

A Summerhouse in an Undulating Landscape

*A Study in Design
Approaches and a
Symbol of Summer*

Linus Lundquist
Chalmers School of Architecture
Department of Architecture and Civil Engineering
Examiner: Björn Gross
Supervisor: Mikael Ekegren



2021

A Summerhouse in an Undulating Landscape

Linus Lundquist

Chalmers School of Architecture
Department of Architecture and Civil Engineering

Examiner: Björn Gross

Supervisor: Mikael Ekegren

Building & Tectonics

Abstract

To varyate our living situation with the seasons has a long tradition in Sweden. Historically, it was often an efficient way to use natural resources and optimize the production of the land. Today, the summerhouse offers an environmental change, an escape from everyday life, and is a symbol of summer.

This thesis investigates the design process of a summerhouse by drawing two versions of the same project. These two versions derive from two different approaches to the design. The first approach originated in a study on regional architecture searching for typical elements, materials, forms, or strategies in how to handle the landscape and climate. While working with this approach, one influential aspect was how the building could show belonging to the regional identity but not be nostalgic and make sure that it contributes to another layer of time.

The second approach derives from the specific characteristics of a summerhouse. The fact that they are only used during limited periods became an influential part of the design, and temporality in an abstracted way grew to the ruling idea. The concept of temporality gave the project a direction that was in line with the site's qualities and generated more ideas for the continuation of the project. The result of this thesis is an elaborated proposal of this version of the summerhouse developed in detail.

The study is done with traditional architectural methods such as line drawings and sketches complemented with a way of modeling where isolated aspects of the drawings and ideas were evaluated in some chosen scenes to see if they were in line with the overall idea of the design.

Student Background

Linus Lundquist

Education

- 2019- 2021 Master Programme Architecture**
Chalmers University of Technology, Gothenburg
Housing Invention
Material & Detail
Matter, Space, Structure
- 2017- 2018 Internship**
Norconsult
- 2014 - 2017 Bachelor Programme Architecture**
Chalmers University of Technology, Gothenburg

Relation to the site

The site of this thesis is a part of a piece of land that, together with the neighboring house, belongs to my parents, who bought the property 15 years ago. Back then, the friends and happenings at home had a greater attraction to me why I have not spent so much time there. This came to change the last year when I started to build a small house on my parent's land. Due to the new project and the remote education since the pandemic, I have spent about as much time of the last year on the site as in Gothenburg. The benefits of spending a lot of time on the site and note how it changes with the seasons made me choose to locate this thesis there.

Table of Content

Introduction	2
Background	3
<i>Research Question</i>	3
<i>Summerhouses</i>	3
<i>Size and Comfort</i>	4
Methods	5
<i>Design approaches</i>	5
<i>Scenes</i>	6
<i>Textures</i>	6
Site	7
Implementation	10
Belonging	11
<i>Approach</i>	11
<i>References</i>	12
<i>Design</i>	13
<i>Discussion</i>	14
Temporality	15
<i>Approach</i>	15
<i>References</i>	16
<i>Design</i>	17
<i>Discussion</i>	18
Results	20
Site	21
References	27
Plan	29
Sections	35
Facades	39
Colors	51
Details	55
Literature	65

Introduction

Background

Research Question

What design approaches could be relevant for a summerhouse outside Hällevikstrand?

What methods can I use to evaluate my ideas?

Summerhouses

To variate our living situation with the seasons has a long tradition in Sweden. Historically, it was often an efficient way to use natural resources and optimize the production of the land. In the northern parts of Sweden, it was common to move the livestock to higher pastures in the summer and bring them back to the lower fields where the permanent farm was situated in autumn. The summerhouses or shielings were often simple huts or tiny dwellings located in the higher regions and only used during summer. In the book *Tolv Hus* (1997), Finn Werne describes the freedom it meant to leave the overcrowded winter homes not only in terms of space but also mentally. Werne traces parts of our individualistic culture back to the less socially controlled living during the summers. This might be why the summer house possesses such a romantic role in Swedish culture.

The traditions of summerhouses are also a reaction to urbanization. As soon as cities began to grow bigger in ancient Rome, it became popular among the elite to have a villa outside of the town, the Villa Suburbia. These were, in general, buildings without any farming capacity but often with huge gardens. Having a palace in the countryside became popular among the elite throughout Europe. With growing economic wealth and the right to annual leave in Sweden, escaping the cities became possible for more of the population. In the mid of the twentieth century, many small *Sportstugor* was built throughout Sweden. These were often tiny houses constructed in uncultivated nature. The *Sportstugor* celebrated the simple life to make outdoor activities available (Birger Åström, NE). Today the Nordic countries, together with Canada, are the ones with the most summerhouses in the world (Lerner, 2019 May 2). This results from that we all are wealthy, urbanized, and sparsely populated countries, but we also share a climate with long winters. It becomes extra important for us to have this symbol of the other part of the year to long for when we have not seen the sun for weeks. In my summerhouse, I am trying to interpret this feeling of freedom, create a hideaway from everyday life, and a joyful symbol of summer.

Size and Comfort

During the summertime, there might not be a need for all the things we use for practical everyday life. On the contrary, a simpler living might enhance a holiday feeling through a stronger contrast to the ordinary day. But looking forward, it seems plausible with a more flexible work situation for many with increasing mobility and more remote work. This relatively new situation might lead to prolonged use of a summerhouse during extended periods and not only during holidays.

With this in mind, I have drawn a house that is just under 80 sqm, which is quite generous for a typical Swedish *Sportstuga*. I also think it would be wise to fit it with a well functioning kitchen and bathroom, which would not be necessary for a simple cottage but makes the house more flexible in the future.



Upplands Museum

Methods

Design approaches

At the beginning of a design process, the different possible approaches can seem infinite. Learning how to find a trough line and build arguments for your solution is an essential part of the design process. Even though every piece of architecture is more complex than only one question, it can be valuable to have an overall concept that ties the project together. What architects gets their design impulses from is highly individual, but becoming aware of different approaches can be a way to make more deliberate choices. In the book *Basic Design Ideas* (2013), Bert Bielefeld and Sebastian El Khouli exemplifies four common parameters that could be a starting point for developing an idea.

Context	Function	Geometry	Material & Structure
<i>Landscape, Climate, Urban planning and Neighboring buildings, Social factors, and History.</i>	<i>User needs, Spatial allocation, and Internal organization.</i>	<i>Order and proportion, Regulating lines, and Form finding.</i>	<i>Modular grids, Building techniques, and Materiality.</i>

All of these aspects are inseparable parts of any piece of architecture. Still, I think it is noticeable that some of these parameters are more important to some architects and others less vital. For example, Peter Zumthor finds the most inspiration in materials and structures. In a lecture (2013), he states that they rarely discuss the form in his office. He sees other approaches to architecture as more critical, such as the structure, the site, and materials. Le Corbusier, on the contrary, was an architect with an interest in geometry and proportions and a sculptural approach to his work, described in his book *Towards a New Architecture* (1986).

Contour and profile are the touchstone of the architect, here he reveals himself as artist or mere engineer. Contour is free of all constraint. There is here no longer any question of custom, nor of tradition, nor of construction nor of adaptation of utilitarian needs. Contour and profile are a pure creation of the mind; the call for the plastic artist. (p 5)

To find an approach to a project is a mix of personal interest and sensitivity to project-specific parameters. Instead of directly resulting in a satisfactory design, I find the purpose of the approach to find a path to explore, and see if it leads you in a direction you like.

Scenes

To develop the thesis, I have used line drawings in plan, section, and elevations. I find these methods as an effective way to try different measurements, evaluate shapes and profiles. Hence there are parameters of design that not is as efficiently tested in a line drawing. In my case, this has primarily been the work with materials, colors, and textures. In search for an approach to these aspects, I came across Robert McCarter's description of the methods of Carlo Scarpa in the book *Scarpa* (2013). McCarter describes how Scarpa frequently visited the building site to confirm that his ideas would turn up as they were planned. He explains how Scarpa made a habit of visiting the building site at night and, with a flashlight, examine specific details in the light of the torch with the surroundings concealed in the dark.

To isolate aspects is important when designing, not at least to evaluate if specific situations line with the overall idea of the design. With Scarpa's nightly visits in mind, I have complimented my line drawing sketches with tests in a digital 3d model where I choose some views that I returned to and elaborated my sketches.

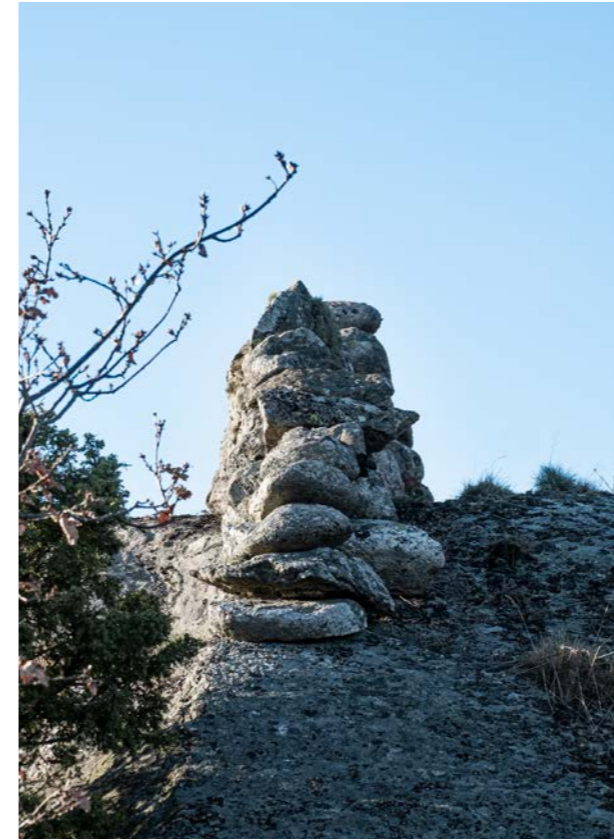
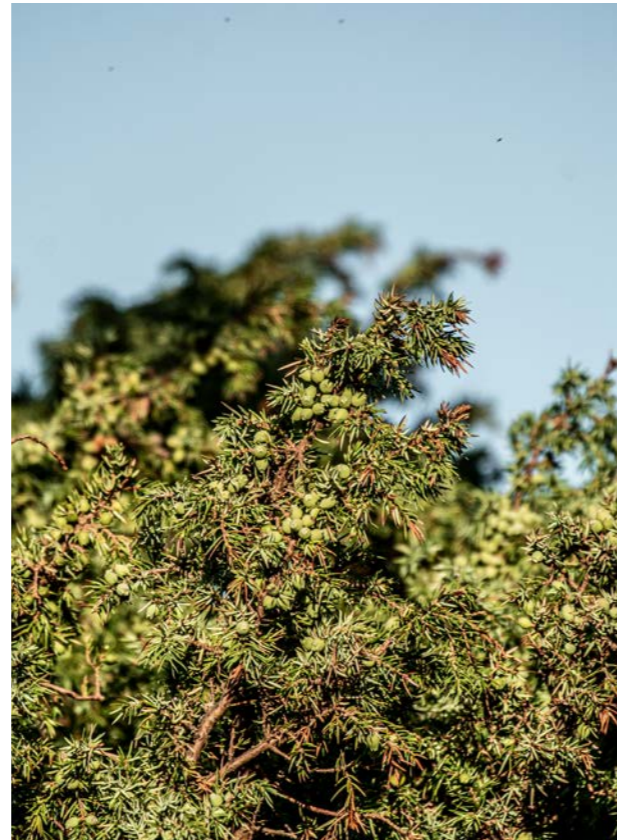
Textures

One parameter that I focused on in the preparation studies was how to use the textures of the materials to communicate an idea of the design. The words of Peter Zumthor in his book *Atmospheres* inspired me:

Material is endless. Take a stone, you can saw it, grind it, drill into it, split it, or polish it - it will become a different thing each time. (Zumthor p25 2006)

In my first version of the summerhouse, I combined different wood finishes and found a way to evaluate and communicate the result by rendering. In my second version of the house, the building did not allow for the same method of working with textures, but to work with aspects of a building that is not visible in line drawing is something that I have kept in mind throughout the development of the summerhouse.

Site



The building is placed on the smooth bedrock outside Hälleviksstrand. In this part of Bohuslän, the bedrock consists of Gneiss and shows a significant variation of the color gray. The lichen that flourishes on it complements the rock with another number of gray nuances. The bedrock exaggerates the color of the blond grass tufts and the flocks of purple heather that somehow survive even in the smallest cracks. Like many places in Bohuslän, the site is harsh and exposed but also light and airy.

The site is sloping down towards a small gravel road and a pasture where horses graze during the summertime. There is visual contact with a few other houses at some distance. The surrounding houses are scattered and differ in style and how they are placed in the landscape. There is no assembled built environment in a legal sense, but the built tradition, in general, is one aspect I have in mind in the work with the thesis.

The building is placed on a spot where the site is less steep and with some distance to the gravel road that sometimes can be crowded by exercisers. It is where the sun reaches first in the morning and leaves last in the evening. The steep hill in the north gives the site a calm and makes it less exposed to the environment.

Implementation

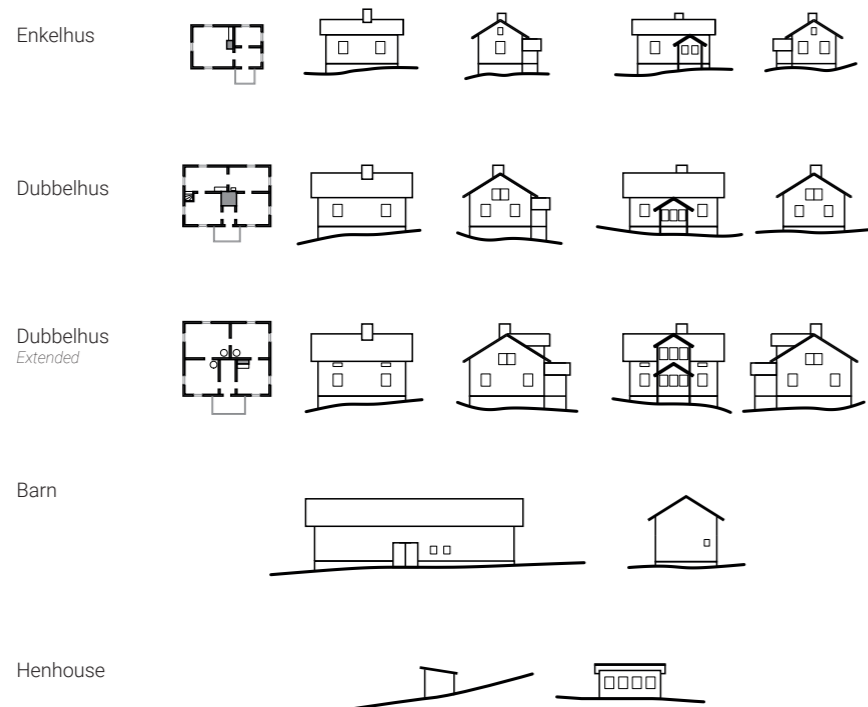
Belonging

Approach Belonging

To show belonging through a similar appearance is profoundly human and is one common architectural strategy used throughout history. In the book, *Tolv Hus* (1997), Finn Werne describes that for rural houses built before the last century, a trained eye could not only determine when and where a house was built, also what social class the owner of the house belonged to, and in many cases what occupation he had. Werne describes how a fisherman from Bohuslän had the choice to build either a smaller *Enkelhus* (two rooms) or the more common *Dubbelhus* (four rooms). The types could vary a bit in size but were, in general, very similar to each other.

Today the expressions of houses are more diversified, and it is hard to identify a contemporary regional architecture. But to borrow elements and approaches from the traditional buildings is a strategy for some architects. It could be a way to show belonging, to blend in, but also as a low-tech way to build climate-adjusted and sustainable, comfortable, and energy-efficient buildings.

Quite often, architects are forced to express belonging. It can be parameters such as distance to the street, the pitch of the roof, or specific materials. The argument behind such is often to mark belonging to a particular district but also to achieve harmony among the buildings.



References Belonging



Joachim Belaieff

In contemporary Swedish rural architecture, the barn has become a frequently used type, like this project by *Enflo Arkitekter* is an example. The local municipality on Gotland required a building with connection to the local building traditions, and this long volume associated with a barn is a response to that request. I find this long slender volume matches the extensive views of the landscape and makes the project elegant.



Anthony Browell

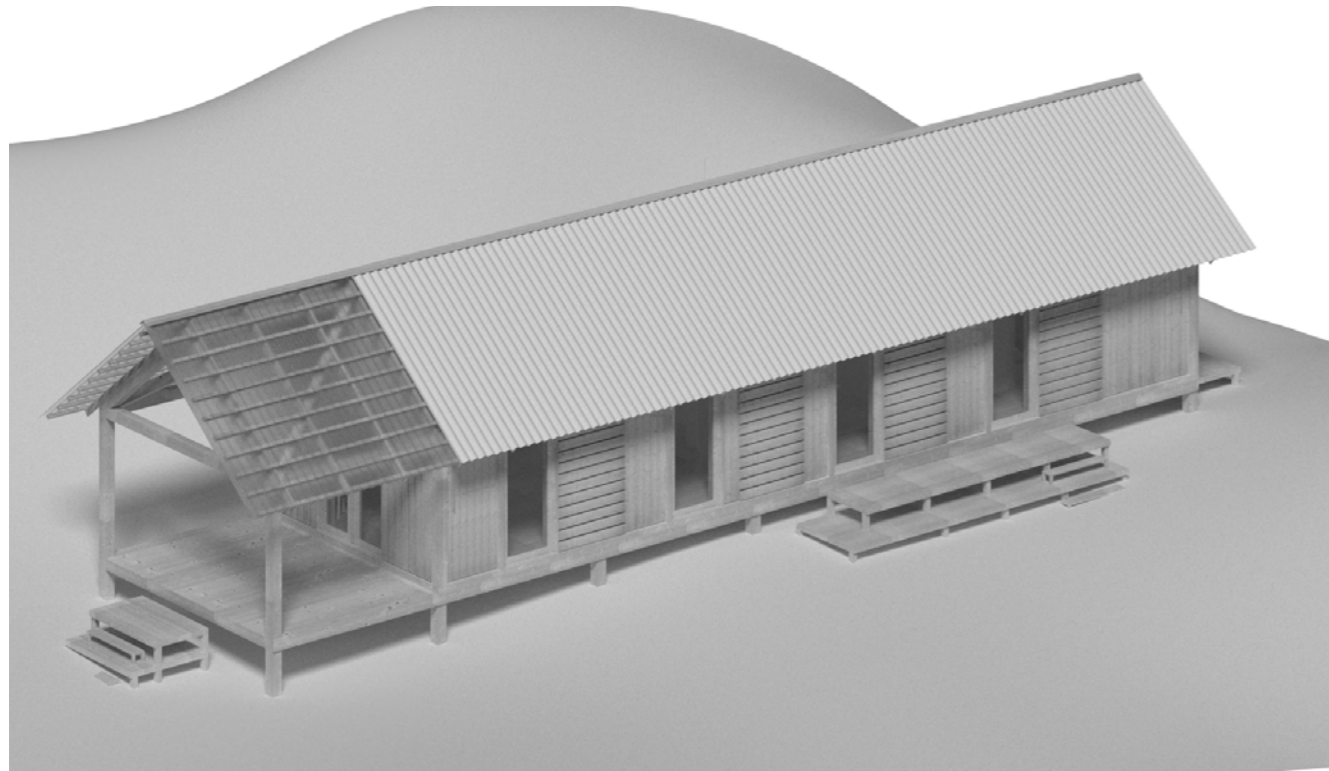
The *Marie Short house* by Glenn Murcutt is another example of architecture that seeks to express belonging to the region, in this case the fields of eastern Australia. This is done by borrowing the shape, construction method, and material palette from local farm buildings. Even though this project refers to local barns it possesses the lightness and clarity of modernist projects such as the Farnsworth house.



Ralph Feiner

In the small village of Lies on the hillside of the Swiss alps, Peter Zumthor has designed three houses that not only express belonging to each other but to the surrounding buildings. To me, this project expresses a gentleness and a will to make a discrete addition. The new houses are not only placed in a similar way in the landscape. They are the same type of volume, have the same roof pitch, and a similar material palette as the neighboring buildings.

Design Belonging



Process Belonging



Process Belonging

Discussion Belonging

One question that raised while working with belonging was; how much do I need in this project? As an architect, you can always be more or less literal in your interpretation of the sources of inspiration. In this case, I ended up with a quite abstracted interpretation of belonging with a loose connection to the regional traditions. The reason for that is because I wanted to incorporate qualities I saw as necessary in a contemporary summerhouse but differed from those found in the regional architecture. One example is the placement of the building in the sloping terrain. With a compact footprint similar to the regional houses, the building would have a plinth of about 1.5 meters. Regionally the buildings were often placed in a steep sloop to achieve this high plinth which was used as a cellar for cool storage. But the high plinth was not in line with how I saw the contemporary summerhouse in the landscape. To reduce the plinth, I continued with a long shaped building which is not typical for the regional man houses but is found in outbuildings such as barns.

The shape of the house was one of many contradictions between the values given by my approach and qualities I found attractive in a summerhouse. Since I found this restraining my ideas rather than developing them, I choose not to continue with this approach.

Temporality

Approach Temporality

One of the main criteria to distinguish between a vacation house and a regular home is that you only stay in a vacation house for a limited period. I wanted this to somewhat be visible in the architecture and, therefore, temporality has been an essential factor in developing this building. To be more specific, I have sought the experience of impermanence without, for that matter, being fragile. I experience the traditional buildings as heavy and permanent, not at least how they meet the ground and almost become a part of the landscape. To achieve an experience of impermanence, I have instead made a light building, elevated from the ground, almost as if it was ready to take off.

One quality of this site is that it can provide a raw and uncultivated landscape, and designing a building that enhances this landscape has been a pervading idea.

I want the building to be like a jetty above the landscape rather than being a part of it, a jetty to reach out in nature and a platform from where one can observe the surroundings.

References Temporality



Andreas Solbakken



Victor Grigas



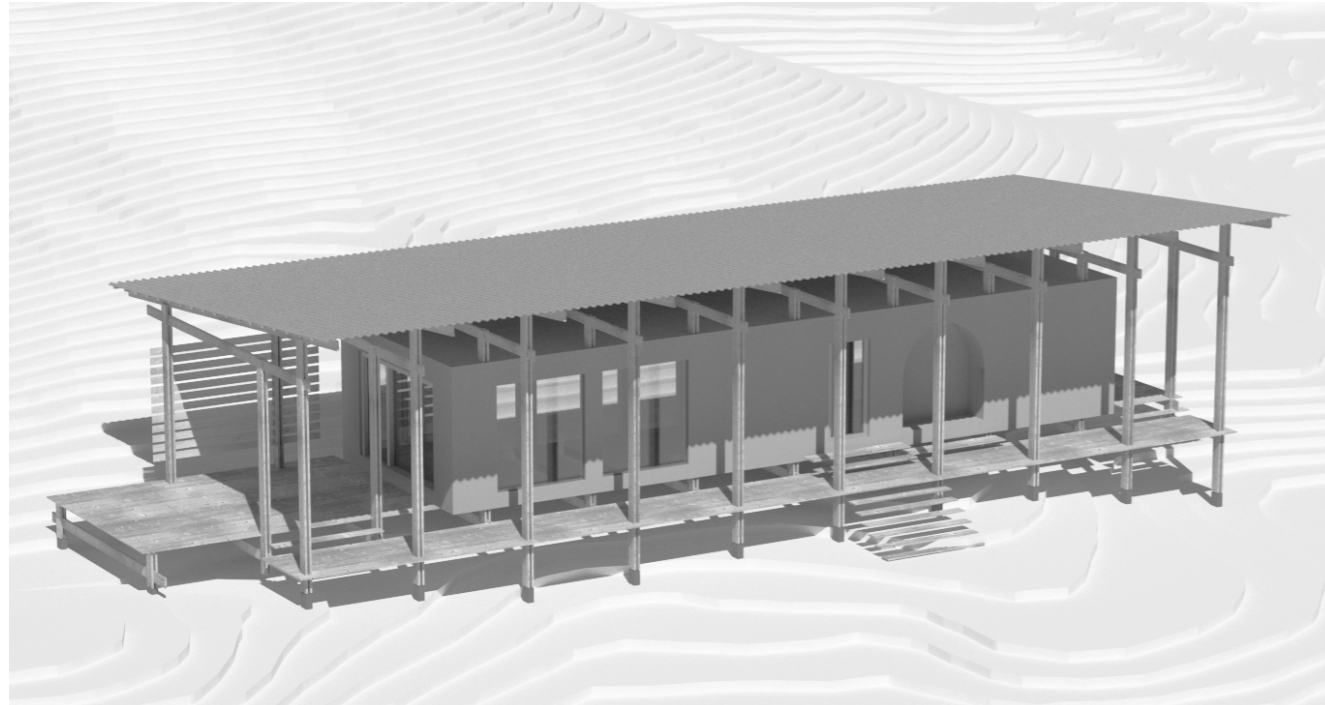
Unknown

This project by Peter Zumthor is one of three museum buildings in an old zinc mine in the dramatic nature of Norway. These museum buildings do not look like any other museum I have seen. I think Zumthor rather have been inspired by the structures belonging to mining activities, rational structures stripped of any nonvital element standing as skeletons in the landscape.

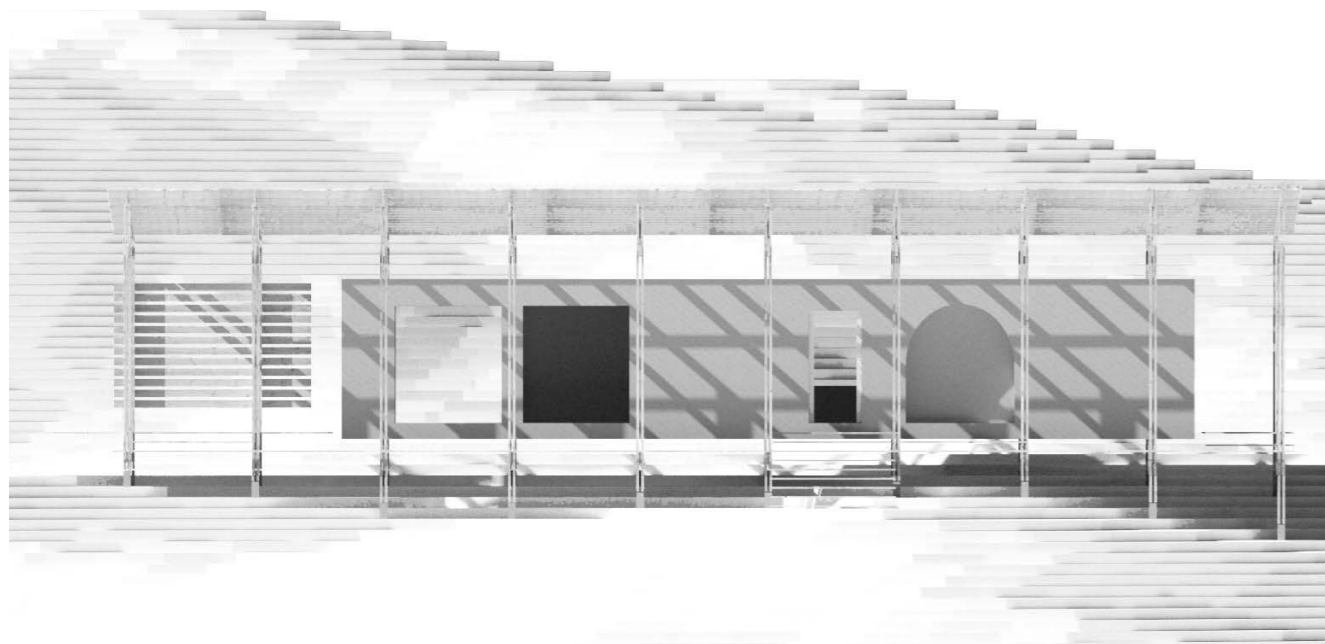
By being so precise and clean in its forms and materials, The Farnsworth House becomes almost alien in relation to the nature it is placed in. It is like Mies wanted to illustrate the capability of mankind and elevate her above nature. The building's strong contrast to the environment combined with its lightness makes it seem like it just has parked on the site.

Erik Friberger draws this summerhouse for the exhibition Fritiden (Leisure time) in Ystad 1936. As an early modernist architect, he saw it essential to dissociate his work from the traditional architectural traditions. Inspired by the thoughts of Le Corbusier, this summerhouse was supposed to be made affordable through mass production of prefabricated modular parts.

Design Temporality



Process Temporality



Process Temporality

Discussion Temporality

By dissociating from the regional architectural traditions, several other approaches become possible. One could be to try to express a tone or a feeling through the architecture. Here formulated by Le Corbusier (1986)

The business of architecture is to establish emotional relationships by means of raw material. (p.4)

For this project, I have tried to express temporality to enhance some specific characteristics of a summerhouse.

I found that the elevated building was in line with my thoughts of temporality but also how I wanted the building to be placed in the landscape. I wanted the surrounding raw nature to float continuously around the house and that possibilities for outdoor seating should be incorporated in the building.

The concept of temporality was a path in a direction compatible with my thoughts of the summerhouse. I found that this approach that generated new ideas and gave me a logic to evaluate my sketches, something that I did not experience in the first version of the house. This made it more interesting for me to develop this project than the first version of the building. One of these impulses the concept gave me was the distinction between the filigree structure of the frames and the solid, monolithic of the enclosed box. These characteristics of the monolithic box were something that I could bring to the inside and led to the plan concept with thick walls.

Results



Orthophoto 1:1000 (A3)

Fig. 5 Länsstyrelsen



Site Plan 1:400 (A3)



Exterior Perspective East

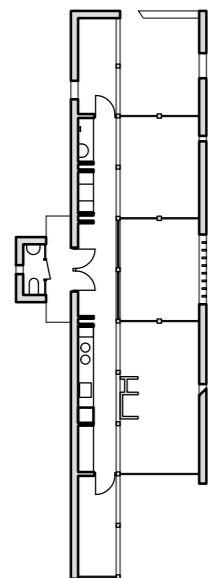
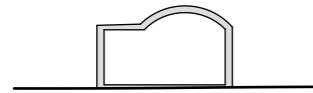
References

Enclosed

Open

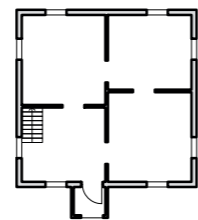
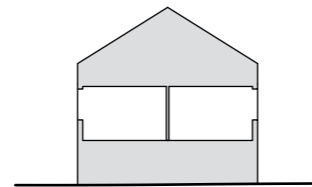
Sverre Fehn - Prototype
Maurizberg

This very introverted summerhouse is independent of the surroundings drawn to provide a lot of qualities even if it is placed close to the neighbors.



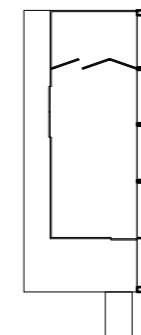
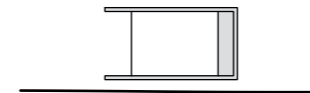
Dubbelhus
Såge - Bohuslän

The traditional *Dubbelhus* is equally enclosed even though it is placed in a thigh fishing village or alone on an open field. The views are framed and you need to come close to the windows to have a full outlook.



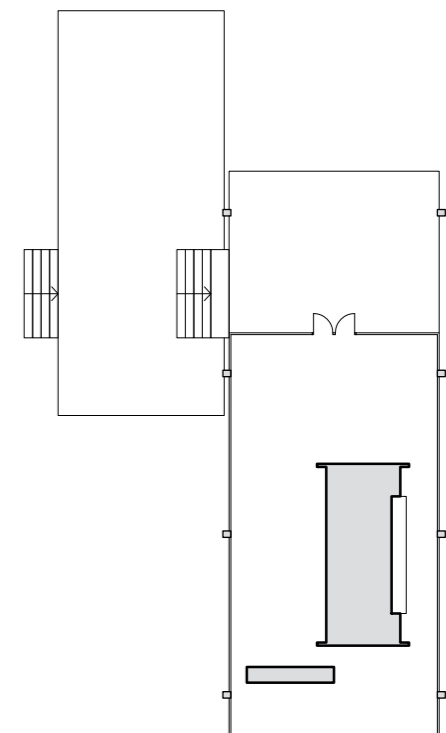
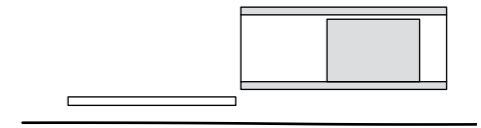
Per Friberger - Ljunghusen
Falsterbo

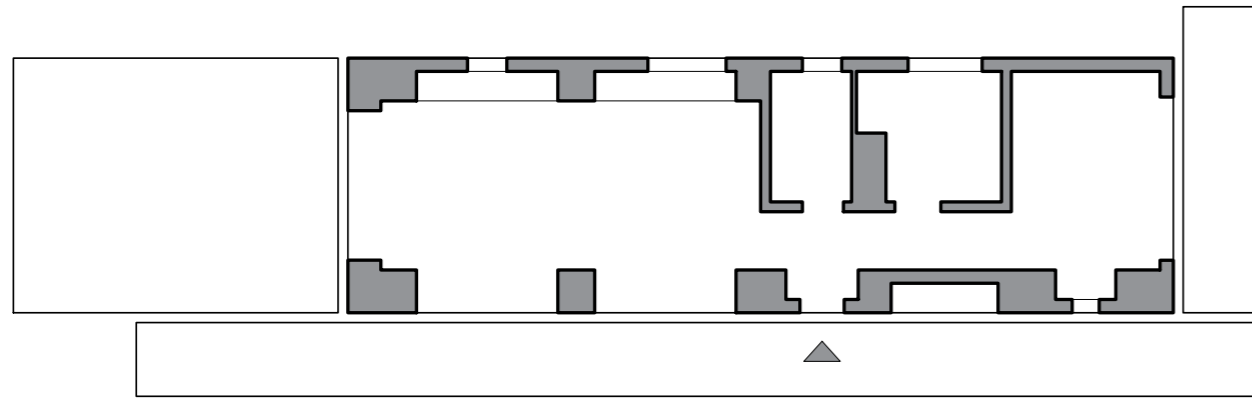
This is the social part of a summerhouse elevated from the ground, floating above the heather. The building provides a thick wall to give the room some support but is otherwise totally open.



Mies van de Rohe - Farnsworth House
Plano - Illinois

This very open building provides little shelter but a very close relation to the surroundings. The building is placed by itself on the bank of a river. Mies wanted to bring "nature, houses and humans together in a higher unity" (archdaily.com).





The Plan

I wanted the interior of the building to have a close relation with the surrounding nature. This quality together with the steep and asymmetrical site made me choose a long shaped plan for the summerhouse where the rooms are added to each other along one axis. The quality to move along the light part of the building and to not have the furniture in direct sunlight made me choose to have the communication passage along the south facade. The monolithic character of the enclosed box gave the idea to enhance the thickness of the walls and in this way enabling a lot of qualities. The depth of the walls made it possible to have a small hallway separated from the communication axis so you do not have to pass the dirty zone inside of the entrance door. It also creates a sofa-like niche in the main room and a wind-protected outdoor niche as well as it enables built-in storage.

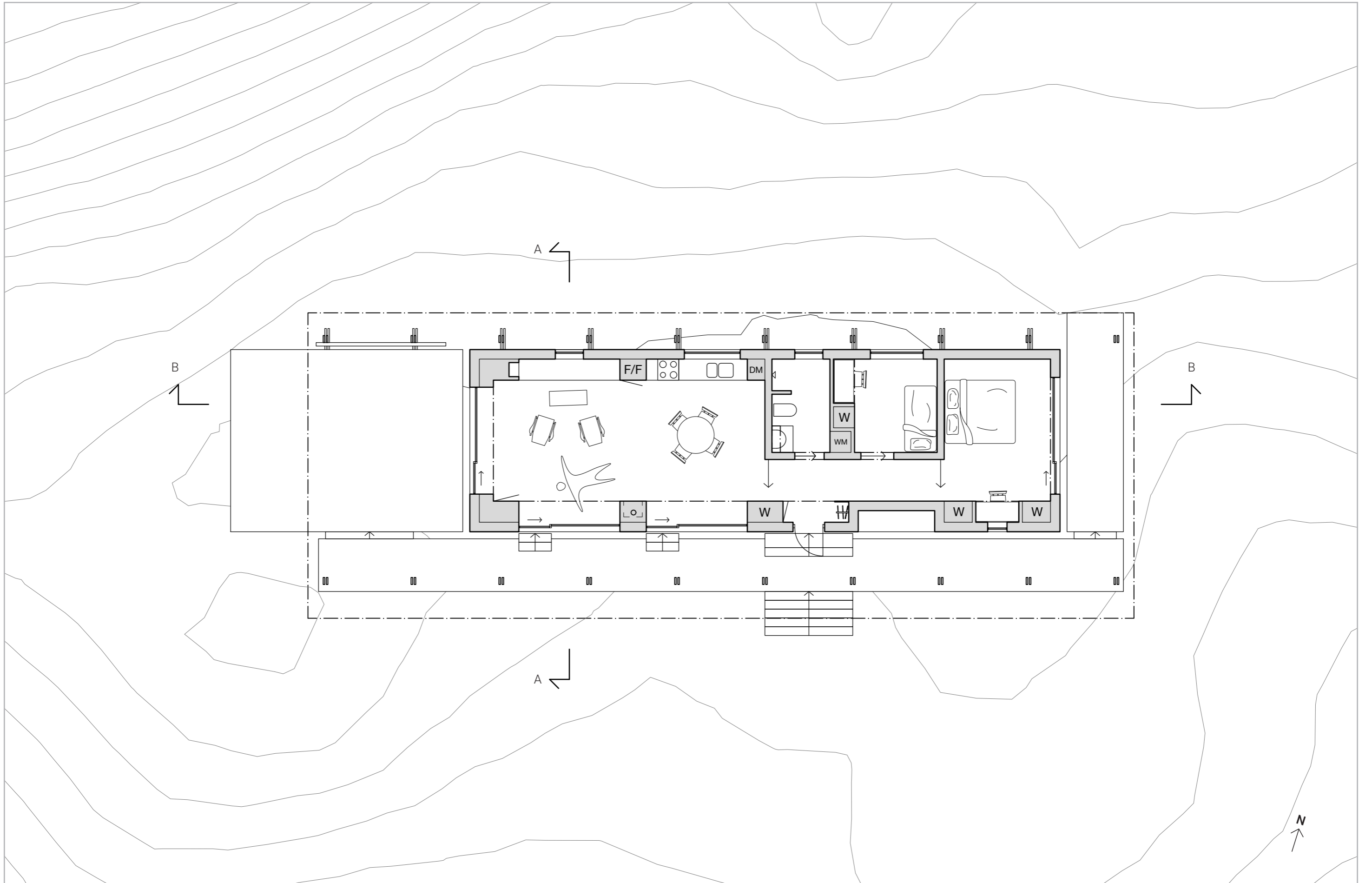
The building has a variety of outdoor spaces, adjusted for different times of the day. They also differ in their exposure to the weather and the surroundings. This makes it easy to find a place for any given situation: If it is warm but raining, you can sit outside underneath the roof. If the sun is warm but the wind is cold, you can seek shelter against a wall. If the mosquitoes are too annoying, you can go inside but still watch the sunset.



Framed views are something found in the traditional buildings and are a beautiful way to experience the surroundings.



This summerhouse can provide framed views but larger than the traditional ones.

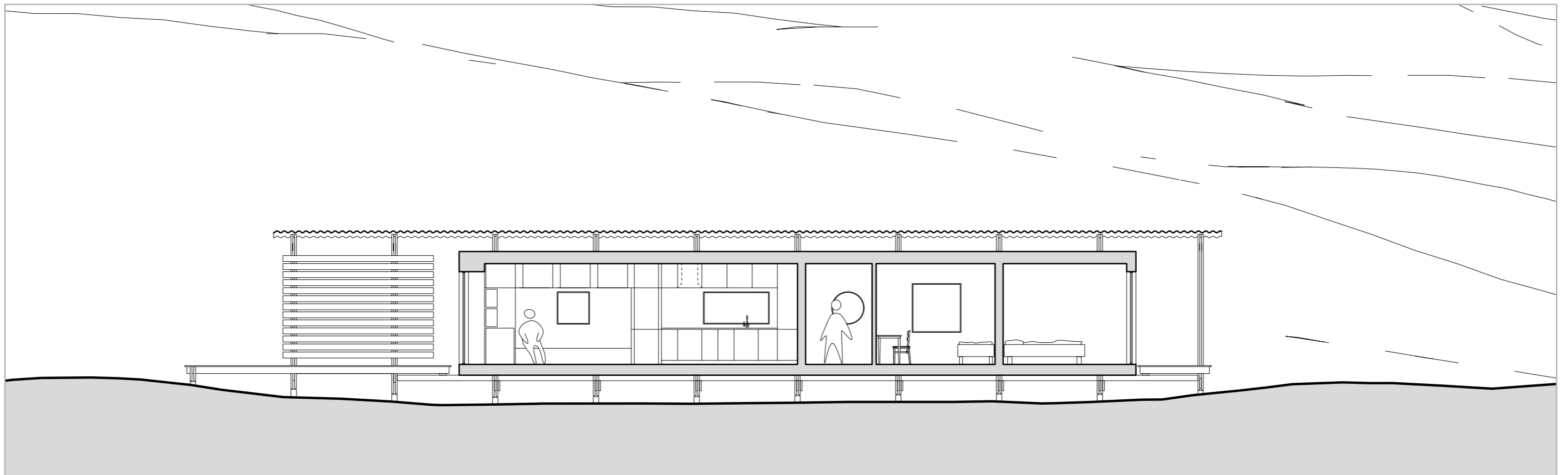
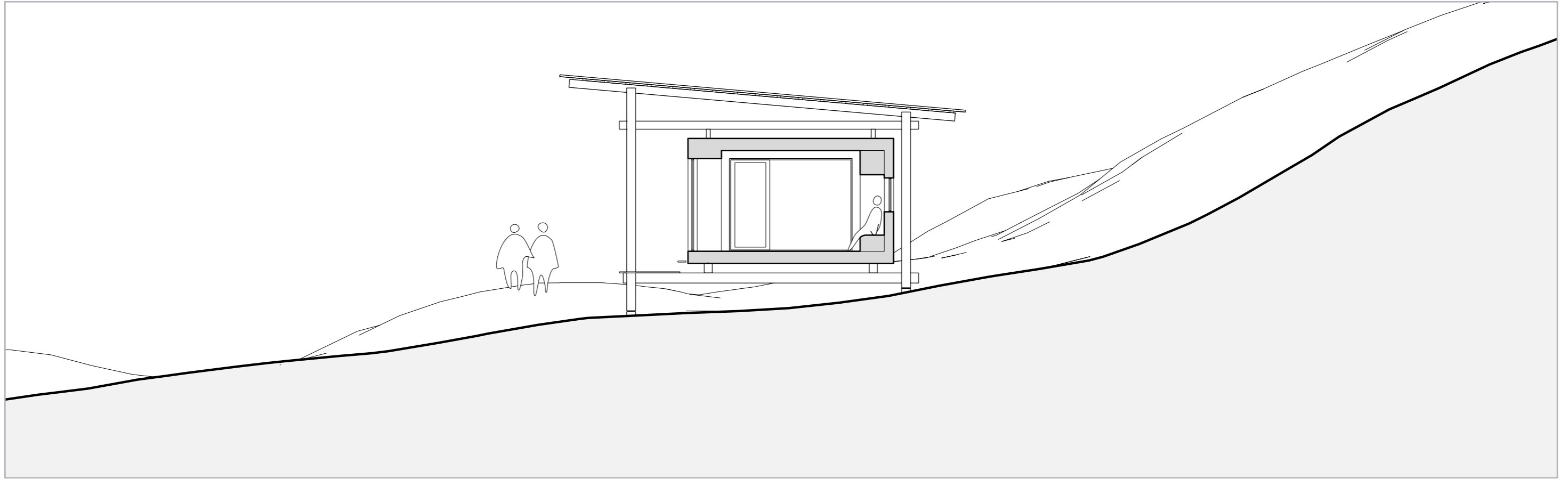


Plan 1:100 (A3)



Interior Perspective Main Room

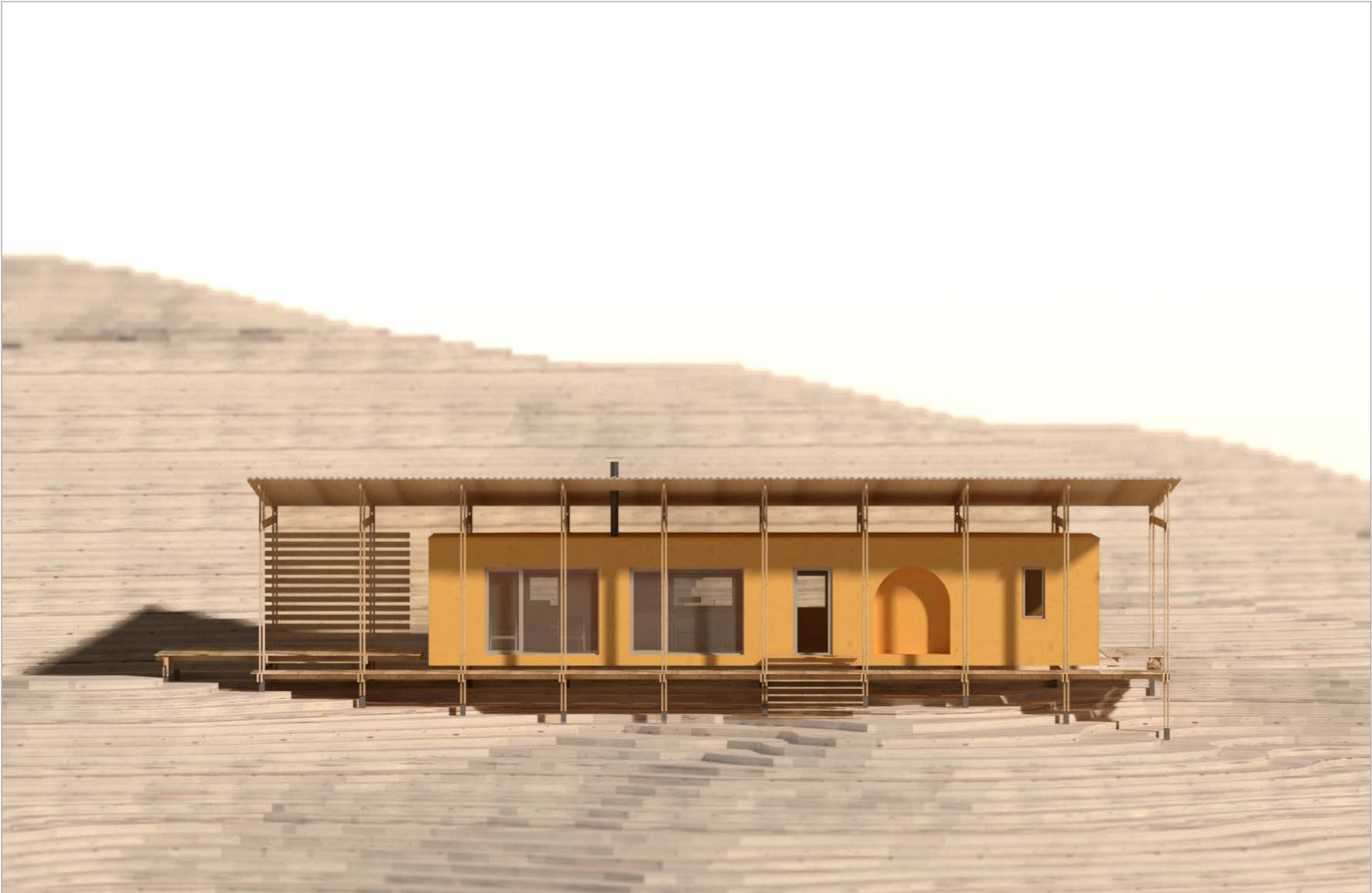
Section A-A 1:100 (A3)



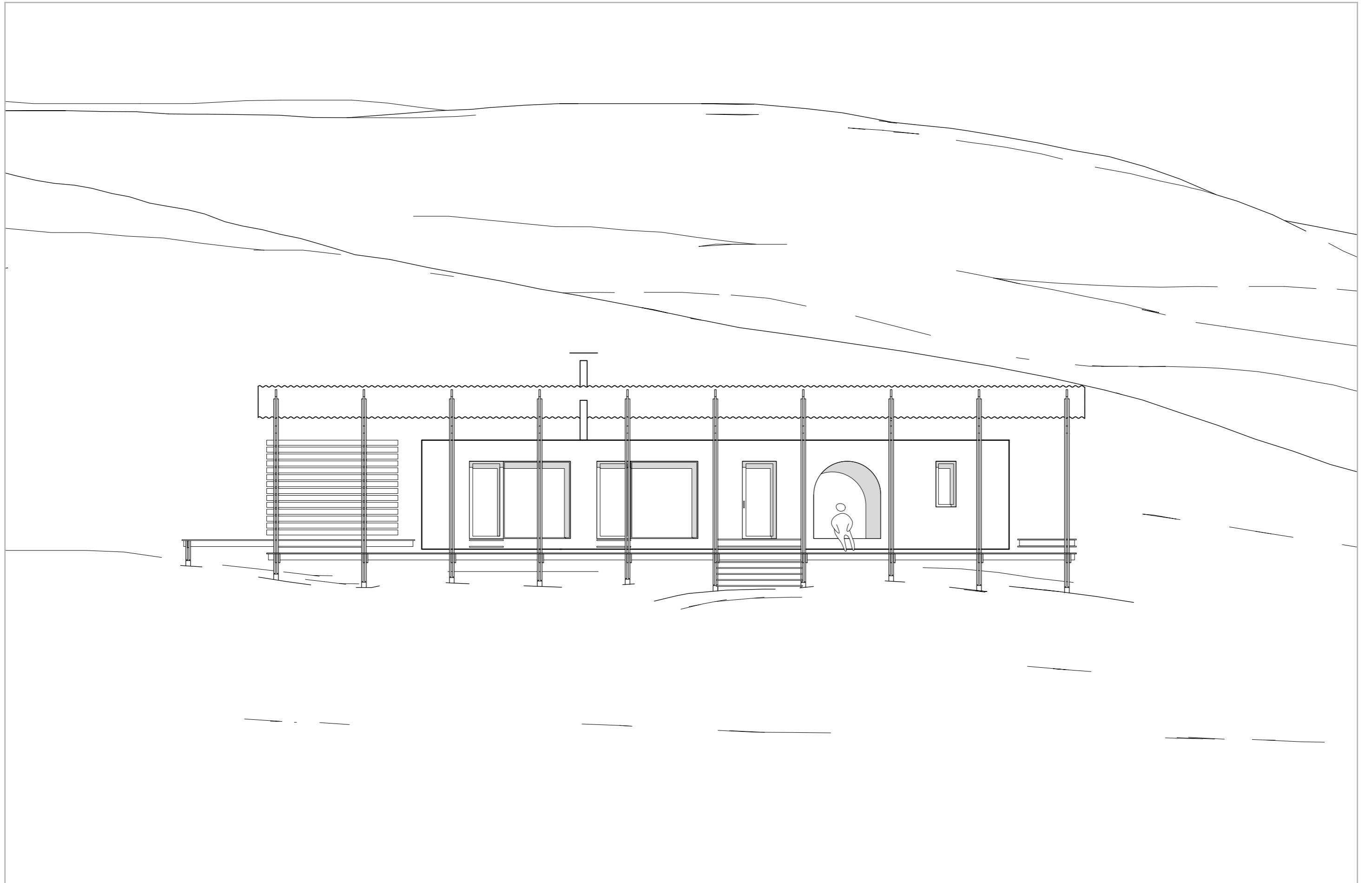
Section B-B 1:100 (A3)



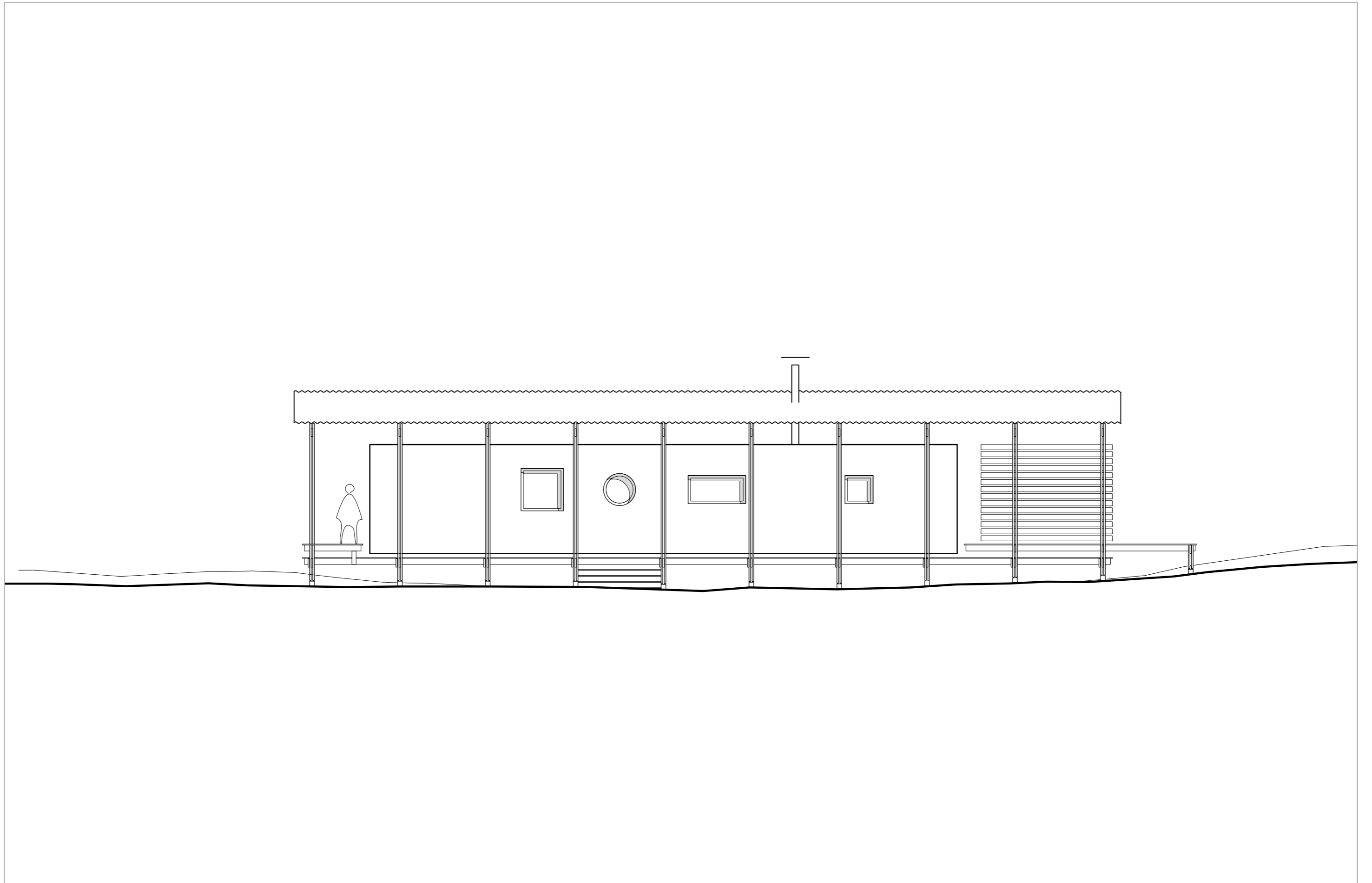
Interior Perspective Kitchen



Exterior Perspective SE



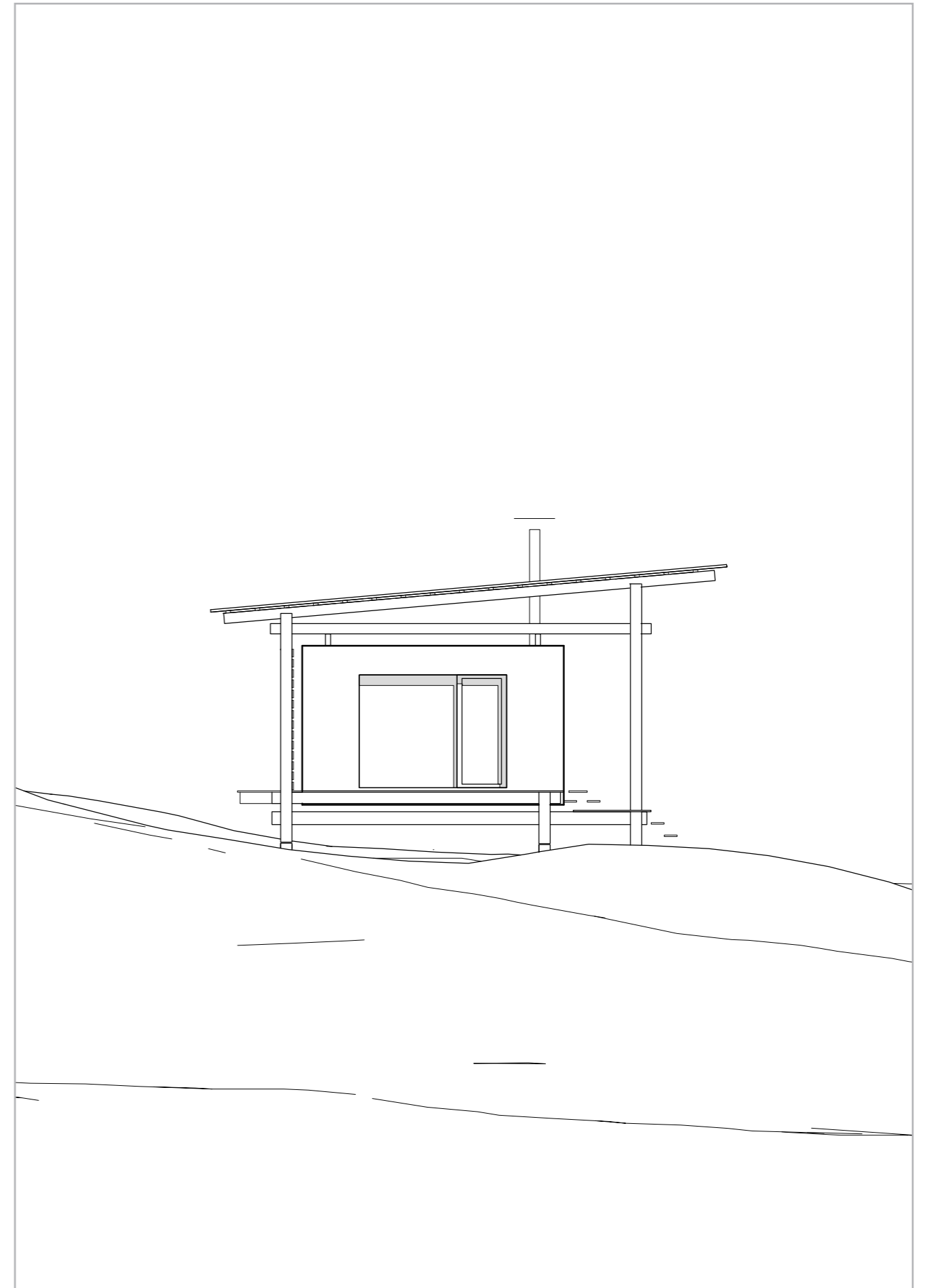
Facade SE 1:100 (A3)



Facade NE 1:100 (A3)

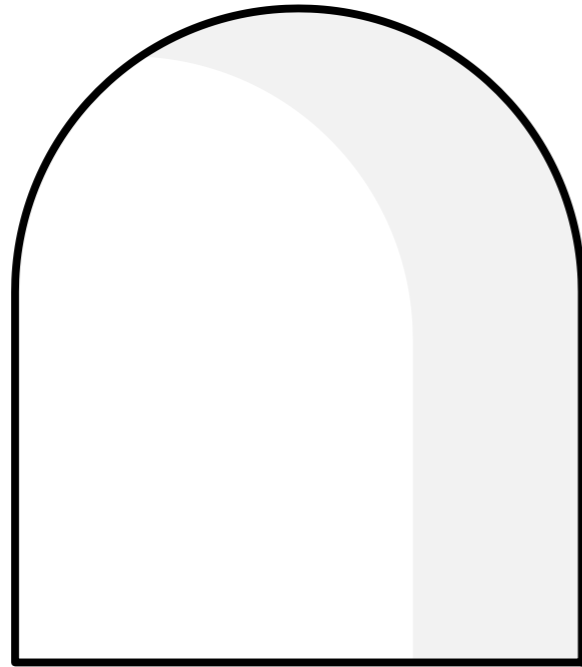


Facade NE 1:100 (A3)



Facade NW 1:100 (A3)

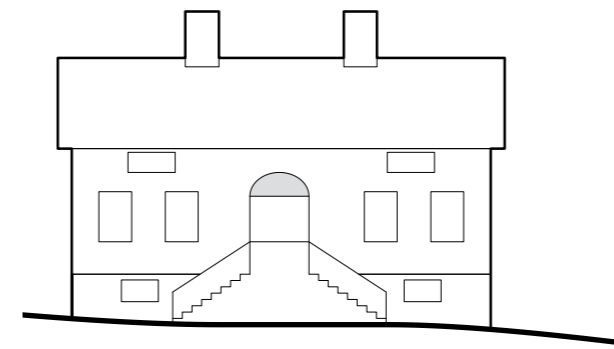
The Vault



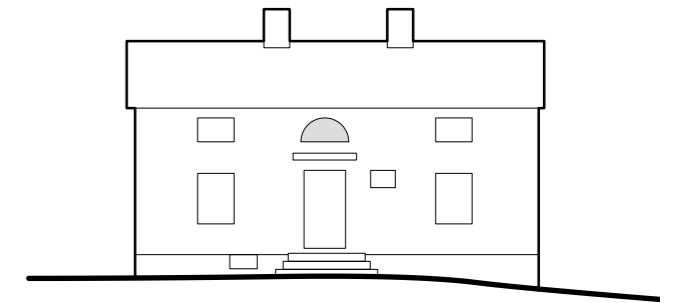
The vaulted shape originates from the tradition of masonry and is often not a rational way to build with wood.

Despite that fact, it is fairly common to use vaulted shapes in wood buildings, the examples on the next page are all found in Bohuslän. The vaulted shape is often used to mark an entry or something important in the building. The vault is also a way to create associations to masonry that in general has been regarded as more exclusive than wood.

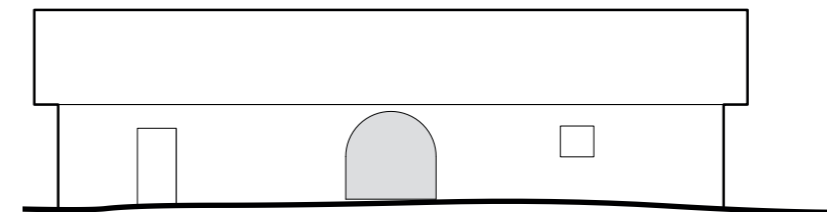
In my summerhouse, I have chosen the vault because it is a gentle shape that is pleasant to sit inside. I also think it gives the building a less severe character that I find suitable for a leisure house and gives a hint of the plan since the thick walls are also associated with brick architecture. Even though my building is made out of wood, it is clad with panels and not planks, making it easier to achieve these vaulted shapes.



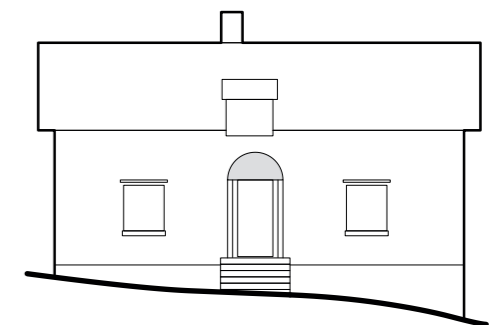
Berg - Ödsmål



Grönskult - Skaftö



Svenungseröd - Mo



Restenäs - Resteröd



Exterior Perspective SW

Colors

Traditional Pigments



Colors from the Site



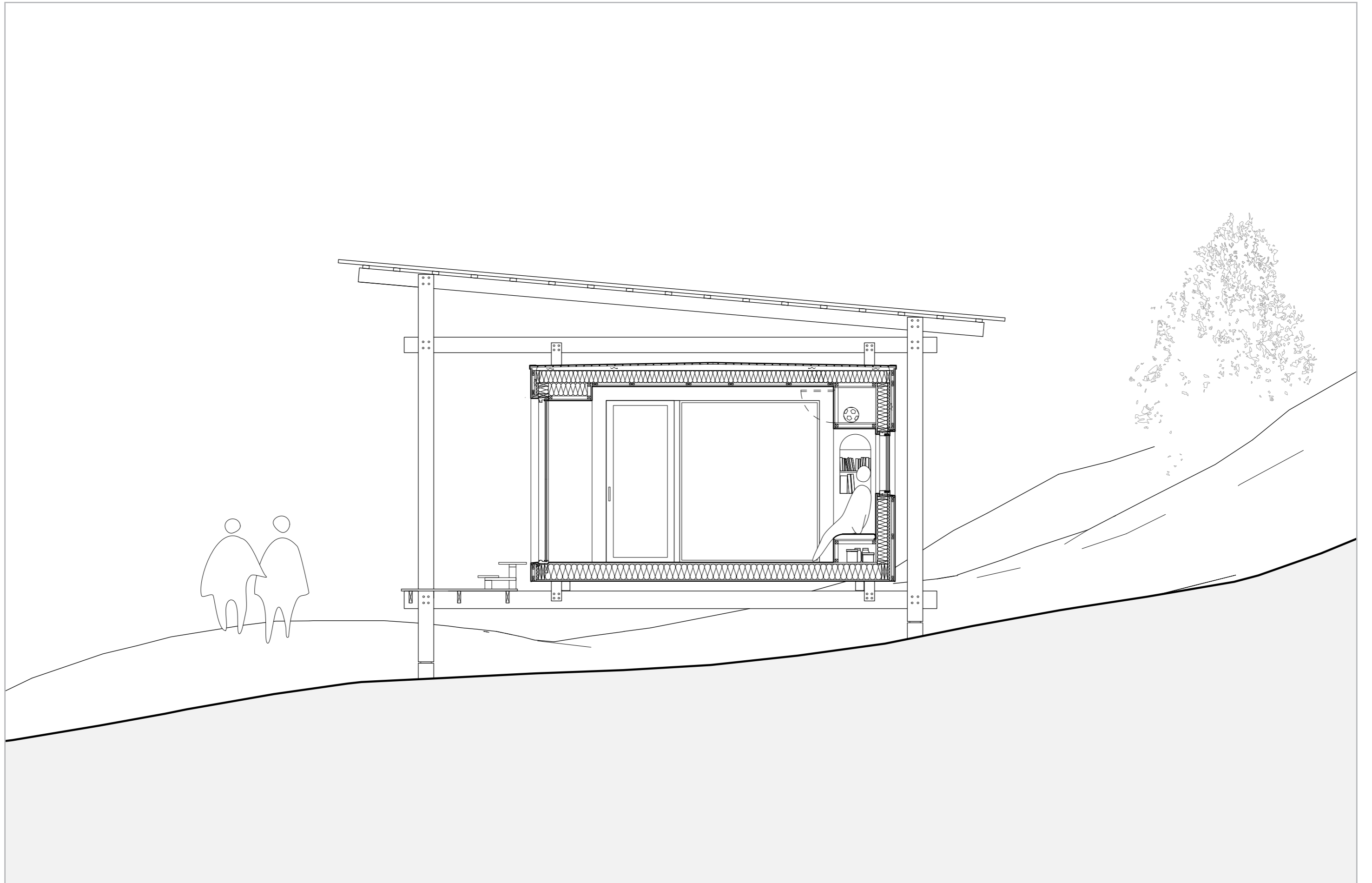
To choose a color for my building, I started to search in the surroundings. In Hällevikstrand, as well as many west coast fishing villages, most houses are painted white today, contrasted with clay-colored roof tiles and the red bathhouses. But if you look close, there are some exceptions to the white, and you can also find some yellow and green tones. The colors of the fishing villages have shifted through history, but to the left are some traditional pigments from the region.

I also did an inventory on-site to see what colors were found there. Apart from the grey nuances of the bedrock and the lichen, there are some purple from the heather, some greens, and from autumn to spring, the blond colors of the dried grass.

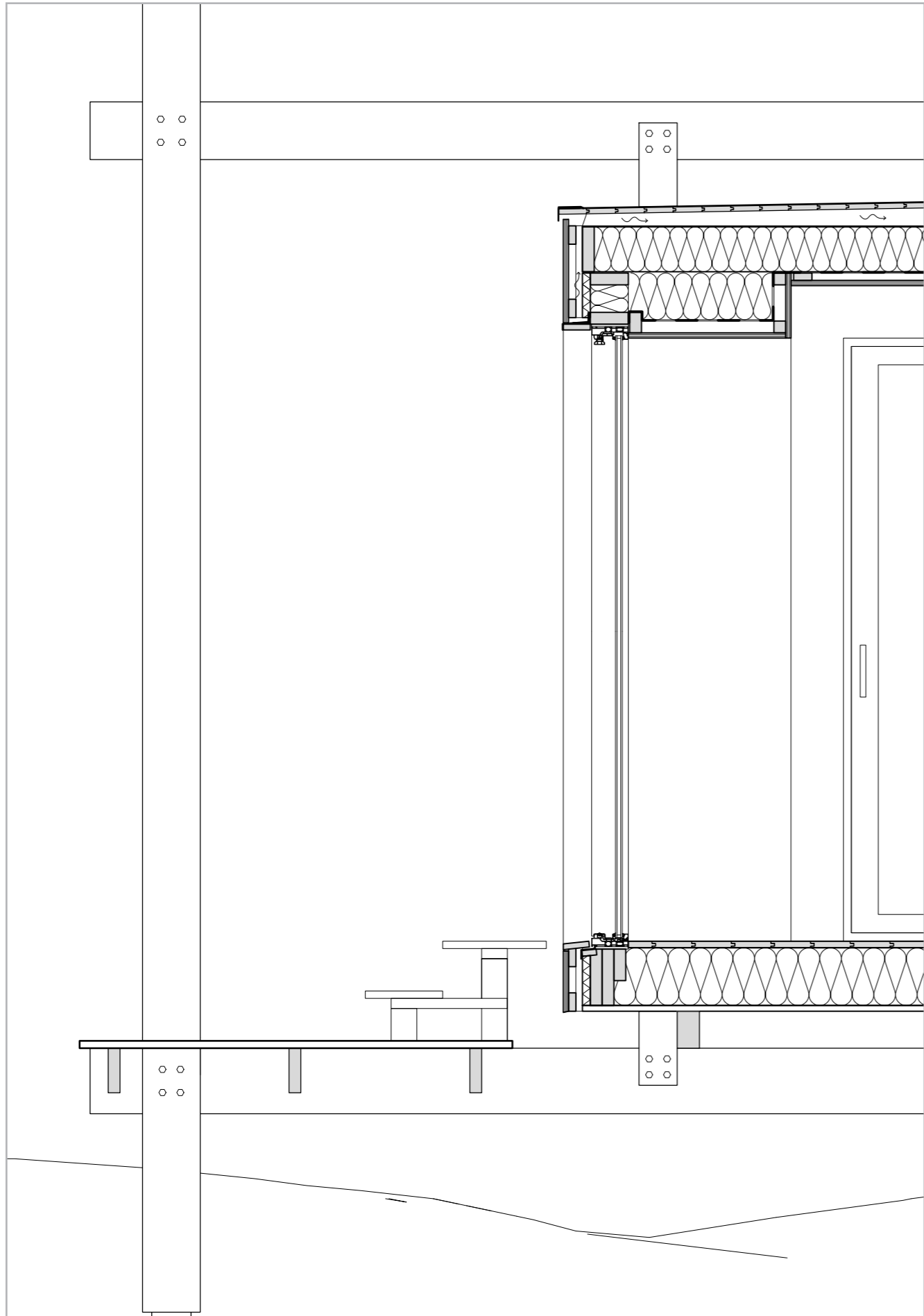
I choose a color similar to the dried grass from the site and the traditional pigment *guldockra*. The yellow color brings out the warmth of the sunlight and will be a reminder of summer throughout the year.



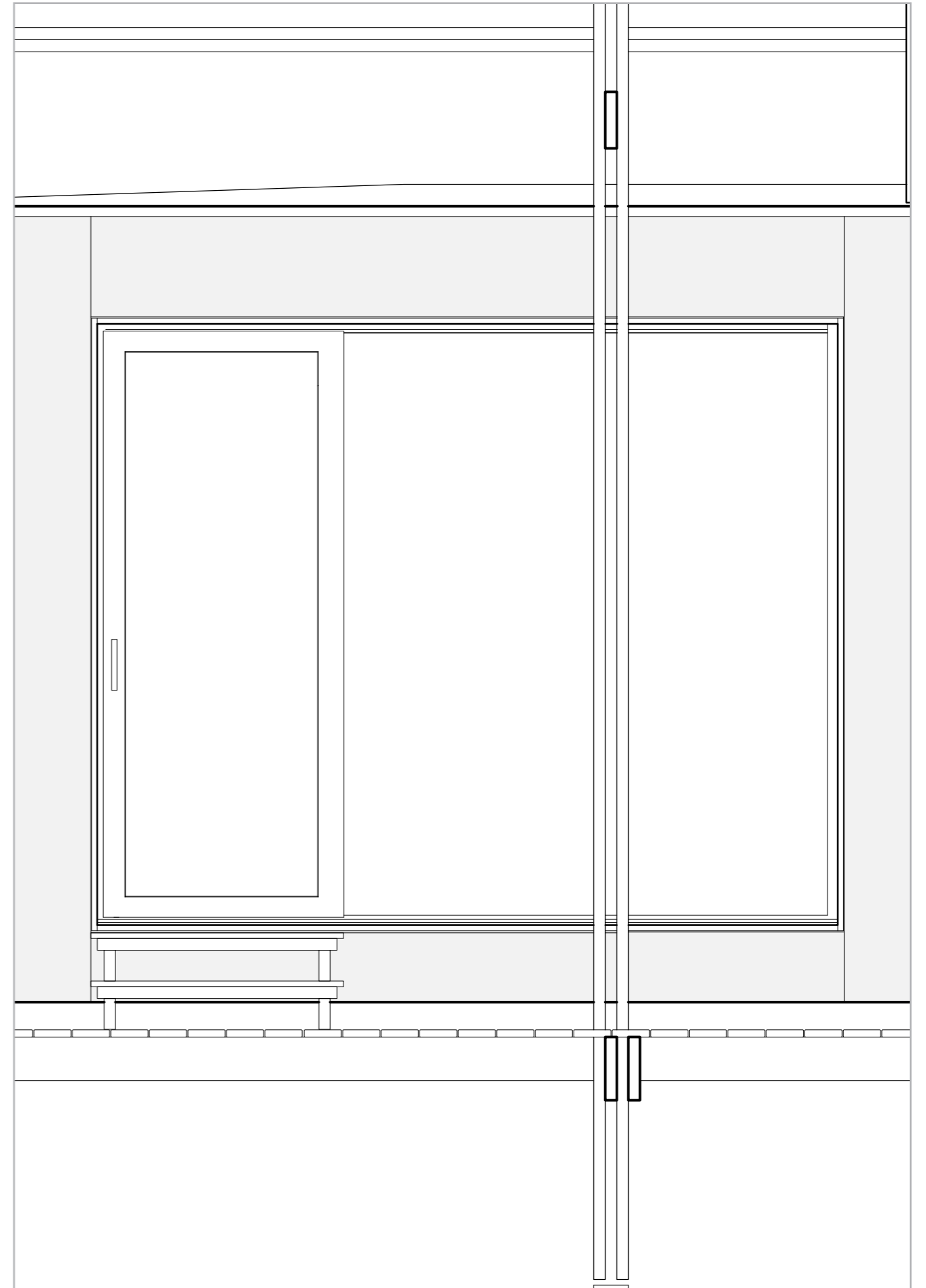
Palette: Site + Building Materials



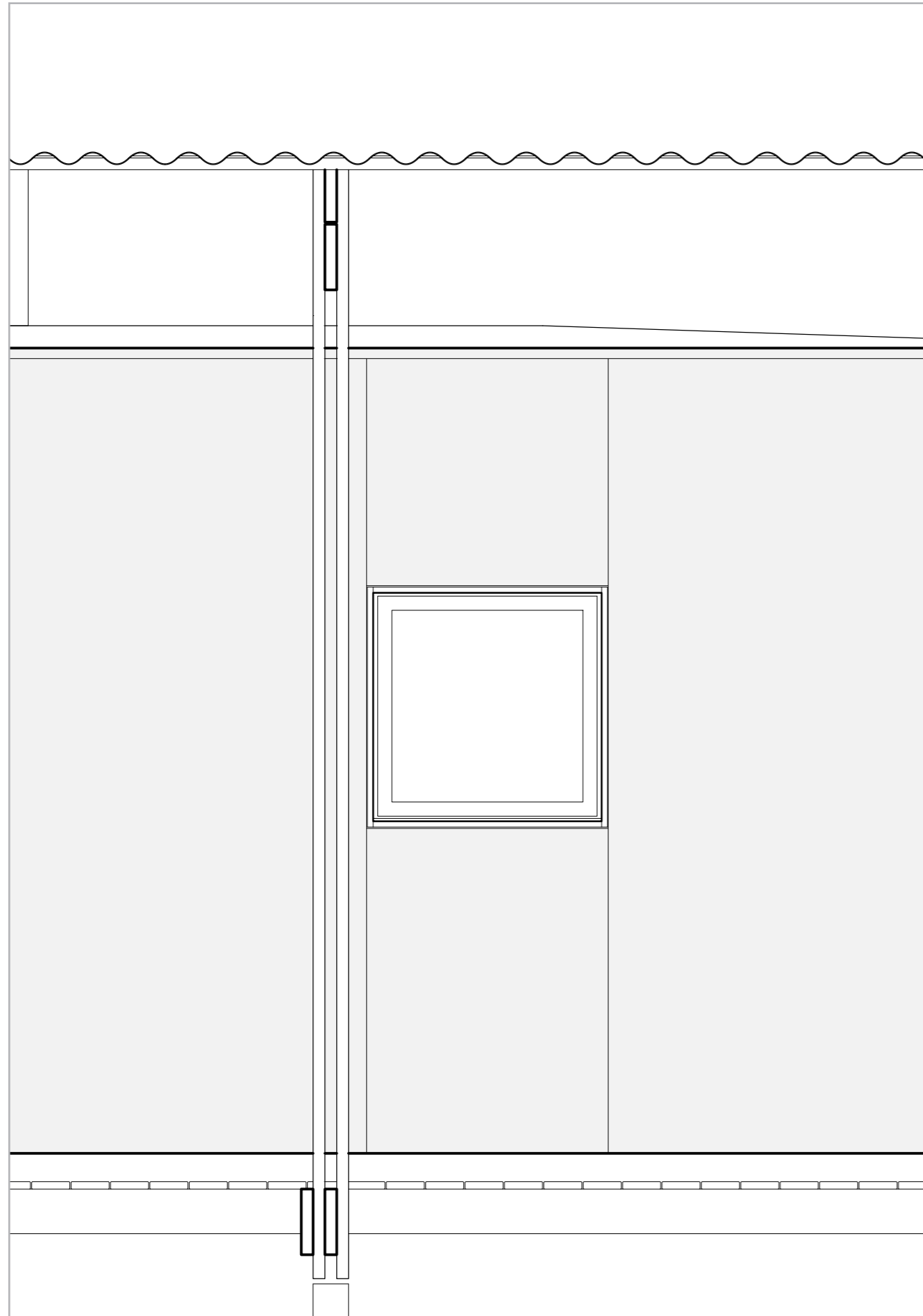
Section A-A 1:50 (A3)



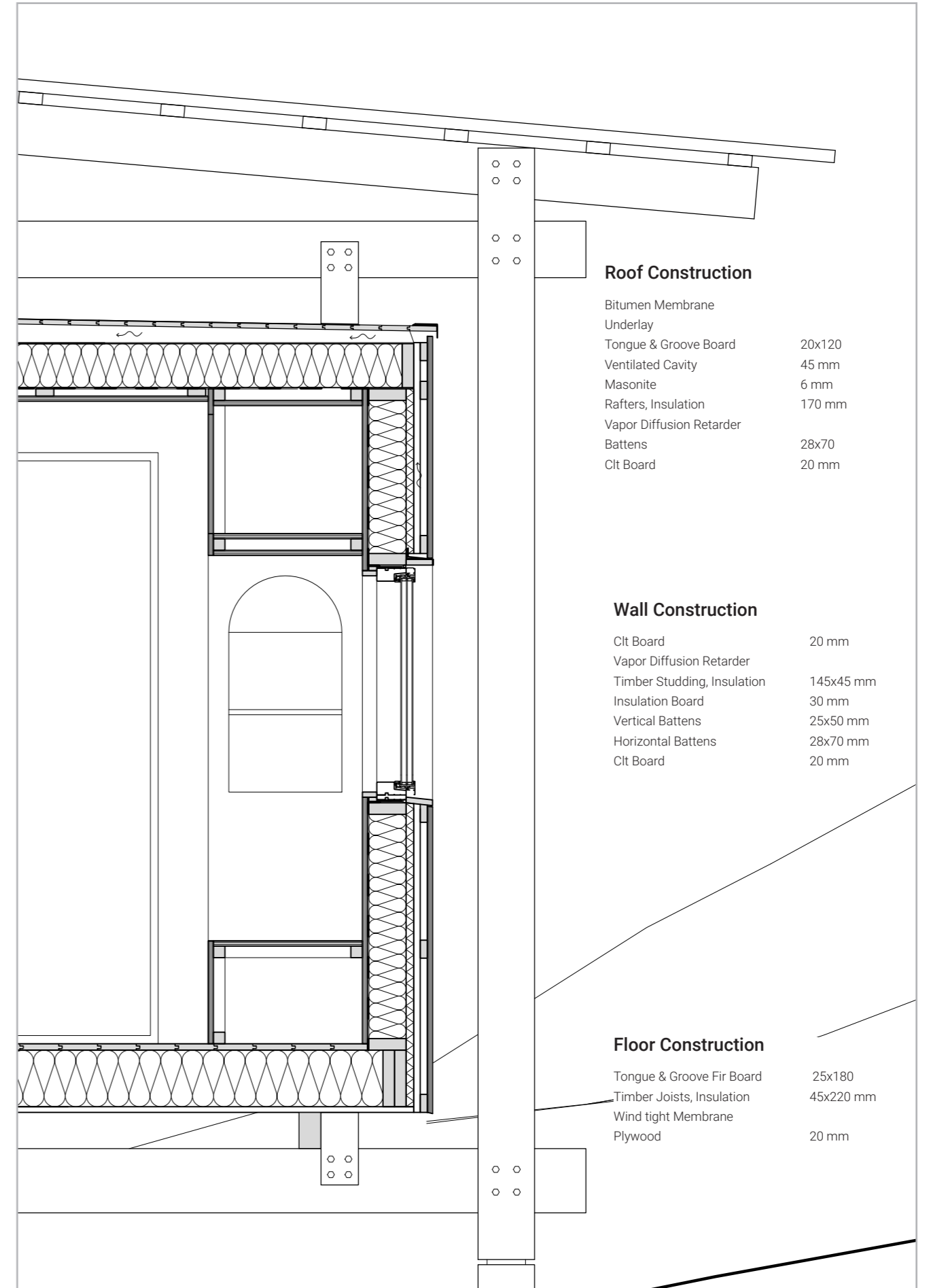
Section A-A 1:20 (A3)



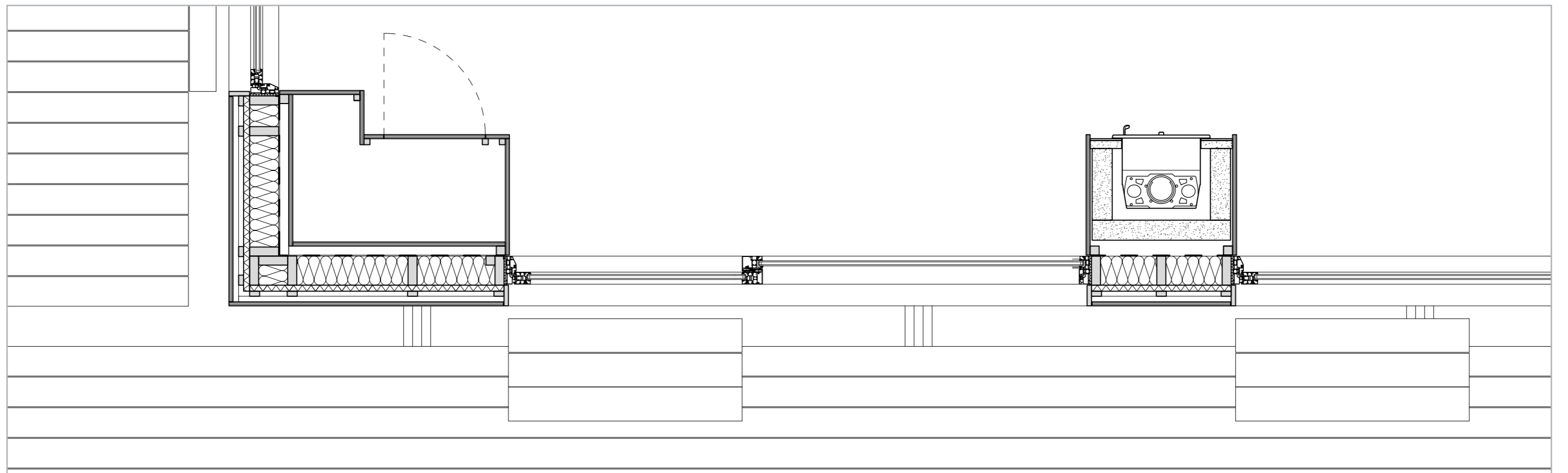
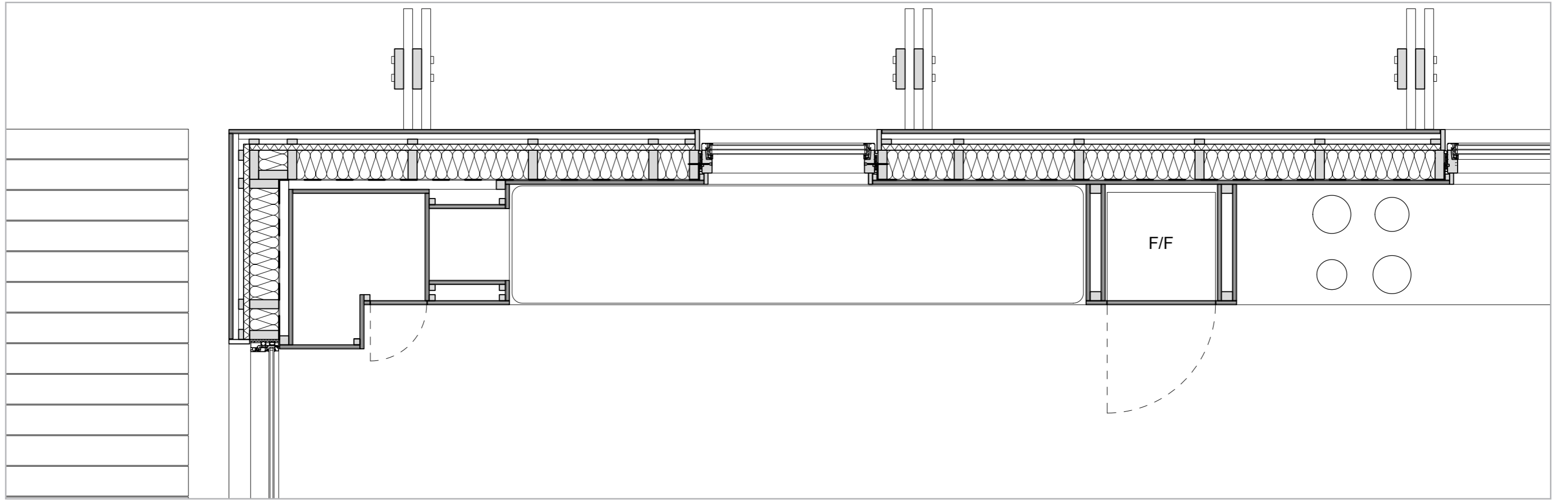
External Elevation SE 1:20 (A3)



External Elevation NW 1:20 (A3)



Section A-A 1:20 (A3)



Horizontal Section 1:20 (A3)



External Perspective South West

Literature

Arkitektur N. (2021) Prøvehus, Maurizberg slott, Norrköping. Retrieved 2021 Feb 2 from <https://www.arkitektur-n.no/prosjekter/provehus-mauritzberg-slott-norrkoeping?cat=427>

Archdaily.com. *AD Classics: The Farnsworth House / Mies van der Rohe*. Retrived 2021-04-24 <https://www.archdaily.com/59719/ad-classics-the-farnsworth-house-mies-van-der-rohe>

Le Corbusier (1986), *Towards a New Architecture*, New York : Dover Publications,

Danuser, H (2009) *Seeing Zumthor*. Scheidegger & Spiess : Hochparterre.

Hunter, C (Producer). (2016) *Glenn Murcutt: Spirit of place* [Film] ABC Television

Lerner, T (2019 May 2) *Därför är sommarstugan en så känslomässigt laddad plats*. Dagens Nyheter. Retrieved from <https://www.dn.se/insidan/darfor-ar-sommarstugan-en-sa-kanslomassigt-laddad-plats/>

Murcutt, G lecture at AA school of Architecture [Nikola Lalev] (18 feb. 2016) *Glenn Murcutt Architectural Lecture - Absolutely Inspiring! (1995)* [Video]. Retrived 2021-02-03 from <https://www.youtube.com/watch?v=DeiQh80DMpU>

McCarter, J (2013). *Carlo Scarpa*. Phaidon Press.

Palladio, A (1965) *The four books of architecture*. Dover.

Zumthor, P, lecture at Tel Aviv University [4757755] (2013 Nov 17) Peter Zumthor Presence in Architecture, Seven Personal Observations [Video] Retrived 2021-01-20 <https://www.youtube.com/watch?v=MBKcmspiVsY&t=2443s>

Werne, F (1997) *Tolv hus*. Byggförlaget.

Zumthor, P (2006). *Atmospheres*. Birkhäuser.

Zumthor, P (2010). *Thinking Architecture*. Birkhäuser.

Nationalencyklopedin, Fritidsbebyggelse. Åström, B.

Retrived 2021-05-03 from <http://www.ne.se.proxy.lib.chalmers.se/uppslagsverk/encyklopedi/lång/fritidsbebyggelse>