

A DEEP CONVERSATION WITH NATURE ELEMENT

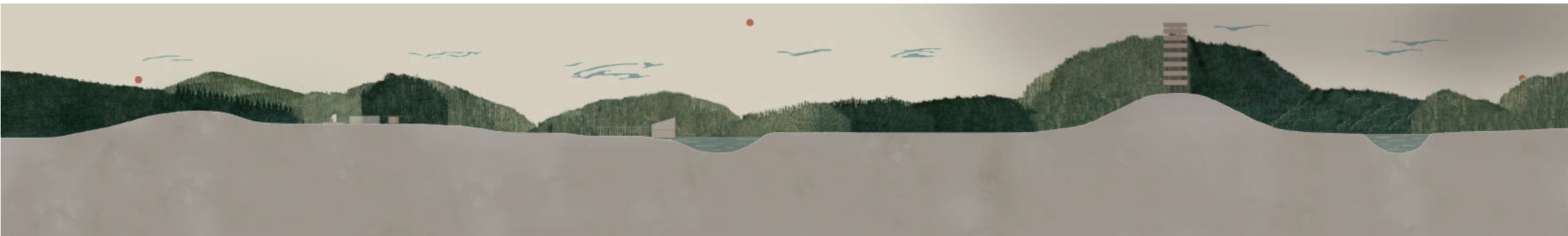
Combination of Architecture and Forest Bathing

余慧敏

Huimin Yu

Master Thesis 2019

Matter Space Structure





CHALMERS
UNIVERSITY OF TECHNOLOGY

A DEEP CONVERSATION WITH NATURE ELEMENT
- Combination of Architecture and Forest Bathing

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Chalmers University of Technology
Master Thesis
Master Programme of Architecture and Urban Design
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Examiner: Morten Lund
Supervisor: Jens Olsson

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ABSTRACT

We all experienced such time, when you are under the pressure of work and study or facing difficulties in life, feeling frustrated, anxious, nervous or even sorrowful in a short or long time. These are normal feelings and part of every day life. However we could deal with such emotions with benefit from places and spaces design with peace in mind.

In Japan, there is a forest therapy named Shinrin-yoku, which means "taking in the forest atmosphere" or "forest bathing". The idea is simple, if a person simply visits a natural area and walks in a relaxed way, there are calming, rejuvenating and restorative benefits to be achieved. Like reducing blood pressure, reducing stress, improving your mood, etc. On the other hand, architecture can elicit different emotion, different space brings you different feeling. So I want to combine architecture to the forest therapy, and emphasize it. When you have those feelings, you can take actions for your own - visiting the forest and the cross and combination between nature and culture can give you power to face those feelings which makes you uncomfortable, then you could try to get rid of them. This is the propose of my thesis which focusing on exploring but not finding an answer.

How to achieve it? I design a recreational journey located in Stora Delsjön, then I choose three kinds of emotions which could be beneficial for people to feel better - the feeling of safe, peaceful and open. I take these three emotions as the criteria to design three kinds of pavilions and spread them in the forest.

Before I start designing, I do a series of research such as sound, material, light and spatial, and I try to select those elements which I associated with a feeling of safe, peaceful and open. Then I apply these elements to the design of each pavilion.

Considering emotion is very subjective, so my thesis is not aim at giving a definite answer or promise that the design can make you feel safe or peaceful or open. Rather it is an invitation to guest to visit, search and explore their own feelings from my personal experience.

Keywords: forest-bathing, nature, safe, peaceful, open



A girl sitting by the lake

INTRODUCTION

This recreational journey is located in Stora Delsjön, eastern Gothenburg, in the Delsjöområdet nature reserve. It takes approximately 20mins drive from Gothenburg city center to Delsjön or 1.5 hours by bus. People can start this journey at any time they want for free, but I would recommend start the journey in the morning for a better experience.

Every time when you feel frustrated, nervous or have any other uncomfortable emotions, you can try this recreational journey. During the journey, people follow the natural path and visit three pavilions located in the forest.

The first pavilion named "Private Garden", where people can try three small pavilions. The second pavilion named "Meditation House", which is a place for people doing meditation or yoga. The third pavilion is "View Tower", located on a hill, people can enjoy the panorama of Stora Delsjön.

This journey aims at providing people a way to face and release their emotions such as sadness, nervousness, frustration etc. by combining nature and architecture. It is also an invitation to people to visit, search and explore their own feelings from my personal experience and research.

WHAT

Nature benefits people emotionally

Escaping from the society, everything just seems much more right in nature. Nature inspires and moves us by its beauty in the combination of an endless detail. When you step into nature, what you hear is the chirp from birds, leaves rustled in the wind and the gurgling sound of water. What you see is a calm lake, the texture on old trees and a leaf flutters from the front. Those natural things let you forget your troubles, enjoy the moment and keep your mind in peace.

Architecture triggers emotions

Architecture can trigger emotions in many ways like materiality, light, sound, formation and so on. By researching, selecting and combining these different architecture qualities, and to design a defined emotional atmosphere space is achievable.

Since both nature and architecture can affect our emotion, and many existing cases have shown that nature therapy do benefit people in many aspects. Why not combine architecture with it and emphasize it? This is the purpose of this thesis - combining nature and architecture, then designing a landscape recreational journey to invite users to explore.

WHY

We all experienced such times, when you are under the pressure of work and study or facing difficulties in life, feeling frustrated, anxious, nervous or even sorrowful in a short or long time. This kind of things could happen at any time of our life. It is quite normal and unpredictable.

However, if we are under these emotions or feelings for a very long time, it might have an adverse effect on our bodies and mind.

I have been looking for a way out for these emotions.

HOW

Nature as the background, three emotional atmospheres are chosen:

Sense of safety space

Feeling safe means you do not anticipate either harm or hurt, emotionally or physically. Many elements can affect people's feeling of safety. This thesis will focus on researching the space and environment's influence. Three types of gardens are designed for users, and I would like to invite users to try each of them and gain the sense of safe from my research or exploring their own safe feelings.

Peaceful space

Inner peace refers to a deliberate state of psychological or spiritual calm. In some cultures, inner space is considered as a state of consciousness that may be cultivated by various form of training, such as prayer, meditation, tai chi or yoga. Many spiritual practices refer to this peace as an experience of knowing yourself. This thesis will design a pavilion for meditation or yoga after a series of research, aiming at bring people the sense of peace architecturally.

Open space

The word 'open' emphasize on the user is willing to open his heart. When faced with anger or sadness or any other emotion, why not allow yourself to feel it? In this thesis, a view tower is designed for user.

FOREST THERAPY

FOREST THERAPY

Return to Field



Figure 1: Imagination of Tao's poem

归园田居 陶渊明

少无适俗韵，性本爱丘山。
误落尘网中，一去三十年。
羁鸟恋旧林，池鱼思故渊。
开荒南野际，守拙归园田。
方宅十余亩，草屋八九间。
榆柳荫后檐，桃李罗堂前。
暧暧远人村，依依墟里烟。
狗吠深巷中，鸡鸣桑树颠。
户庭无尘杂，虚室有余闲。
久在樊笼里，复得返自然。

Return to Field by Tao yuanming

*When I was young, I was out of tune with the herd:
My only love was for the hills and mountains.
Unwitting I fell into the Web of the World's dust
And was not free until my thirtieth year.
The migrant bird longs for the old wood:
The fish in the tank thinks of its native pool.
I had rescued from wildness a patch of the Southern Moor
And, still rustic, I returned to field and garden.
My ground covers no more than ten acres:
My thatched cottage has eight or nine rooms.
Elms and willows cluster by the eaves:
Peach trees and plum trees grow before the hall.
Hazy, hazy the distant hamlets of men.
Steady the smoke of the half-deserted village,
A dog barks somewhere in the deep lanes,
A cock crows at the top of the mulberry tree.
At gate and courtyard—no murmur of the World's dust:
In the empty rooms—leisure and deep stillness.
Long I lived checked by the bars of a cage:
Now I have turned again to Nature and Freedom.*

(Arthur Waley, in *A Hundred and Seventy Chinese Poems* (Alfred A. Knopf, 1919))

Tao Yuanming (365?–427), also known as Tao Qian (Hanyu Pinyin) was a Chinese poet who lived during the Eastern Jin (317–420) and Liu Song (420–479) dynasties. He is considered to be one of the greatest poets of the Six dynasties period. Tao Yuanming spent most of his life in seclusion, living in a small house in the countryside, reading, drinking wine, receiving the occasional guest, and writing poems in which he often reflected on the pleasures and difficulties of life in the countryside, as well as his decision to withdraw from civil service. He is also regarded as the foremost representative of what would later be known as Fields and Gardens poetry, a style of landscape poetry that found inspiration in the beauty and serenity of the natural world close at hand. (Wikipedia contributors. (2018, September 5). Tao Yuanming. In Wikipedia, The Free Encyclopedia.)

FOREST THERAPY

WALDEN: or life in the wood by Henry David Thoreau

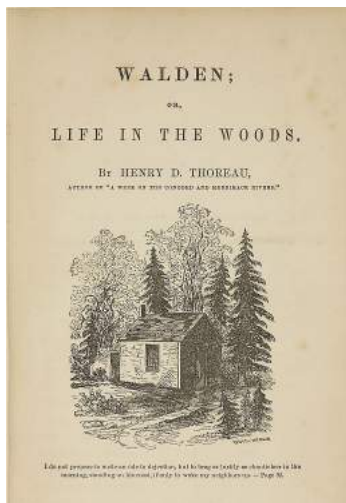


Figure 2: Original title page of Walden

"medicine he needs is a draught of morning air."

Walden is a book by transcendentalist Henry David Thoreau. The text is a reflection upon simple living in natural surroundings. The work is part personal declaration of independence, social experiment, voyage of spiritual discovery, satire, and—to some degree—a manual for self-reliance.

Walden emphasizes the importance of solitude, contemplation, and closeness to nature in transcending the "desperate" existence that, he argues, is the lot of most people.

Actually Thoreau spent the majority of his time paying debts.

Solitude: Thoreau reflects on the feeling of solitude. He explains how loneliness can occur even amid companions if one's heart is not open to them. Thoreau meditates on the pleasures of escaping society and the petty things that society entails (gossip, fights, etc.). He also reflects on his new companion, an old settler who arrives nearby and an old woman with great memory ("memory runs back farther than mythology"). [7] Thoreau repeatedly reflects on the benefits of nature and of his deep communion with it and states that the only "medicine he needs is a draught of morning air".

Sounds: Thoreau encourages the reader to be "forever on the alert" and "looking always at what is to be seen." Although truth can be found in literature, it can equally be found in nature..... (Wikipedia contributors. (2019, February 25). Walden. In Wikipedia, The Free Encyclopedia.)

FOREST THERAPY

John Muir

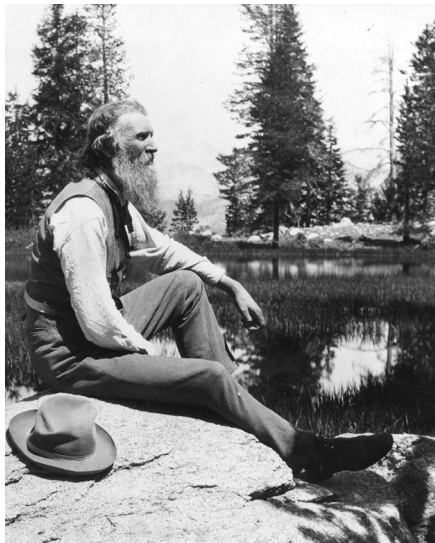


Figure 3: 1902 John Muir

“wildest, leafest, and least trodden way I could find”

John Muir was an influential Scottish-American naturalist, author, environmental philosopher, glaciologist, and early advocate for the preservation of wilderness in the United States of America.

In early-March 1867, an accident changed the course of his life: a tool he was using slipped and struck him in the eye. The file slipped and cut the cornea in his right eye and then his left eye sympathetically failed.

In September 1867, Muir undertook a walk of about 1,000 miles (1,600 km) from Kentucky to Florida, which he recounted in his book *A Thousand-Mile Walk to the Gulf*. He had no specific route chosen, except to go by the "wildest, leafiest, and least trodden way I could find."

Finally settling in San Francisco, Muir immediately left for a week-long visit to Yosemite, a place he had only read about. Seeing it for the first time, Muir notes that "He was overwhelmed by the landscape, scrambling down steep cliff faces to get a closer look at the waterfalls, whooping and howling at the vistas, jumping tirelessly from flower to flower."^[15] He later returned to Yosemite and worked as a shepherd for a season. He climbed a number of mountains, including Cathedral Peak and Mount Dana, and hiked an old trail down Bloody Canyon to Mono Lake.

Muir built a small cabin along Yosemite Creek,^{[28]:207} designing it so that a section of the stream flowed through a corner of the room so he could enjoy the sound of running water. He lived in the cabin for two years: and wrote about this period in his book *First Summer in the Sierra* (1911). Muir's biographer, Frederick Turner, notes Muir's journal entry upon first visiting the valley and writes that his description "blazes from the page with the authentic force of a conversion experience." (Wikipedia contributors. (2019, April 10). John Muir. In Wikipedia, The Free Encyclopedia.)



Stora Delsjön

Inspiration

From ancient times to the present, from eastern to western, the stories of Taoyuanming, Thoreau and John Muir give me an inspiration about the power from nature to heal people in spiritually.

FOREST THERAPY

SHINRIN-YOKU: Forest Bathing



Figure 4: A man is doing forest bathing

*“You didn't come into this world.
You came out of it, like a wave from the ocean.
You are not a stranger here.”*

Shinrin-yoku is a term that means "taking in the forest atmosphere" or "forest bathing." It was developed in Japan during the 1980s and has become a cornerstone of preventive health care and healing in Japanese medicine. Researchers primarily in Japan and South Korea have established a robust body of scientific literature on the health benefits of spending time under the canopy of a living forest. Now their research is helping to establish shinrin-yoku and forest therapy throughout the world.

The idea is simple: if a person simply visits a natural area and walks in a relaxed way there are calming, rejuvenating and restorative benefits to be achieved.

We have always known this intuitively. But in the past several decades there have been many scientific studies that are demonstrating the mechanisms behind the healing effects of simply being in wild and natural areas. (some of this research is available here). For example, many trees give off organic compounds that support our “NK” (natural killer) cells that are part of our immune system's way of fighting cancer. The scientifically-proven benefits of Shinrin-yoku include:

- Boosted immune system functioning, with an increase in the count of the body's Natural Killer (NK) cells.
- Reduced blood pressure
- Reduced stress
- Improved mood
- Increased ability to focus, even in children with ADHD
- Accelerated recovery from surgery or illness
- Increased energy level
- Improved sleep

(Shinrin yoku. Retrieved from <http://www.shinrin-yoku.org/shinrin-yoku.html#>)

FOREST THERAPY

Post Traumatic Stress Disorder(PTSD) Veteran Shelter



Figure 5: Shelter in the forest for PTSD Veteran

“Man (genus homo) is developed through over millions of years of evolution in nature. Therefore, we have a natural disposition to feel at home in nature.”

In Denmark, there are some veteran shelters located in the forest, for those soldiers who have the PTSD problem.

PTSD is a mental disorder that can affect people who have been exposed to or witness to one or more violent events. Like acts of war, torture, rape, natural disasters, traffic accidents, robbery, assault and the like. Triggering is a longer period of fear, combined with powerlessness.

The idea is that a stay in nature can help to get some thoughts in place. The Shelter acts as a refractory. The same person can stay there for a maximum of 2 weeks, but most are only a few days, maybe a weekend. All or perhaps together with family. It requires notification in advance. The shelter contains a lock room with tools, field drives, etc. The key is to find the veteran home in Fredericia, so the responsible age knows who is out there. This knowledge goes on to the forest owner, so that it does not collide with, for example, hunting or other activities.

A number of practical experiences have shown that, in addition to psychological and medical treatment, stay in nature also acts physically in PTSD patients. Nature inspires and moves by its beauty in the combination of an endless detail. This beauty is basically due to nature's many concrete forms, which almost always give more beautiful and interesting forms than the man himself designs. A flower, a bird or a river are good examples of how detailed and coherent the beauty of nature is capable of producing. It gives peace because nature seems to be at rest - as something eternal, which is just there, without our influence. At the same time, it calms the regular movement - the leaves moving in the wind and the water running in the pelvis. (Forestryman, Forestry's member magazine. (2016, January 5). Nature physicians (almost) all wounds.)



Stora Delsjön

CLAIM

I claim that architecture can elicit and influence different emotions, so we can make use of this characteristic to combine with Forest Therapy and emphasize the healing function. When normal people feel frustrated, anxious, nervous or sorrowful etc, they can start a recreational journey in nature, and gain the power to face those emotions and have a better mood.

DISCOURSE

Forest Therapy

Human is not a machine, feeling nervous, sad or frustrated is a very common thing in our life. Generally speaking that we can fix ourselves in a mild way like walking into the nature. Many projects and events have proved that forest is beneficial for healing people in spiritually. Such as helping the soldier get rid of PTSD problem or giving people a better mood. This is the background and inspiration of this thesis.

Safe, peaceful and open feeling space

When you enter into a specific space, many elements will influence your emotion, or the space elicits the emotion, such as light, shape, material, scale.....I choose three kinds of feeling which could be beneficial for people who is under those uncomfortable feelings - safe, peaceful and open. Each of them is correspond to a specific pavilion. The design of these pavilions starts from my personal feeling and my investigation. So it is more like a trial that I invite visitors to enter these pavilions to feel or explore their own feelings.

Nature & Culture Recreational Journey

Forest is nature, architecture is culture. A recreational journey aims at combining nature and culture to help people face their current emotions and gain a better mood. When you feel unhappy, nervous or such kind of feelings, you could start a recreational journey located in the forest, three kinds of emotional pavilions are spreaded in the forest, when you explore them, you will also have a conversation with different nature elements, such as ground, water and trees.

REFERENCE

GENIUS LOCI

by Tadao Ando



"Architecture comes into being when a "total environment is made visible", to quote the definition of Susanne Langer. In general, this means to concretize the genius loci." --- Christian Norberg-Schulz. (1991). Genius Loci: Towards a Phenomenology of Architecture, Rizzoli



'Genius Loci' is a building designed by the famous Japanese architect Ando Takao on the Seopji-koji peninsula, a little south of Seongsan Village on Jeju island's east coast.'

Genius Loci is a first-rate meditation hall, located at seopjikoji. cascading waterfalls flank the building while the peak of sungsan mountain lies just beyond a streamlined gate. the main corridor has an open roof exposed to the crisp island sky. This place is fully surrounded by the nature.

Stone and concrete are the main building material of this Genius Loci. When you walk from the long walk path, along with the low stone wall, you will have a sense that the building grows here but not be built here. When you are walking, you could feel the sound of the wind and the smell of the ocean. This is actually the first step of your meditation --- lose yourself, sense the environment. (Tadao ando designs genius loci and glass house for phoenix island. (2013, August 20).)

REFERENCE

RODEN CRATER

by James Turrell

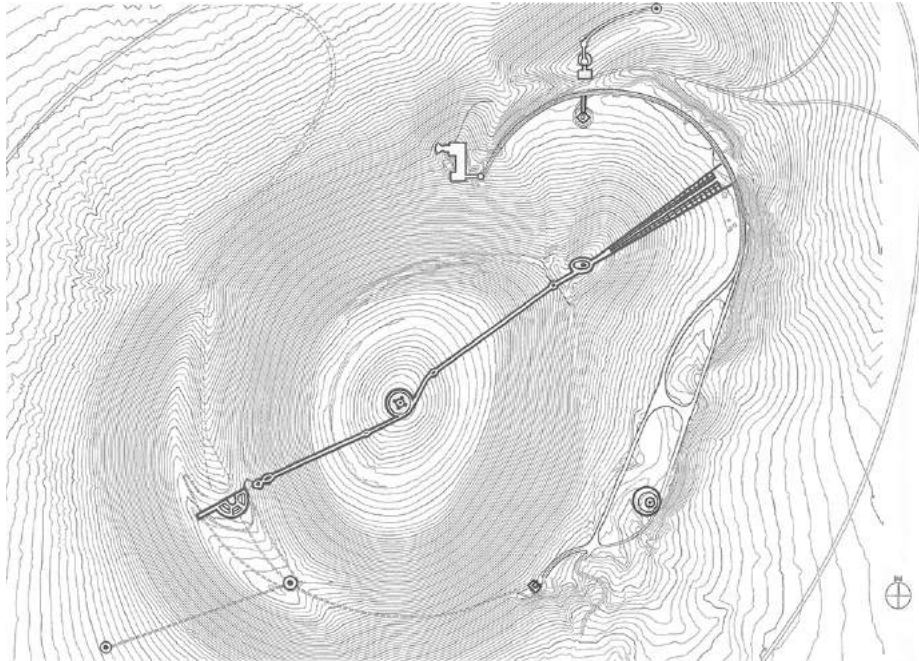


Figure 6: Site Plan Roden Crater, image © James Turrell

"My desire is to set up a situation to which I take you and let you see. It becomes your experience."--- Craig E. Adcock, James Turrell (1990). "James Turrell: The Art of Light and Space", p.205, Univ of California Press



Figure 7: Fumarole space, image © James Turrell

The area around the "Roden Crater", a landscape between the Grand Canyon and the Painted Desert, was found and purchased by the artist in 1974 after months of searching by plane. Since then, Turrell has been transforming the volcanic cone by leveling the crater edge, digging tunnels, and building platforms. Chambers, shafts, and openings point towards the sky, guiding the light. Turrell extensively refers to sites such as Machu Picchu, the Pyramids of Egypt, or the Temples of Yucatan, highlighting especially the spiritual and emotional experiences that humans encounter at these sights. (James Turrell • Skyspace Lech. (n.d.).)

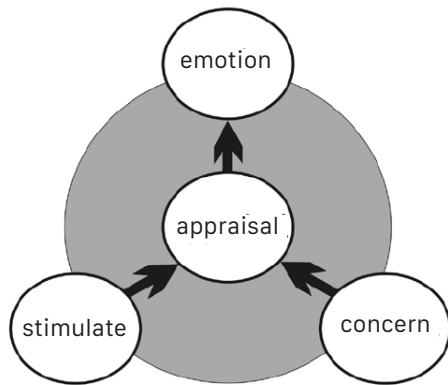


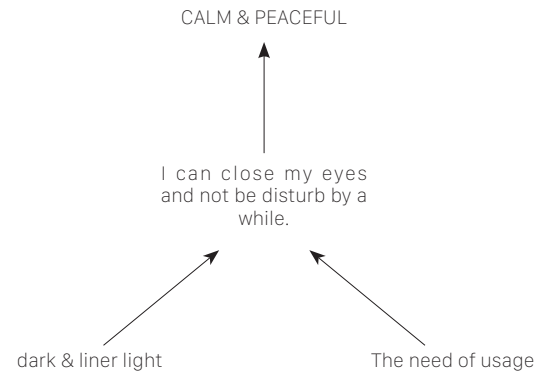
Figure 8: Basic model of product emotions (adapted from Desmet, 2002)

"The model is basic, because it applies to all possible emotional responses elicited by human-product interaction and identifies the three universal key variables in the process of emotion elicitation: (1) concern, (2) stimulus, and (3) appraisal." (Pieter Desmet and Paul Hekkert (2017, April). "Framework of Product Experience", p.6)

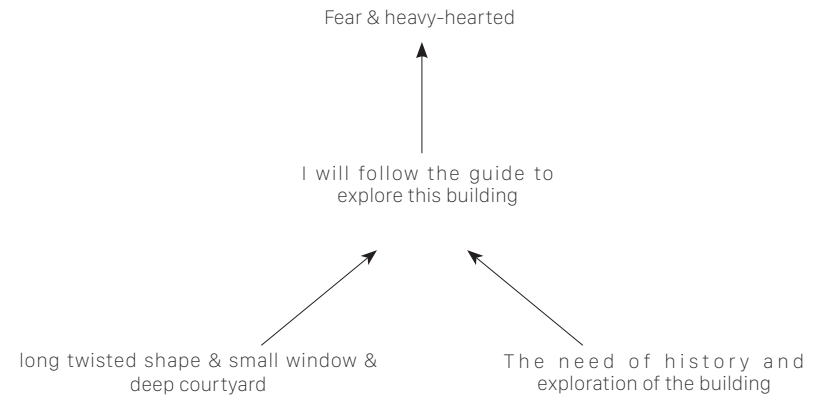
CASE STUDY - Emotion & Spatial Feature Analysis



CHURCH OF THE LIGHT, TADAO ANDO



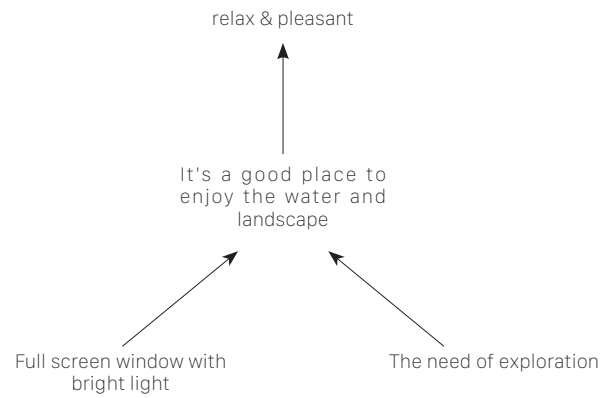
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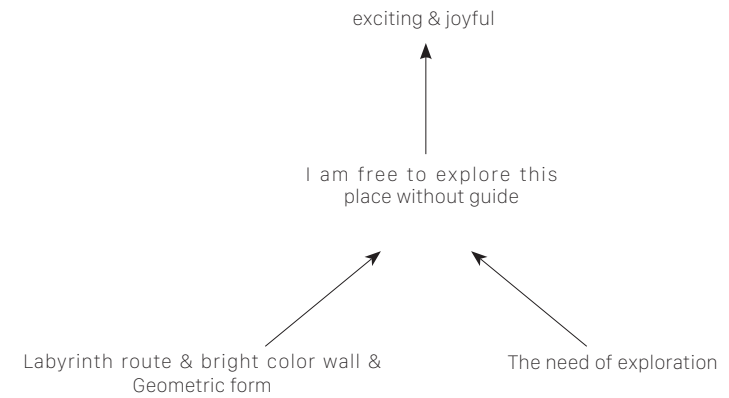
CASE STUDY - Emotion & Spatial Feature Analysis



THERMAL BATHS VALS, PETER ZUMTHOR



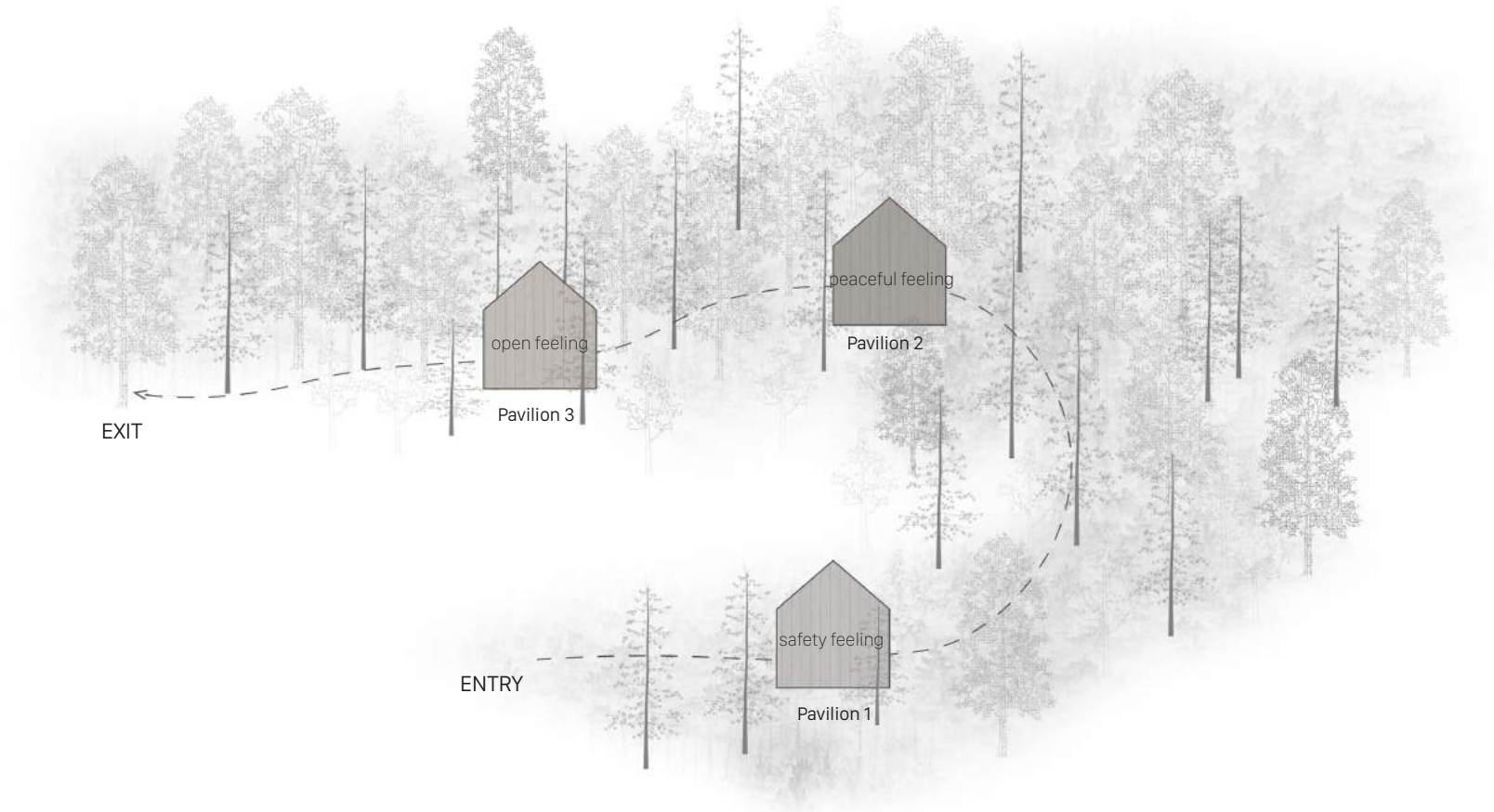
LA MURALLA ROJA, Ricardo Bofill



INVESTIGATE

The term "emotion" comes from the Latin "emovere". Thus, the meaning of emotion is historically linked to the movement, to the act of moving, to the migration from a place to an other, from an interior to an exterior and vice versa. — Carlo Truppi

CONCEPT



● A HISTORY OF WALKING

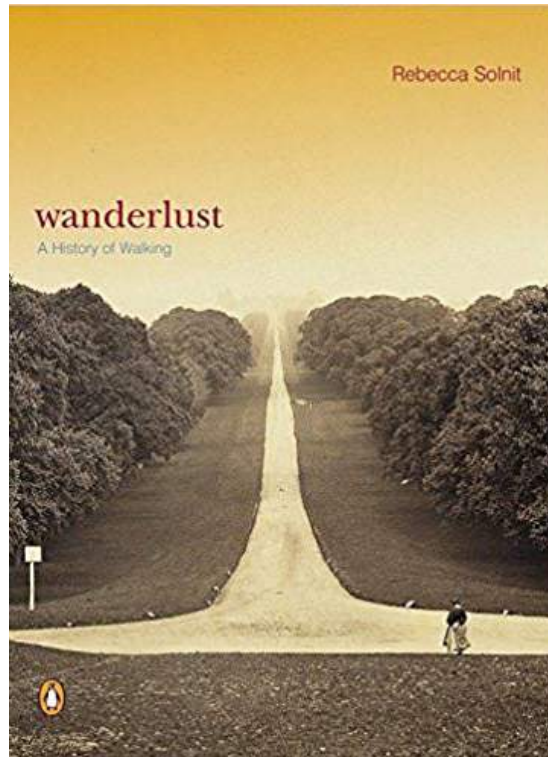


Figure 9: Cover of the book

Chapter 6:

.....Christopher Morley wrote in 1917, "I have always fancied that walking as a fine art was not much practiced before the Eighteenth Century....."

Walking is natural, or rather part of natural history, but choosing to walk in the landscape as a contemplative, spiritual, or aesthetic experience has a specific cultural ancestry. This is the history that had already become naturalized for Thoreau and that took walkers father and father afield - for the changing history of walking is inseparable from the changing taste in places in which to walk. (Rebecca Solnit. (2006). Wanderlust: A history of walking, Verso Books)

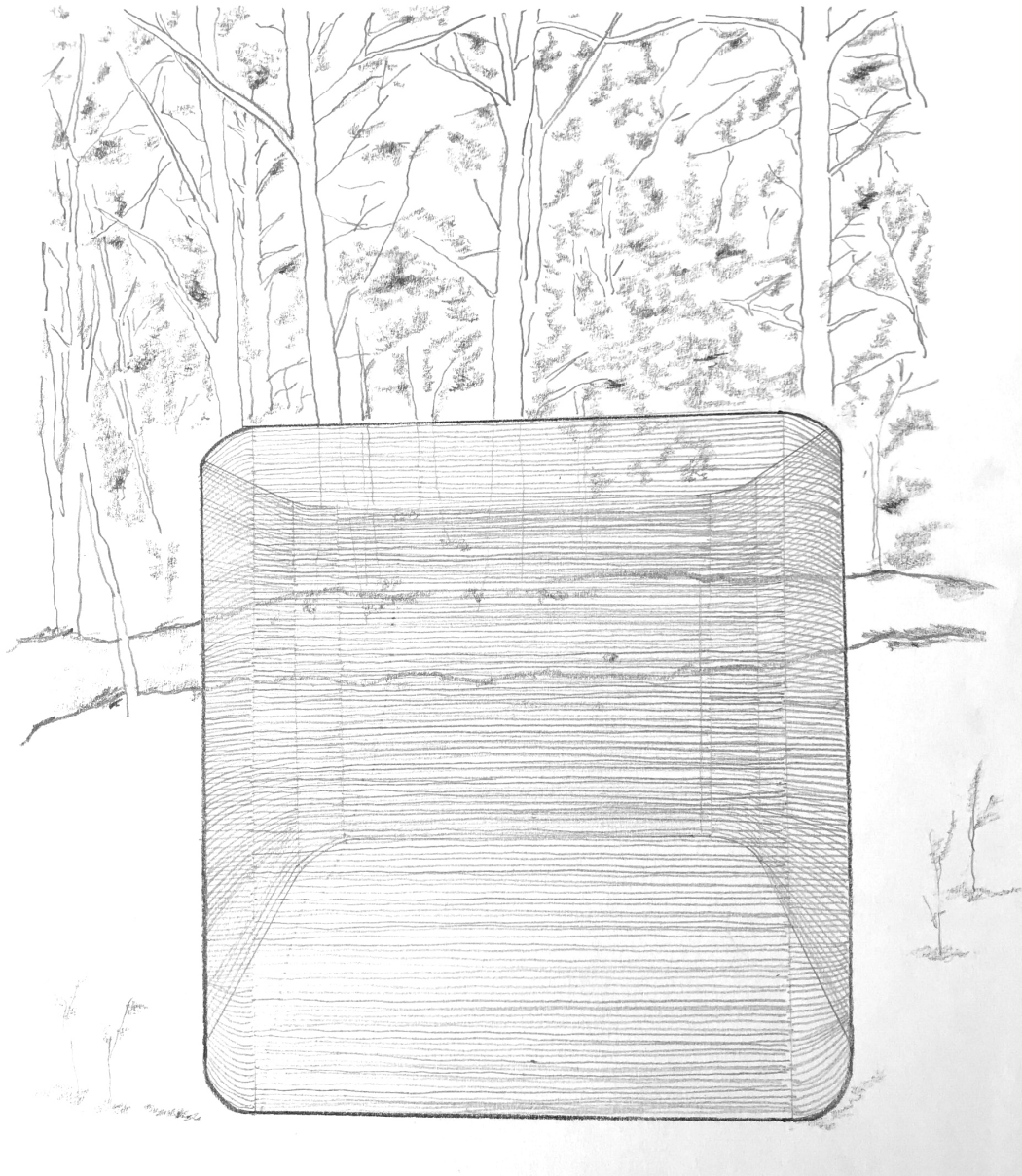
● SOUND RESEARCH



Since I decided my thesis topic, I started my own forest bathing in Stora Delsjön for experiencing the power of healing spiritually from nature. It was on 2019 March 11st, I woke up at 7am and left home at 8. I wanted to be really focus on this journey, so except vision, I want to record my trip in another way - Sound. Then I recorded every voice I heard during this day trip. The record included the moment I locked my door, then when I was walking on the way to bus station and the voice from both city birds and transportation, after I got off the bus and stepped in to forest, the sound of water, wind, and bird, even the cracking of ice, and also people who was running passed by me, chatting with friends, and the police who was riding a horse in the forest..... This was the first time I really focus on what I heard when I was walking. The changing sound during my day really bring me from city to nature, from chaos into inner peace.

* A sound record will be played in the presentation.

● SAFE FEELING RESEARCH



"I would suggest that there are concrete tactics that architecture can use to make us feel mentally and socially safe. Many of them are moves that architects have employed for years, such as designing spaces that provide sheltering nooks with views out, or creating spaces with a weight and solidity that makes itself apparent, while opening out in a way that makes it clear where you are." —Aron Betsky

A path

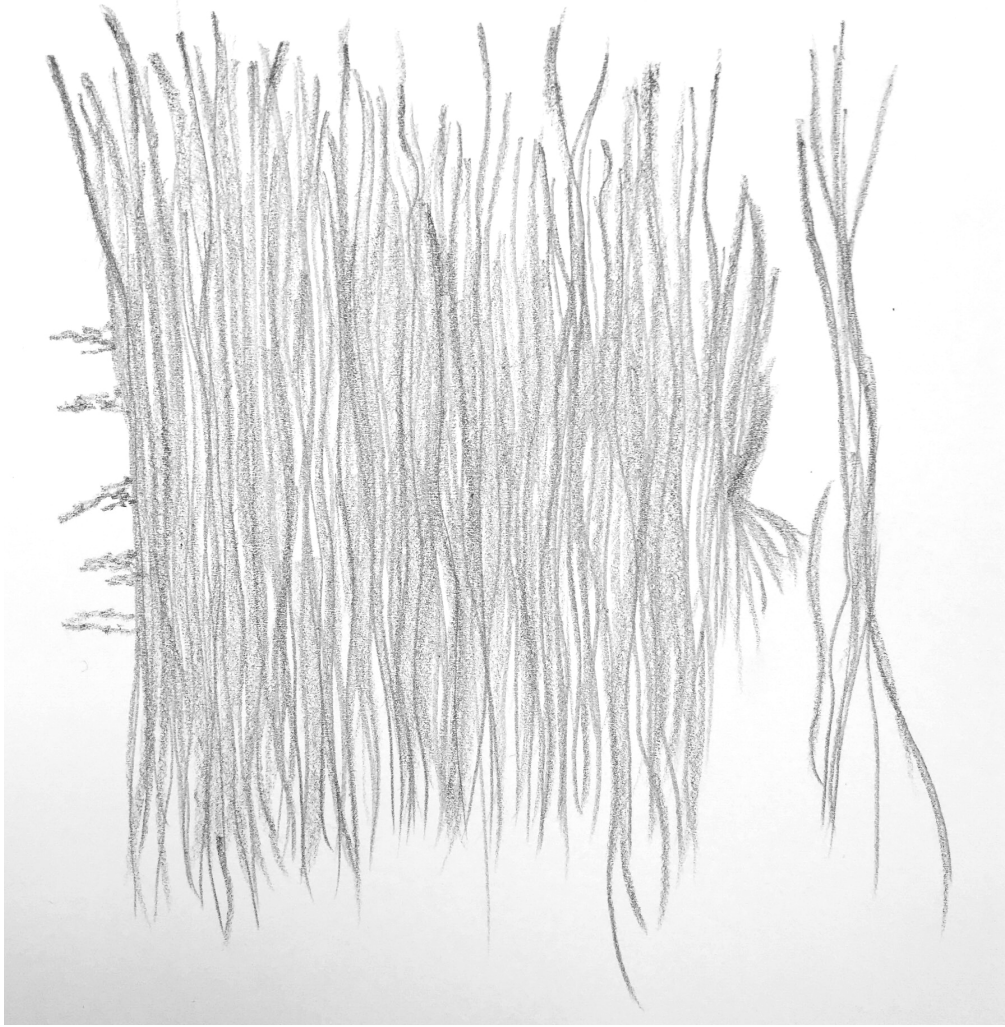
The path guide you to come and leave.

Surrounded with trees

Trees act as the barrier, separate you from the social area and constantly remind you that "I am stay with nature".

Shelter

A shelter provides cover and privacy. In this public natural park, you own a private space.



Softness

When you touch something, the soft stuff always bring you comfort and safety.

● SAFE FEELING - Material Analysis

Curved Wooden Surface



ups and downs
warm

Sawdust



wood smell
fluffy
warm

Round wooden sticks



wood smell
soft
guide
warm

Stone + Wax



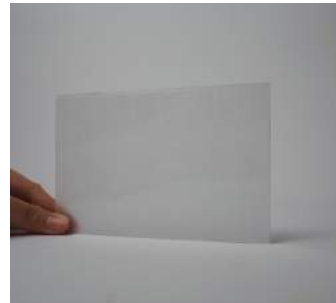
smooth surface
sturdy
heavy

Bricks



sturdy
rough surface

Frosted Glass



translucent
half privacy
visible on both side

Unidirectional Glass



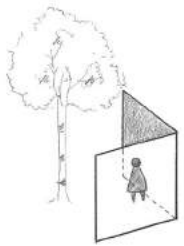
privacy
visible on single side

Frosted Glass with Texture

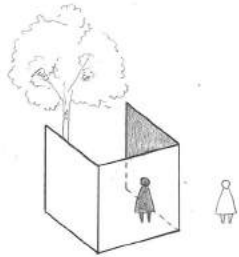


translucent
half privacy
texture
visible on both side
natural context

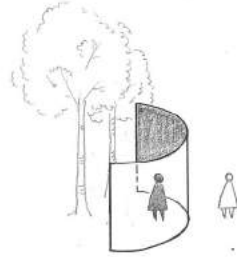
● SAFE FEELING - Spatial Analysis - Form of wall



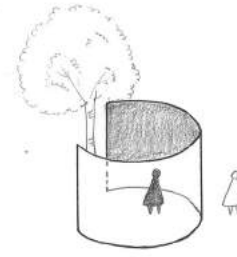
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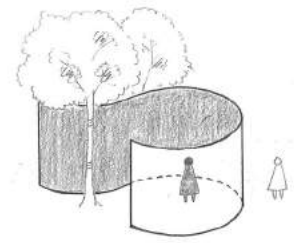
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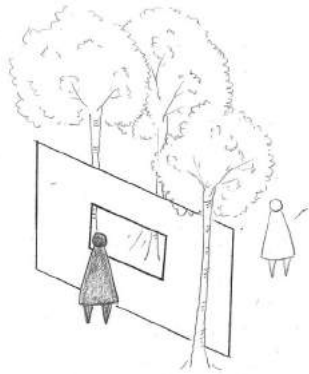
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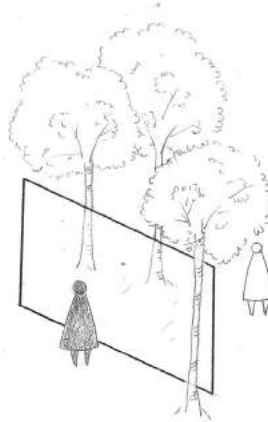
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Safety feeling ranking: ⑤ > ④ > ② > ③ > ①

● SAFE FEELING - Spatial Analysis - Vision



A window to observe the outside

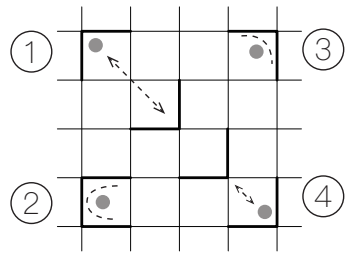


A solid wall separate people from the outside
The eye sight is blocked

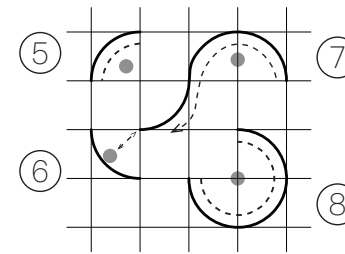


The fence enclosed people, but people
can keep contact with the outside

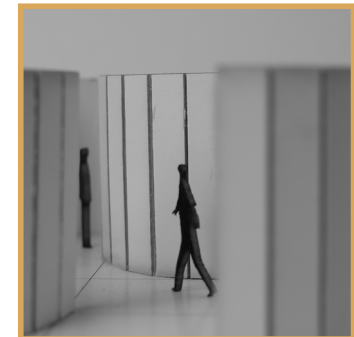
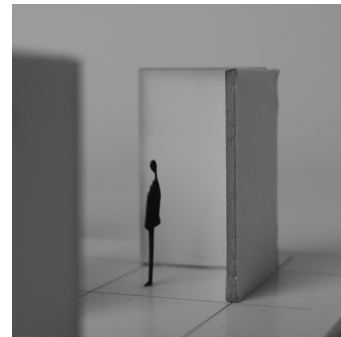
● SAFE FEELING - Spatial Analysis - Corner



90° Corner combination

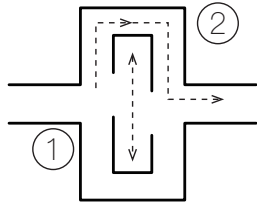


Curve corner combina-

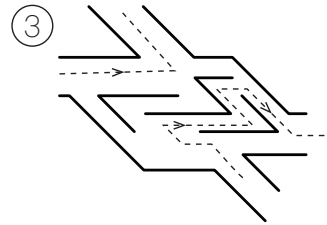


Safety feeling ranking: ⑦ > ⑧ > ① > ② > ⑤ > ③ > ⑥ > ④

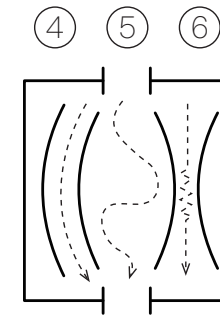
● SAFE FEELING - Spatial Analysis - Path



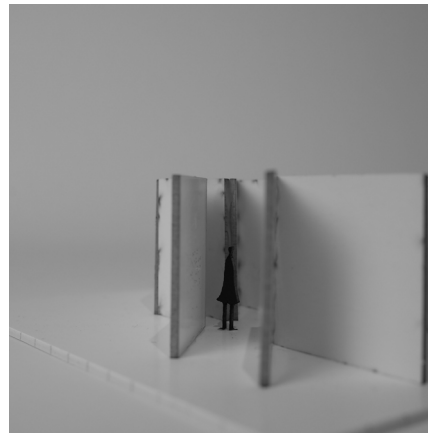
Straight path



Slope path

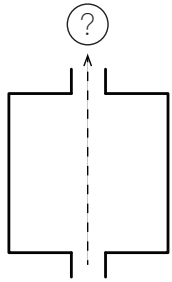


Curved path

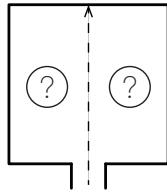


Safety feeling ranking: ⑤ > ④ > ⑥ > ① > ③ > ②

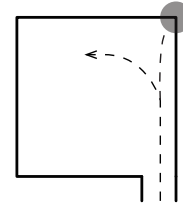
● SAFE FEELING - Spatial Analysis - Entrance



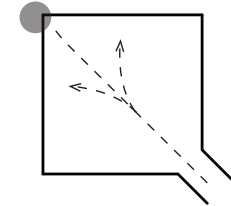
Approach lays on an axis



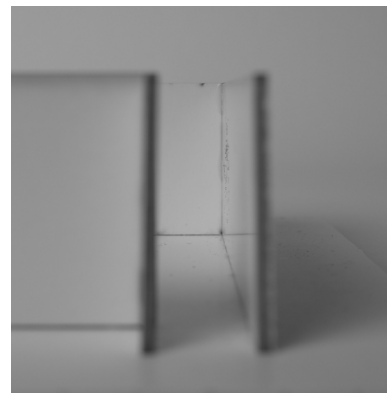
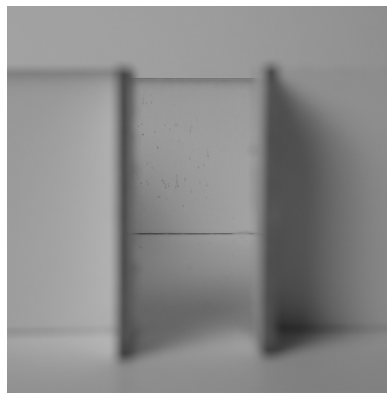
Approach towards a front wall



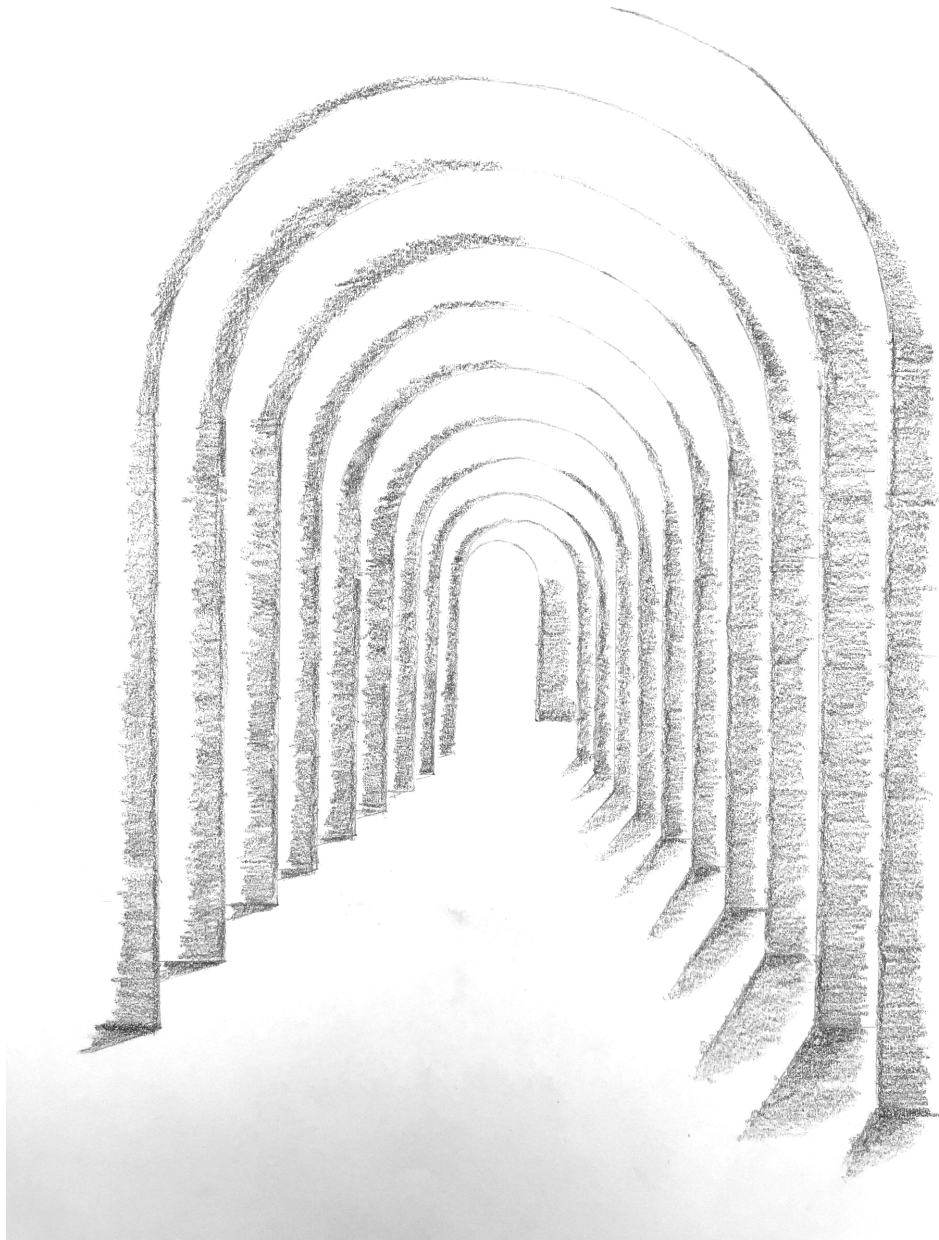
The lateral approach



Approach with bias



Safety feeling ranking: ① > ④ > ③ > ②



Light Shower

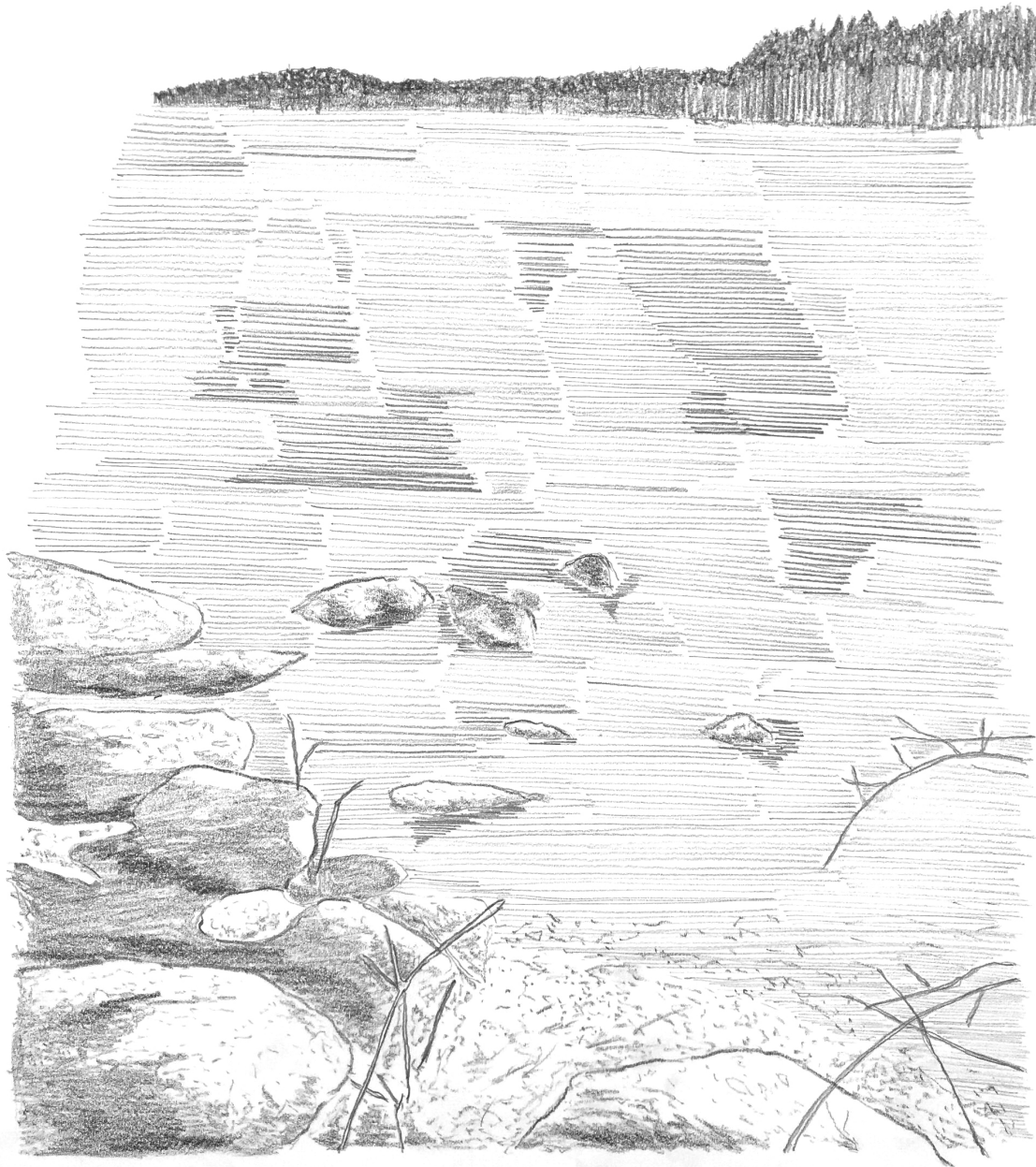
Taking a light shower is the first step to find your peaceful feeling. Also light gives you energy and power.

Sequence

The sequence created by light and shadow is a guide to the peaceful place.

Entrance

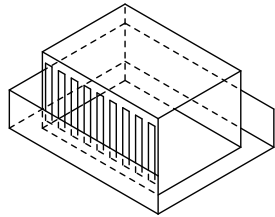
After the light shower, it is a warm up, you gradually calm down and it is time to enter the door and enjoy your own peaceful place.



Lake View

The calm lake leads you to the inner peace.

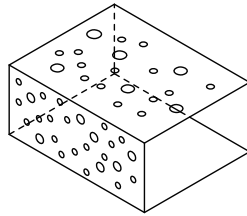
● PEACEFUL FEELING - Light Analysis



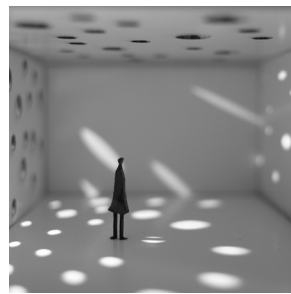
Linear Row



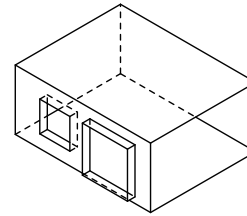
Light is split into small pieces



Dots



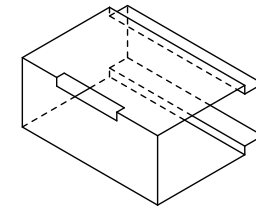
Light goes through those dots and spread on your body



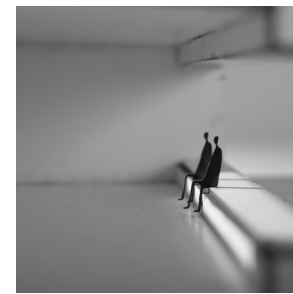
Frame



The interior will receive enough light, but you lose the privacy and may be disturbed

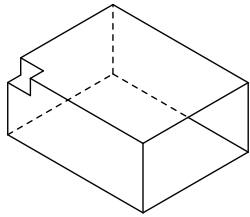


Edge

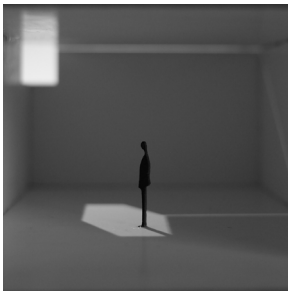


It is not focus enough.

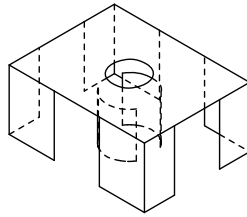
● PEACEFUL FEELING - Light Analysis



Corner



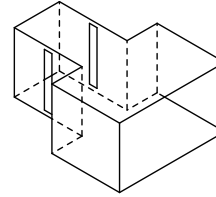
A beam of light in an enclosed space will bring a little whistle of hope, but more sense of despair.



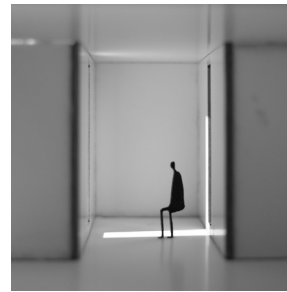
Central



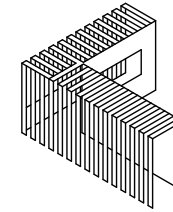
You are the focus. The curve wall protects both you and the light. A peaceful feeling will arise.



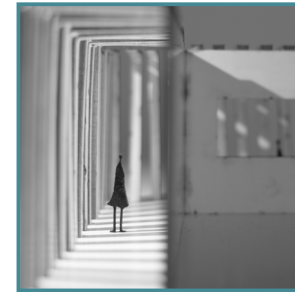
Single Linear



Ordinary light. This could be a small embellishment when the space need some light.



Corridor



The linear light guide you to the destination. This could be the preparation part of your meditation.

● PEACEFUL FEELING - Field of Vision Analysis

Enframed scenery - is one of the methods of architectural art garden landscape construction. The space scenery is not very impressive, or there is a desirable scene in the plain. By using door frames, window frames, tree frames, caves, etc., it is possible to selectively take in the beautiful scenery of the space and form a landscaping method such as a picture embedded in the frame. The doors, windows, holes, or arbor branches of buildings in Chinese classical gardens often contain landscapes or cultural landscapes in the distance. This is the enframed scenery.



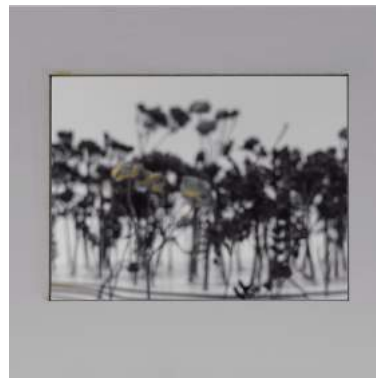
Organic



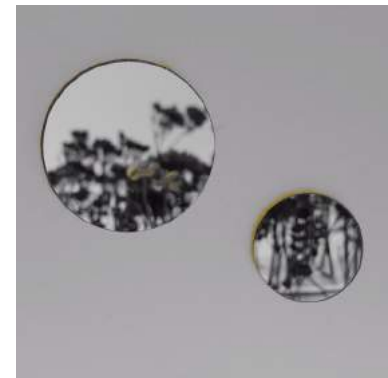
Grid



Linear

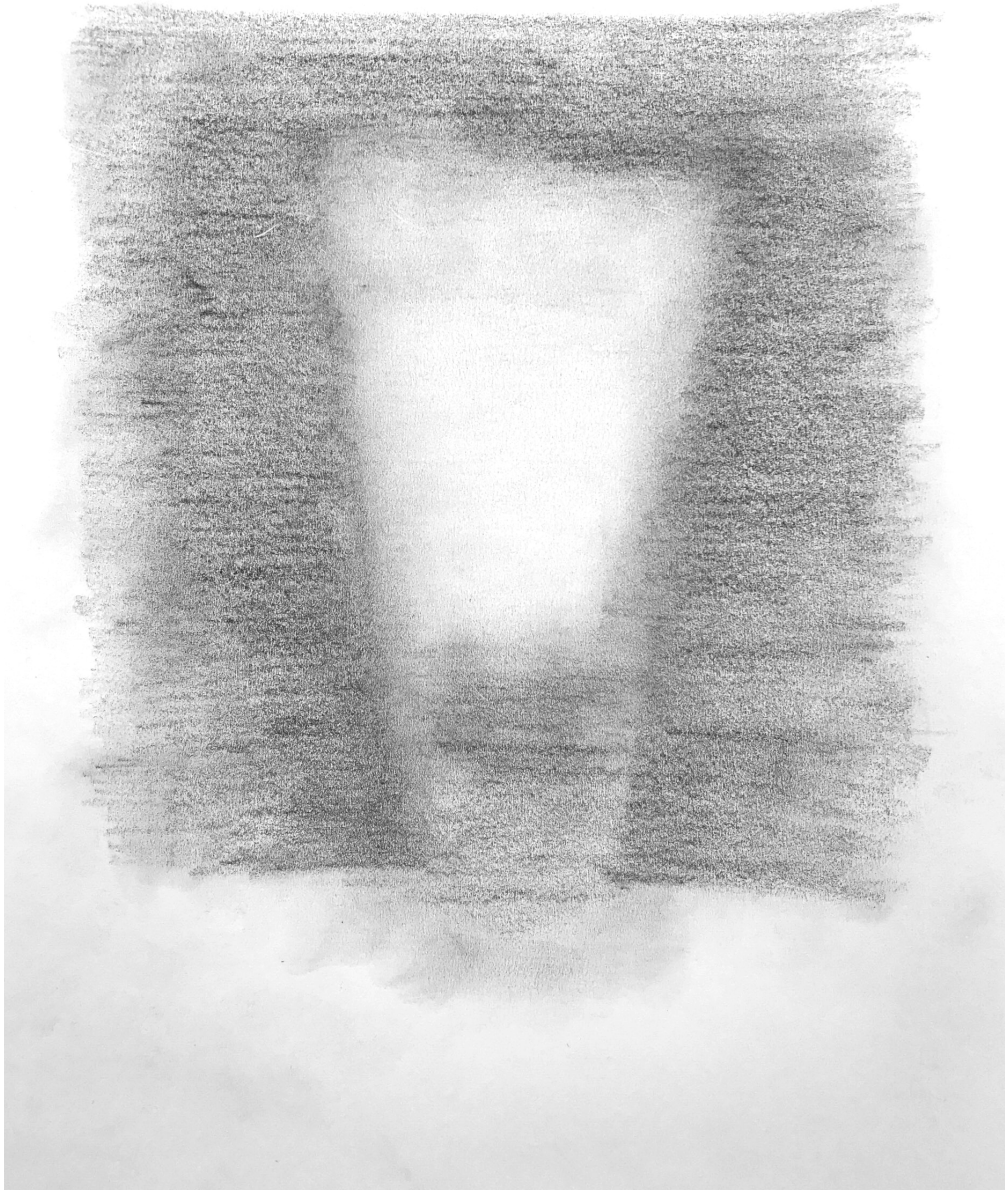


Frame



Circle

● SAFE FEELING RESEARCH



Narrow space

Firstly experiencing narrow space can magnify your further feeling of open.

Beam of light

A beam of light guides you to the destination.

Panorama

Facing of the endless forest, your heart is open.

Window

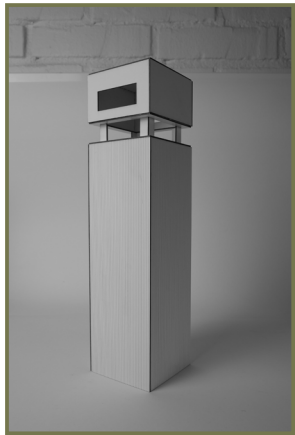
Looking outside from the window.

Height

Appropriate height offers a better view.



● OPEN FEELING - Tower Analysis



Break



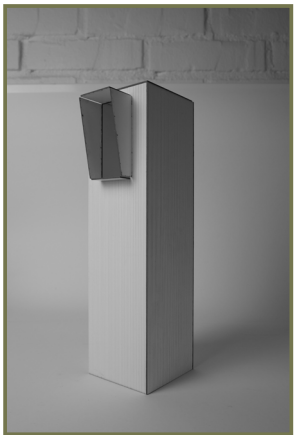
Top



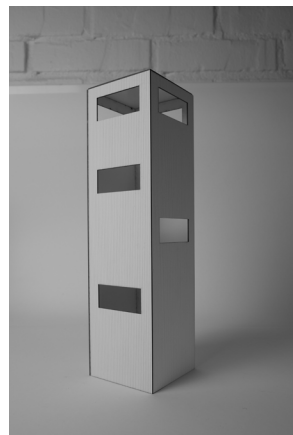
Balcony



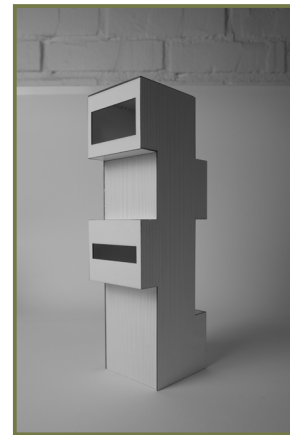
Layers



Big Window



Continuous Window



Extend

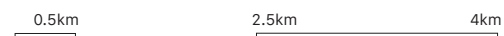
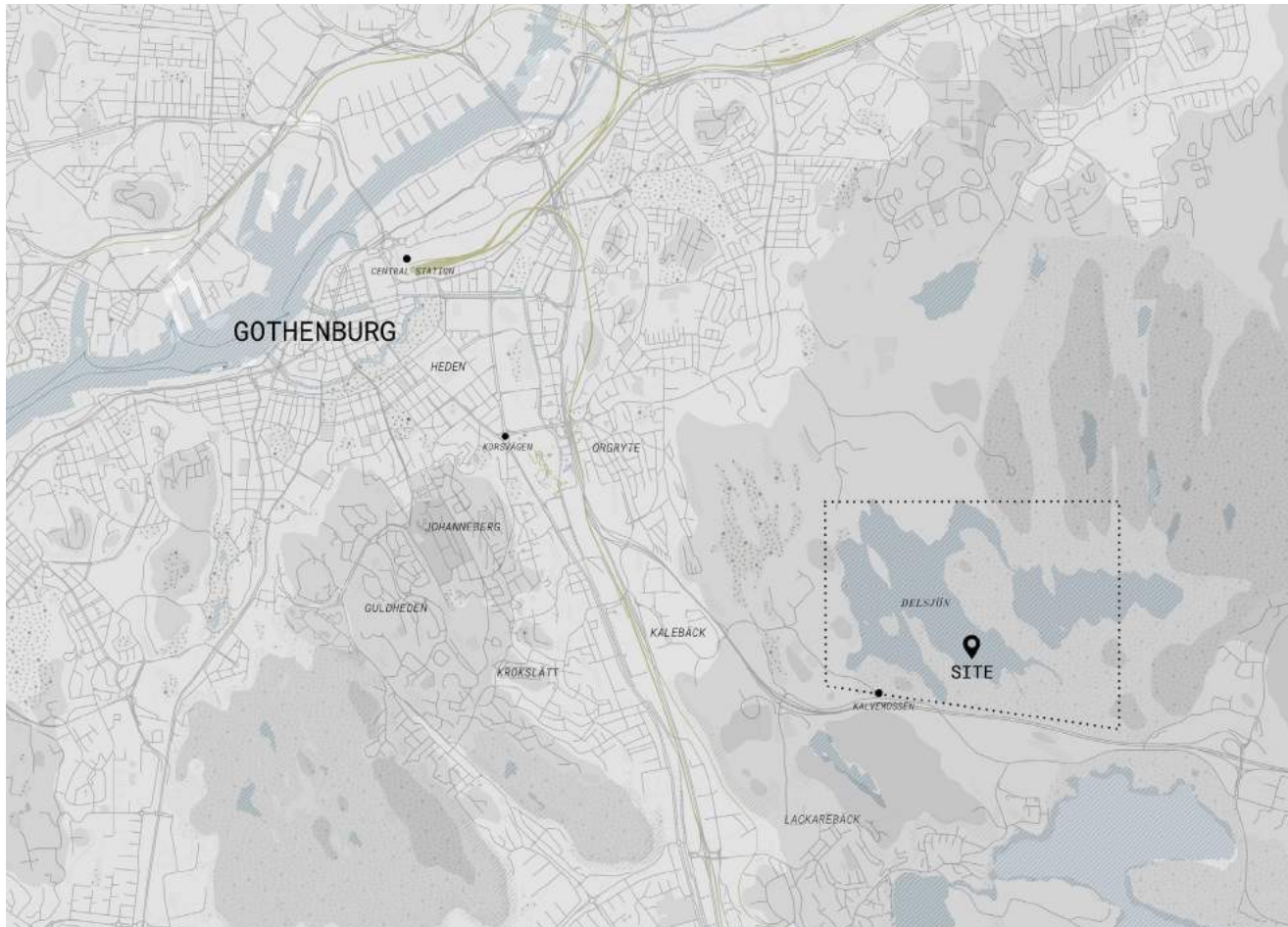


Layers with hole

SITE

SITUATION

Delsjön, Göteborg 57°41'5"N 12°2'45"E



Delsjön consists of two coherent lakes, Stora Delsjön and Lilla Delsjön, located in eastern Göteborg, in the Delsjöområdet nature reserve. They serve as a reservoir for the city, receiving water from the Göta River. The Delsjö area is home to a nature reserve, big lakes and stunning woodland. A very short trip from the city centre, this is where you go to calm down in the nature for a walk, swim or a canoe trip.

The site of the master thesis is mainly around Stora Delsjön, the total length of the route around the Stora Delsjön lake is about 7.4 kilometer, which takes around 3 hours by walking without resting.

It takes approximately 20mins drive from Göteborg city center to Delsjön or 1.5 hours by bus. The way visitors get closer to Delsjön is the way they get closer to nature and get rid of city.

SITE SERVICE



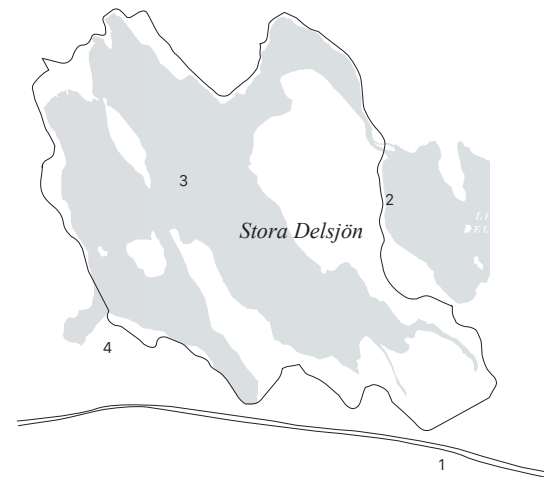
- 1. Bus Station
- 2. Parking
- 3. BBQ Hut
- 4. Rowing Club
- 5. Toilet
- 6. Beach



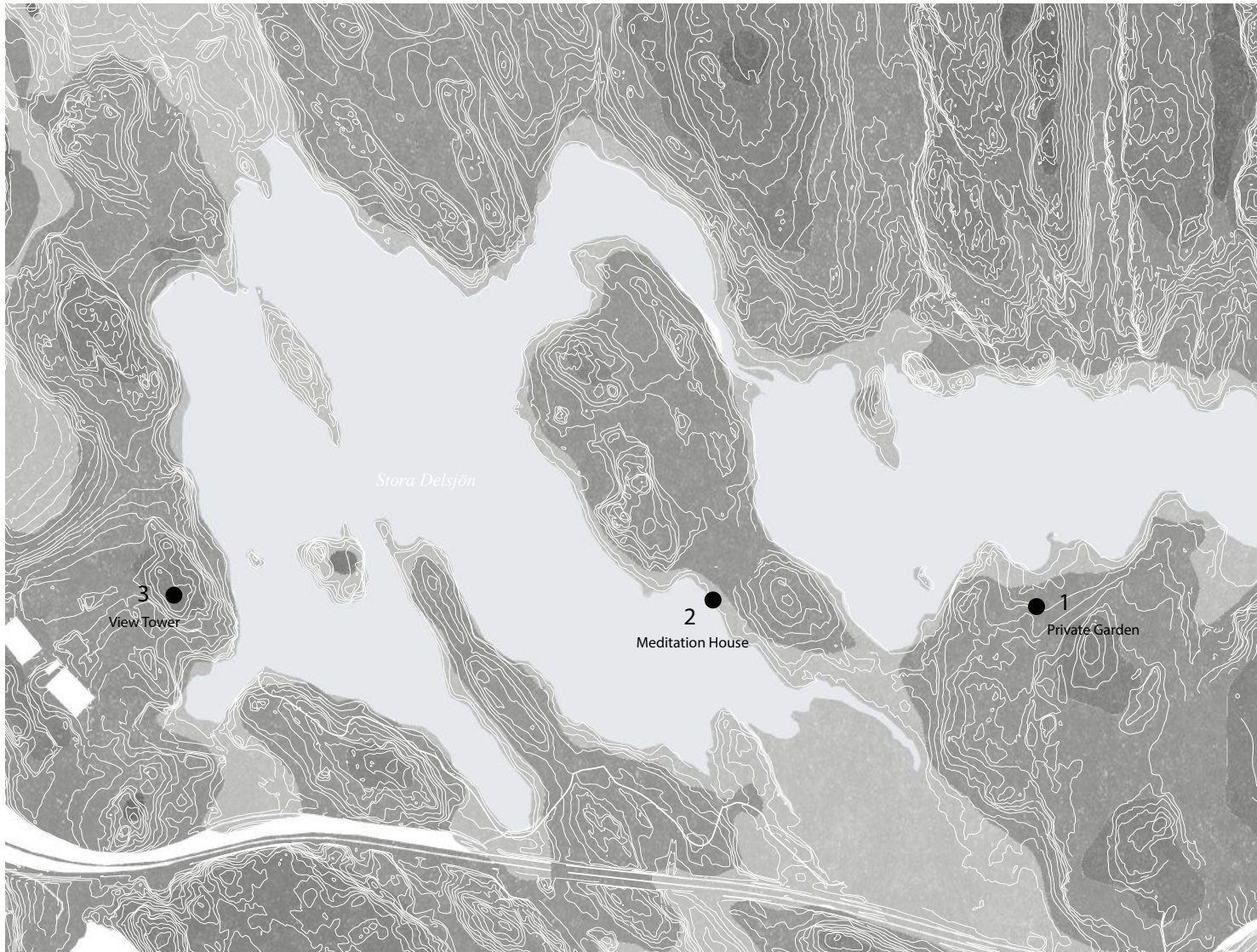
PHOTOS



- 1. Wooden path on the swamp
- 2. Joint with Lilla Desjön
- 3. Forest Area
- 4. Bridge on the Lake



JOURNEY MAP



Three pavilions: Private Garden, Meditation House and View Tower, are spread on the forest. Visitors can follow the existing natural path to explore and find them.

PROPOSAL

JOURNEY SECTION



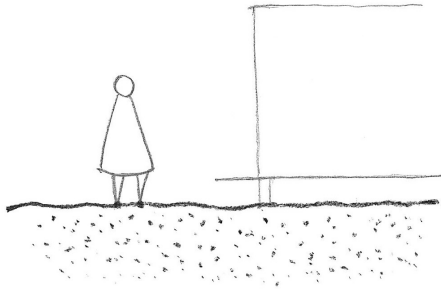
This journey section shows the order of pavilions and the surrounding environment of each. (It is diagram drawing without scale)

● Pavilion 1: Private Garden

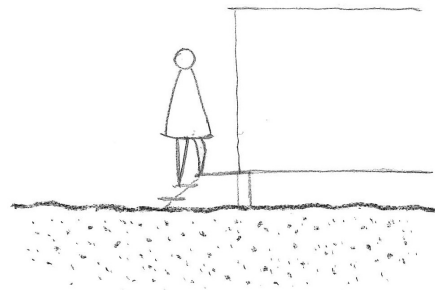
This Private Garden consists of three small pavilions. The aim is to provide visitor the feeling of safe when they stay in the pavilion. Considering safety is a very subjective feeling, so these three pavilions have their own different characteristics. Visitors could try each of them, and explore their own safe feelings.

When people have a visit at Private Garden, they will start a conversation with GROUND.

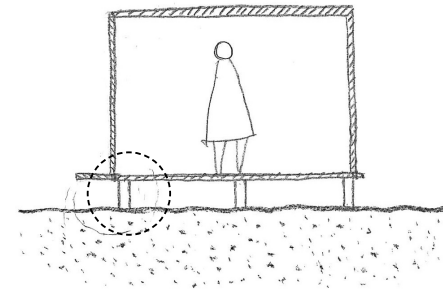
GROUND



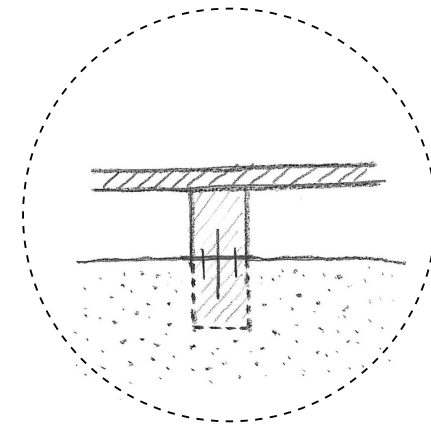
feel ground



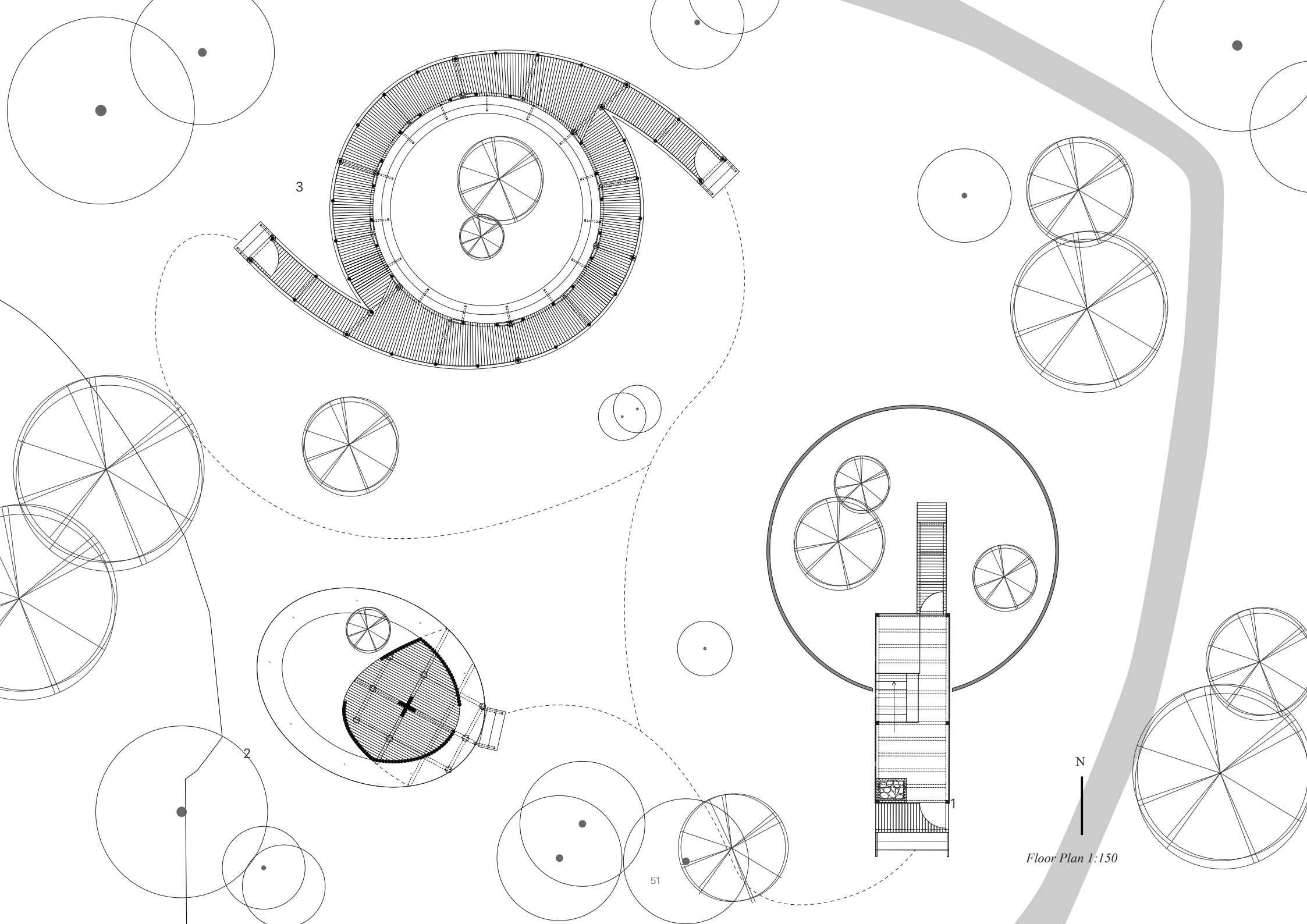
leaving ground



left ground



How building and ground meet



3

2

51



Floor Plan 1:150



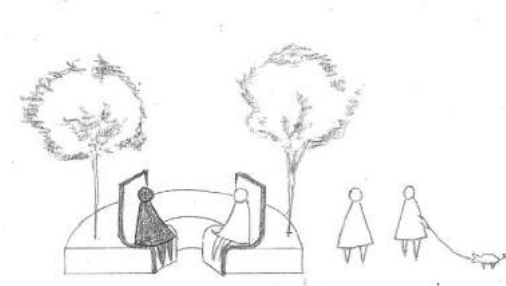
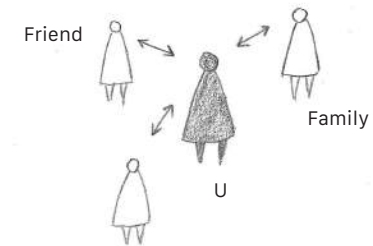
Model facade - Towards to garden

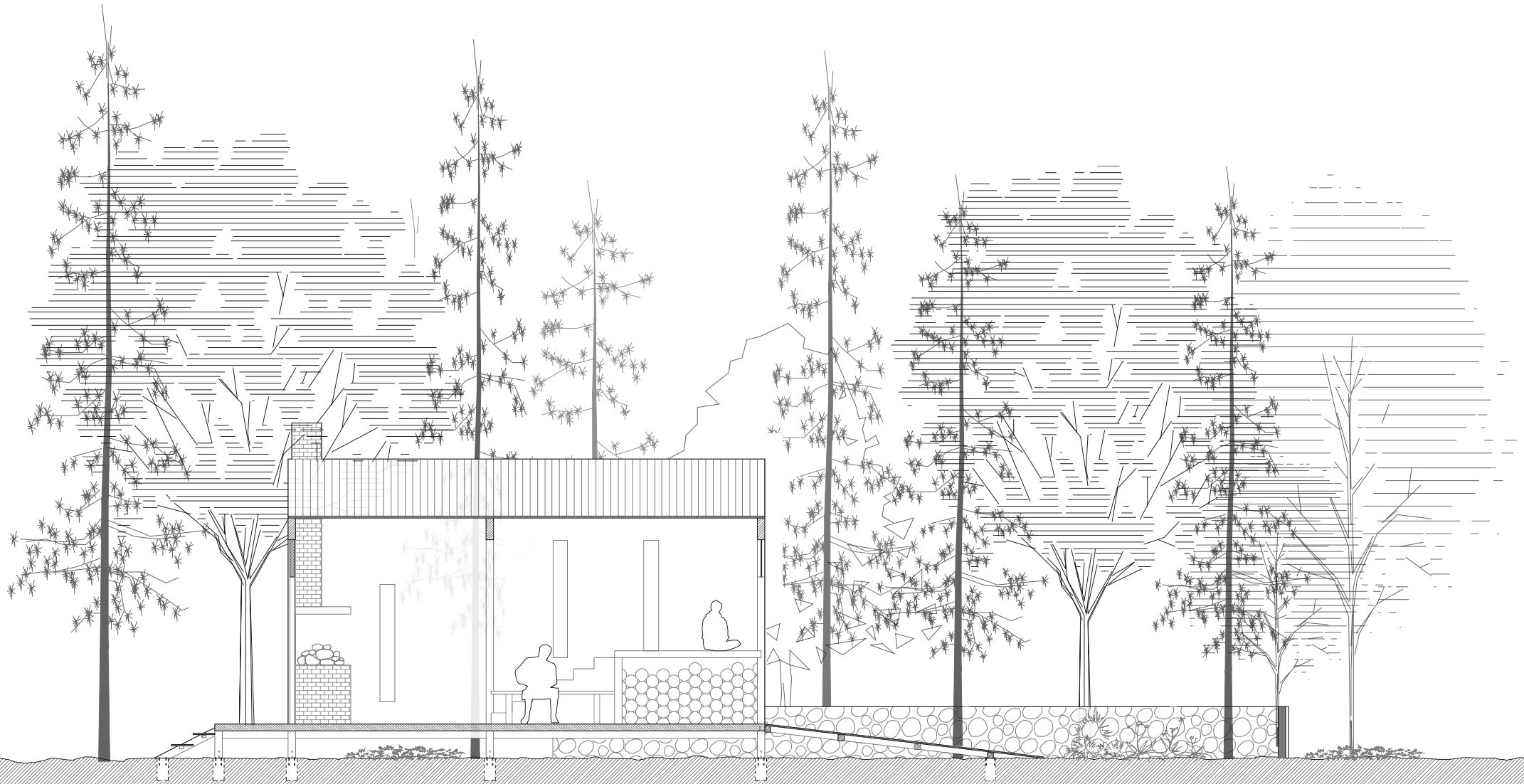
SHARE

● Private Garden / Type 1 - SHARE

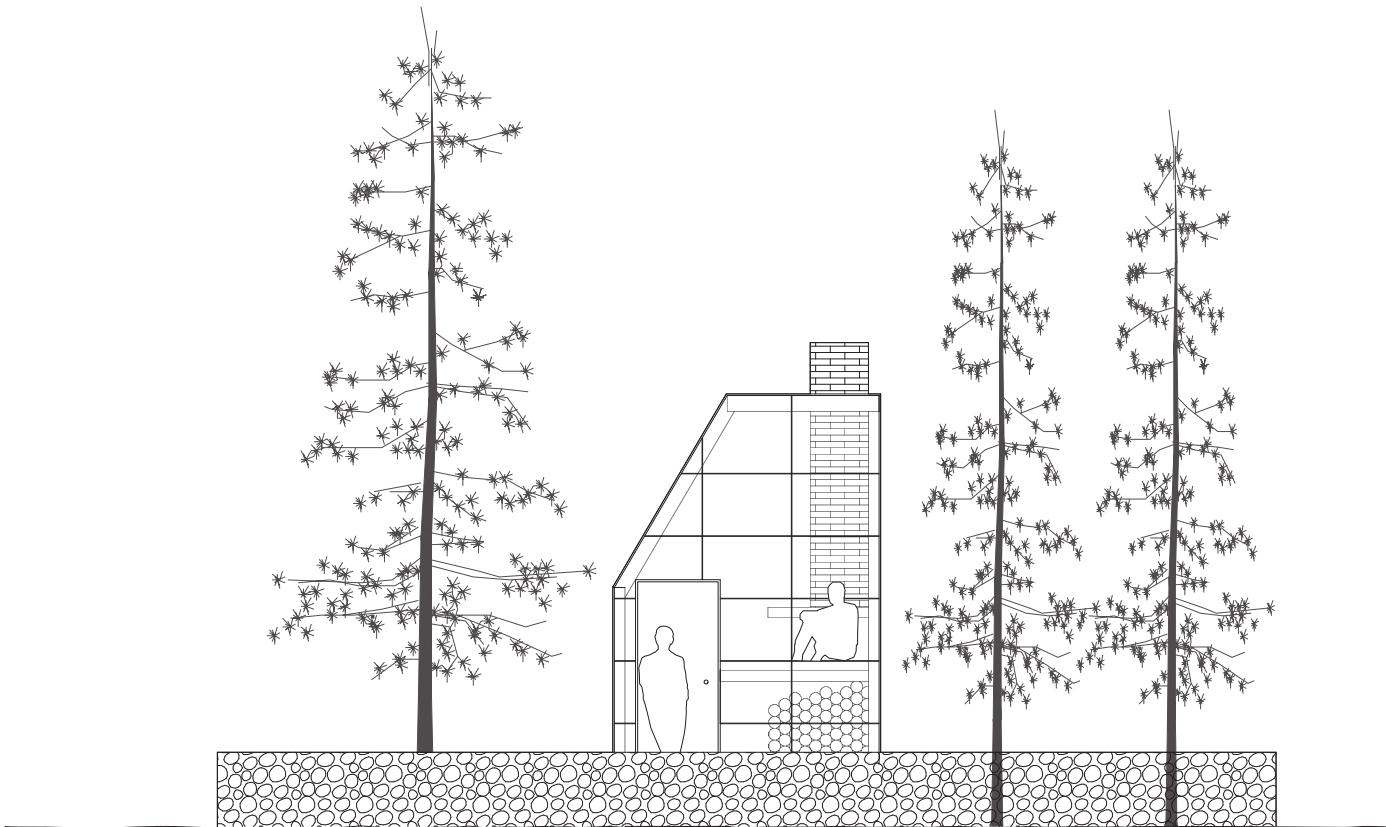
Feeling safe could be: You are accompanying with your acquaintance. You stay together in your own place.

This pavilion is a place for 2-3 people. The low wall enclose a private garden and you could enter from one side of the small cabin, sit down, enjoy the scenery or have a picnic. Some cookers are prepared. The other side of the cabin is built with whole glass with a small door lead you enter your private garden. You can walk outside to feel the nature. The shape of this pavilion is a rectangle embedded into circle, it is the intention that "walking into nature".





Section 1:70



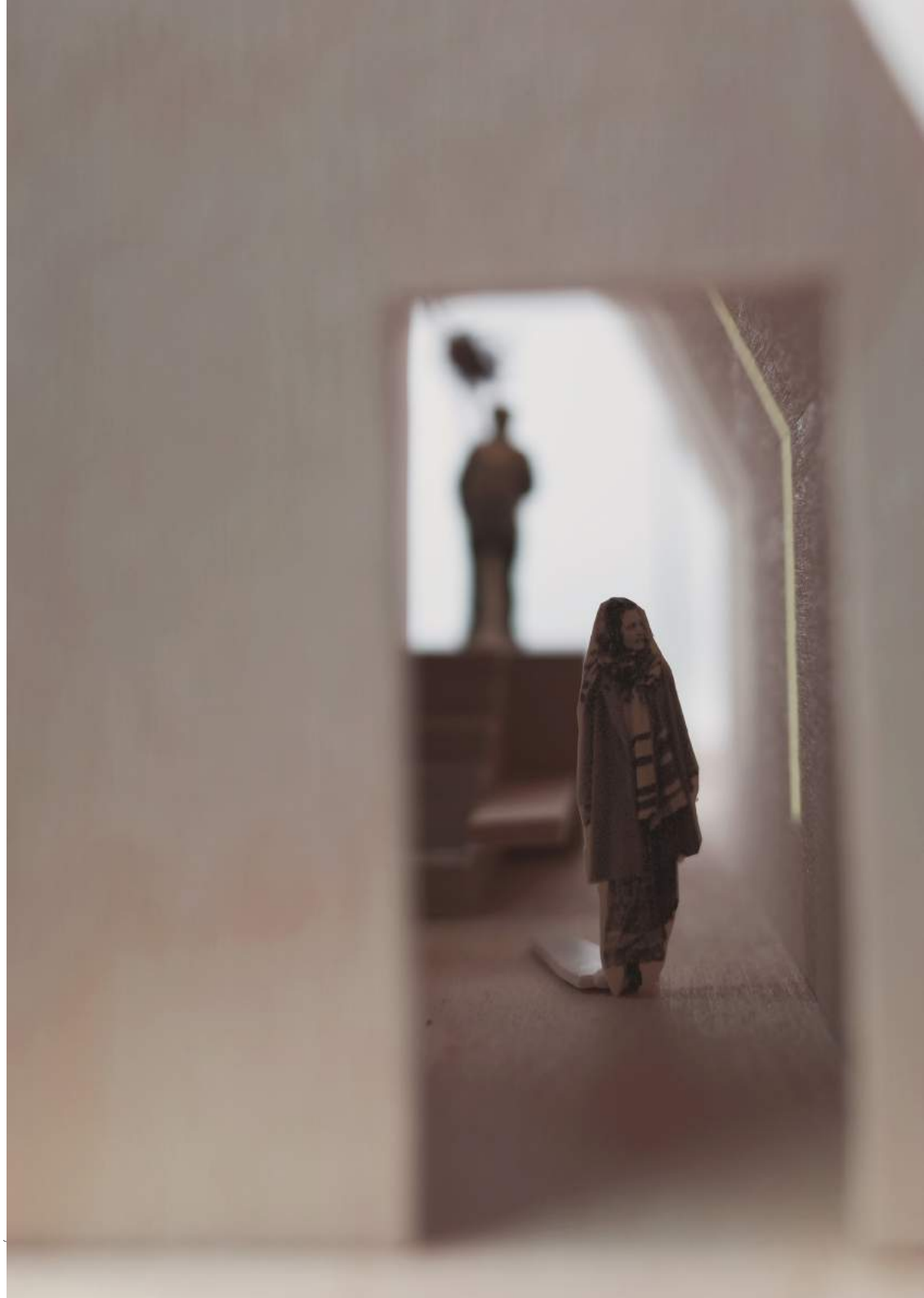
Elevation 1:70



Interior

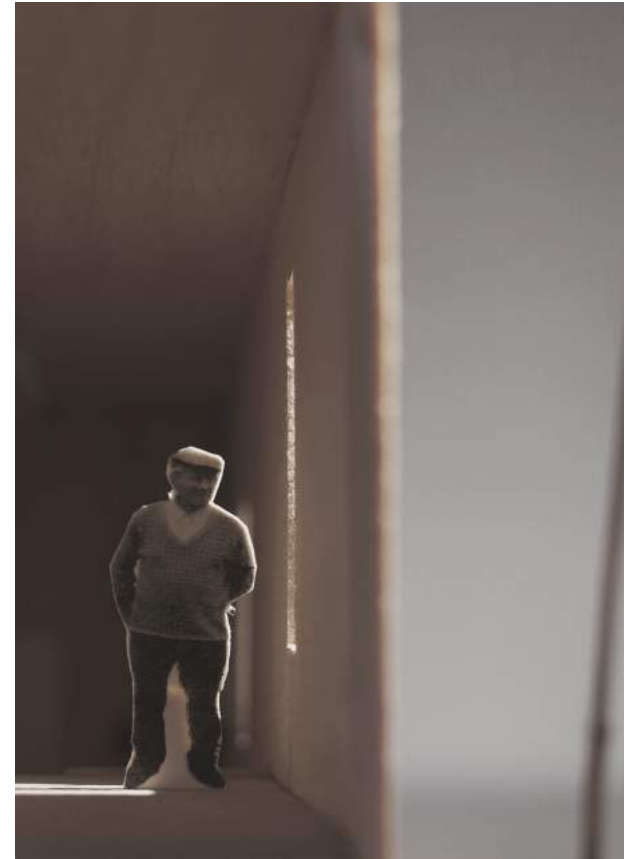


Interior





Two people stay in the pavilion



Interior - light coming in from the window



Model of section 1:40



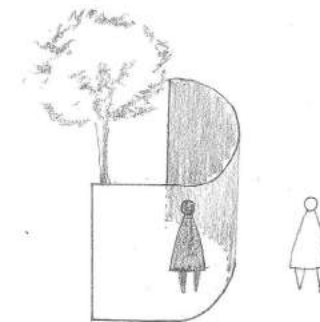
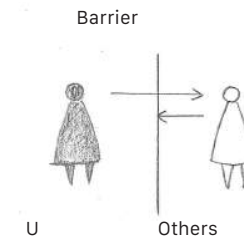
Garden with trees

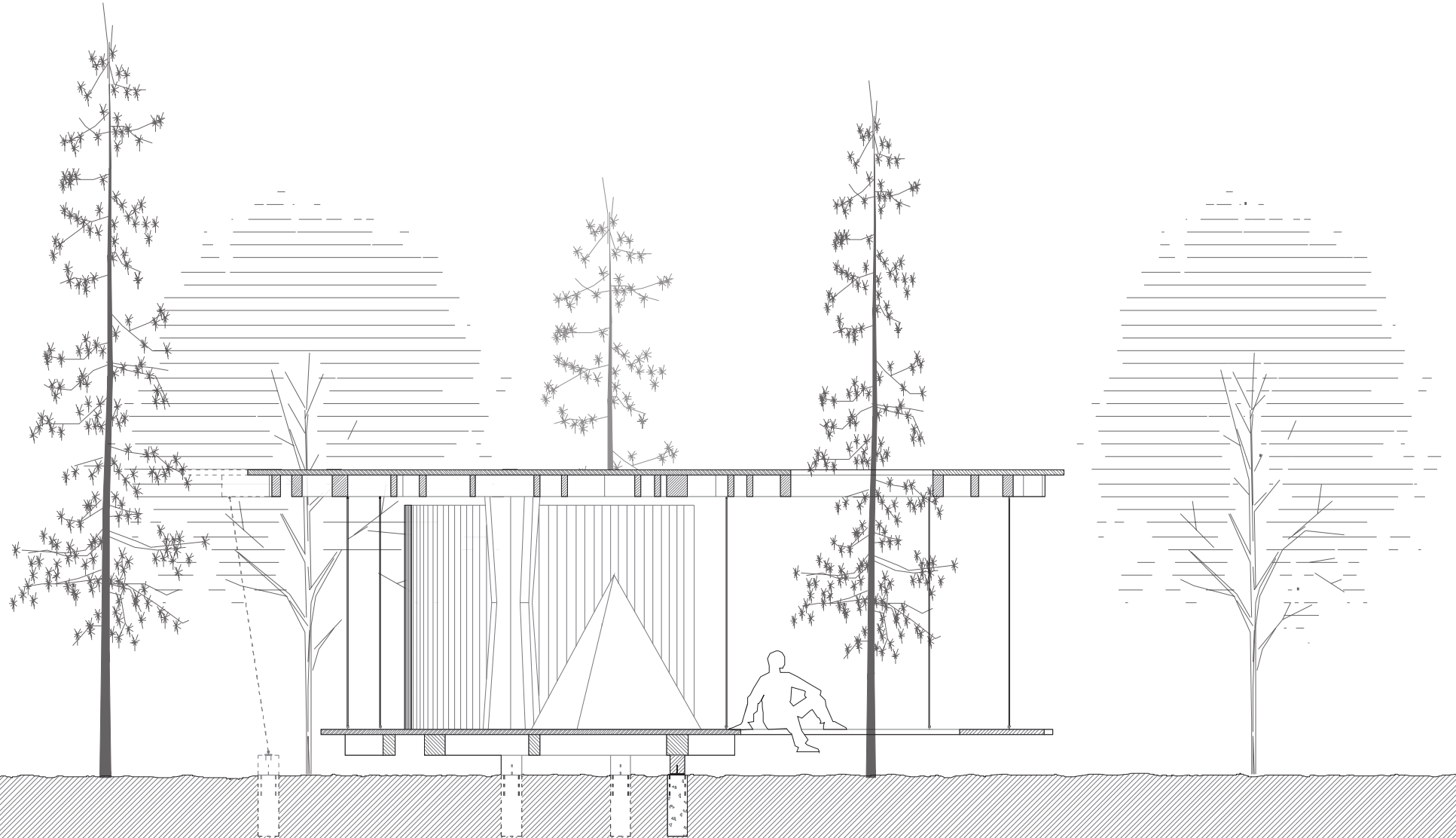
Isolation

● Private Garden / Type 2 - ISOLATION

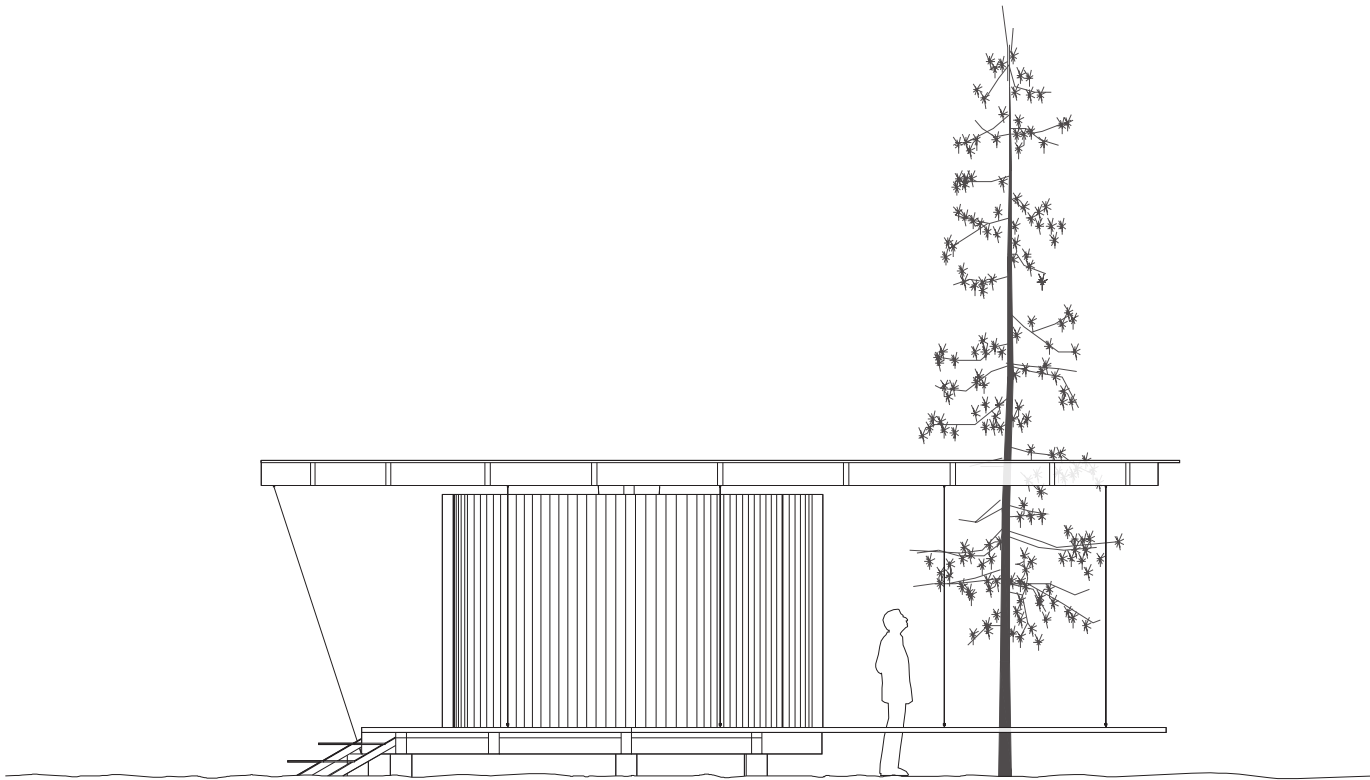
Feeling safe could be: You are totally isolated, no one disturbs you but you can enjoy the surroundings.

This pavilion allows one person to enter at a time. When you enter the pavilion, you can set up a camp and if you don't want to be watched by others, you can stay inside. You are allowed to stay here no matter how long you want, even sleep overnight. In this pavilion, you own a tiny garden with a big tree existed. The wall is made of round wooden sticks aims to offer you a comfortable tactile impression. The inspiration of the roof structure comes from leaf's texture and a big column standing in the middle is a hint of trunk. This pavilion provides you a totally private place to relax yourself or enjoy the scenery.

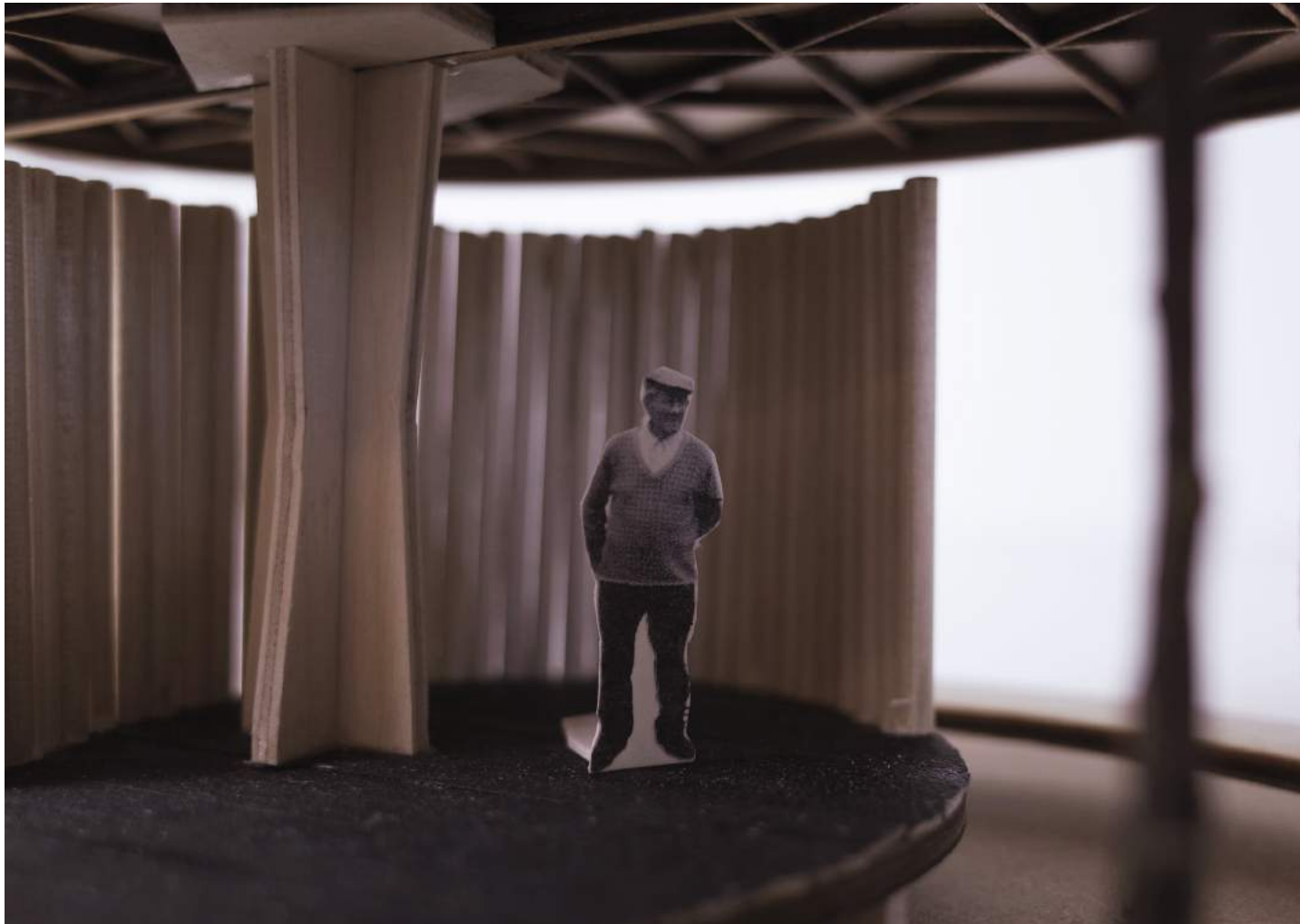




Section 1:70

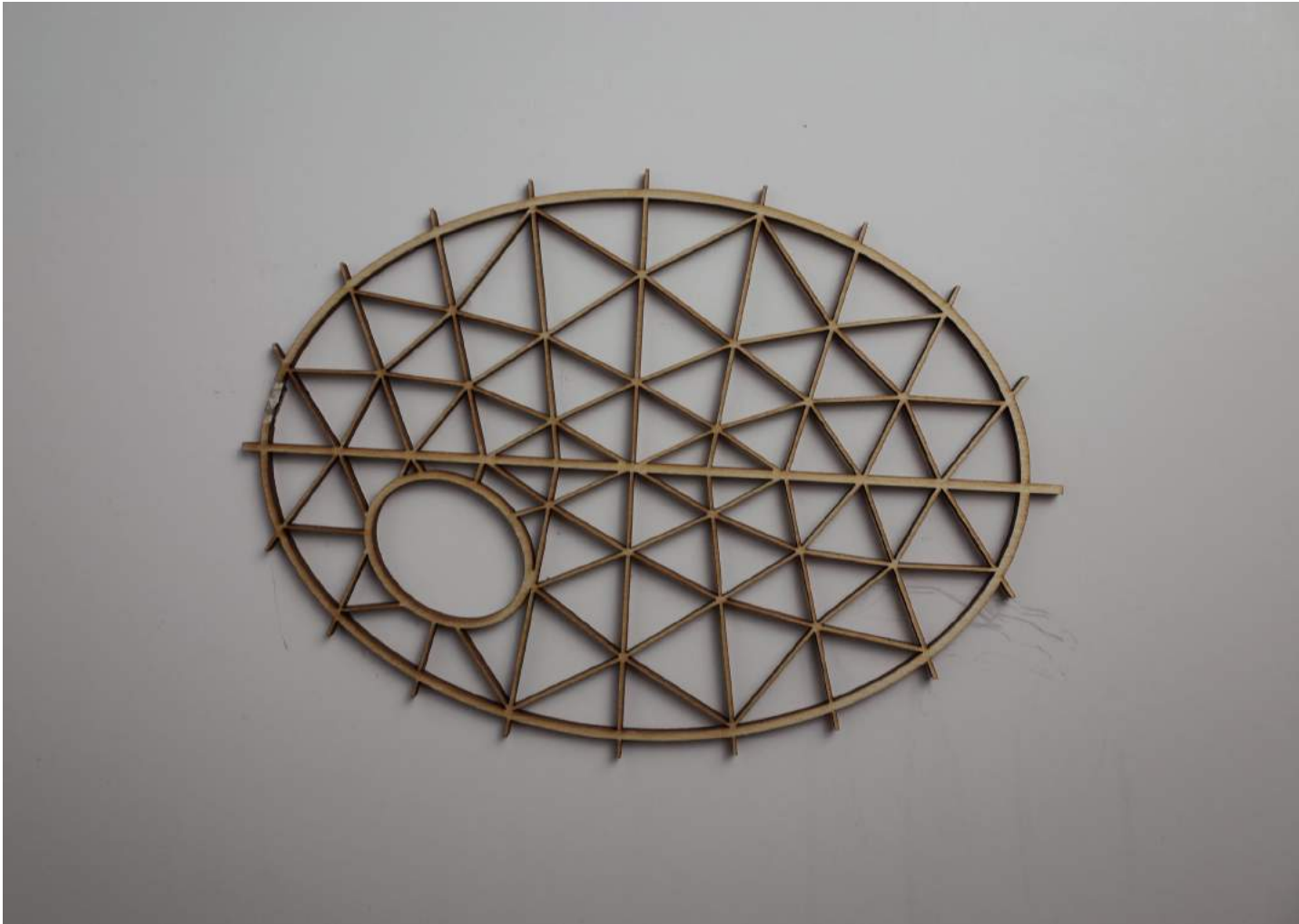


Elevation 1:70



Under the tree-structure roof





Roof structure



Model 1:40



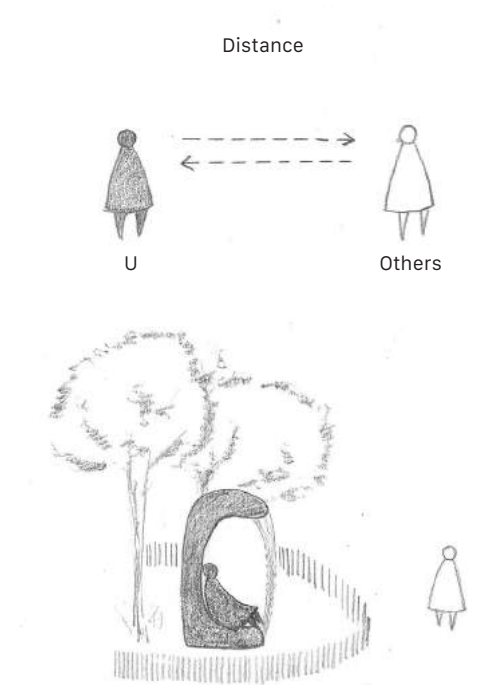
Corridor, textured facade, tree shadow

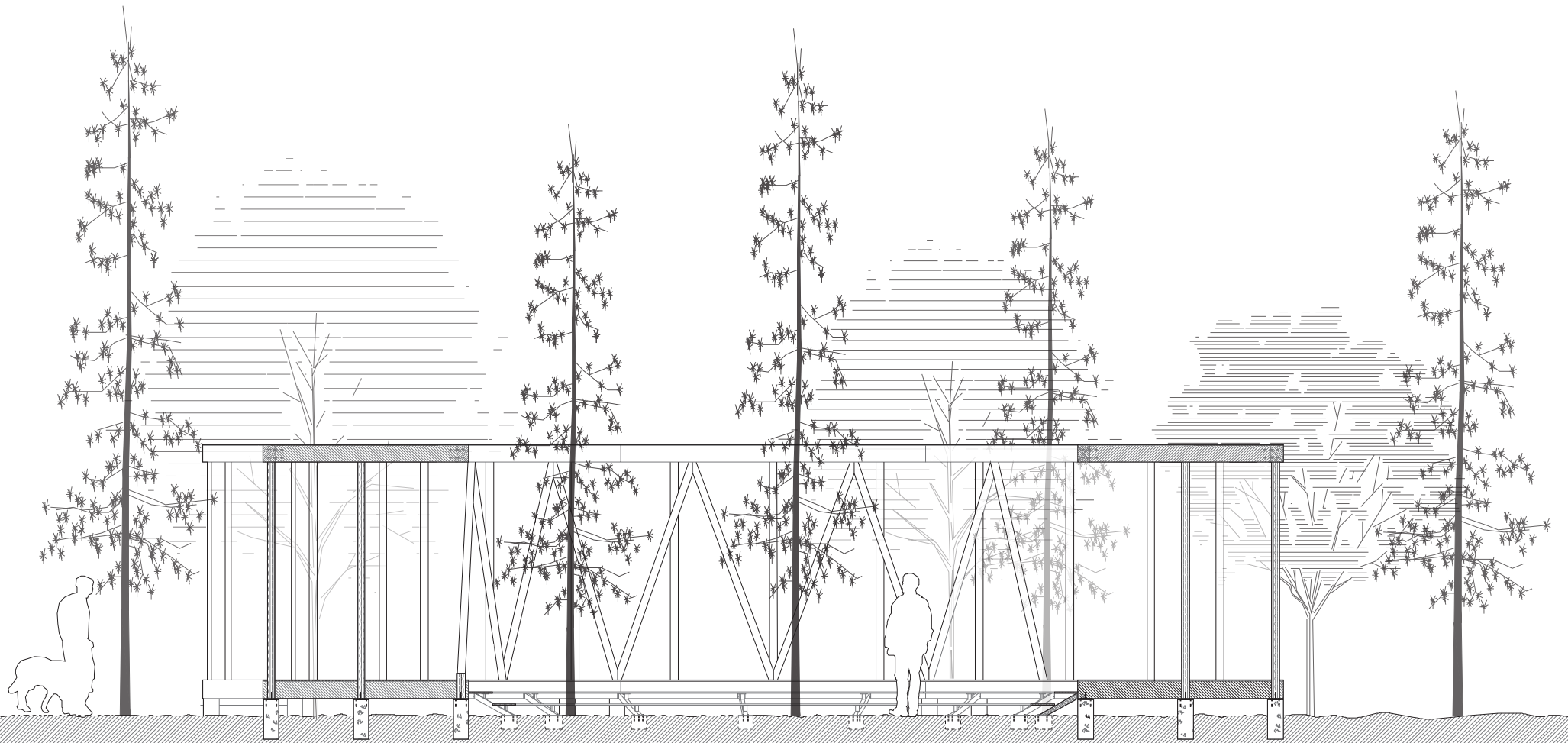
VISIBLE

● Private Garden / Type 3 - VISIBLE

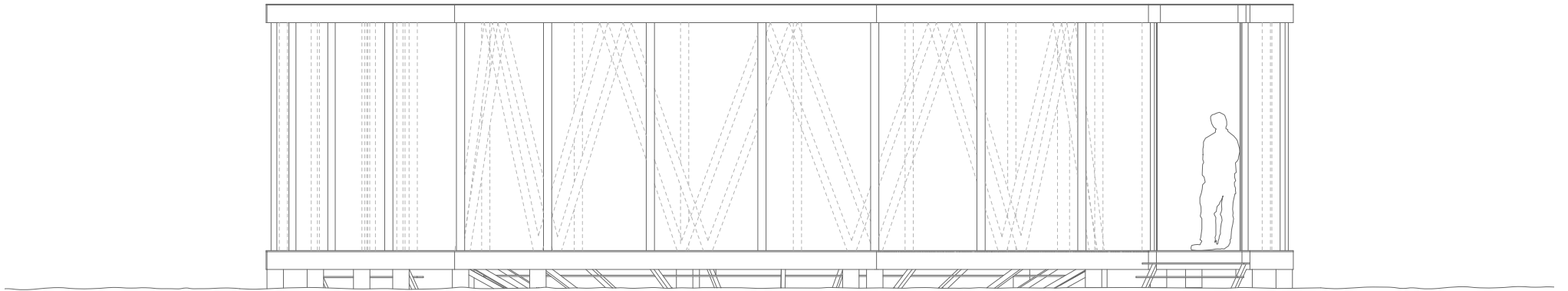
Feeling safe could be: you are exposed to others, the others are also exposed to you. But they cannot get close to you.

This pavilion allows one person to enter at a time. When you enter this pavilion, you need to lock the door to provide yourself a private place. You firstly walk on a bit narrow path and touch the round wooden sticks wall to guide you reach the central garden. Here you can enjoy yourself and observe the trees or natural things. The facade is made by frosted Glass with texture. When the shadow of the tree falls on the glass, you can see the combination between nature and material. This pavilion provides both privacy and vision. In this case, you might not be afraid of being here alone. If there is any accident, you could ask for help or escape.





Section 1:70



Elevation 1:70



Private garden



Corridor



Typical model of corridor structure 1:30





Model 1:50



Light corridor - Entrance

● Pavilion 2: Meditation House

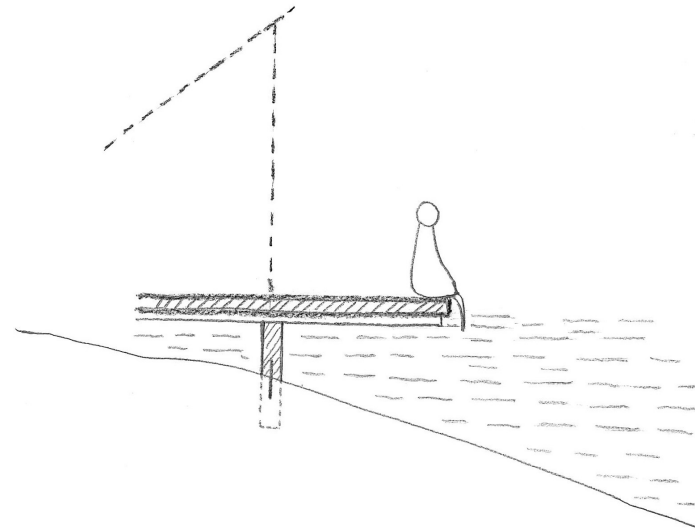
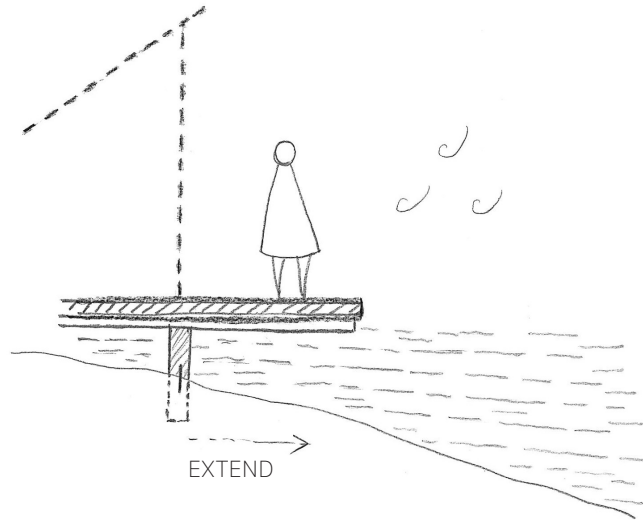
The second pavilion along this journey is a meditation house which located very close to the lake. In this case, you will have a talk with the nature element - WATER.

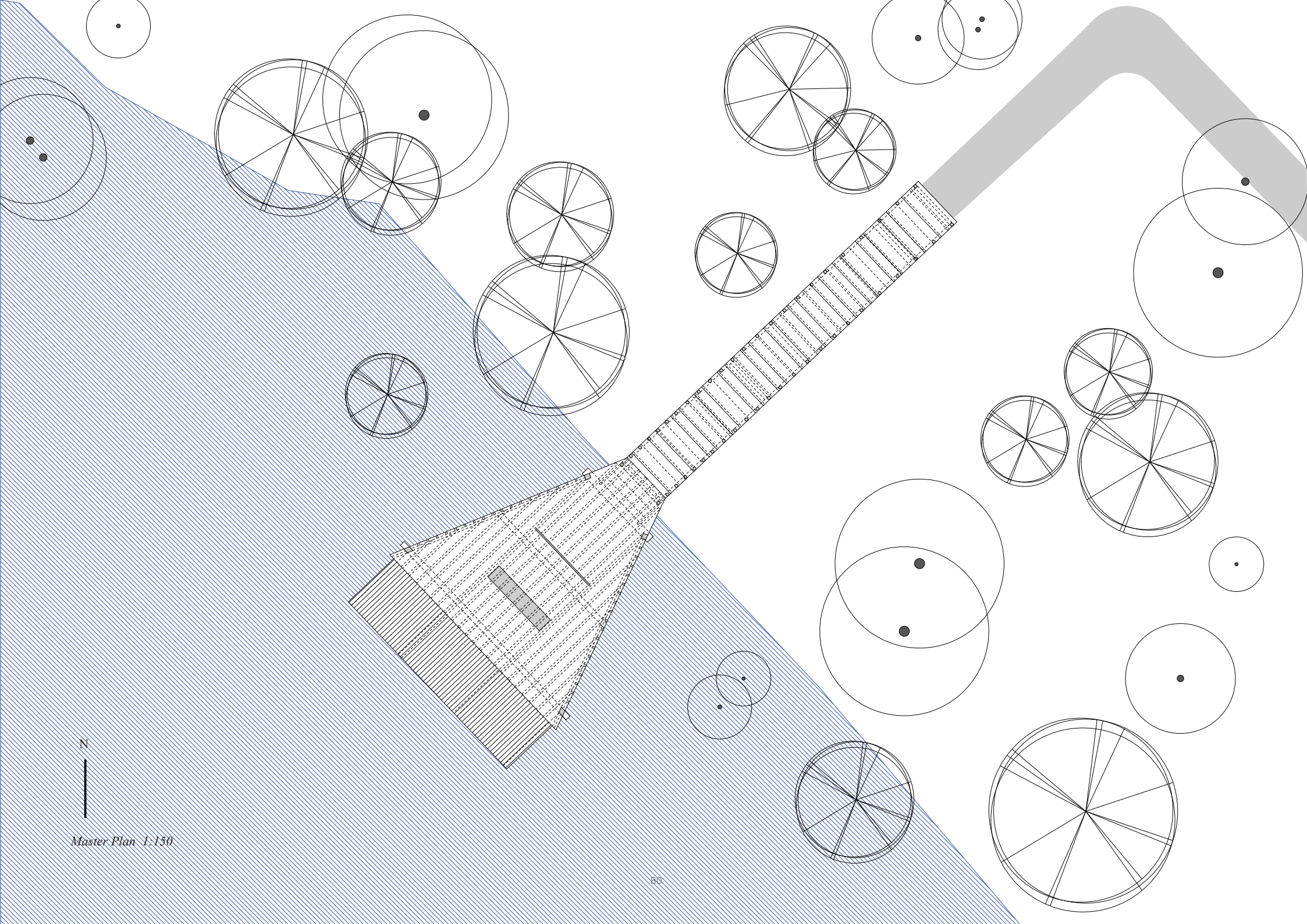
This house aims at providing people a place close to nature to find their inner peace.

The pavilion consists of two parts without a door, the first part is a light corridor. Before you enter the meditation area, you firstly take a "light shower" as a warm-up to relax and calm down. Then you go down several steps(an intention close to the water) and then enter the meditation room. Here you can do meditation, yoga or just sit down and enjoy the lake view, because there is nothing blocks your vision.

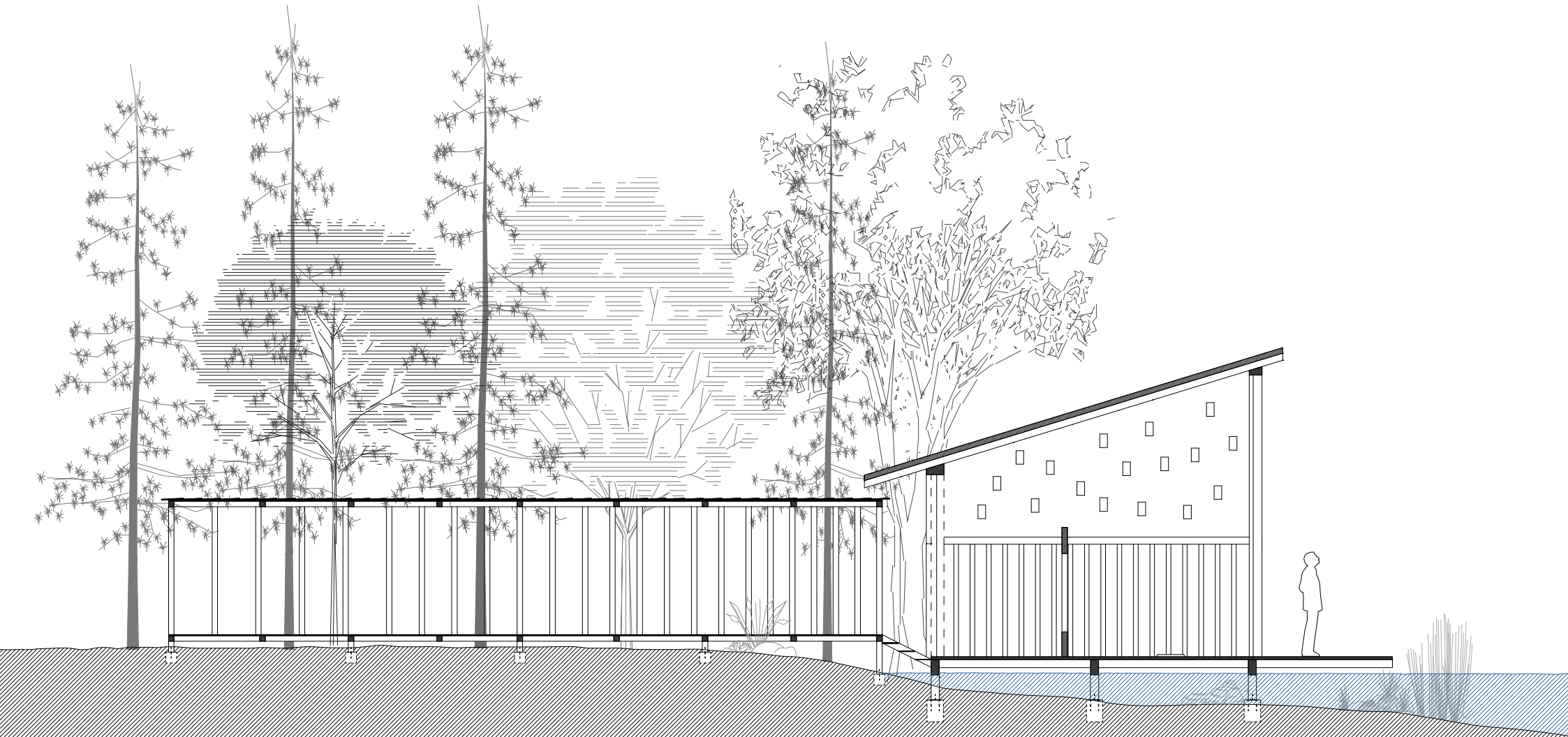
A piece of wall with an oval-shaped hole divides these two parts, which gives an notice to the people from outside that the room is occupied, and also people stay in the room could hear the footsteps when someone is walking closer.

WATER

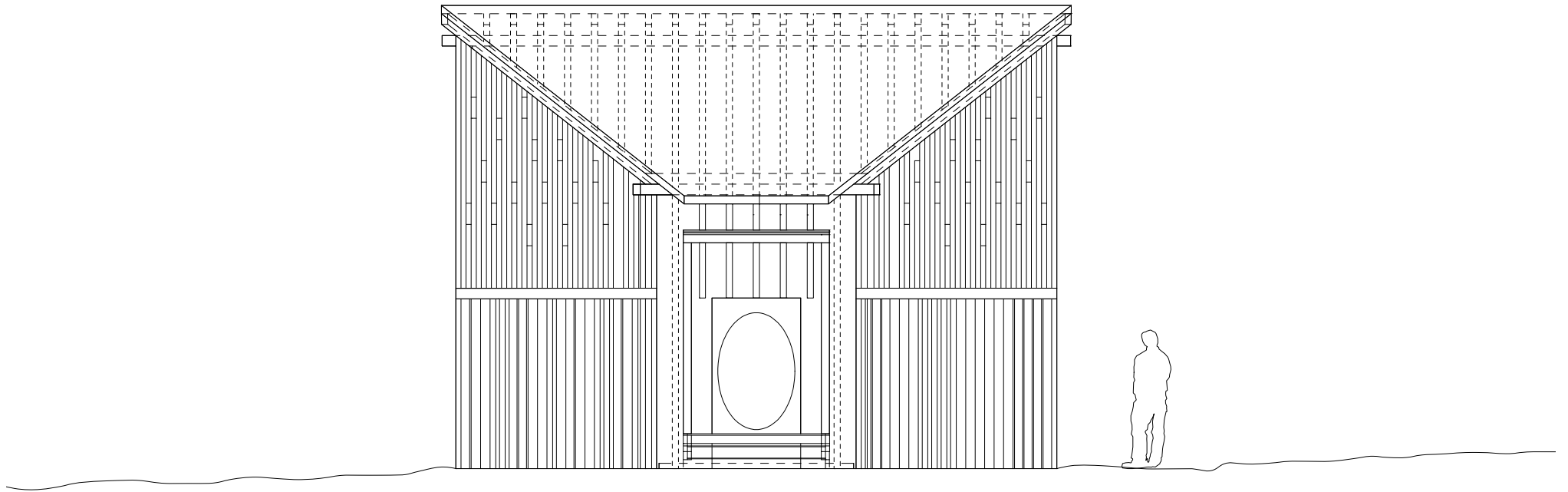




Master Plan 1:150



Section 1-70



Elevation 1:70



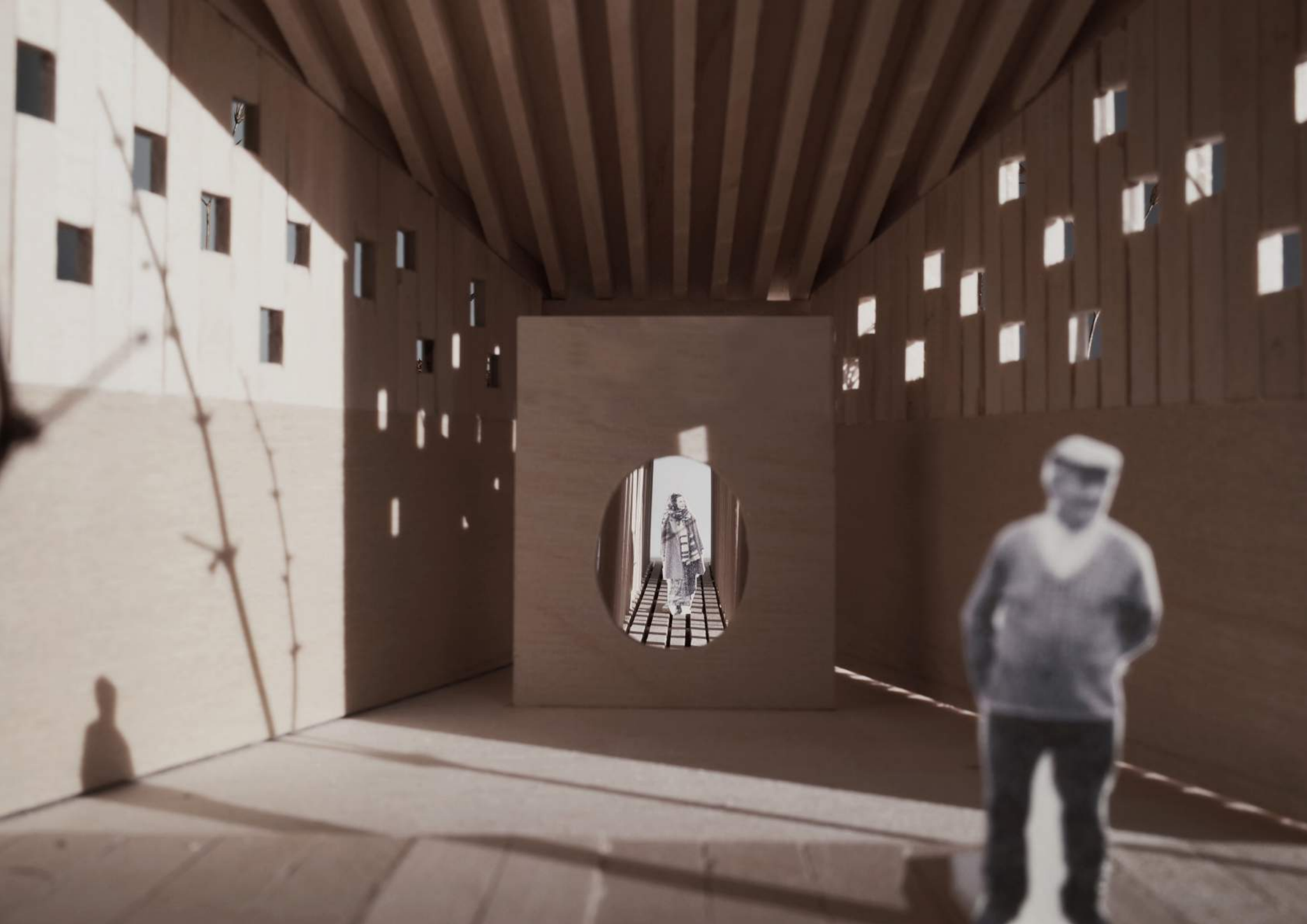
Beside the light corridor



light dot spreads in the meditation house



Model view





Model Elevation 1:50



Model Elevation 1:50



Top view part

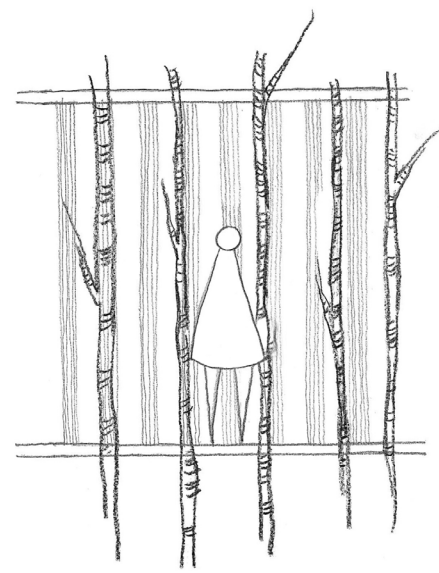
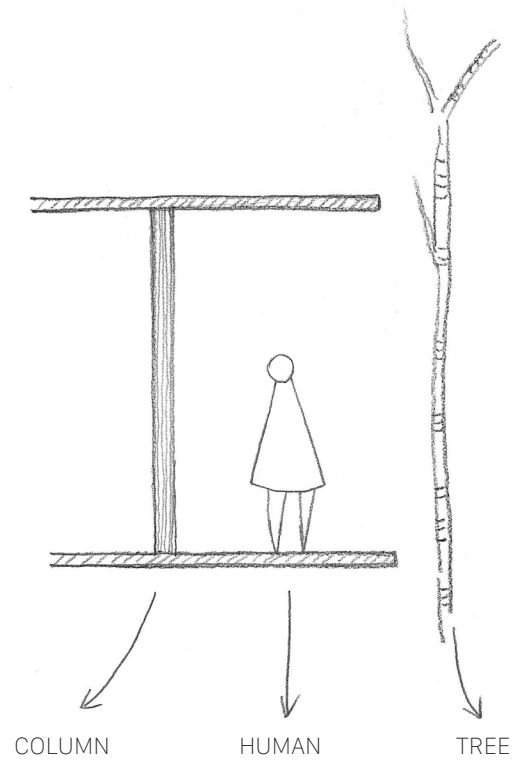
● Pavilion 3: View Tower

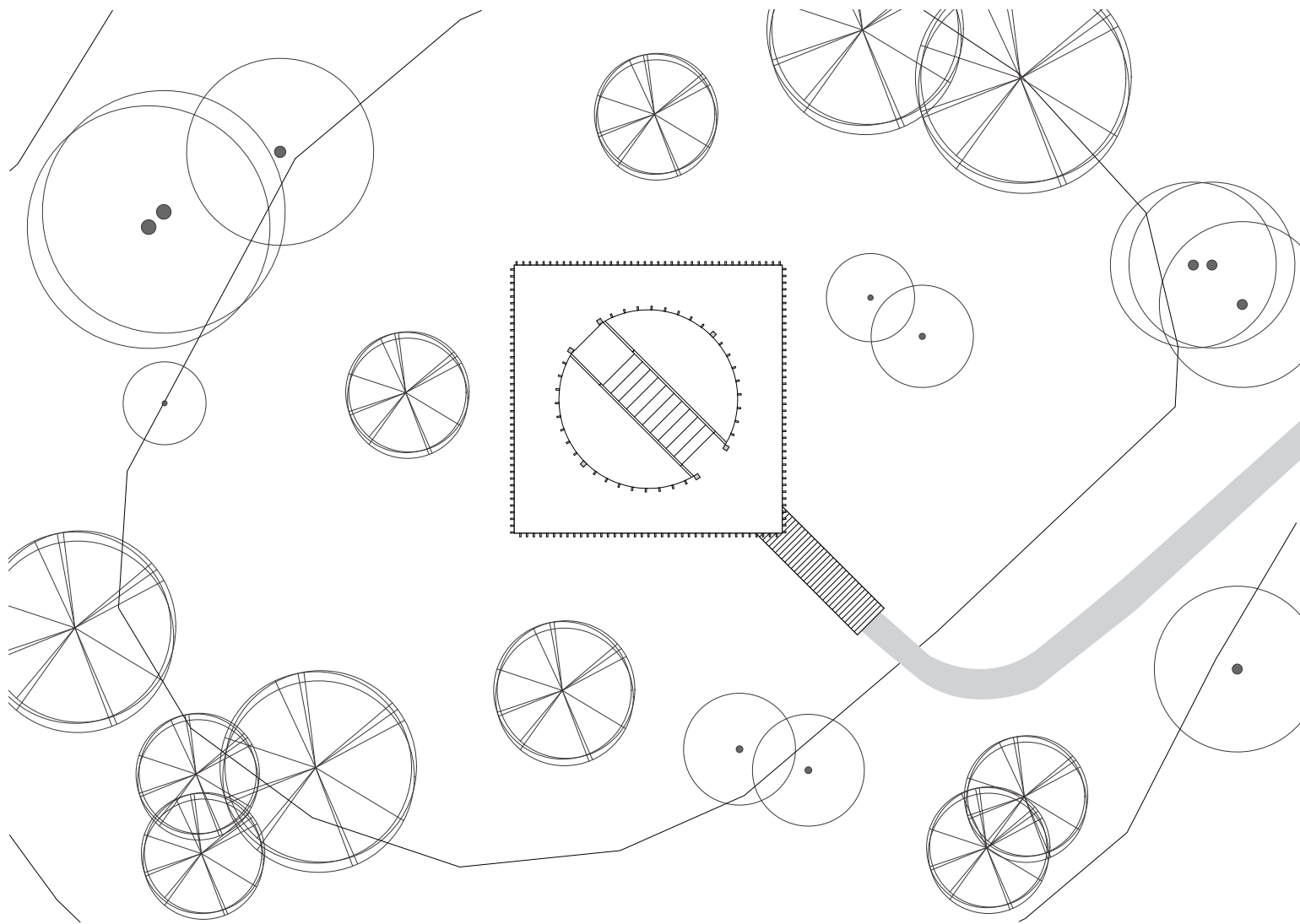
The third pavilion is a view tower which provide you a chance to have a conversation with TREES.

For a panorama of the landscape, this tower is designed on the top of a hill. It is 23 meters high with 8 floors. From the bottom to top, the height of each floor is gradually shrunk from 3m to 2m, in order to amplify people's open feeling before they reach the top of the tower with a full view.

This site is surrounded by many pine trees approximately 15-30 meters, considering respect nature and being harmonious with it, "linear" is the main design element. So many thin columns are used for both decoration and construction. The process of going upstairs is also a process of constantly feeling the alternation between culture, structure and nature.

TREE

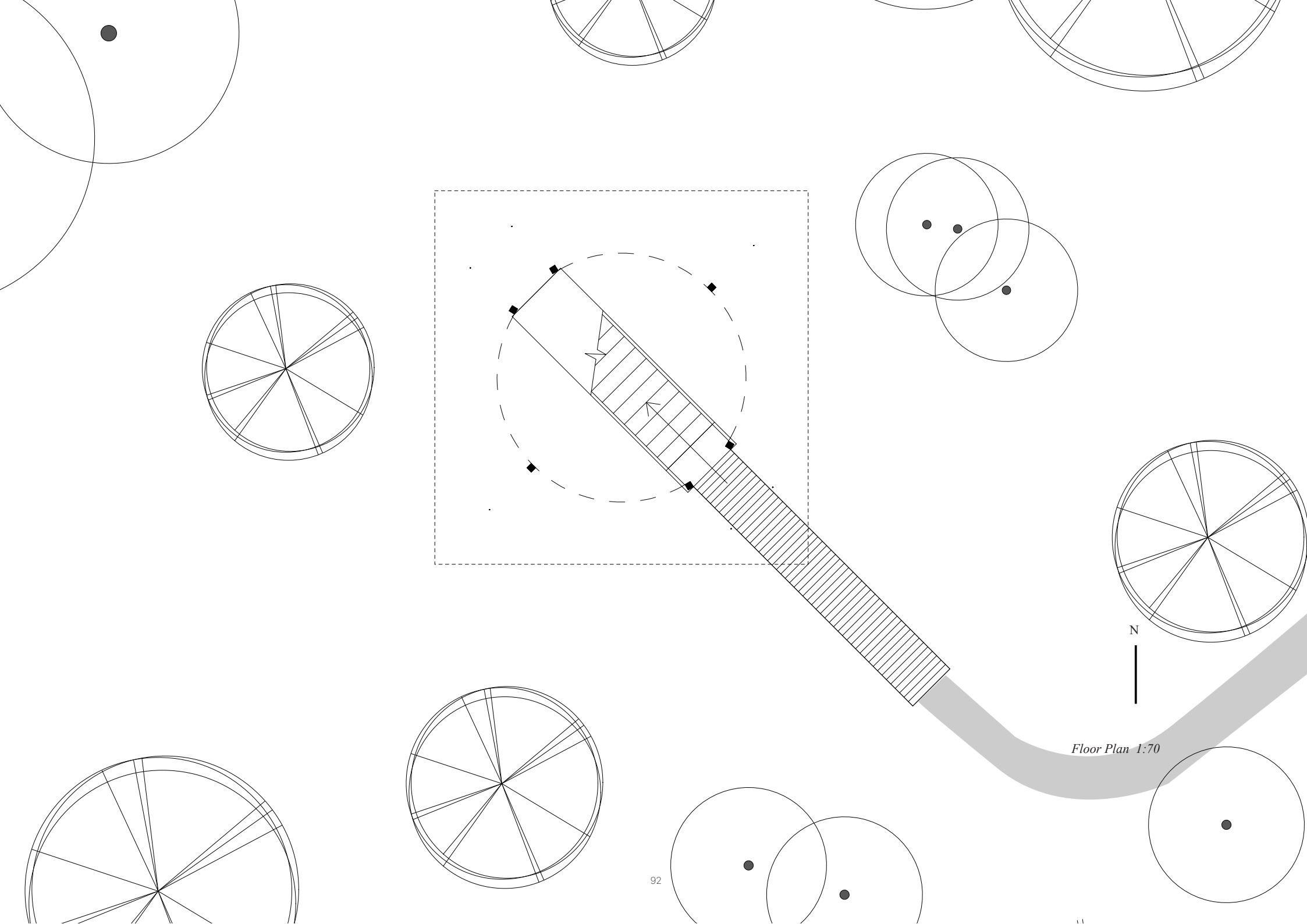




N



Master Plan 1:150



Floor Plan 1:70

N



Section 1:150



Top view



Part of Elevation - corridor & staircase



Surrounding trees & corridor & staircase





Central staircase



Corner



Typical floor model 1:50

CONCLUSION

The original intention of the thesis is to encourage people face, release and adjust their emotions such as anxious, nervous or frustrated. It is nothing about good or bad , because they are quite common. Then many stories have told us that nature makes sense.

Architecture influences people's emotion with no doubts. Combining architecture and nature to help people face and explore their emotion is the aim of this process. At the same time, forest bathing (or forest therapy), which has been proved and practiced in Japan and many other countries, provides an appropriate background and support to this idea.

This thesis is a trial, not aiming at finding the definite answer but inviting people to try those pavilions, which are tightly combined with nature, and to explore their own answers through the journey.

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- Combination of Architecture and Forest Bathing

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Chalmers University of Technology
Master Thesis
Master Programme of Architecture and Urban Design
Göteborg Sweden

MATTER SPACE STRUCTURE
Examiner: Morten Lund
Supervisor: Jens Olsson