



Winter Meditation In Stora Delsjön

A deep exploration to the materiality of matters in architecture

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Architecture and Urban Plan Department

Matter, Space, Structure Studio

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Abstract

This master thesis aims to make a contribution to the materiality of architecture and the sauna culture in Sweden. According to the British poet Percy Bysshe Shelley writes in her poem Ode to the West Wind, '*If Winter comes, can Spring be far behind*'. Winter is treated as an adversity for people and this is a tremendous contrast to the other three seasons.

In a year spring, summer, autumn and winter go around as a certain sequence. People play a very important role around these seasons. In my memory, people enjoy the first three seasons a lot by activities such as swimming, surfing, barbecue, hiking, climbing as well as meditation. In terms of winter, it is a cold season. In an adversity, we need to be calmness and broody to cope with the difficulties coming from daily lives. Just as the same as winter, we also need to be calmness and broody.

So, my question is how can we use materials to create structures as buildings for people to have places in winters not only for shelters but also for meditation functions.

In order to solve this question, I choose the city of Gothenburg in which the city that I am living in and it is a very typical nordic city that winter is much longer than that of the most parts around the whole world. My project is sited in the lake Stora Delsjön which is only about 5 kilometers away from the city center of Gothenburg and is the largest recreation area which is the closest one to the city center. Pine wood, stones, concrete are mainly used into my project to allow me pursuing the outcomes that I want to have.

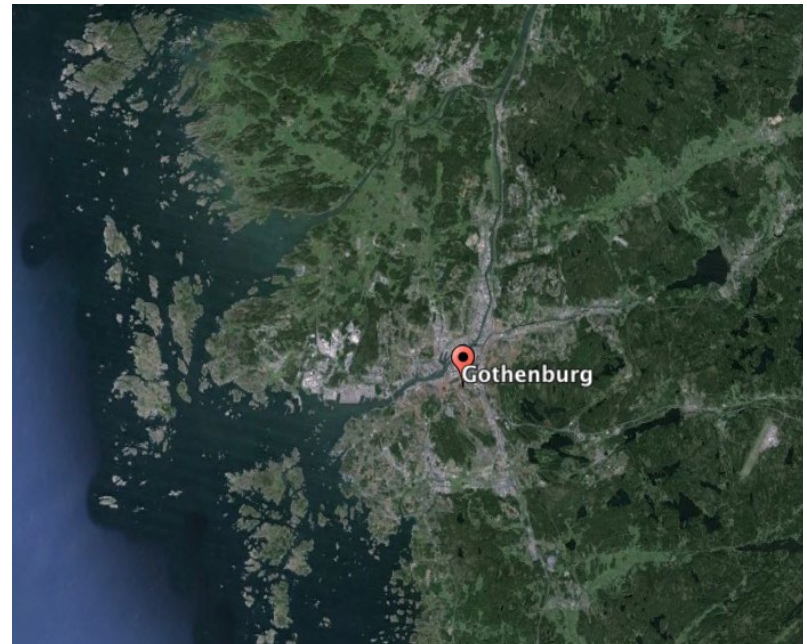
As a result, my project shows up as a sauna with three small pavillions including three different themes in winter.

Keywords: Materiality, Winter, Meditation, Sauna

Background

The whole project comes from the idea when I was in my hometown Qingdao, China. The city enjoys the spacious sea but rarely snows. Each time it snows I always go to the only mountain in the downtown to see the snow covering this area. Unfortunately, a boring commercial restaurant stands on the top of the mountain and people have to pay for the ticket to see the better view of the city. Benches become the only free function that allow people getting close to the nature. Thus, I came up with an idea that I want to use certain materials to design structures for benches. And the outcomes will serve for the winter.

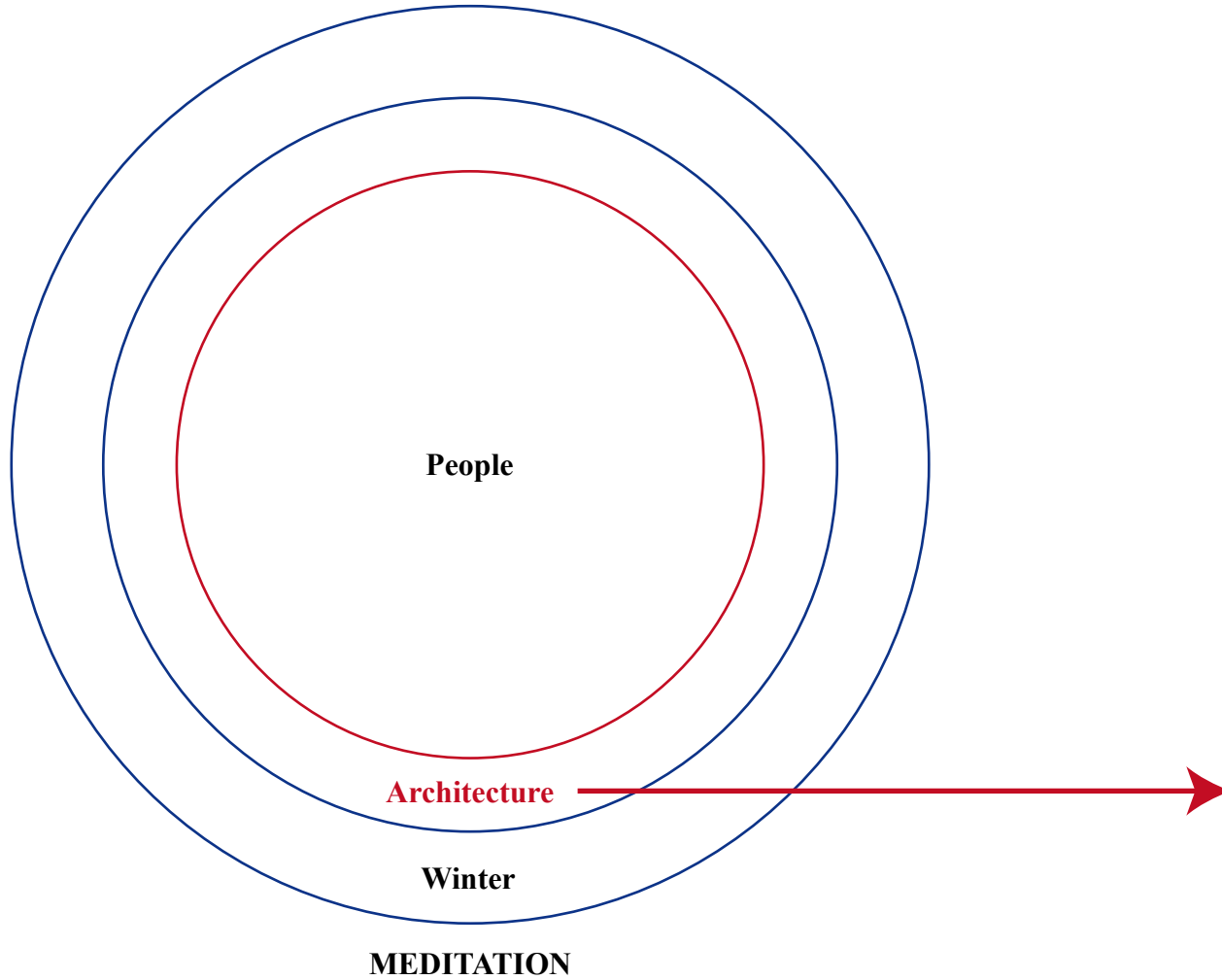
Now I am living in the city of Gothenburg which is a typical nordic city. The winter season here is much longer than that in my hometown and snow comes more often as well. Besides that the elements in winter are much more various. Thanks to this condition, I have the possibility to run my master thesis.



Chapter One

To frame the master thesis question.....

Purpose



Architecture acts as a bridge to connect people, winter and meditation.

Question:

In what way that architecture can combine people and the winter season so that creates an atmosphere of meditation ?

Background:

The contribution of this master thesis is going to be added to the discussion of materiality of architecture and the sauna culture in Sweden by showing the materials used in this project dealing with snow, trees and cold lake water in the cold winter season.

Chapter Two

In order to make this contribution and answer the question of my master thesis.....

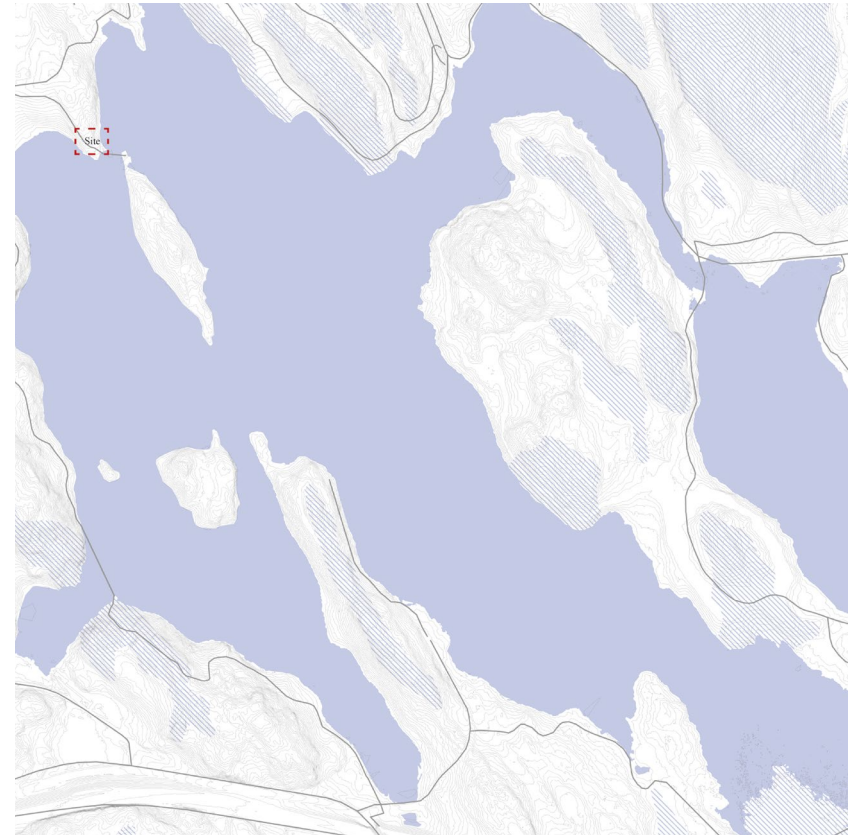
Methods:

Site Investigation

Material Investigation

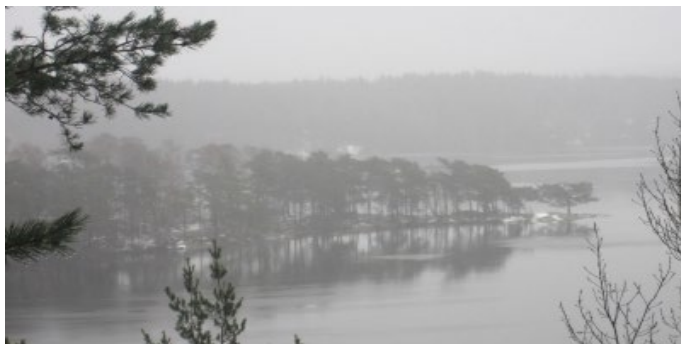
Architectural Design

Site Investigation



The lake Stora Delsjön shows a typical Swedish forest landscape with pine trees, birch trees, spruce trees and covers an area of water. The ground landscape shows hill and forest atmosphere by going ups and downs.

Stora Delsjön In Winter



Fog covers the forest. Snow, trees and water



Walkable bridge with ice and snow



Stone ground with trees and water



Trees

Conclusion:

The winter atmosphere in Stora Delsjön shows a very strong meditation environment by the elements in itself.

Pine trees take large amount of the green spaces there and play an important role during winter. Stone ground becomes more soft when it is covered by snow and the color of it enhance the winter situation.

Water is always quite and waits for the trees, stones as well as people to have a better connection that it used to be.

Material Choice

Pine wood and natural stones are going to be mainly used into my project and make sure the whole project integrates into the surroundings.

Material Investigation



Wood



Stone



Concrete

Conclusion:

Wood, as the sustainable material, will play the main role in my project and will be the main material to the project.

Stone has the natural color that allow people to calm down and take a seat to have meditation.

The reason that I investigated concrete is because of the color of concrete. The grey color looks like stone and will have a good connection with stones.

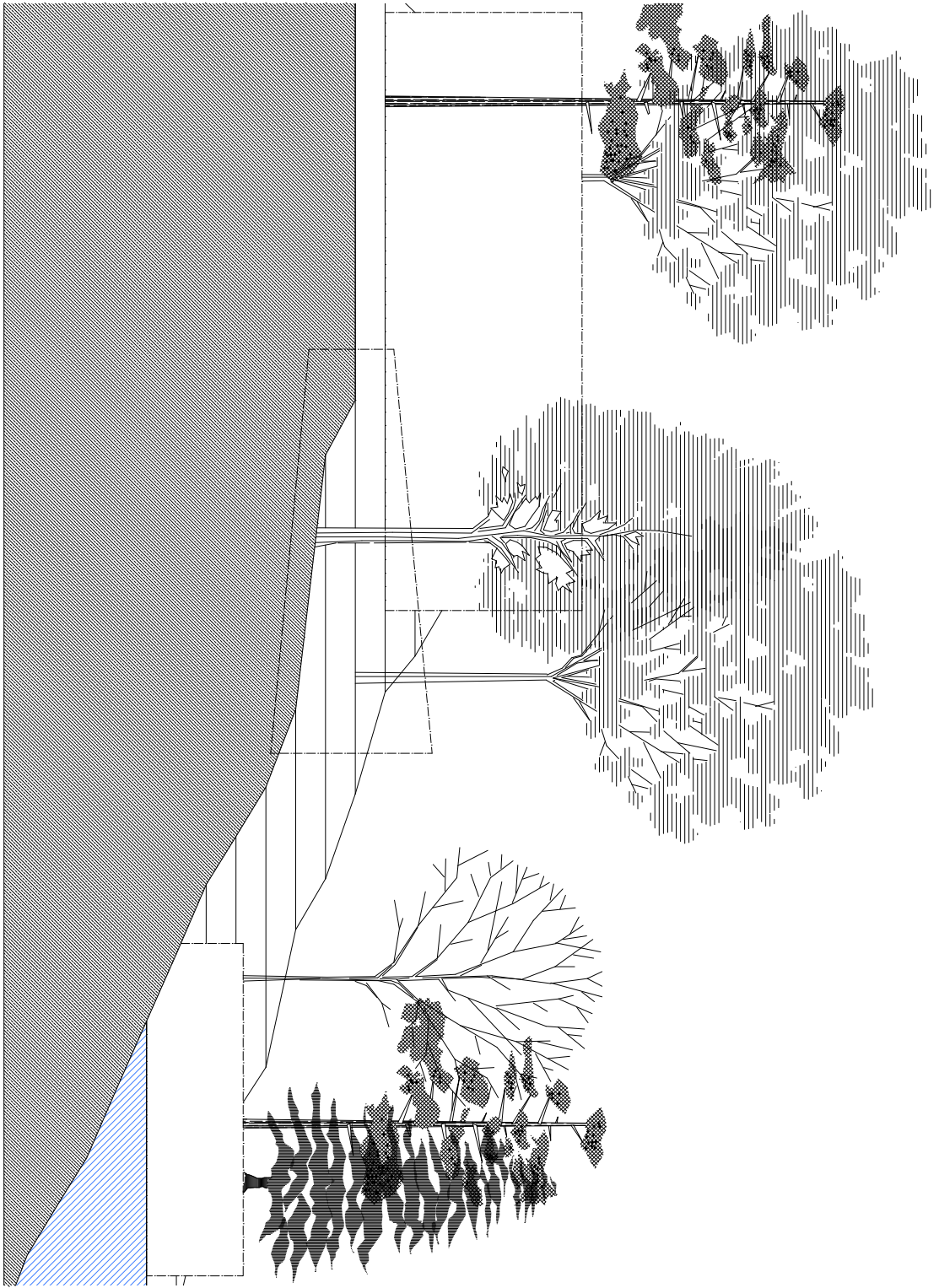
Delimitations:

This project is going to serve for winter season. But the period that I do this master thesis is during spring season so that some certain elements may be ignored throughout this period. Thus, I decide to narrow down my project into small buildings.

By choosing snow, trees and water. I will design three small pavillions for my master thesis.

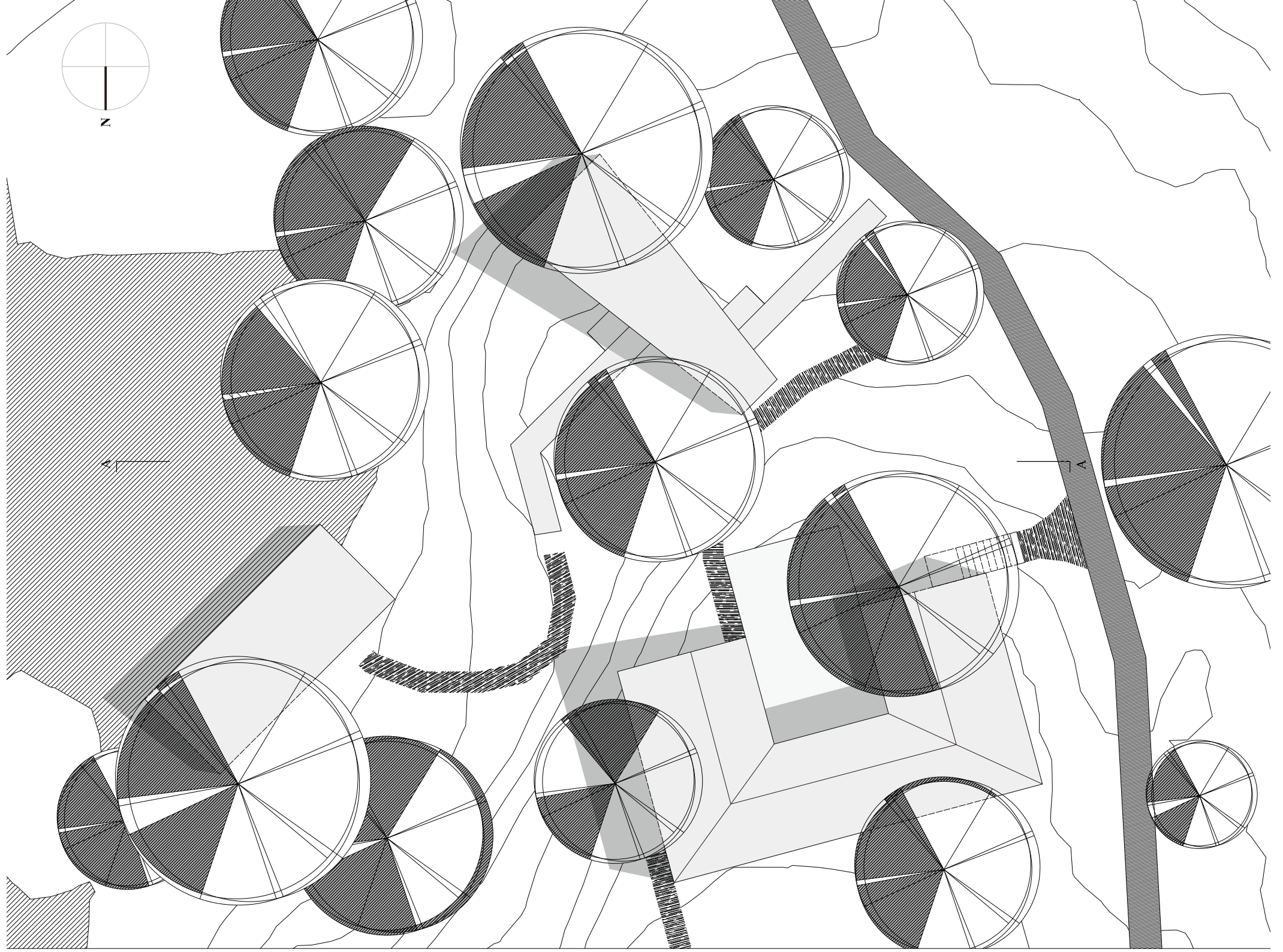
Chapter Three

Architectural Design to pursue the outcomes.....



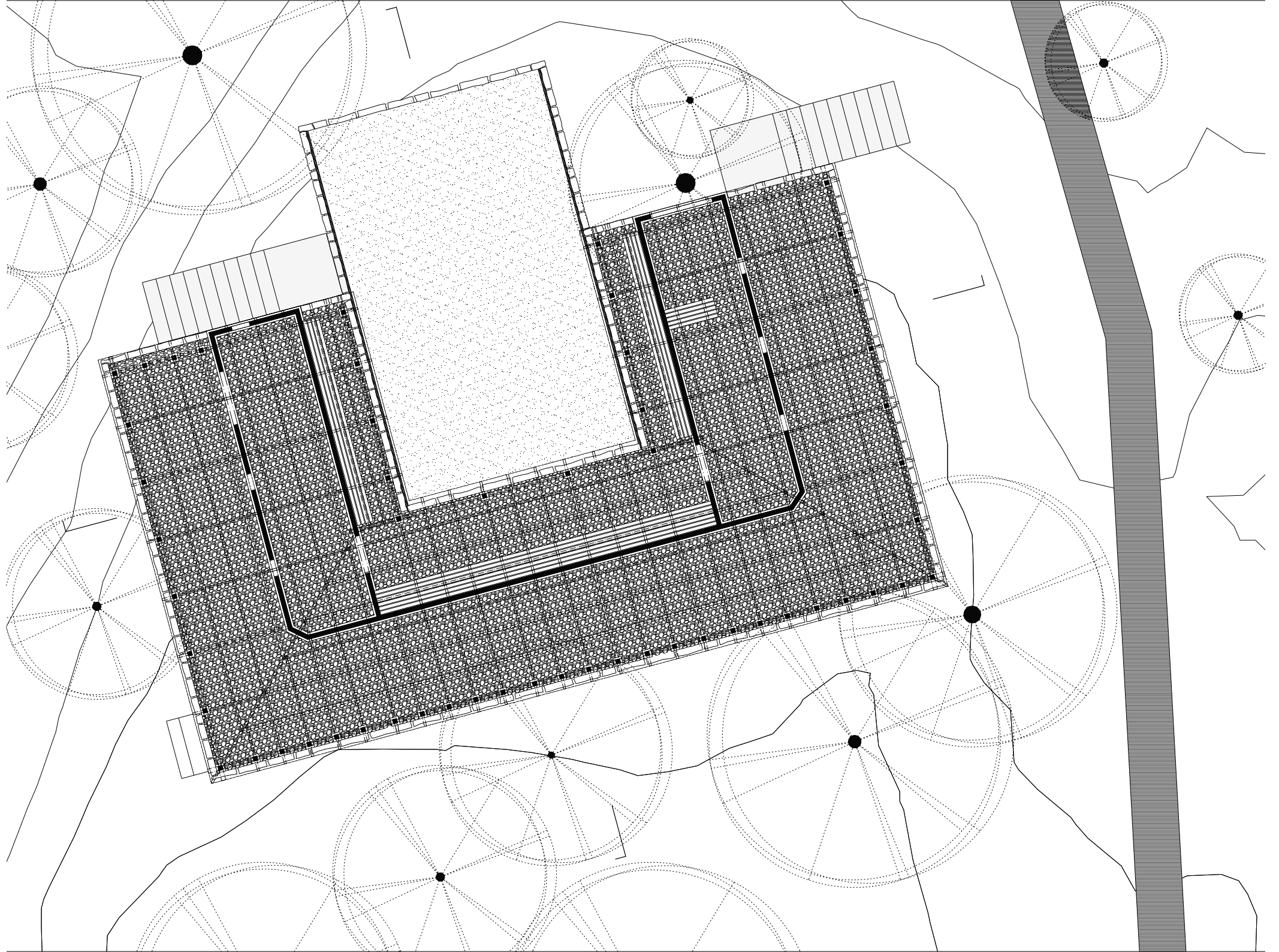
To know the site better. The sloping ground landscape goes through the whole from high point to the level of water. Pine trees, birch trees and spruce trees root into the ground alonging with the sloping ground.

The three potential pavillions will also follow the ground the landscape and are going to be hidden in the forest.



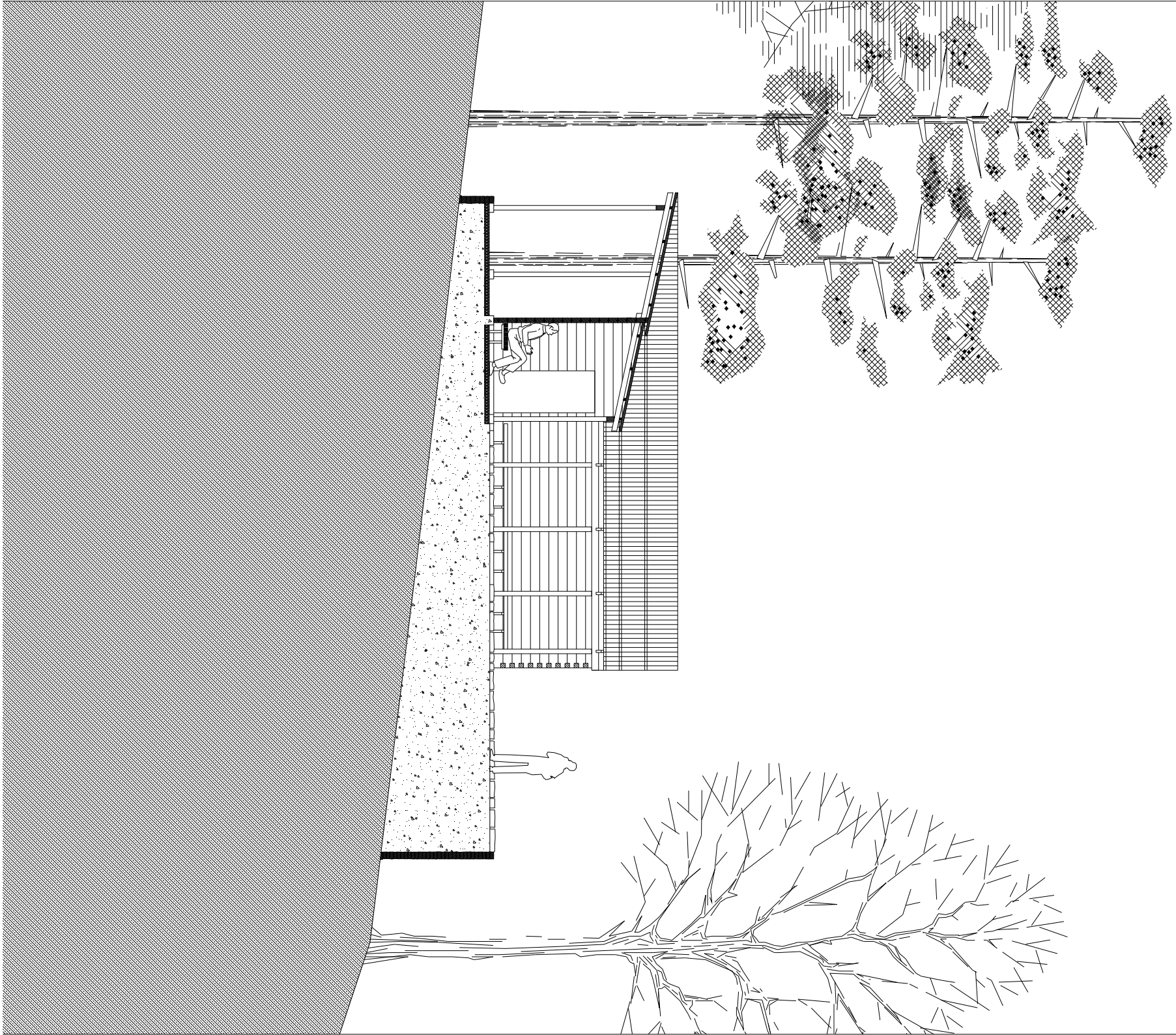
The snow pavillion is the first building for people to meet this project and followed by the tree paviliion which is the dressing and resting rooms to the sauna.

The water pavillion acts as a sauna and gets the closest relationship to water among the three pavillions.



"C" shape is used for the snow pavillion with three facades closed and one open to the nature.

Walls, pillars, roof and benches become the main parts of this pavillion.



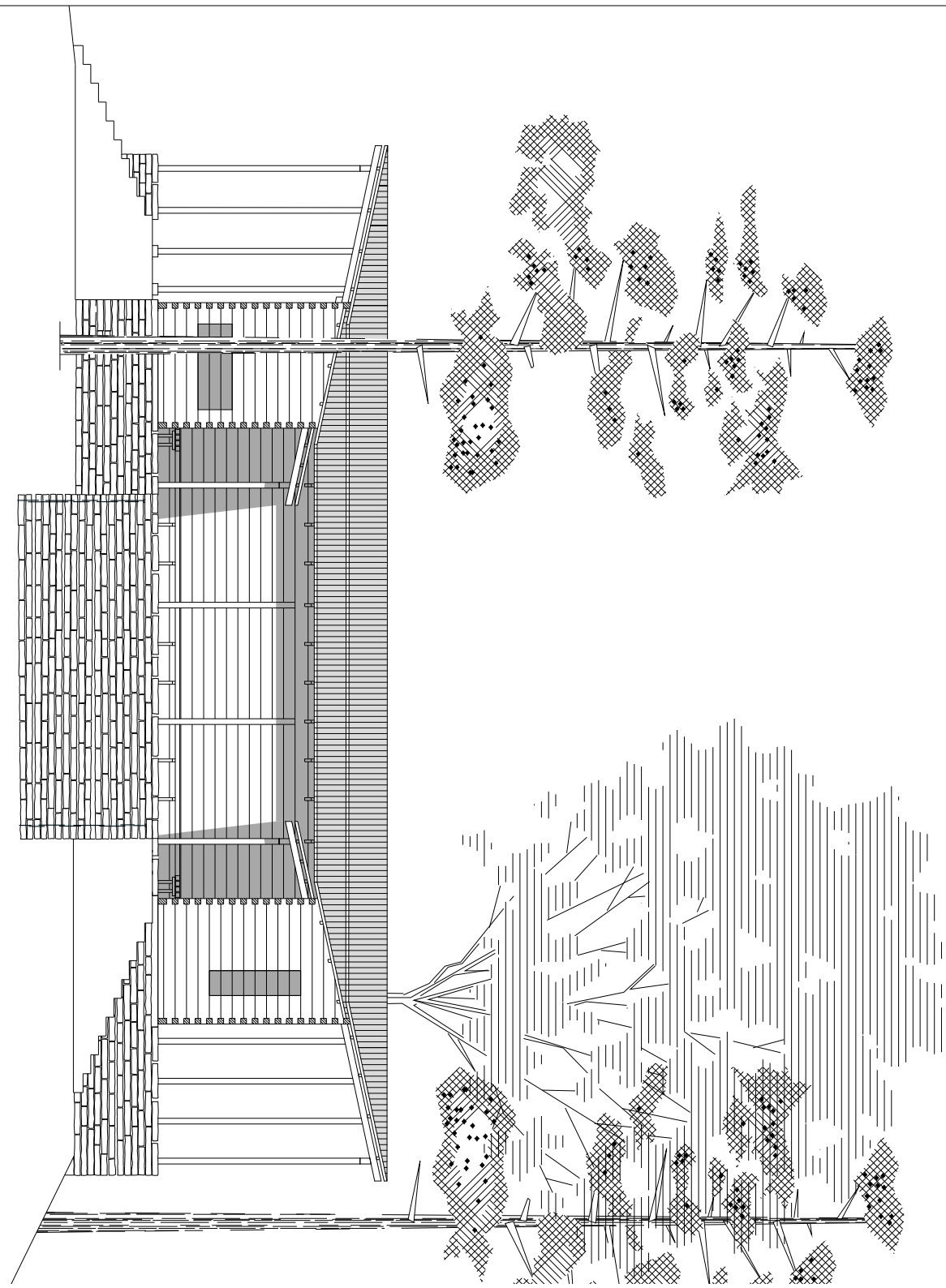
Pine wood is the material to the walls, pillars, roof as well as benches.

By doing this, the whole building is showing the forest character just as the same as the surroundings around the pavillion.

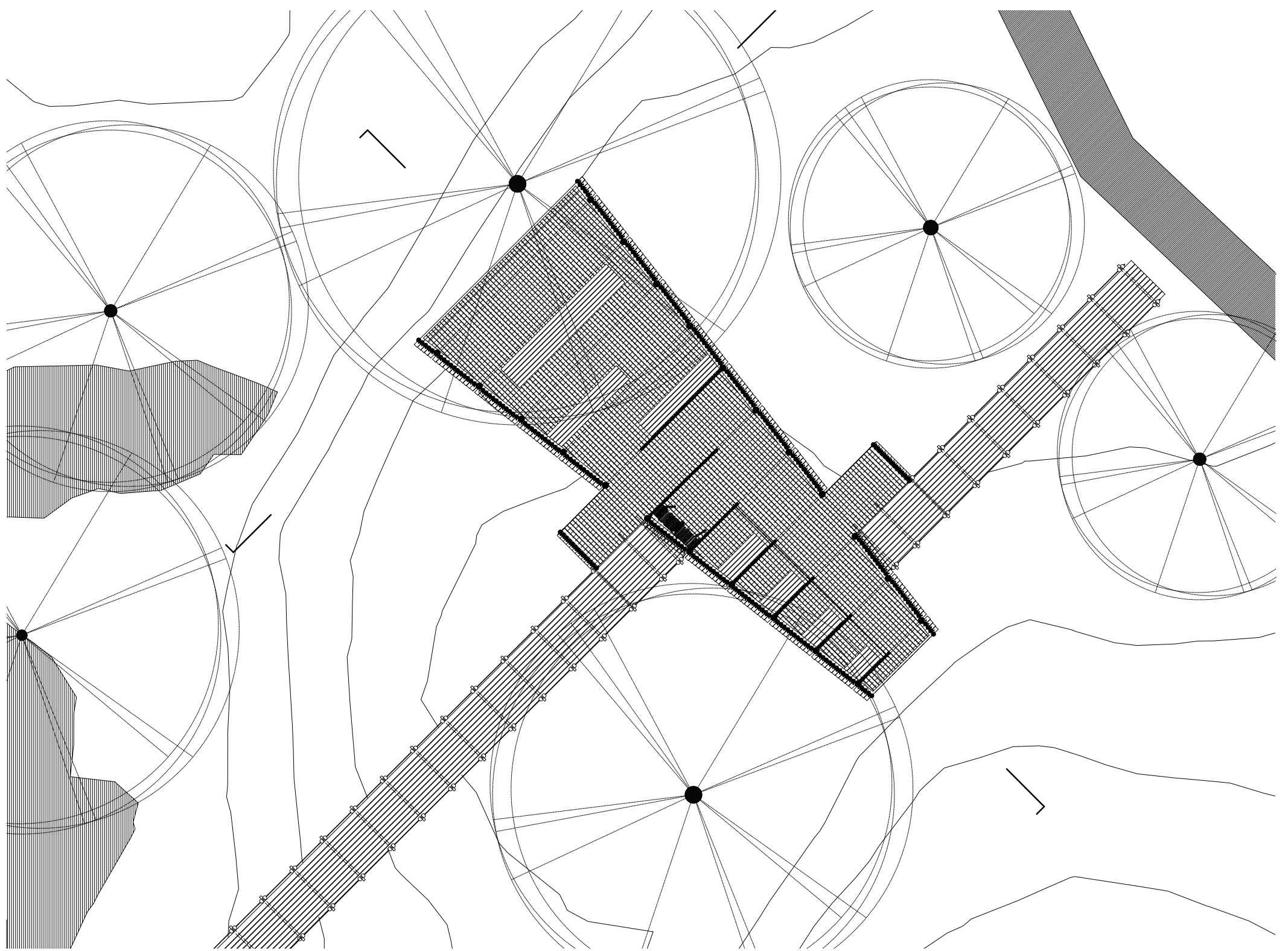


Snow is quite and serious with white color falling down to the earth. Thus, a concrete foundation with natural stone facades holds the wooden pavillion to give the whole building the same character as snow.

When snow comes, the strong concrete, stone as well as wooden walls, pillars are changed into a situation of softness that is different from the normal impression of themselves to people.

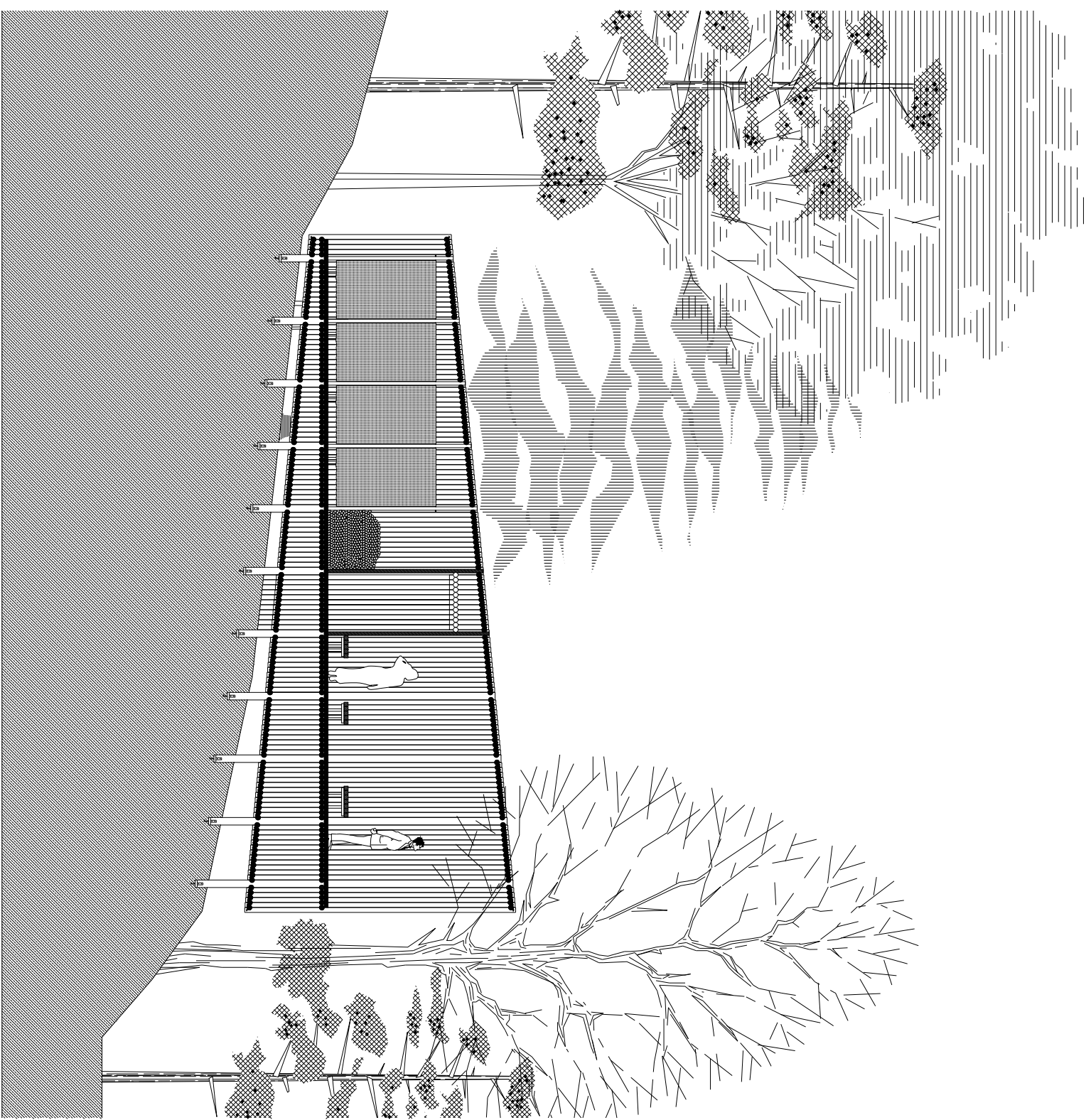


In addition, the shadow of the building will allow people to have a color experience between black and white.



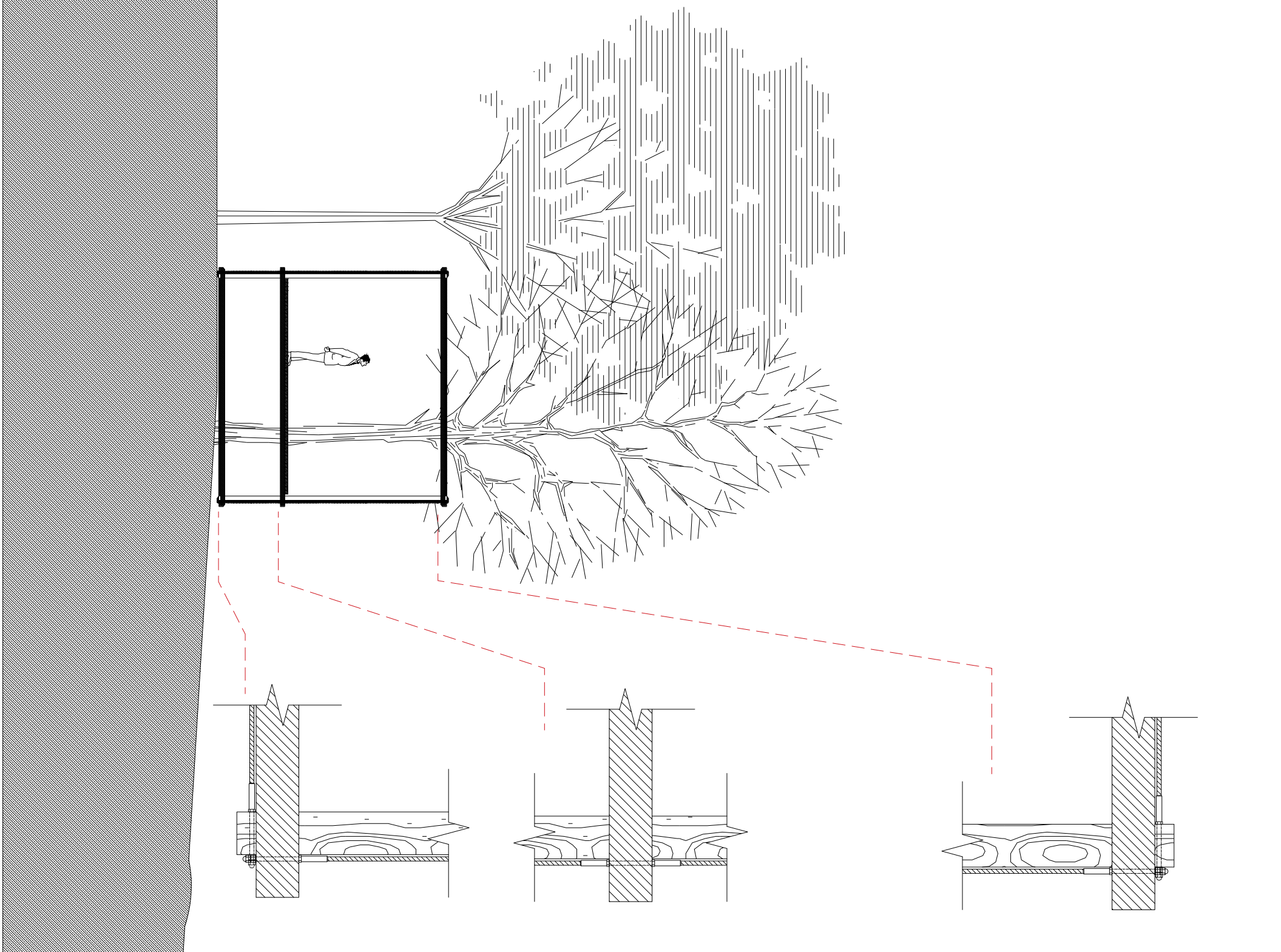
The tree pavillion stands as the second place of the project waiting for people coming from the snow pavillion.

Dressing rooms and resting room become the main funtions of this pavillion. In addition, two walking paths extend from the building facing to the water pavillion and the main road of the site.



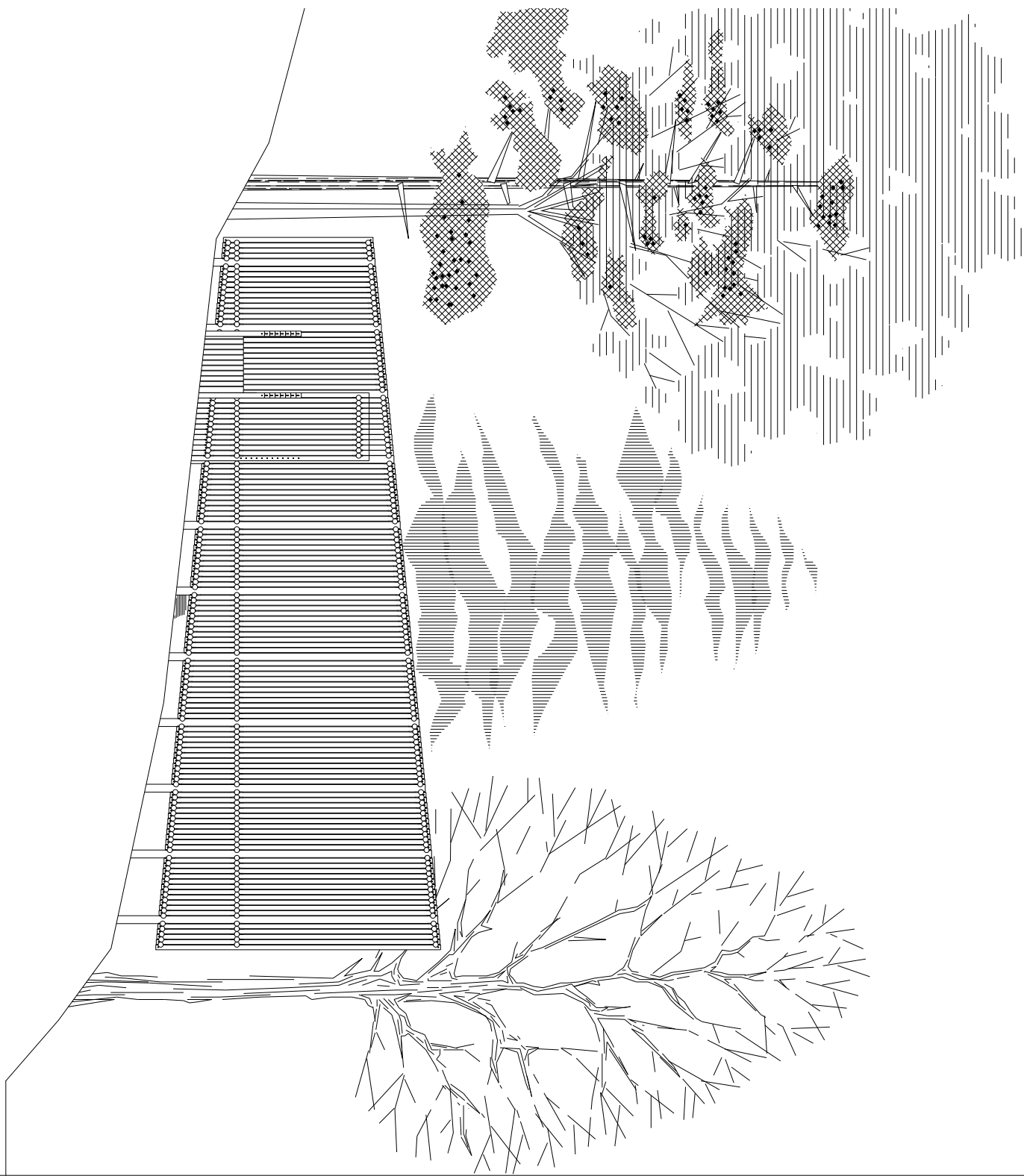
Log wood is used for the material of the building to imitate the skin and shape of the trees.

The holding pillars are rooted into the ground just like the trees which allows the building floating in the air.

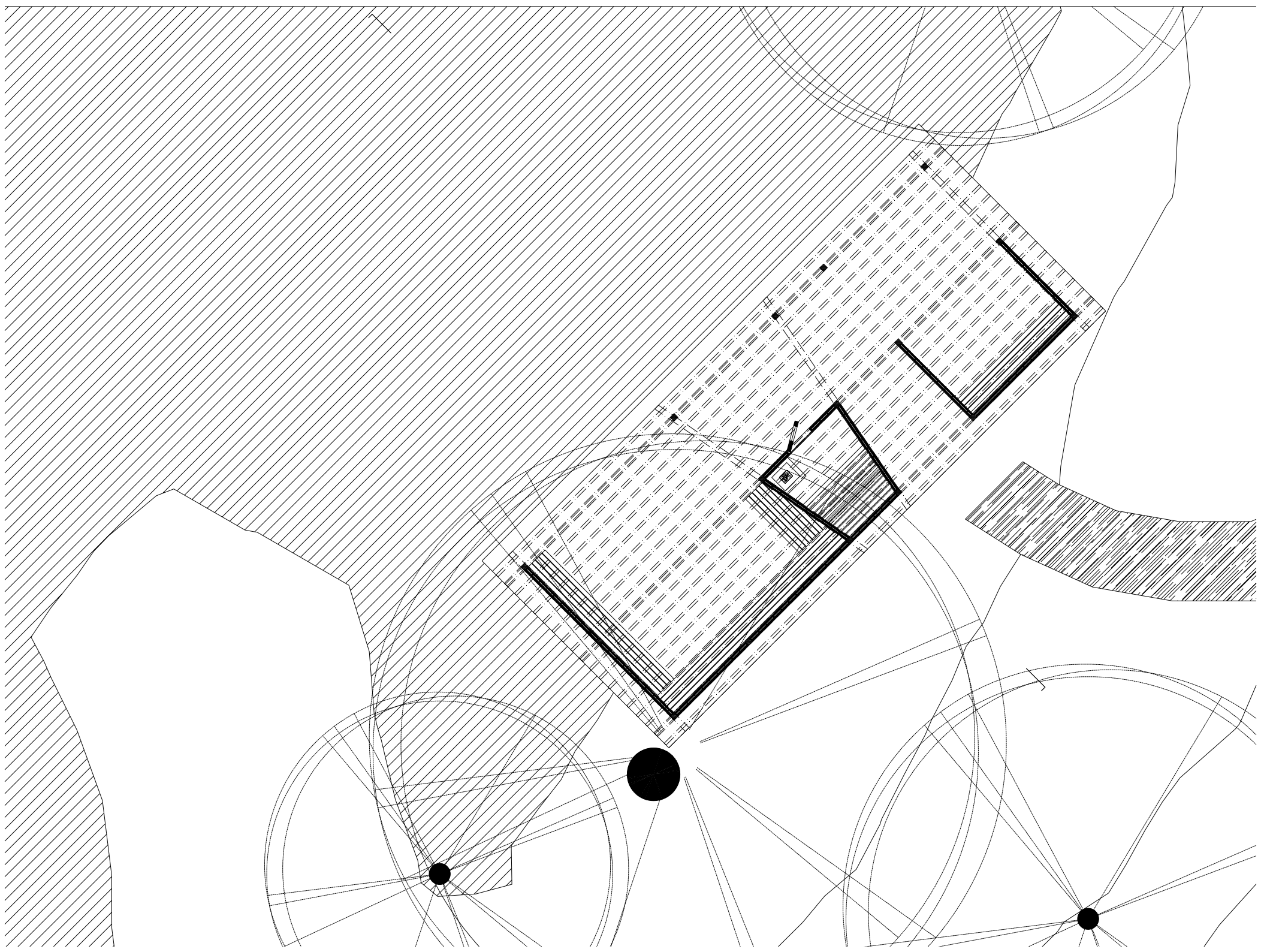


One people, One tree, One frame become
the artistic conception of the building.

Steel components perform as belts to
fasten the logs together and make the
whole building stable.

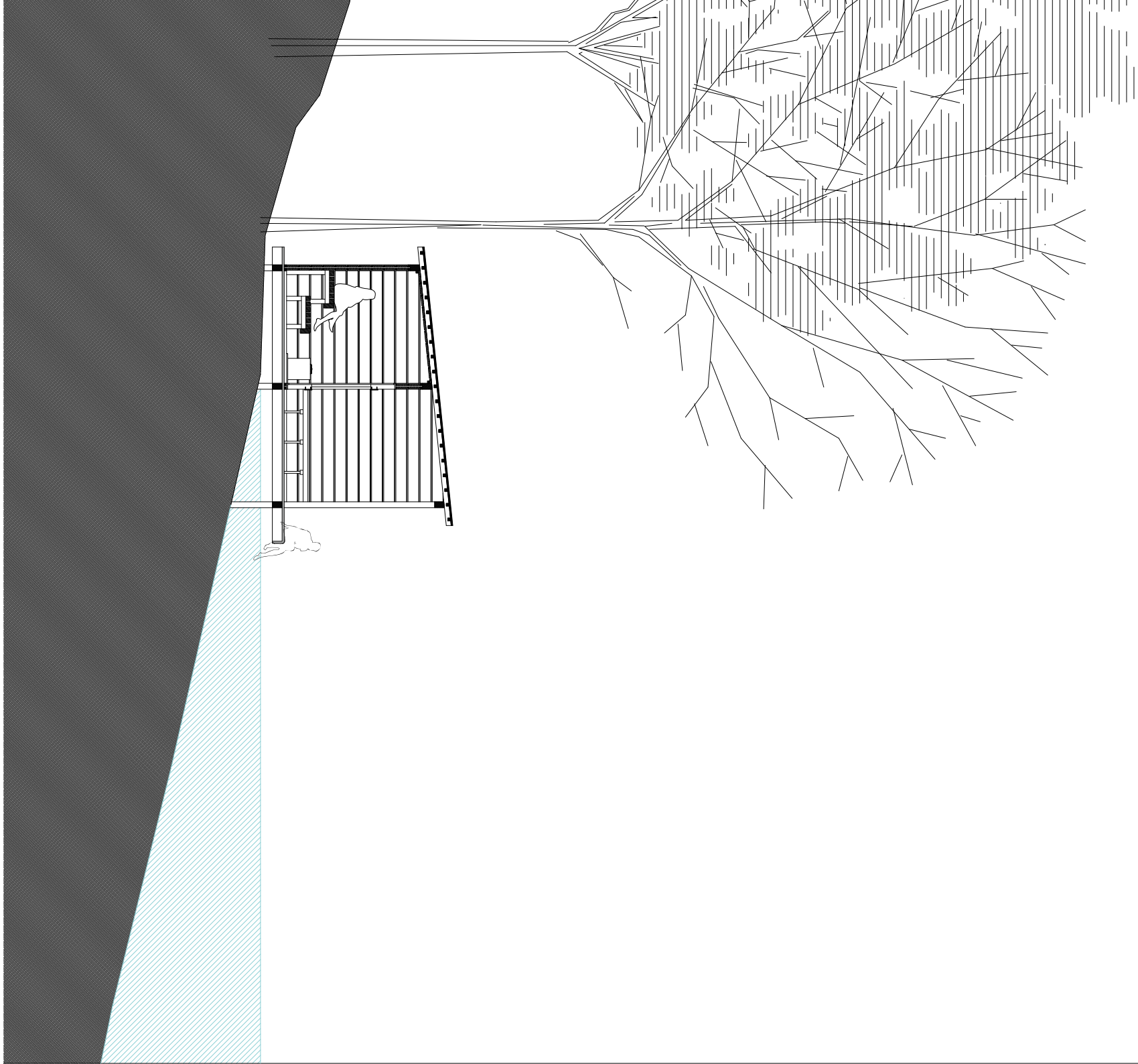


With the steel components, the whole building is not going to be like the log cabins which have very strong facades because of the mass of log wood.



Sauna is an important life experience in Sweden as well as the other nordic countries.

Water is the core element to sauna and that is the main point of the building.



The water in the lake has a specific fact that it will be frozen, covered by snow and watered itself during the winter season.

Considering of this, the deck of the pavillion is not designed very high that allows people to touch the ice, snow and water with their bare feet.



The water pavillion
becomes a connection
between moutain and
water to serve people.

Discussion:

The result of this project turns out as a sauna in the lake Stora Delsjön. In winter, snow, trees, water treat each other peacefully in the forest. Limited number of people like runners and bikers go there for physical exercise. The combination among pine wood, concrete and stone gives the project a meditation feeling in this lake.

By finishing my master thesis, I fall in love with concrete and wood as my favourite materials. And the atmosphere that comes out from the project can be the contribution to the materiality of architecture and the rural sauna is the contribution to the sauna culture to Sweden.

The combination that I choose can answer my question. Wood can be the leading fact and concrete acts as a strong supplement.

Thanks to:

Morten Lund, my examiner, who gives the best support when I was challenged by my limits and treats me like a father.

Daniel Norell, my supervisor, who trusts me to finish my work and gives me the tutorial for each week.

List of References:

Perrin R W E. Log Sauna and the Finnish Farmstead: Transplanted Architectural Idioms in Northern Wisconsin[J]. The Wisconsin Magazine of History, 1961: 284-286.

L'HOTEL D E J C A. question of why Scandinavian architects designed the way they did remains elusive. It is in the chapter on the vernacular that the riddle of uniquely Scandinavian[J].

Stungo N. Wood: new directions in design and architecture[M]. Chronicle Books, 2001.

Tilley C. Art, architecture, landscape [Neolithic Sweden][J]. Landscape. Politics and perspectives, 1993: 49-84.

Anderson T. The investigation and conservation of middle age stone sculpture on the island of Gotland, Sweden[C]//Ve congres international sur l'alteration et la conservation de la pierre. Actes. Vth international congress on deterioration and conservation of stone. Proceedings, lausanne, 25-27.9. 1985. Presses polytechniques romandes, 1985: 1035-1043.

Cohen J L, Moeller G M. Liquid stone: new architecture in concrete[M]. Princeton Architectural Press, 2006.

Crossley P. The Man from the Inner Space: Architecture and Meditation in the Choir of St Laurence in Nuremberg[J]. Działa i Interpretacje, 2002, 7.

Richardson P. XS: big ideas, small buildings[M]. Universe Pub, 2001.

Slavid R. Micro: Very Small Buildings[M]. Laurence King Publishing, 2009.

Graham P J. The Development of an Architectural Setting for the Japanese «Sencha» Tea Ceremony[J]. Orientations, 1991, 22(9): 65-75.

Tianguo F X C. Expression of Bamboo Culture in Gardening Design: A Case Study of Bayi Pavillion in Purple Bamboo Park in Beijing[J]. World Bamboo and Rattan, 2013, 1: 014.

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