we mean when we speak of architectural quality? ...Quality architecture to me is when a building manages to move me. What on earth is it that moves me? ...One word for it is atmosphere.

P.13: We perceive atmosphere through our emotional sensibility - a form of perception that works increadibly quickly. ...We are capable of immediate appreciation, of a spontanius emotional response, of rejecting things in a flash.

29. Olafur Eliasson, Lecture: *It Works Because We Try*, 20 mars 2013, 12h, EPFL, Forum, Rolex Learning Center

30. Lindroos, Bengt, Ur den svenska byggnadskonstens magasin (Stockholm: Arkitektur Förlag, 1989) s.56

31. G.Z. Brown and Mark Dekay, *Sun, Wind and Light*, (New York: John Wiley and sons, INC, 2001)

32. http://www.sgu.se/om-geologi/jord/fran-istid-till-nutid/ (2016-09-05)

33. Samuel, Flora, *Le Corbusier and the Architectural Promenade*, (Basel: Birkhäuser, 2010)

34. http://channel.louisiana.dk/video/olafur-eliasson-shape-idea (2016-09-05) Olafur Eliasson was interviewed by Marc-Christoph Wagner at Louisiana Museum of Modern Art, Denmark in 2014.

35. Mårtelius, Johan, *Vitruvius och antiken*, s.23, ur: Caldenby & Nygaard (Redaktörer) *Arkitekturteoriernas Historia*, (Stockholm, Forskningsrådet Formas 2011)

36. Palladio, Andrea, *I quattro libri dell'architettura (The four books of architecture)*, (Venice, 1570) ex: p.71 The second book; Villa Valmarana in Vicenza. Drawings of half elevation.

37. Mårtelius, Johan, *Vitruvius och antiken*, s.26, ur: Caldenby & Nygaard (Redaktörer) *Arkitekturteoriernas Historia*, (Stockholm, Forskningsrådet Formas 2011)

38. Fridh, Kristina, *Japanska Rum*, (Göteborg: Chalmers tekniska högskola, 2001), p.74

Translation: Att arbeta med asymmetri innebär att lämna en form ofullbodad och en möjlighet öppen för rörelse och förändring, och genom en synbar oordning ökar spänningsfältet mellan de olika delarna och pulsen mellan ying och yang.

39. https://en.wikipedia.org/wiki/Wabi-sabi (2016-09-05)

40. Koren, Leonard, *Wabi-Sabi*, (Point Reyes CA: Imperfect Publiching 2008), p.7

41. Caldenby, Claes, *Sigurd Lewerentz Two Churches* (Stockholm: Arkitektur Förlag 1997), p.45 ... a tention arising from slight distortions and a subtle asymmety.

42. Rudofsky, Architecture without architects : a short to Non-Pedigreed architecture by Bernard Rodofsky, (New York : Museum of Modern Art, cop. 1965).

See image nr.36: Italian hill towns, Anticoli Corrado, in Sabine Mountains near Rome and image nr. 71-74: Arcades, town square of Garrovillas in western Spain and a street in Caldas de Reyes, Spain.

PICTURE CREDITS

All photos by author if not mentioned.

P.22-23: Wikimedia Commons; https://commons.wikimedia.org/ wiki/File:WWB-0315-154.png, (2016-04-17) https://commons.wikimedia.org/wiki/File:WWB-0309-151.png, (2016-04-17) https:// commons.wikimedia.org/wiki/File:Brockhaus_and_Efron_ Encyclopedic_Dictionary_b35_186-1.jpg, (2016-04-17)

P.52: Lindroos, Bengt, *Ur den svenska byggnadskonstens magasin* (Stockholm: Arkitektur Förlag, 1989) s.56

C O L O P H O N

Paper Cover: Brown board (Bok- och Pärmpapp) 1625g, Insert: Munken Lynx Rough, 150g Drawingfolder: Brown board, 400g Drawings: Natural Tracing Paper, 90g

Typeface Century Gothic, Century Schoolbook

Photo Johannes Luchmun

Edition 3 numbered copies

Nr: ___ / 3

_

© Johannes Luchmun





MORTEN, DANIEL. SPECIAL THANKS TO; MODEL MAKERS: ANDERS, CELIA, EDVARD. TEXT AMEND: ANJA, BIANCA, KATHE. TALK AND DISCUSSION: KRISTINA, GUDRUN.

THANK TO:

FAMILY AND FRIENDS FOR SUPPORT,

MSS STUDIO GRADUATES JAN 2015,

146