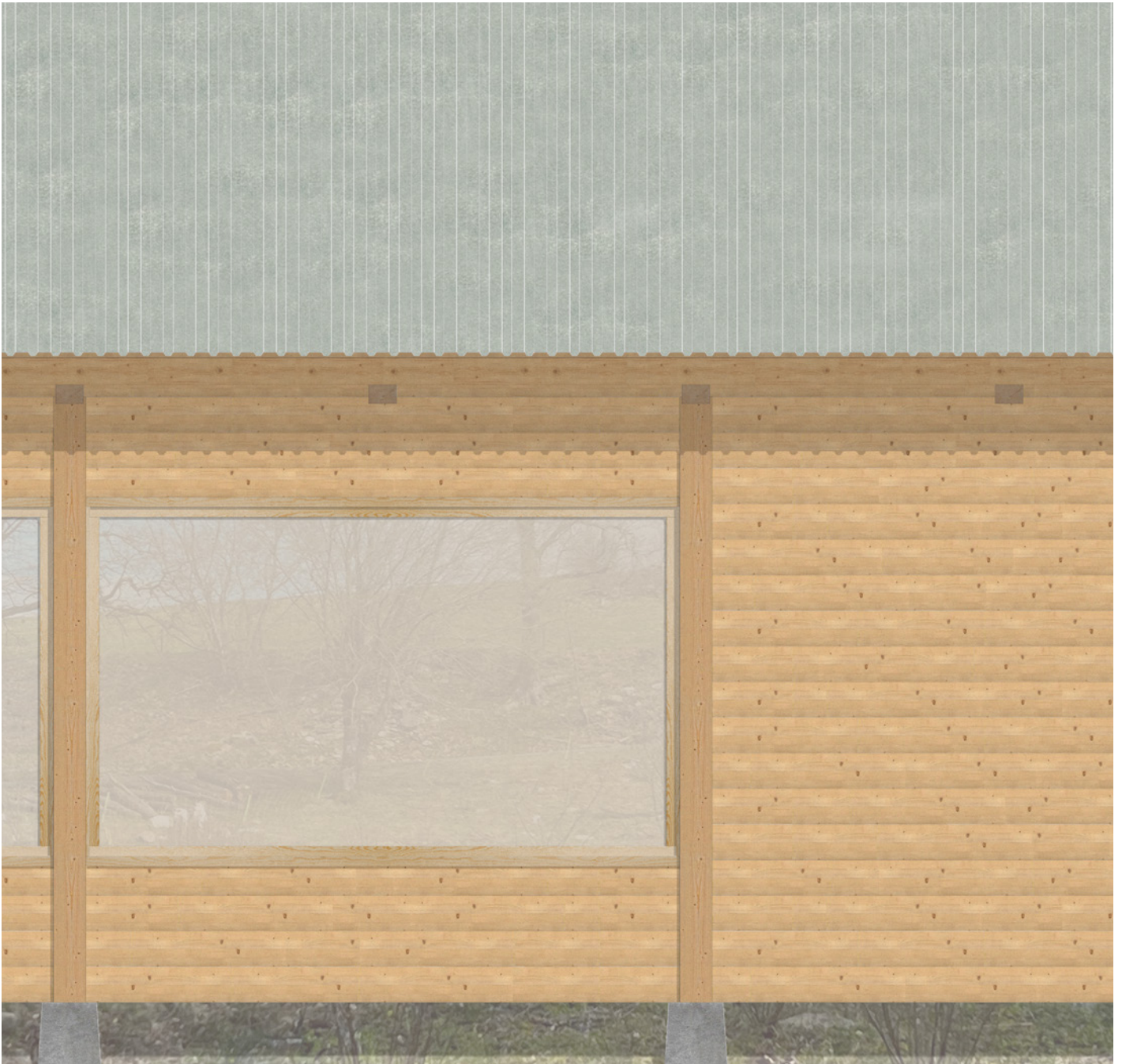


Visitor Center Äskhult

An architectural design investigation
on the relationship between a specific
context, construction, and space.



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Master's Thesis
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Abstract

Äskhults by, located in Halland County, is a several hundred year old village, which serves as one of the main tourist attractions in Halland today. Visitors get to experience how life was for the majority of the Swedish population over 200 years ago.

Äskhults by's unique buildings and village site were once surrounded by modern farmland and expanding spruce plantations. However, this landscape underwent a significant transformation in 1996. A large-scale project was initiated to restore the historical landscape around the farms, mirroring farming practices from 200 years ago, before the agrarian revolution. In the early nineteenth century, the village's four farms encompassed arable land, hay meadows, enclosed pastures, and grazed outland. Today, these lands, along with the farmhouses, are protected as a cultural reserve, 132 hectares large.

The post-and-plank construction is a several hundred year old technique mainly used in farmhouses, that was prominent in areas that had a shortage of trees. In Äskhults by the post-and-plank construction is clearly visible and makes up for most of the construction on site. The new visitor center should therefore be inspired by the construction and visual appearance of the historic site, however be thought of in a modern way.

The research used a combination of methods, including "research for design", "research by design", literature studies, case studies, and site explorations. The aim of the thesis was to conduct an architectural design investigation on the relationship between a specific context, construction, and space, through the process of designing a visitor center for Äskhults by. With a special focus on developing the building technique post-and-plank construction, which is used in the majority of the farmhouses at Äskhult.

Keywords: Visitor center, Building traditions, Post-and-plank construction, Äskhults by

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Introduction

Thesis Questions

The main question that the thesis aims to answer is:

*Explored through a design investigation on the relationship between a specific context, construction, and space:
“How can the post-and-plank construction be further developed to meet modern day requirements and needs?”*

The secondary question to be answered is:

“How can a visitor center be designed in relation to and as a first welcome to Äskhults several hundred year old buildings and surroundings?”

Aim and Purpose

The aim is to conduct an architectural design investigation on the relationship between a specific context, construction, and space, through the process of designing a visitor center for Äskhults by.

Sustainable Development

Throughout the design process of this thesis the sustainability of different building materials will be taken into account, opting for the use of highly sustainable materials. The design process will also include working with the natural site as inspiration.

Delimitation

The outcome of the thesis will be a design of a visitor center in Äskhult cultural reserve. The thesis will not be limited by the building regulations of the cultural reserve.

The master thesis is conducted in the framework of two preparatory courses of 5 and 10 credits for the project plan and the Master's thesis course of 30 credits. However, in my case, I was presented with the opportunity to work with Äskhult in the middle of February, resulting in a more limited time frame.

Personal Motivation

Growing up I've always had a close connection to nature, and spent as much time as possible in it. I grew up in the same municipality as the site and visited Äskhult during the summer several times as a child. When Äskhult was threatened to be structurally changed, split amongst several owners and modernized, my great grandmother's brother got involved and stopped the process. Saving Äskhult as we know and appreciate it today, making it a one of a kind place in Sweden. It therefore felt interesting to learn more about the site and contribute to its continued importance.

Methods and Process

Phase I

Theoretical research
Reference research
Contextual research

Phase II

Site exploration
Site analysis
Historical research

Phase III

Building concept
Program & function
Construction research
& investigation
Material studies

Phase IV

Iterative design in plan, section,
facades, model and detail
Design proposal

Phase V

Discussion and
presentation

Theoretical and Contextual Research - Literature Studies

Literature studies of a variation of construction materials and techniques that can be used for the building of a visitor center. Researching in which ways the constructions and materials can be used and combined.

The importance of both nature and culture for human beings, and how these are protected through nature- and cultural reserves. Further studies on regenerative design and how this can be integrated into the design of a visitor center.

Reference Research - Case Studies

Case studies regarding the use of the post-and-plank construction, studying modernized ways of using it and looking for ways to further improve the technique.

Case studies regarding site integration and how a building relates to the context in which it is placed. Studying existing buildings to gain knowledge to be used in the Master Thesis.

Site Exploration and Analysis

Doing an inventory of the site and its existing buildings, studying it through investigations of conditions and qualities regarding sunlight, wind, sound, view and elevation differences. Mapping the site through sketches, photographs, texts and diagrams.

Historical Research - Literature Studies

Literature studies regarding the specific site and its historical importance. Which building types, functions, techniques and materials have been used in the area.

Phase III - IV

Include the design process. Working further with the building concept, program and function. Conducting construction research and investigations, as well as doing some material studies.

Phase V

This is the final phase of the Master thesis which focuses on the presentation of the work done and the discussion around it.



Background

Cultural Reserve

Cultural reserves are designated areas that aim to protect and preserve significant cultural assets. These assets may include historical sites, traditional villages, archaeological remains, indigenous traditions, languages, folklore, and other aspects of cultural identity. The primary purpose of cultural reserves is to safeguard these elements of heritage for future generations and to ensure their continued existence (Tollin, 2013).

In Sweden, as a reflection of the broadening interest from individual artefacts to encompass entire cultural landscapes, the concept of cultural reserves was established in 1998 as a means of preservation. Currently, Sweden boasts over forty cultural reserves, a figure that pales in comparison to its 3,500 nature reserves. The primary objective of cultural reserves is to provide insight into the living conditions, work, and lifestyles of bygone eras (Tollin, 2013).

The village of Äskhult, along with its houses and surroundings, was officially designated as a historic site in 1981. In 1997, the entirety of Äskhult village was acquired, and in 2004, it was formally recognized as a cultural reserve by the County Administration. The concept of a cultural reserve, like Äskhult, rests upon three fundamental principles: preservation and upkeep of the physical cultural heritage; providing opportunities for tourism and educational activities; serves as a landscape laboratory for the accumulation of knowledge through applied research (Tollin, 2013).



Figure 1. Cultural reserve sign

Visitor Center

“(at a place of interest, such as a country park, historical site, etc) a building or group of buildings that provides interpretation of the place of interest through a variety of media, such as video displays and exhibitions of material, and, often, includes facilities such as refreshment rooms and gift shops” (Collins English Dictionary, n.d.)

Visitor centers serve as a gateway to exploration and education, they act as the first point of contact for travellers and tourists seeking information, guidance, and resources for exploring a particular destination. These facilities play a pivotal role in enhancing the visitor experience by providing orientation, interpretation, and education about nature, culture, and historical significance of the area (Naturvårdsverket, 2015).

Visitor centers serve as invaluable resources for travellers and tourists, offering information, orientation, interpretation, and services that enhance the overall visitor experience. Through their educational initiatives, community engagement efforts, and commitment to environmental stewardship, these facilities play a vital role in promoting sustainable tourism practices and preserving that natural and cultural heritage of destinations around the world. As a gateway to exploration and education, visitor centers continue to inspire and enrich the travel experiences of visitors (Naturvårdsverket, 2015).

Context: Äskhult

Nestled in the serene countryside of Halland County, Sweden, Äskhult stands as a testament to the rich history and cultural heritage of south-western Sweden. This quaint village, with its timber and post-and-plank houses, winding pathways, and rustic charm, offers visitors a captivating journey back in time (Connelid, 2013).

In the late 1900's, efforts were made to breathe new life into Äskhult, transforming it into an open-air museum dedicated to preserving Sweden's rural heritage. Through meticulous research and restoration work, the village was reborn, with painstaking attention to detail ensuring historical accuracy in every aspect of its reconstruction. Today, Äskhult stands as a living tribute to the resilience and ingenuity of generations past (Connelid, 2013).

A visit to Äskhult is more than just a sightseeing tour; it is an immersible journey into the daily lives and customs of the people living in the village over 200 years ago. Guided tours offer insights into traditional crafts such as blacksmithing, weaving, and pottery, allowing visitors to witness age-old techniques first-hand. Special events and festivals held throughout the year celebrate the rich cultural heritage of the village, with music, dance, and feasting bringing history to life in vibrant detail (Connelid, 2013).

The restoration efforts undertaken in Äskhult aim to recreate the landscape depicted in the land redistribution map from 1825. However, the area's human utilization stretches back several millennia, resulting in a blend of elements from different historical periods within the 1825 map. For instance, the arable land still bears traces of the divisions imposed in the early

Middle Ages, while the meadowlands in 1825 showed numerous abandoned arable fields, indicating significant shifts in land use (Connelid, 2013).

Many of these historical remnants have been preserved throughout the village's land, clearly visible thanks to effective management practices. Within the hay meadows and infield grasslands, numerous clearance cairns dot the landscape, constructed from stones cleared from arable fields across various epochs. Among them, the oldest, likely dating back to the early Iron Age some two millennia ago, lie to the northeast, forming closely spaced flat cairns that offer insights into ancient agricultural practices (Connelid, 2013).

Furthermore, alongside the restoration of the arable fields, several prehistoric settlement sites have been unearthed. In Göttas and Jönsa's fields, well-preserved remnants of settlements, including post-holes and pottery dating back to the transition between the Bronze Age and Iron Age roughly 2,500 years ago, offer glimpses into ancient habitation. Additionally, a hearth discovered in Derra's field, estimated to be around five thousand years old, provides evidence of Stone Age occupation (Connelid, 2013).

Moreover, the evolution of the cultivated landscape and human impact on the environment within the cultural reserve can be traced through pollen analysis conducted on sediment from Lake Svinsjön and a small bog in the outlands. The pollen diagram from Svinsjön, spanning over 13,000 years to the late glacial period, indicates the presence of grazing animals as early as 5,000 years ago (Connelid, 2013).

Buildings in Äskhult

The village of Äskhult comprises four farms, with the majority of its buildings dating back to the eighteenth century. What sets Äskhult apart is its unique continuity, as the village remained intact through the "storskifte" reforms of 1825 and the "laga skifte" redistributions in 1861-64. Consequently, the buildings have been remarkably preserved, offering a glimpse into the old peasant community of the past (Reit, 2013).

Situated around the village square, where roads intersect, are the four farms, now housing a total of eleven buildings. Three farms bear names of previous owners: Bengt's, Jönså's, and Göttå's. Conversely, the fourth farm, Derra's, derives its name from the term "the neighbour's." Over the centuries, some buildings have been lost, altering the original layout of the farms, with only Göttå's retaining its square character today (Reit, 2013).

Äskhult's architecture reflects the typical style of rural settlements in northern Halland during the eighteenth and nineteenth centuries. Construction materials, primarily timber, dictated the design of the houses. In areas abundant with forests, log houses of various sizes were common, while in regions with limited timber resources, smaller houses were built using post-and-plank construction (Reit, 2013).

During the nineteenth century, dwelling houses in Äskhult underwent renovations, expanding the relatively small, ceiling-less houses and South Götaland-style houses with high lofts by adding extra rooms (Reit, 2013).

Over the years, the outbuildings in Äskhult have undergone significant restoration efforts, with meticulous attention to historical authenticity and collaboration with antiquarian experts. Restoration work strictly utilizes traditional materials relevant

to the buildings, and most builders receive training in building preservation to ensure historically accurate execution (Reit, 2013).

Since 1999, the County Administration has commissioned five-year management plans for preserving the buildings in Äskhult. These plans outline yearly actions to be undertaken, which are meticulously documented and described in restoration reports. This comprehensive approach ensures the continued preservation of Äskhult's architectural heritage for future generations to appreciate (Reit, 2013).



Figure 3. Götta's farmhouse

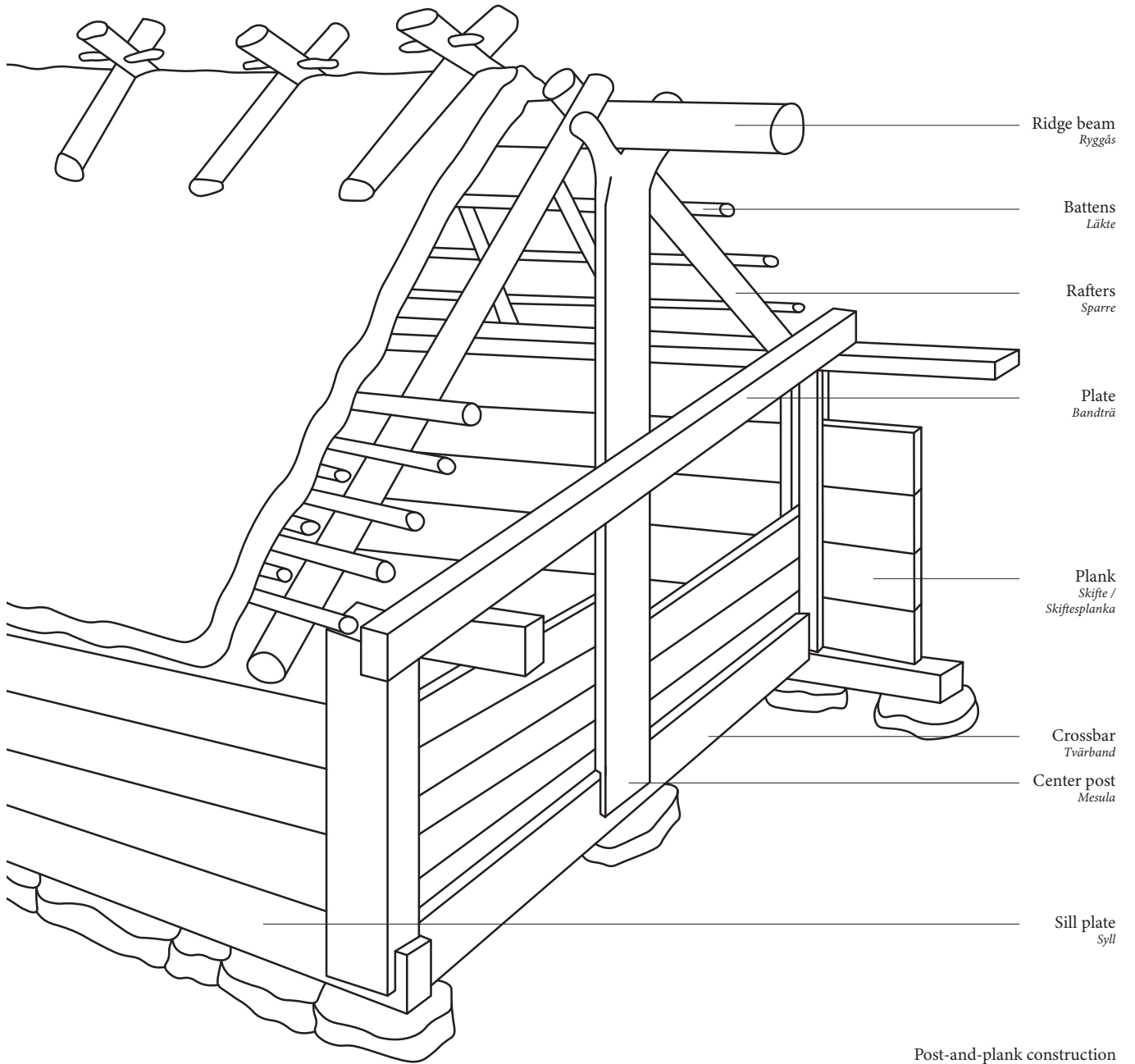
Building Traditions in Northern Halland

Building Traditions in Northern Halland

In the southern half of Sweden today, it is difficult to find a part of the landscape that we humans have not influenced. The cultural landscape shapes both us and our appreciation of beauty. It can therefore be argued that it should be equally important to preserve, utilize and develop these cultural-historical values as the values created and found in nature. This is called cultural adaptation and involves preserving, integrating and developing existing cultural values. These also serve as inspiration and role models for local culture (Block & Bokalder, 2023).

In today's society, building in an ecological and climate adapted way is becoming more important, a way of dealing with this can be to take inspiration from the building tradition of the area and use local materials. Different landscapes around Sweden have traditionally had different house types, depending on the available local materials and building techniques. The most common in Sweden historically have been half-timbered, timber-framed, panelled, stone and post-and-plank houses. There are also so-called province houses that differ between the different provinces (Block & Bokalder, 2023).

Historically, Halland has been considered a province of eastern Denmark, where both the culture and building traditions have common features. In the late 1700s and early 1800s, a new type of house developed in southern and western Sweden, the low-loft cottage. What distinguishes the house from the high-loft cottage is that the roof in the middle section is raised to the level of the gable ends, forming a continuous loft. Hallandslängan is a version of the low-loft cottage. The availability of timber was decisive for the framing of the building, it was built with a timber, haft-timber or post-and-plank construction, it was also common with a mixture of the different techniques. The Hallandslängan is characterized by panel painted with falu rödfärg, a thatched roof and that it is only one room wide (Ohlsson-Leijon & Reppen, 2001).



Post-and-plank construction
in Halland County

Construction: Post-and-plank

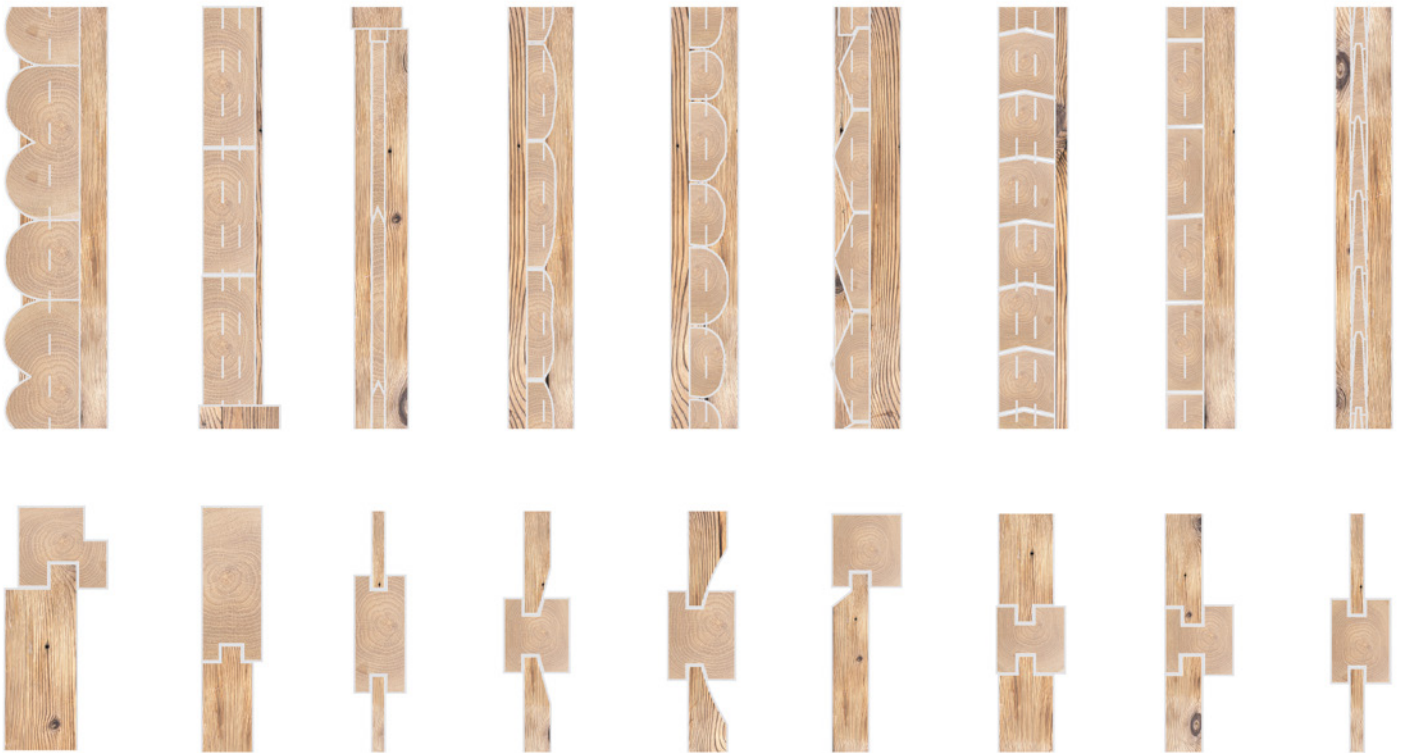
Post-and-plank Construction

The post-and-plank construction was developed when the buildings were provided with entire walls and the roof no longer was the main limitation of the room. The construction is recognizable by its posts and in between placed planks, not only used for buildings but also for example furniture, wells and graves. Traditionally before the modern saw was used, the timber was produced by splitting and shaping, both radially and tangentially, with a variety of different axes. The dimensions for the posts and planks during the middle ages was approximately 20x20 cm for the posts and 5x20 cm for the planks (Henriksson, 1996).

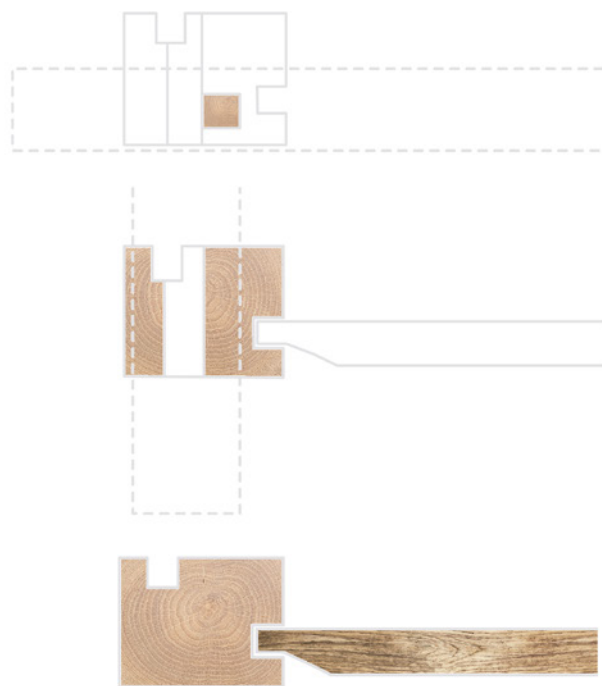
When the post-and-plank construction has been used for housing, different materials, for example moss and seaweed, have been used to seal the joints between the planks. A hollowing out of the upper timber's bottom edge and a ridge on the top of the lower timber allows for the planks to connect and lock into each other. The planks are placed in hollowed out vertical strips in the posts and are locked by the weight of the planks placed on top. Making the construction easy to repair and relocate is necessary, this made it possible to build on one site and then de-construct the building and move to another site where the building could be erected again (Henriksson, 1996).

For the post-and-plank construction the middle of Halland is seen as a cultural border, between the influences from Skåne and Västra Götaland. In the northern parts of Halland the center post, in Swedish 'mesula' is a prominent part of the buildings. This version of the center post is seen as a remnant of the types of ancient houses consisting only of a roof. In Sweden buildings with the 'mesula' center post are only seen in combination with the post-and-plank construction. Another distinguishing fact is the choice of wood, in Halland oak and how the posts are connected with the sill plate (Henriksson, 1996).

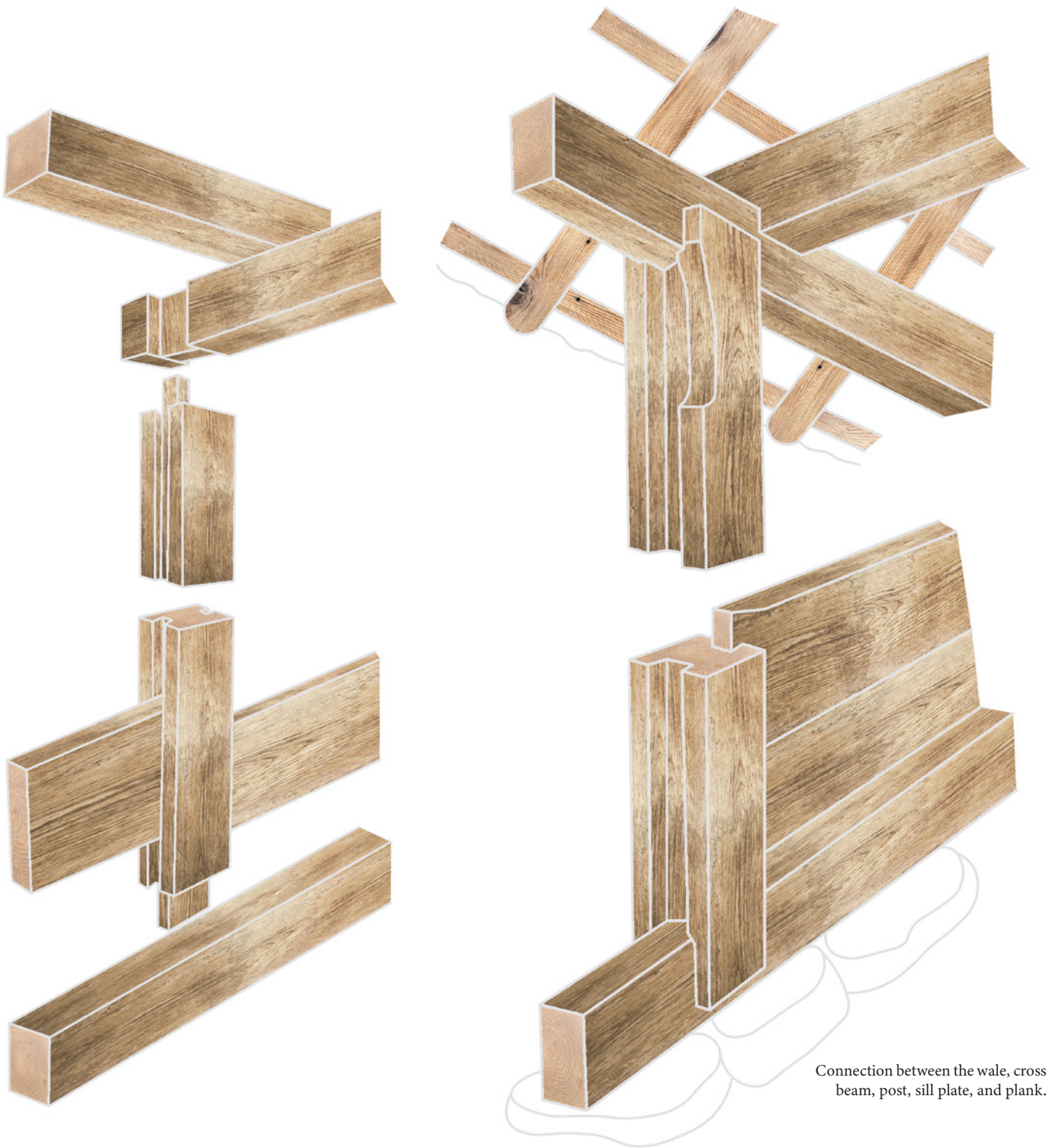
On the following pages illustrations of how the different parts of a post-and-plank construction are connected and different varieties of them. Showcasing how different the construction can be and increasing the understanding of how it is constructed (Henriksson, 1996).



Connections between posts and beams. The top row is a vertical section, the bottom is a horizontal section. The outside is on the left in each section and the inside is on the right. All examples are to the same scale.



Corner post: above the level of the cross beam, only one tenon remains of the post, just enough for a hole in the wale.





Connection between long sill plate,
cross sill plate, corner post, long
beam and cross beam.



Connections between plates, posts, cross beam, wale and wall planks. The notches of the posts do not go all the way down to the sill plate and the wall planks have chamfered ends that protect the sill plate.



Connection to a post at the gate of a farm in Hallandslän, measurements in cm.



Detail section of various alternative connections between beams and posts, after drawings by Charles Emil Löfvenskiöld in 1868.



Above: False post-and-plank construction.

Below: Post-and-plank construction for housing by Arvid Henström, 1896.



Different connections between sill and post, seen from the inside. In the illustration on the left the timber is oak, in the middle and right the timber is pine.

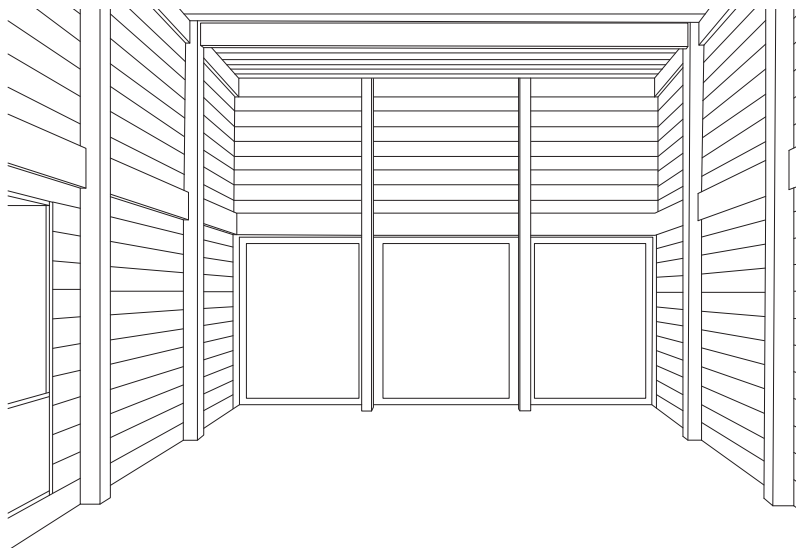
Reference Projects

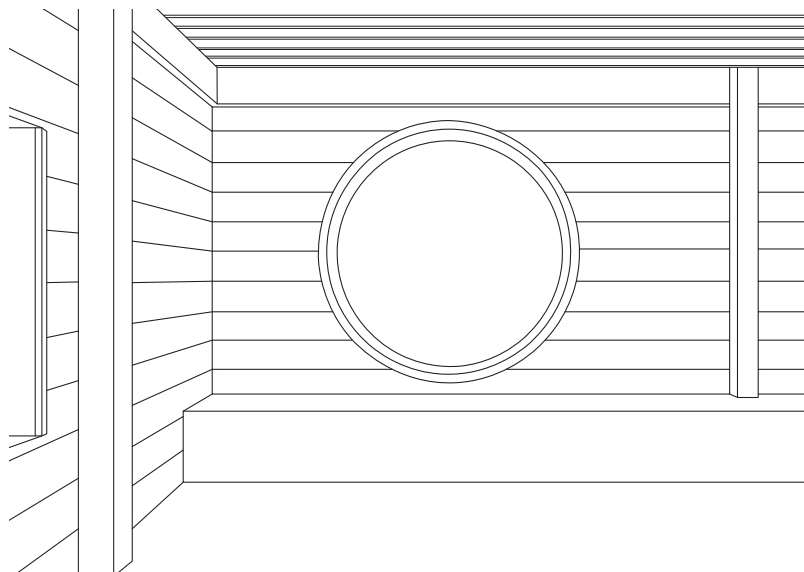
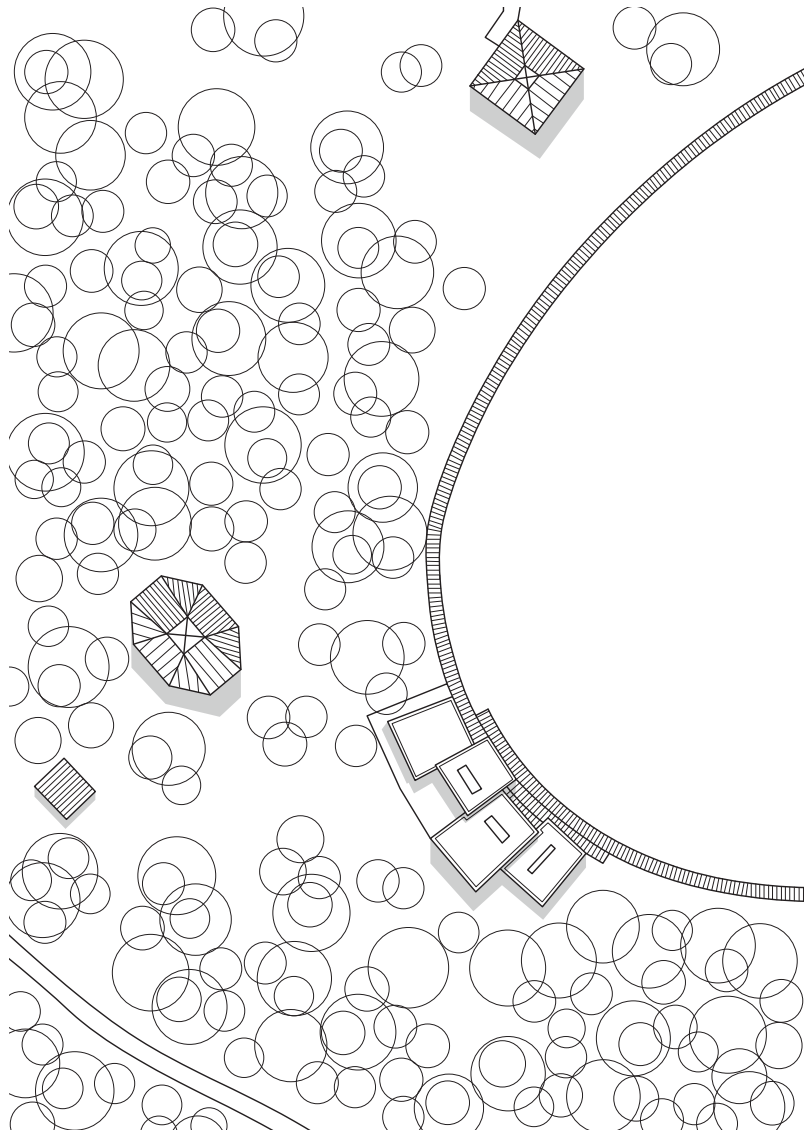
The reference projects have been selected according to two different themes: construction and site integration.

House of Nature - Revaerk

This reference has been chosen because of its construction and site integration. Revaerk's "House of Nature" is located on the edge between dense forest and open meadow. A main priority of the client was to set new standards for sustainable building practice. In reference to the forest and the use of the building, wood is the chosen theme in terms of both the construction and the visual appearance. The building is a tectonic and honest building, showing what it is made of, it is built with the technique post-and-plant, in Swedish known as "skiftesverk", which has been around for more than 1000 years.

The building is a design for disassembly, meaning that the elements can be disassembled over time and then reused in a new context. This is also the motivation behind using screw foundation instead of a concrete foundation, additionally allowing the building to gently extend into the forest. The building displays a strong connection to historic roots, showing it as an inspirational toolbox that can create beautiful architecture, in a truly sustainable building (Ørum Nørgaard & Østerlund Bamford, 2021).



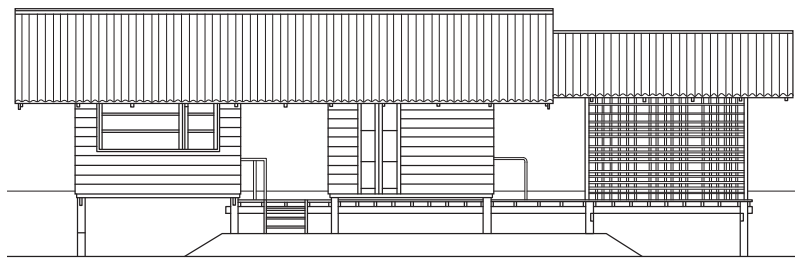


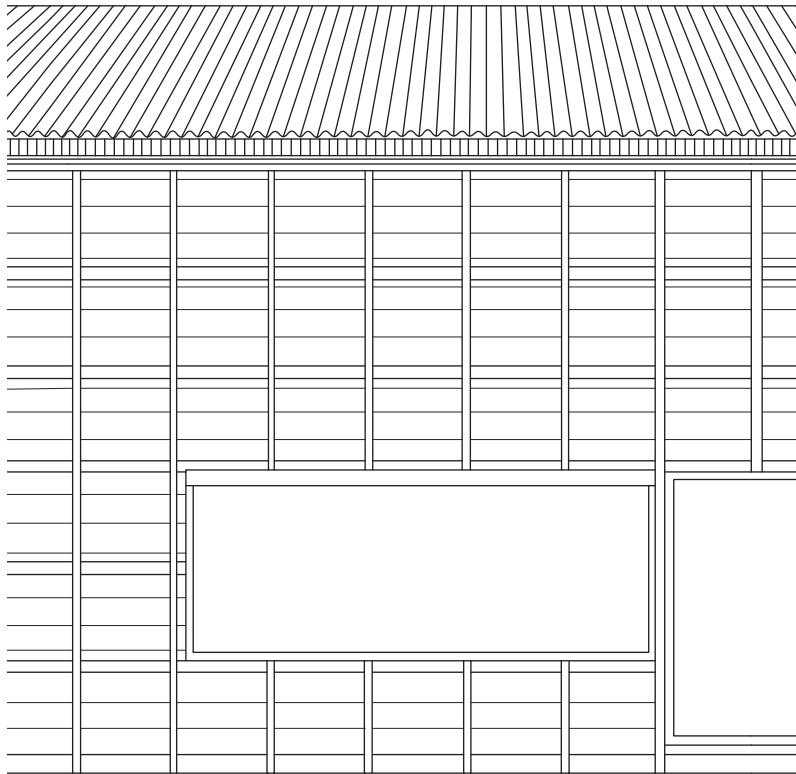
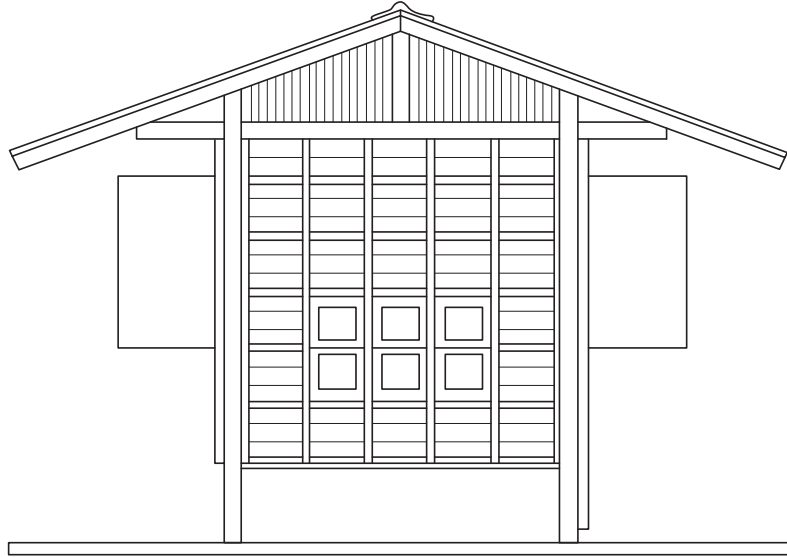
Yangnar Studio

This architectural firm has been chosen due to their consistent focus throughout their projects on sustainability, context and site integration. The specific two projects have been chosen because of their construction, appearance and integration into the surrounding landscape.

The first reference, Thingamajiggy, is a coffee shop, roastery and pavilion in Mae Rim, Thailand. With focus on sustainability and green design. The projects design is a manifestation of the owners vision to let the surrounding nature play a prominent role in the architectural canvas. The project builds upon the old building technique prominent in old rice barn structures, called lhong-kaw. Modifying it to suit present requirements and needs (Abdel, 2023b).

The second reference, Ing-Suk house, is a private residence, located in Nam Phrae, Thailand. The building is a compact wooden platform house, deriving its design language from temporary garden shelters common in the region, known as ka-nham (Abdel, 2023a).





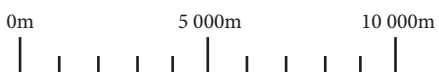
The Context of Äskhult Cultural Reserve

The settlement in Äskhult is of a medieval origin. The name, Äskhult, consists of two elements. The first, “äske”, means a stand of ash trees, and the second, “-hult”, means a small grove or wood (Tollin, 2013).

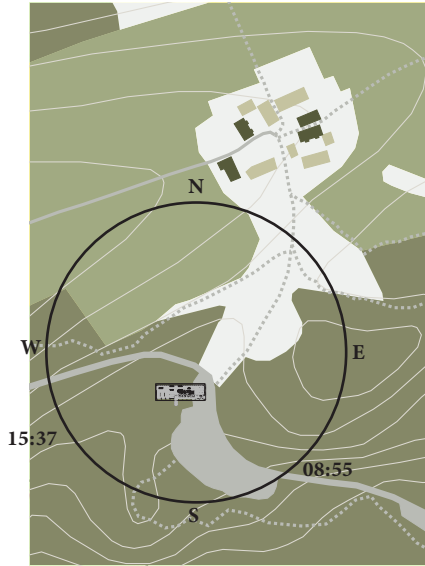
Äskhult stands as a unique example of a Swedish agrarian cultural reserve, encompassing a complete historic area. The reserve spans from the village site itself, with its ancient structures, through arable fields, meadows, pastures, and beyond to the farthest boundary markers. The continuity of land use over the past two centuries is remarkable, with minimal changes to the extent and layout of various land types. Meadowlands have remained largely intact, and the village has not undergone modern expansions or been affected by fires (Tollin, 2013).

The Äskhult cultural reserve offers a glimpse into the past, providing insights into the diverse landscapes, their dimensions, and ecological richness. The remarkably preserved stone walls serve as a complete preservation system, alongside dwelling houses, outbuildings, house sites, and pathways, all of which collectively reflect and safeguard historical techniques and living conditions. Occupying the same area for at least 700 years, spanning 28 generations, the village has sustained generations of farmers, preserving its heritage and way of life through the ages (Tollin, 2013).

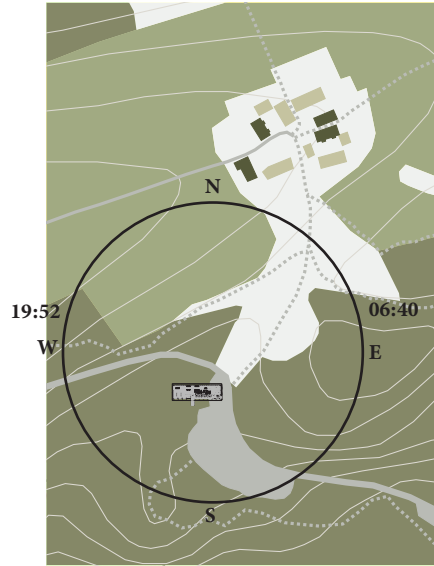
The enduring history of the cultivated landscape in Äskhult finds its roots partly in the natural environment, particularly the presence of the large drumlins sculpted by ancient ice sheets. These drumlins, offering favourable grazing conditions, attracted prehistoric farmers early on and are scattered across northern Halland. Nowhere is this rich content of cultural history more vividly portrayed than in Äskhult (Connelid, 2013).



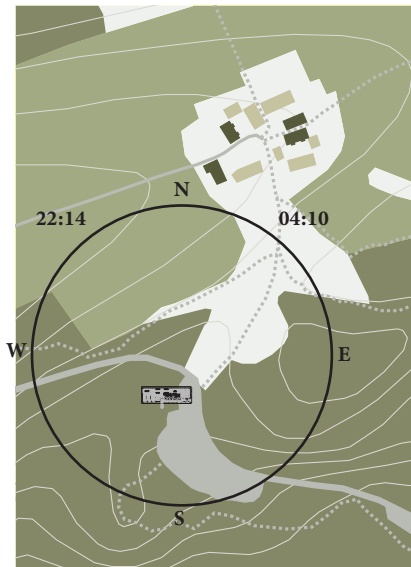
Sun Path & Views



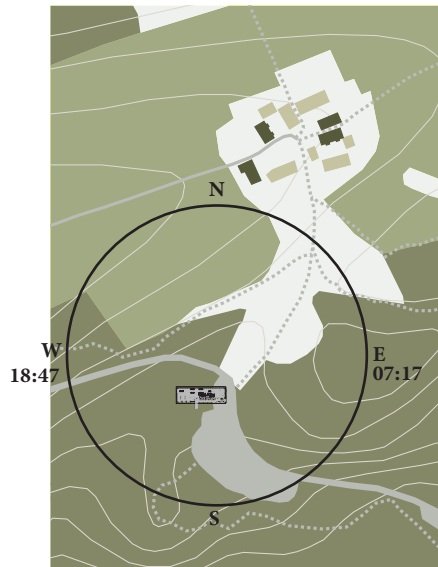
Jan 1st



Apr 1st



Jul 1st



Oct 1st

Sun path analyses for chosen site



Views from chosen site

Program

This Master's thesis is done in connection with Väst kuststiftelsen who proposed a visitor center for Äskhults by. They have recently acquired a piece of land with buildings on the drumlin, called Lilla Äskhult. This is proposed to become the base for the workers in Äskhult, where they store their belongings and equipment for farming the land.

When they did a workshop for this new space they also came up with the idea of a visitor center accessible to all, placed in connection to the parking space, with a direct visual and physical access to Äskhults by. The more precise positioning and size of the visitor center was not decided, but some wishes regarding the functions housed in the visitor center were voiced. For example it should include a larger café and kitchen, a conference room to fit a school class in, some storage for artefacts, bathrooms, as well as an exhibition space to showcase artefacts that cannot be shown in the original Äskhult buildings. It was also important that the new visitor center should represent a building from the 21st century, in contrast to Äskhults 19th and 20th century buildings.

Äskhults by is one of Hallands main tourist attractions, with many visitors each year. However, since it is only open from May to November, there are several months each year when the buildings will not be in use. Äskhult by would like to also have the possibility to invite visitors for conferences during the months when they are normally not operational. And have the possibility to serve lunch and fika during these visits.

Function	Area
<i>Entrancehall</i>	10
<i>Exhibition</i>	57,8
<i>Café</i>	57,8
<i>Conference room</i>	55
<i>Breakout room</i>	8.2
<i>Kitchen</i>	31
<i>WC</i>	13
<i>Storage</i>	4
<i>Technical room</i>	4
<i>Total</i>	240,8
<i>Terrace</i>	71

Design Criteria

Context:

Early on in the design process the idea of using the building technique post-and-plank was brought up. When visiting Äskhult it is a technique that is present and clearly visible throughout the village. However, it is only used on the farm-houses and lacks any sort of insulation, making the buildings uninhabitable in the winter months. The question then came to light, how can the post-and-plank construction be developed to meet modern day requirements and needs? This is a question that I would like to explore further in this Master's thesis and it became one of the main objectives.

Construction:

In a post-and-plank construction the posts are the load bearing structures together with the center posts. It was important for me that the building can be read and understood from both the inside and outside and that the post-and-plank construction is visually present. The planks and posts in the construction are therefore not covered. The posts are placed according to a grid pattern of 3x3 meters, which also lays the foundation for the sizes of the rooms and functions within the building. The construction is placed on plinths to minimize the interference with the ground and to allow the flow of water underneath, as the structure stretches out over a meadow. The roof was first imagined as a thatched roof, to match those of the village, however the height of the building, due to this construction, would interfere too much with the surroundings blocking the views of the drumline. It is now therefore a wooden construction covered with corrugated metal sheets. Which resonated with how the roofs of farm houses in Sweden often are constructed, and can be seen when driving to Äskhult.

Space:

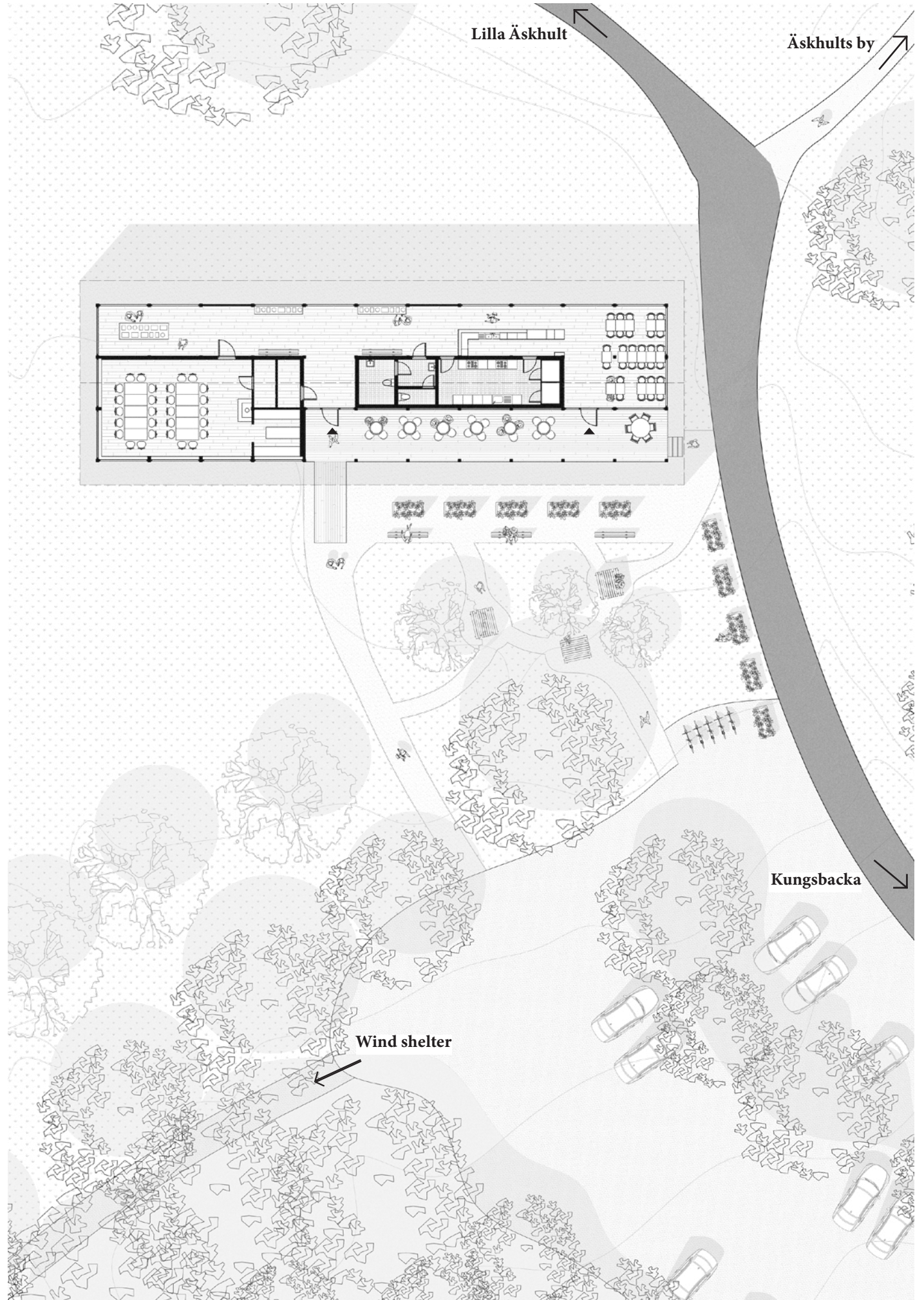
Due to the conditions in terms of some spaces being used also in the winter months and other spaces only during the warmer months, the amount of insulation needed in the latter case is limited to acquire a pleasant indoor room temperature. The idea to create a visitor center with different climate zones then came to light, to be able to place the spaces and functions of the building used all year around in further insulated boxes and also install a fireplace to further increase the comfortability of these spaces. These insulated boxes have non-load bearing walls.



Design Proposal





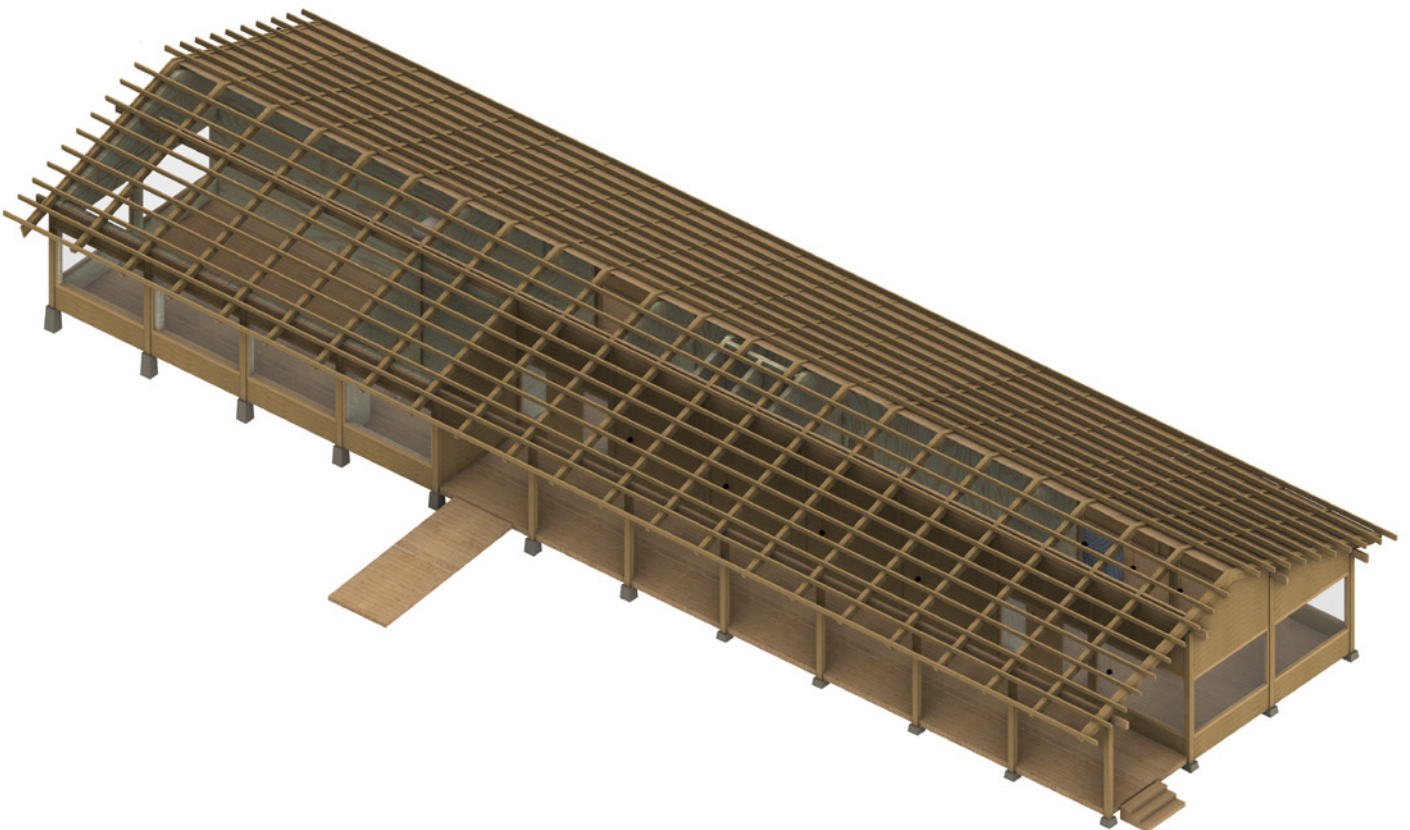


Site Plan

As seen in the site plan to the left, the building is placed in close proximity to the parking and with a direct visual connection to Äskhults by. The visitors of Äskhults by will naturally pass by the building as it is located on the way up to the village, the visitors first stop will therefore be the visitor center where they can learn more about the site and its history.

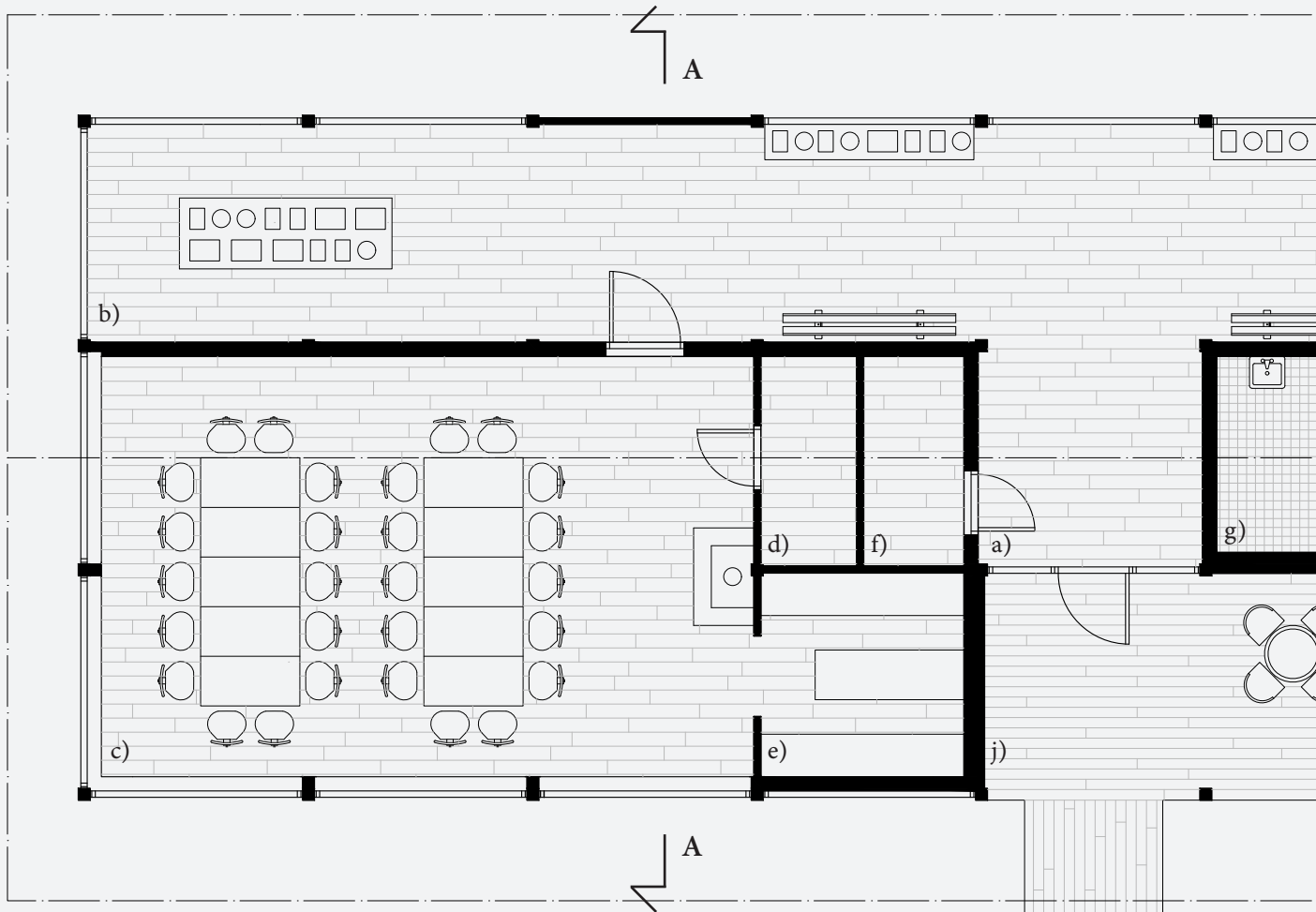
In regards to site integration the project takes inspiration from the existing Äskhults by with its surrounding arable fields and gardens. In front of the building, to the south, a number of smaller gardening patches are located, which are used to grow the produce needed in the café of the visitor center.

The new gardens in front of the building were previously asphalt and gravel, which have been taken away to give back this space to nature.



b) The exhibition space faces the north and the drumline with the houses, and is a place where items of Äskhults by are exhibited and information about the village is shown.

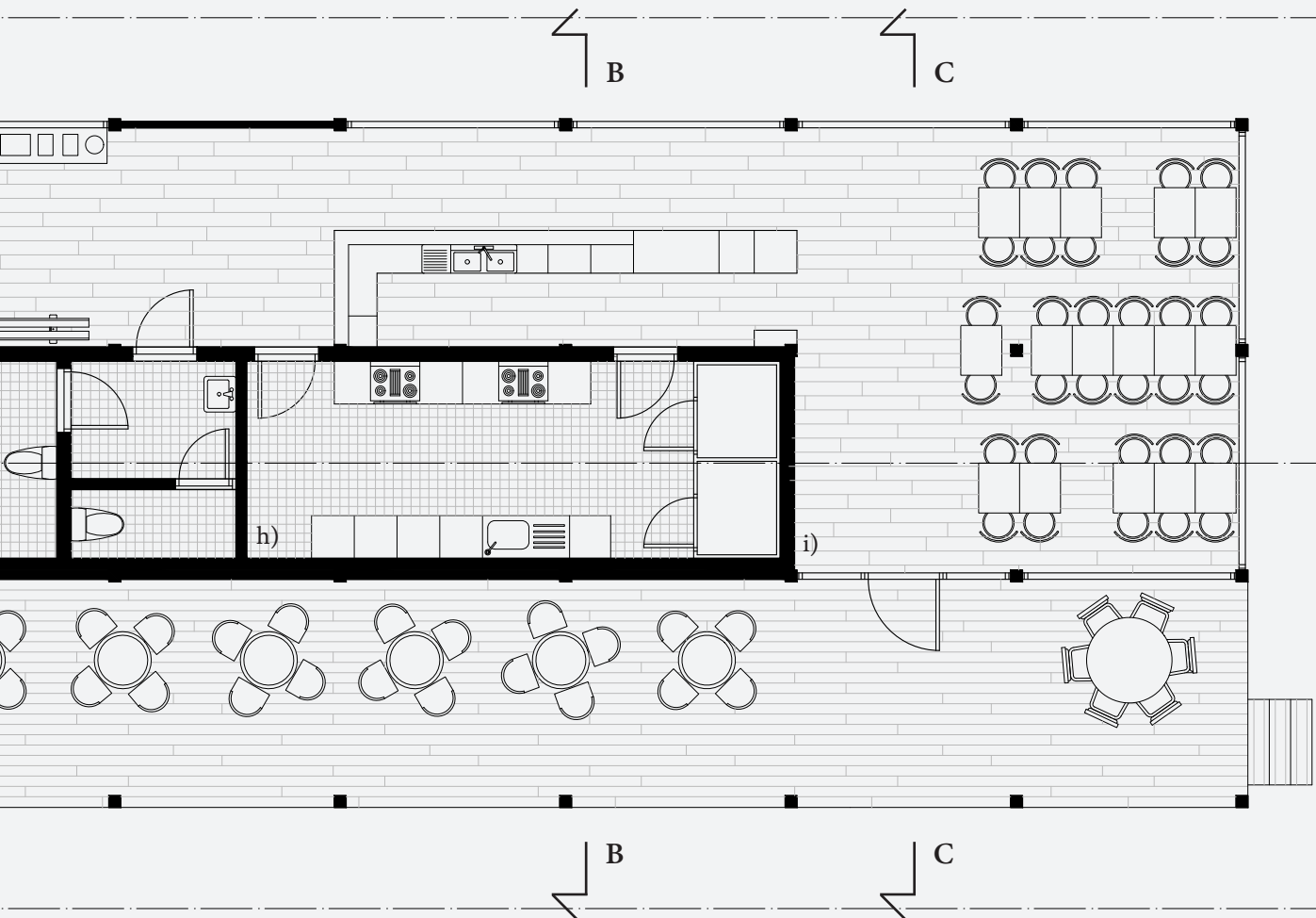
f) The technical room is placed directly to the left of the entrance.



c) The conference room is placed to the left of the entrance, near the exhibition space. Inside the conference room is a storage room, a fire place as well as a breakout room for more informal smaller gatherings.

g) The bathrooms are placed in close proximity to both the entrance and the café.

i) The café is located to the east and has seating both inside with views of the village and outside on the south facing terrace. Seating possibilities are also available on the gravel and grass in front of the building.



- a) entrance room
- b) exhibition space
- c) conference room
- d) storage room
- e) breakout room
- f) technical room
- g) wc
- h) kitchen
- i) café
- j) terrace

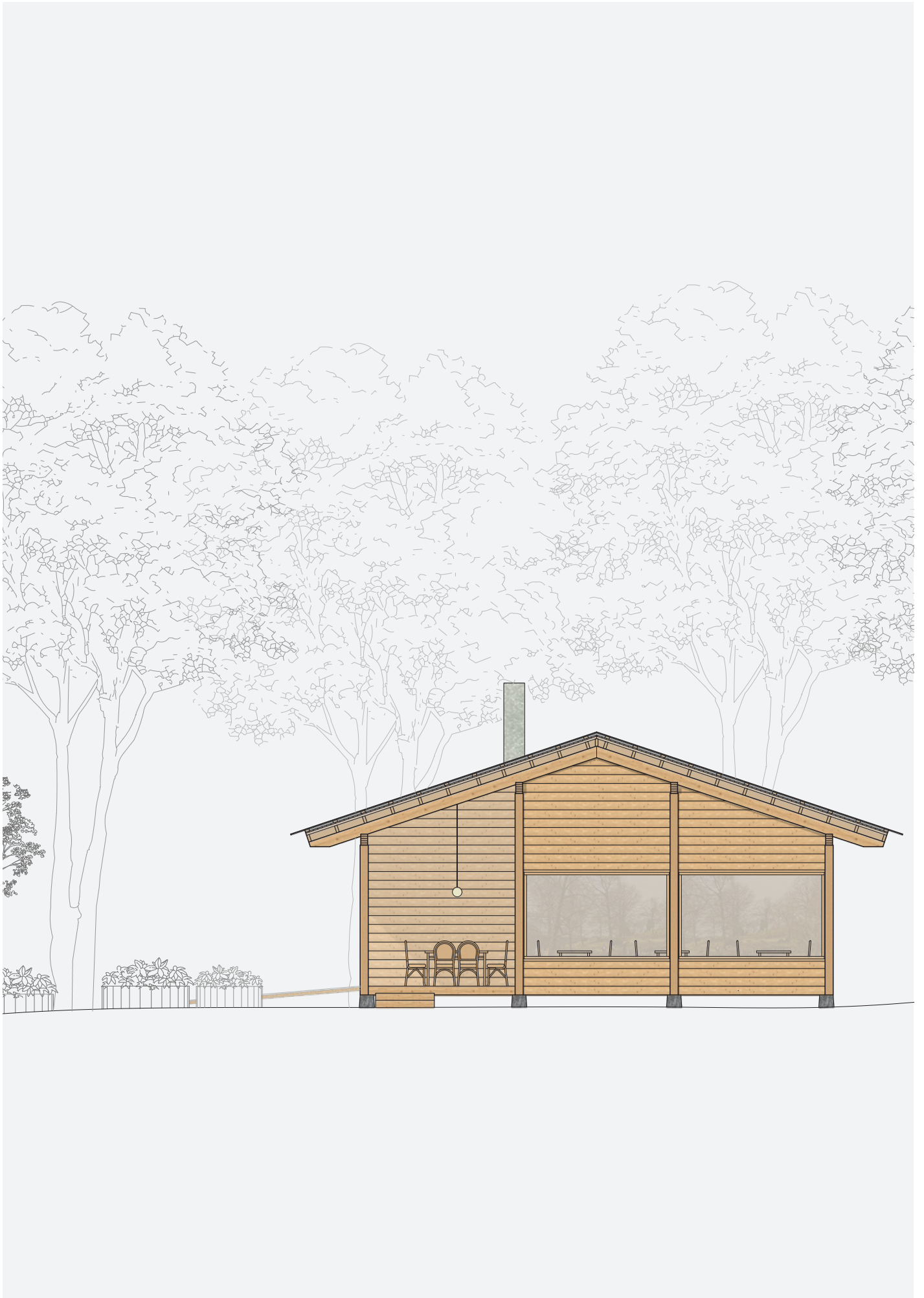


When approaching the building visitors can either take the ramp access when arriving from the parking or the small stairs when arriving from the village. These take the visitors up to the terrace where they then enter through either the café entrance or main entrance depending on their destination. The main entrance is located centrally on the facade and takes the visitors to an entrance room, which gives access to the rest of the functions of the building.























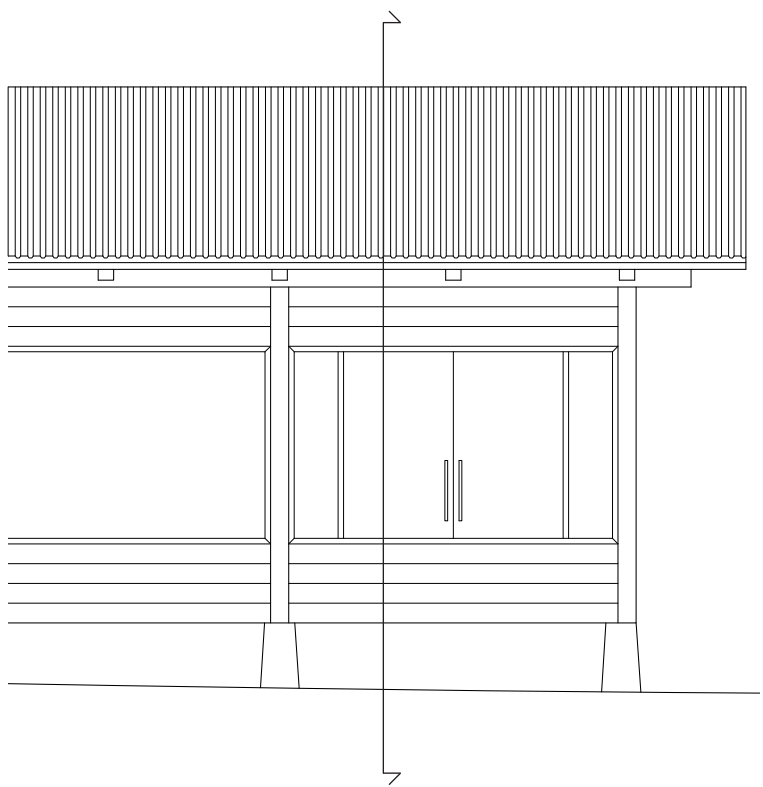
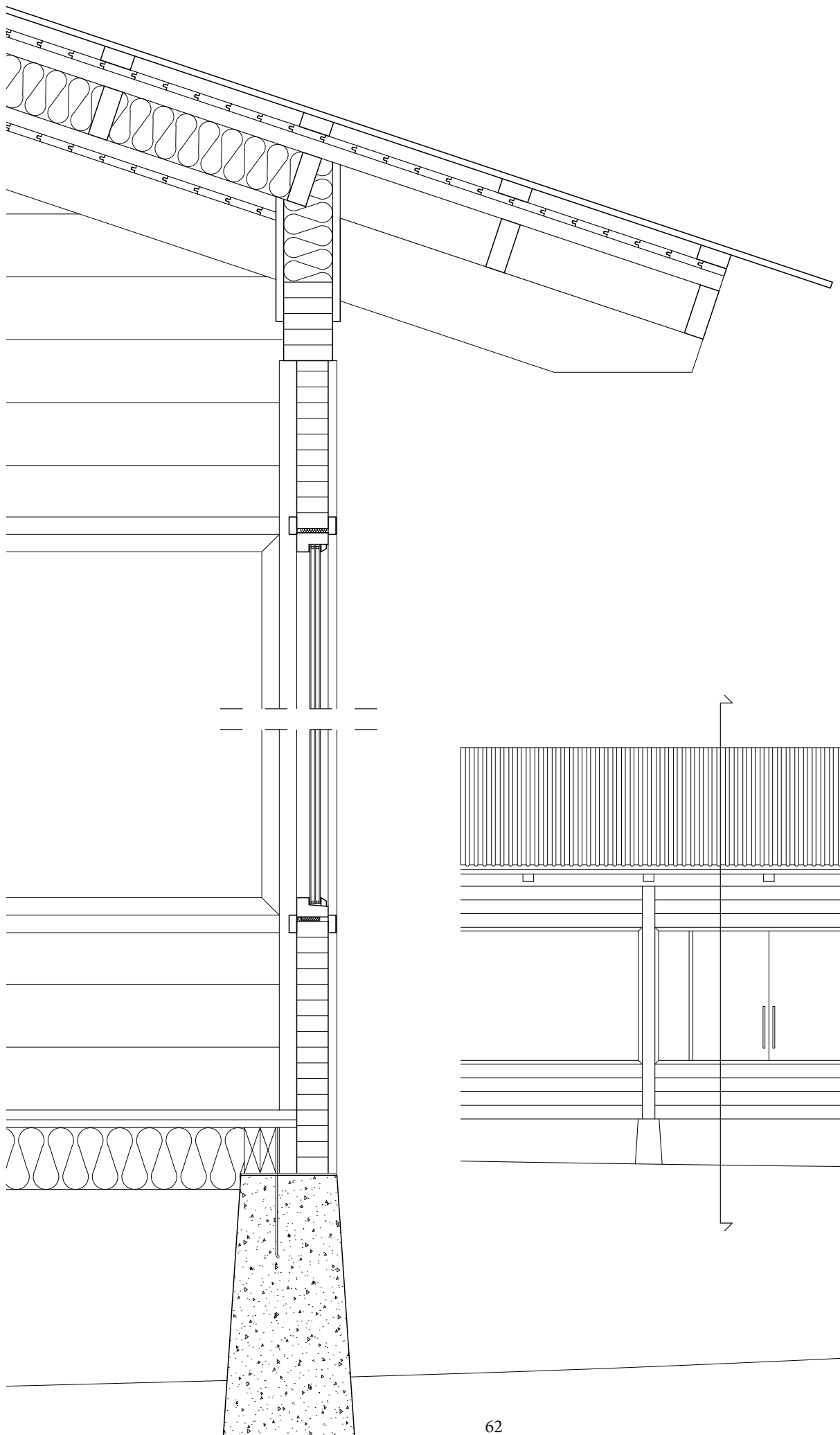


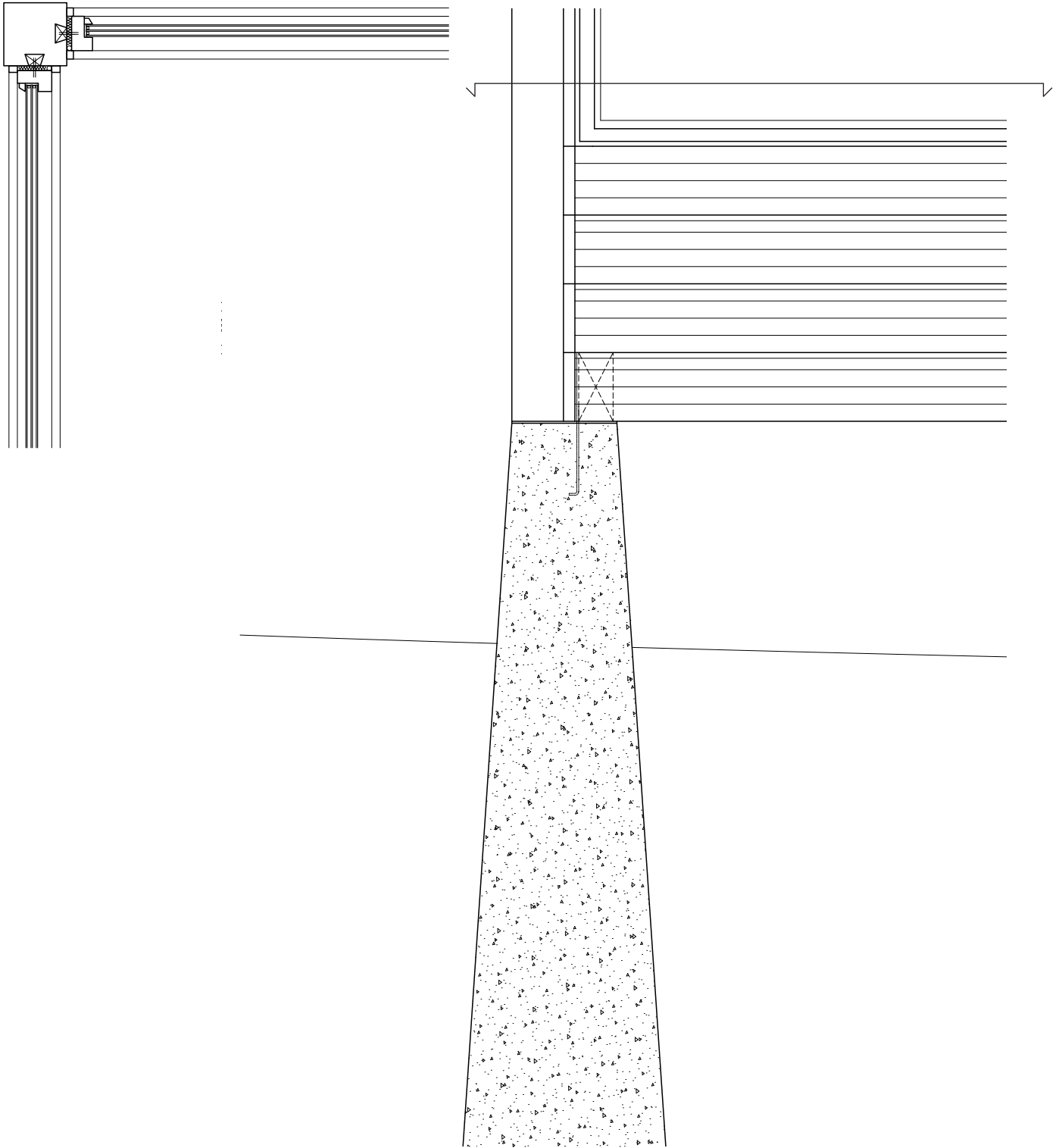


18 corrugated metal roof
42 x 90 batten
substrate cardboard
23 x 95 underlay sheet
45 air gap
225 x 140 laminated wood / 145 insulation
42 x 95 bearing batten
20 x 95 tongued and grooved board

90 x 180 laminated wood

28 floorboard spruce
22 floor shavings
180 x 90 floor joists / 180 insulation
12 minerit facade board







Perspective Terrace



Perspective Café



Perspective Conference Room



Perspective Exhibition Space





Model 1:100



Laminated Wood

The design process included explorations through a model in scale 1:1, which as a finished product showcases the corner detail of the project. As shown in the photographs, laminated wood is the used material for the construction. This choice was made due to dimensional, load bearing reasons as well as the fact that they still give the visual appearance of being planks. The planks are connected with the post through dovetail joints allowing for the movement, in terms of shrinkage and expansion, of the planks in the vertical direction. The beam is placed on the post and is connected with the planks through a u joint allowing for the same vertical movement.





Discussion

In discussions with the craftsman Frank, who is in charge of the care of all the buildings at Äskhult, we talked about the connection of modern architecture with craftsmanship, or the lack thereof. That the cost of craftsmanship makes projects like this hard to realize. Also the regulation and rules put forward by the government makes it difficult to use old building techniques that were developed when such regulations were not present.

The post-and-plank construction is a technique that if insulated on at least one side works well in the Swedish climate. The examples of modern post-and-plank construction that I have found have all been insulated on at least one side. However if one wishes to expose the construction on both the inside and outside, as traditionally done, a warmer climate would be necessary. It is understood and made clear why the construction historically has predominantly been used for farmhouses, which do not have the same heat requirements.

Moving forward, the thesis could benefit from exploration in modelling different possible approaches to the post-and-plank construction, fully insulated post-and-plank construction, the idea of having a shell building of the construction with another insulated building within, or the more standard way of insulating one side of the construction.

In regards to the main question that this thesis aims to answer, the post-and-plank construction can be further developed to meet modern day requirements and needs, in terms of becoming more standardised and more easily produced by using laminated wood, lowering the production costs and making the construction more effective.

In regards to the secondary question that this thesis aims to answer, the design proposal showcases how a visitor center can be designed in relation to and as a first welcome to Äskhults several hundred year old buildings and surroundings. Using the village as the main inspiration for the design.

In conclusion the post-and-plank construction works in this project due to its context and the functions it is meant to house. The fact that the building is mostly operational and open to the public only during the warmer months of the year makes it possible to work with a partly uninsulated construction, that is visible from both the outside and inside, which is uncommon and makes the building quite unique.



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Images

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All the photographs are taken by me.*

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