

DISSOLVING BOUNDARIES



Architecture Between Building and Landscape

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Department of Architecture & Civil Engineering

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Master's Thesis 2026

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Profile: Building Design and Transformation

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Abstract

This master's thesis explores how architecture can dissolve the boundaries between building and landscape to engage with the surrounding natural context, focusing on the design of a new visitor's center in the nature area of Skutberget, Karlstad.

Public architecture in natural environments has the potential to shape how people connect with both each other and the landscape around them. Yet, buildings in natural contexts often risk becoming disconnected, intrusive objects rather than meaningful extensions of their surroundings. Architecture within sensitive landscapes must therefore be carefully integrated to support a deeper relationship with place, creating meaningful spaces that exist in harmony with nature.

The theoretical framework of the thesis draws on Norberg-Schulz, Zumthor and Pallasmaa, emphasizing site character, atmosphere and a multi-sensory experience of architecture through natural light, tactile materiality, spatial continuity and thoughtful detailing. Visual case studies, including Barcelona Pavilion by Mies van Der Rohe, Nordic Pavilion by Fehn, and Leça Swimming Pools by Siza, among others, illustrate strategies for visual, material and spatial continuity between indoors and outdoors, while functional case studies of Swedish outdoor recreation centers provide insight into programmatic requirements. The research is synthesized into design principles for dissolving boundaries and a tailored space program for a reinterpreted outdoor recreation center. These principles guide iterative sketching, drawing, modeling and visualization throughout the design process, leading to the final proposal.

The outcome is a context-sensitive proposal that dissolves the boundaries between building and landscape, strengthening the user's connection to nature through design. The thesis contributes to a broader discussion on architecture in natural contexts, arguing for a more empathetic and experience-driven architectural practice rooted in atmosphere, landscape and embodied experience rather than object-driven form-making. By reframing boundaries as experiential rather than purely physical conditions, the project highlights architecture's potential to support a deeper connection to nature. Skutberget Visitor's Center further reinterprets the Swedish *motionscentral* typology by prioritizing the experience of nature alongside functional spaces, offering an alternative approach to public recreational architecture in nature.

Keywords: *Spatial continuity, landscape integration, contextual design, recreational architecture*

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I. INTRODUCTION



Figure 3. Seabirds swimming along the shoreline.

Aim & research questions

Aim

Buildings inherently create a boundary between indoor and outdoor. It is a fundamental aspect, but it also poses a risk of disconnecting its users from the surrounding context. This thesis aims to explore how the boundaries between architecture and landscape can be designed to dissolve to generate a strong connection between the building, its users and the surrounding natural context.

Objective

To design a context-sensitive, nature-integrated, atmospheric, and functional proposal for a new visitor's center at Skutberget, informed by phenomenological theory and precedent studies, with a focus on spatial strategies that strengthen the relationship between people and nature through an architecture that dissolves the boundaries between building and landscape.

Research questions

How can architecture be designed to engage with its natural context by dissolving the boundary between building and landscape?

Sub-question: What design strategies can be employed to dissolve the boundary between building and landscape?

Method

To investigate the aim and research questions of the master's thesis, the following set of methods and tools have been employed.

Sketching

Early on, hand-sketches, simultaneous space program studies and metrically accurate CAD-translations of these were deployed to test relations and lay the foundation of the project. Hand-sketches continued throughout the design process as a tool to quickly try and evaluate design ideas.

Case studies

Eight projects were selected for the case studies. Four visual and four functional references were studied to address the research questions while making sure the building remained functional for its typology. Three iconic and one contemporary building were selected among the visual references. All four cases had successfully worked with dissolving boundaries in various ways. The functional references were selected to deliver multiple examples of the programming of a visitor's center, providing various setups for and organization of functions.

Literature studies

The project continued with literature reviews, exploring architectural theories and philosophies relevant to the thesis topic. The theoretical ideas of the literature were analyzed and distilled to establish a theoretical foundation and a design perspective to guide the following design process.

Synthesis: Design principles and space program

Insights derived from the sketching phase, case and literature studies were synthesized into key design principles and an ideal space program to further inform the design.

Drawings and 3D-modeling

An accurate 3D-model and a complete set of drawings were developed to support an in-depth exploration of the building's spaces, materiality, and architectural detailing.

Visualizations and physical model-making

Visualizations were used throughout the design process for deeper understanding of spaces, and communication and presentation of the outcome. This was complemented by physical models in the final stages to communicate the design result.

Delimitations

The scope of this master's thesis includes the exploration of a new visitor's center at Skutberget. The project operates within the conceptual domain of dissolving architectural boundaries. The design takes into consideration, and draws inspiration from, Karlstad municipality's plans for the area, while allowing creative freedom to reinterpret or override those ideas. It does not address whether or how the existing visitor's center should be transformed, nor does it consider the economic limitations of the facility's potential future operator. Furthermore, extensive glazing poses a threat of collision for birds, which is not addressed in this master's thesis.

Reading instructions

This master's thesis should be read as an encouragement for architects to create meaningful public architecture in natural contexts that connects its users to the surrounding landscape. It is also an idea for what the area of Skutberget and specifically *Skutberget motionscentral*, could become in the future. This thesis can act as a basis for discussion of its development.

The thesis is structured with the following chapters: *II. Theory*, including literature studies of phenomenological approaches to architecture, and case studies of visual and functional works, *III. Design Proposal*, including site studies and the design proposal of *Skutberget Visitor's Center*, and finally *IV. Discussion*, summarizing and evaluating the project.

The use of the terms *visitor's center* and *outdoor recreation center* in this master's thesis is based on the Swedish typology of a *motionscentral*, which is hard to translate. The Swedish word *motion* translates to physical activity, but the *motionscentral* is focused on specifically nature-based physical activity and recreation. A *motionscentral* is placed in a nature area and contains changing rooms, and sometimes a sauna. Depending on its size and focus, it could also contain a café, and/or training facilities. "*Nature-based physical activity and recreation center*", which would be the truest translation, is deemed inappropriately long, hence the usage of *visitor's center* for the design proposal, and *outdoor recreation center* when referring to a *motionscentral*. A visitor's center shares many functions with a *motionscentral*, and the design proposal can act as a visitor's center for Skutberget.



II. THEORY

Discourse

Public architecture holds the potential to shape people’s experiences on a broader societal scale. It can influence how we engage with both the physical realm of place and the social realm of one another, how we meet, move, and coexist. Architecture can create or dissolve boundaries, not only physical but also social. When placed within natural environments, buildings can shape our interaction with and relationship to nature, either strengthening or weakening that connection. In such settings, architecture has the potential to become more than shelter; it can transform into a meeting ground that nurtures both physical and social well-being through a meaningful relationship with nature.

Buildings in natural contexts can take many forms: they can feel beautifully contrasting, intrusive or alien; they can feel respectful, neutral or unremarkable; or they can feel harmonious and deeply integrated with their surroundings. Architecture in sensitive landscapes requires empathy, care, and attentiveness, qualities that distinguish a building that adds from one that merely occupies. Sensitivity does not necessarily mean restraint, but thoughtfulness, a respect for site and user alike. A design approach that dissolves the boundary between building and landscape allows nature and architecture to meet as equals, strengthening the connection in between them. Space, light, materiality

and detailing are key in forming this condition. As Zumthor (2006) emphasizes, the atmospheric qualities of architecture profoundly shape how we experience and inhabit space. Similarly, Pallasmaa (1996) reminds us that architecture must engage all senses to promote authentic experience, and as discussed by Norberg-Schulz (1980), architecture should reveal and enhance the spirit of place rather than dominate it. This thesis explores how these design concepts can dissolve boundaries without erasing them, allowing architecture to remain rooted in its landscape, acting as mediator of our innate connection to nature.

Through the design of a new visitor’s center at Skutberget, this project seeks to strengthen the character and identity of the area and connect it into a unified destination for citizens and visitors alike. By deepening our connection to nature and encouraging outdoor activity, it responds to local needs while aligning with broader cultural shifts toward public health and well-being. This project aspires to become a solid example of how public architecture can create the extraordinary in the everyday, creating spaces that are generous, empathetic and enduring, enriching everyday life while contributing to a more grounded architectural practice.

Literature

A building inherently creates a boundary between indoor and outdoor. To establish a strong connection to the surroundings means to partly dissolve this fundamental aspect, and to not compromise the purpose of the boundary, this demands a phenomenological approach. Hence, the theoretical basis of this thesis draws from the architectural theories of Norberg-Schulz (1980), Zumthor (2006), and Pallasmaa (1996). The theories share a phenomenological understanding of architecture through atmosphere, sensory perception and the identity of place. Together, they provide a foundation for exploring how architecture can connect to its surroundings through spatial and sensory experiences across the boundary between architecture and landscape. This involves enhancing the identity of the place, while creating an atmosphere that engage all the senses for an embodied experience of architecture.

Place, identity and atmosphere

Norberg-Schulz (1980) claims that dwelling is the purpose of architecture, and that one dwells when experiencing a meaningful environment. The *genius loci*, or “spirit of a place”, is what architecture means to reveal – to create meaningful places that enhance rather than dominate their context. Place is both concrete and intangible; more than mere location, it is the totality of elements that give an environment its character and atmosphere. It is a qualitative phenomenon which cannot be reduced to its parts. It is defined through the relationship between the natural and the man-made, where landscape and settlement interact (Norberg-Schulz, 1980).

Place can be understood through the relationship between space and character. Space refers to the three-dimensional organization of elements, while character describes the general atmosphere – how things are. Concrete space emerges through lived experience, shaped by the relationship between inside and outside, and varying conditions of extension and closure. Landscape forms the primary basis with its continuous extension, while settlements introduce enclosure, generating centers of spatial focus. The relationship between landscape and settlement is essential; place identity arises in the interaction between them, and when corrupted, the identity of both is weakened. Character manifests from its determinants, shaped by time, seasons, weather, form, light and materials. It is expressed through how things are made, as architecture gathers, interprets and makes visible qualities of its surroundings. In this way, architecture gives meaning to place by revealing and intensifying its inherent character (Norberg-Schulz, 1980).

Zumthor (2006) argues that atmosphere is the essence of architectural experience. It is a natural presence that can move us, with an immediate and emotional response to space. Architectural quality lies in how a building feels, as atmosphere emerges from craft; through the careful orchestration of form, material, light, sound and temperature. These elements work together to create a sensory whole. Atmosphere is shaped through concrete design decisions, yet perceived subjectively, through personal and emotional response. While the feeling resides within us, it is inseparable from the surrounding environment. Buildings become part of their context and of people’s lives, accumulating meaning over time as places of memory and experience (Zumthor, 2006).

Perception and sensory experience

Pallasmaa (1996) highlights the importance of a multi-sensory experience in architecture and critiques an overemphasis on vision. Architecture should engage all senses to create an authentic, embodied experience of a place. Rather than acting independently, the senses collaborate, where vision is intertwined with and supported by the other senses. The experience of space is therefore shaped through the interaction of the eye, ear, nose and skin, forming a unified perception of the environment. Rooted in the body's contact with the world, architecture is not only seen but physically encountered, connecting spatial experience to memory, imagination, and lived experience (Pallasmaa, 1996).

Space is measured through the body, as steps register distance, the body projects itself onto facades, tracing their contours, and its weight meets the mass of the building. The body becomes the center of experience (Pallasmaa, 1996). Zumthor (2006) further describes how architecture is perceived through the body's dimensional relationship to space, where proximity, distance, scale and mass are understood in relation to one's own body. This generates a range of spatial sensations – of feeling small, intimidated, welcomed and embraced. These experiences shift in relation to both the individual and collective body. Scale is therefore not fixed but continuously redefined through the body in space.

Material presence shapes the sensory experience of architecture, as materials relate to one another through their characteristics, light and reflection. In relation to the body, they are perceived through surface and proximity. Their qualities shift with light and treatment, expressing softness or hardness, warmth or cold, or luster or dullness, contributing to the atmosphere of a space (Zumthor, 2006). Through touch, skin registers weight, density, temperature and texture of materials. It connects us to place and tradition, forming an immediate and physical relationship between the body and its surroundings (Pallasmaa, 1996). Temperature further reinforces this experience, as indoor and outdoor conditions shift in relation to one another, with materials absorbing or radiating warmth, or retain cold, influencing how space is perceived (Zumthor, 2006).

Sound extends the sensory field, as buildings act as resonant bodies that collect, amplify and transmit sound. Its character varies with use, intensity and material conditions, from activity to stillness, shaping how space is understood (Zumthor, 2006). As Pallasmaa (1996) describes, sound is omnidirectional and allows space to be perceived beyond vision, where echoes, reverberation and ambient sound make character, volume and scale comprehensible, even in darkness.

Boundaries, thresholds and transitions

A boundary is a sequence of space-defining elements. It creates a distinction between different spaces, between inside and outside, as described by Norberg-Schulz (1980). The outside, with its nature, climate and seasons, together with man-made structures forming our settlements and urban environments, sets the background for the inside: an enclosed and provided space of purpose, shelter and security. A center where life takes place, as a complement to the outside. Indoor boundaries consist of floor, wall and ceiling, while the outdoor boundaries consist of ground, horizon and sky. These structural parallels form the relationship between them (Norberg-Schulz, 1980). The boundary organizes space, creates relationships, and defines the experience of place.

A threshold marks the transition between inside and outside, guiding movement between the two while allowing the boundary to be experienced through passage. Through openings, the enclosing properties of a boundary and its relationship between spaces are determined. Walls, together with their openings and thresholds, define spaces as continuous or discontinuous, generating direction and rhythm. Walls inherently define the outdoor space, both in natural and urban environments (Norberg-Schulz, 1980). Zumthor

(2006) agrees, describing how architecture creates an interior and exterior connected through openings and thresholds, where interior gains a strong sense of place through enclosure. At the same time, the facade communicates outward, acting as a public expression, while keeping the interior its secret. The boundary, in its two-sidedness, allows glimpses between inside and outside, where interior life is observed from the outside, and the external world is perceived from within (Zumthor, 2006). Boundaries, thresholds and openings are therefore not only functional, but create connections, relationships and atmosphere.

Light acts as a mediator between indoor and outdoor, transcending the perceived boundary. The sun, casting light and shadows across the landscape and into architectural openings and onto surfaces where it reflects and connects the two worlds (Zumthor, 2006). Through light, boundaries reveal themselves as less fixed and binary, as it slips through what might otherwise appear clearly defined. As Pallasmaa (1996) emphasizes, architecture is experienced through the full range of senses, including sound, smell and touch. The boundary is therefore not only seen but experienced through the body as a whole.

Connecting to the landscape

The *genius loci* of Skutberget and its atmosphere can, referring to Norberg-Schulz (1980) and Zumthor (2006), be described as its position by the northern shore of lake Vänern. It is its Scandinavian climate bringing cold, mild and warm seasons of light and dark. Its sparse pine forests, filtering light and ambient sound of people running or walking their dogs, the distinct chipper of birds, and the motorized humming of the motorway. It is its cliffs, the swaying tufts of grass between the crevices, and bodies of sand. The cooling touch of water on a warm summer day, or the icy engulf of a winter plunge. It is the small islands in the archipelago, the paper factory in the distance, and the windmill park on the horizon. It is its role of connecting man with nature, promoting activity and health. To connect with it, as Norberg-Schulz (1980) argues, architecture must reveal and strengthen this, not hide it. The identity of Skutberget emerges through the relationship between landscape and human presence, requiring an architecture that connects to and extends this experience rather than separating from it.

An extension of nature can be visual and physical, but as Pallaasma (1996) critiques, the other senses also communicate the perception of space and its boundaries. Hence, boundaries are sensory, not only physical. Through senses, boundaries can be crossed while staying in place, transporting us through space. Light enters through openings, and sound vibrates through mass and space, reminding us of adjacent spaces, now interconnecting and merging. It reaches deep within buildings, reflecting,

and creating a connection with outdoor elements. It transcends the boundary, making it less defined and dissolving the line of disconnect. The boundary is not where the flow of motion reaches a halt or where sight of the outdoor is lost by a physical boundary, it is when the sensory experience of the outdoor ends.

With the understanding of place as the relationship between landscape, atmosphere, and human experience, the architecture is treated as an extension of its surroundings rather than a foreign object. The design seeks to reveal and enhance the identity of Skutberget by engaging with its spatial, material and climatic conditions, allowing the building to emerge from the logic of the site. The boundary between inside and outside works to be dissolved through sensory connections. Light, material and sound are used to extend the surroundings into the building, allowing it to be perceived from within. In this way, boundaries are defined by sensory experience rather than physical enclosure. Material becomes a mediator between architecture and landscape with its tactile and atmospheric qualities, but also as it is carrying meaning, becoming a representation. Through a sensory experience, the architecture engages with the site, generating a continuous and embodied experience of place as an extension of the landscape. This results in an architecture where the boundary is not a fixed line between indoor and outdoor, but a shifting condition defined by perception rather than enclosure – a dissolved boundary.

Case studies

Visual & Atmospheric

The four visual case studies contain three iconic works: Barcelona Pavilion, Leça Swimming Pool and Nordic Pavilion, and one contemporary: Waterside Buddhist Shrine. They all vary in age, location, scale and function, capturing an assortment of references for design features. They have all been selected for having strong atmosphere and effectively having dissolved the boundaries between building and landscape in various ways.

Functional

The functional case studies are all outdoor recreation centers located in Sweden, but they vary in setting, scale and program. They have been selected to establish a functional space program for the ambiguous typology of an outdoor recreation center. A study visit has been conducted to all four projects. The floor plan drawings and mapping of the first three projects were made in collaboration with Pelle Tohver.

Barcelona Pavilion

Architect: Ludwig Mies van der Rohe & Lily Reich
Location: Barcelona, Spain
Year: 1929
Function: Pavilion

Context: Designed for the 1929 Barcelona International Exposition, the pavilion was situated at the foot of Montjuïc Hill, adjacent to the National Art Museum of Catalonia.

Main features: The structure consists of a floating roof slab and a travertine plinth, intersected by freely placed walls clad in marble. The walls extend seamlessly between interior and exterior, visually dissolving the architectural boundary. Slender columns support the roof, allowing for an open plan and a continuous spatial flow accentuated by full-height glass walls (Kroll, 2011).

Relevance: The Barcelona Pavilion is an iconic building that exemplifies the theme of dissolving boundaries between interior and exterior. It does not, however, interact much with its landscape, but remains a good example for the building structure and its spaces and detailing. Its slab features with the extended ceiling and walls enhance the feeling of extension of the interior, along with the light and transparent full-height glass wall.



Figure 5. (Varga, n.d.). Reprinted with permission.



Figure 6. (Varga, n.d.). Reprinted with permission.

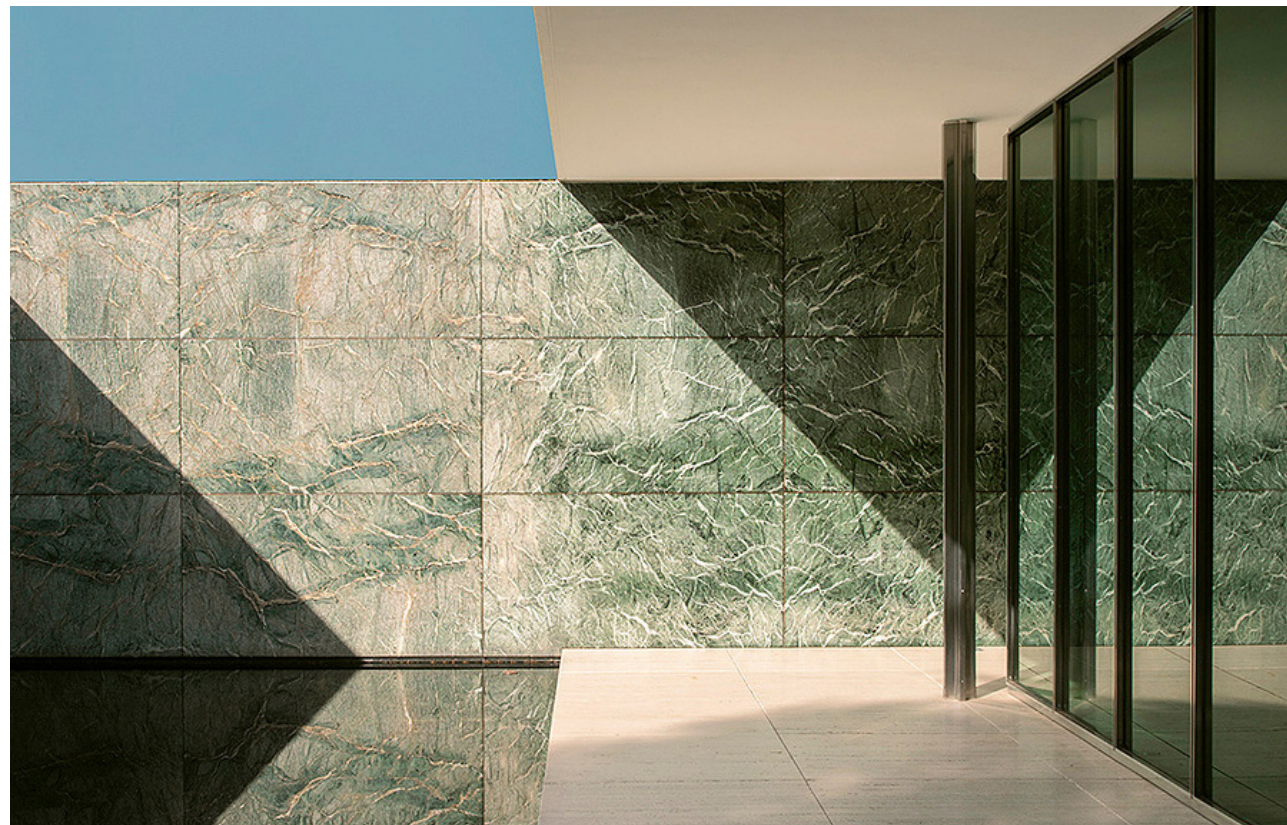


Figure 7. Barcelona Pavilion by Mies van der Rohe and Lily Reich. (Varga, n.d.). Reprinted with permission.



Figure 8. (Jin, n.d.). Reprinted with permission.



Figure 9. (Jin, n.d.). Reprinted with permission.



Figure 10. Waterside Buddhist Shrine by Archstudio (Jin, n.d.). Reprinted with permission.

Waterside Buddhist Shrine

Architect: Archstudio
Location: Tangshan, China
Year: 2017
Function: Shrine

Context: The shrine is a place for Buddhist meditation and reflection. It is placed among the trees by the riverside, semi-integrated into a mound along the river. The building integrates the site's trees, leaving them all intact.

Main features: The building has numerous flowing interior spaces, with five branches of continuous space, serving a function each and avoiding the trees of the site. The shrine room placed against the back wall lets in sunlight through the skylight, embodying the light of Buddha. The tearoom feels completely open with its extensive glazing facing the lotus grown river (Archstudio, n.d.).

Relevance: Waterside Buddhist Shrine shows the possibilities of using integrated and hidden extensive glazing as a design feature for dissolving interior-exterior boundaries. The shrine works with its surrounding landscape, incorporating both terrain and vegetation, and with its multiple ceiling openings for letting in sunlight and connecting with the outdoors through treetop views.

Leça Swimming Pools

Architect: Álvaro Siza

Location: Porto, Portugal

Year: 1966

Function: Swimming Pool

Context: Located by the Leça de Palmeira beaches on the northern shore of Matosinhos north of Porto. The complex sits hidden in the cliffs between the coastline and the road running along the beaches.

Main features: The complex is semi-integrated into the ground, hiding it and preserving the ocean view from the road. With a body of concrete, the building holds its visual weight against the cliff landscape. The two pools are its central features, integrating into the existing cliffs. The larger pool blends with the natural crevices of the cliffs and reaches out into the ocean visually, giving the look of the two water bodies merging (Balters, 2011).

Relevance: Another iconic project working predominantly with its surrounding landscape, blurring the visual boundary of the pools to the ocean, of what is natural and what is built. The anonymous building is secondary to the pools and cliffs, which serves as the main attraction. This provides a great reference of how to work with a site's landscape.



Figure 11. (Schlatter, n.d.). Reprinted with permission.

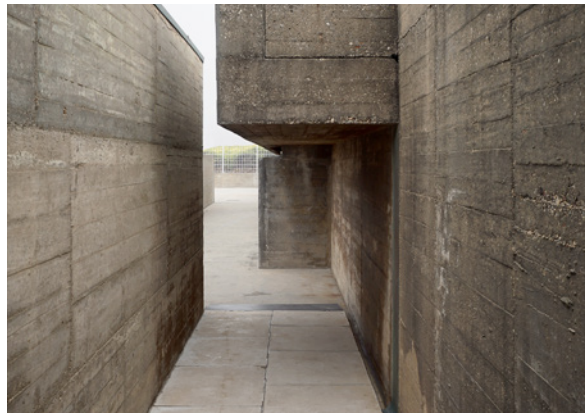


Figure 12. (Schlatter, n.d.). Reprinted with permission.



Figure 13. Leça Swimming Pool by Álvaro Siza. (Schlatter, n.d.). Reprinted with permission.



Figure 14. (E:son Lindman, n.d.). Reprinted with permission.



Figure 15. (E:son Lindman, n.d.). Reprinted with permission.



Figure 16. Nordic Pavilion by Sverre Fehn. (E:son Lindman, n.d.). Reprinted with permission.

Nordic Pavilion

Architect: Sverre Fehn

Location: Venice, Italy

Year: 1962

Function: Pavilion

Context: Built for the Nordic countries' joint exhibition space within the Venice Biennale's Giardini park, the pavilion integrates existing trees and terrain into its architecture.

Main features: The pavilion is a single open exhibition hall defined by a roof of concrete beams covered with light permeable plastic roof covering, creating soft, diffused daylight. The same materials, white concrete and grey slate flooring, flow seamlessly between interior and exterior, enhancing spatial unity. Existing trees pierce the roof structure, anchoring the building with its natural context (Iñiguez, 2025).

Relevance: The Nordic Pavilion is a masterclass of tectonic clarity, dissolving boundaries between architecture and nature through its structure, material continuity, daylight incorporation, and its empathetic relationship with its site, being semi-integrated into the terrain and integrating existing trees. The building has a strong tectonic character, but remains light with sparse loadbearing elements.

Skatås motionscentrum

Architect: White arkitekter
Location: Skatås, Örgryte-Härlanda, Gothenburg
Year: 2004
BTA: 1 810 m2
Main features: Café, gym, changing rooms with sauna and cold plunge

Relevance: The project is an example of a large-scale outdoor recreation center, housing a café, gym and changing facilities with sauna and cold plunge. While the scale of the building and its user group is larger than what would be appropriate for the thesis project at Skutberget, it provides a valuable reference for functional organization and programmatic requirements.

Notes from study visit: The building is a large-scale facility, popular due to its central location in Gothenburg and its sizable user base. Over the years, the user group has grown, and the operations now appear to have outgrown the facilities. The building is a semi-terrain, two-story structure, featuring a large ventilation space on the first floor, which is also used for storage. An additional group training room for cycling is lacking. The saunas and cold plunge pools are separated by gender, and staff reported no complaints regarding this division.

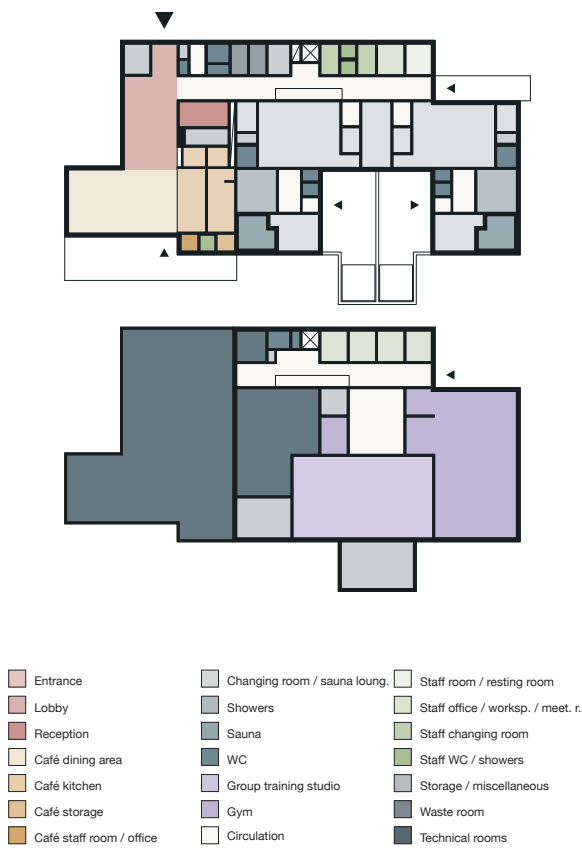


Figure 17. Skatås motionscentrum floor plan.



Figure 18. Skatås motionscentrum by White arkitekter.

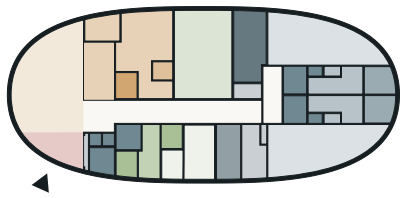


Figure 19. Motionscentralen Kotten floor plan.



Figure 20. Motionscentralen Kotten by Tengbom.

Motionscentralen Kotten

Architect: Tengbom
Location: Fontin nature reserve, Kungälv
Year: 2015
BTA: 660 m2
Main features: Café and changing rooms with sauna

Relevance: The project is smaller in scale and does not include any training facilities, but it demonstrates thoughtful spatial organization and programming for its intended use, albeit lacking storage. The café is appropriately sized and has become a popular addition to the Fontin Nature Reserve. The project demonstrates an alternative approach to programming an outdoor recreation center.

Notes from study visit: The building does not include a gym or group training studio and lacks sufficient storage, resulting in cluttered common areas. A previously designed conference room now serves as the basis for daily activities under LSS, which currently operates the café. This provides a useful example of flexible spaces and adaptable programmatic use.

Vättlefjäll motionscentral

Architect: Norconsult
Location: Vättlefjäll nature reserve, Angered, Gothenburg
Year: 2022
BTA: 560 m2
Main features: Gym and changing rooms

Relevance: An additional project focusing more on wellness and fitness, with less emphasis on leisure activities such as café visits and sauna use. It is also smaller in scale and program, representing the other end of the spectrum compared to Kotten, emphasizing the gym component of an activity center.

Notes from study visit: The building has an unconventional shape with fewer perpendicular angles, which makes furnishing somewhat challenging. It does not include a café, contributing to its smaller scale. An outdoor group training area, a feature not present in the other projects, appears to be well appreciated. The large group training studio can be divided into two smaller spaces for classes. Staff lack a proper meeting room and sometimes need to hold meetings in the staff room during lunch breaks. The building also lacks sufficient storage. A non-gendered dressing room is valued by users seeking privacy while changing and showering.



Figure 22. Vättlefjäll motionscentral by Norconsult.

Skutbergets motionscentral

Architect: Lars H. Forsby
Location: Skutberget, Karlstad
Year: 1972
BTA: 980 m2
Main features: Café, gym, changing rooms with sauna, and outdoor cold plunge

Relevance: The project is located on the master's thesis site and provides a useful reference for the potential scale, program, and user group of the thesis project. The current outdoor recreation center also represents the existing user base, although the building is worn and no longer optimized to meet current needs.

Notes from study visit: The building contains numerous underutilized spaces and storage rooms, has undergone multiple renovations and extensions, and its volume obstructs views of Vänern. Both the interior and exterior are worn, and the café kitchen is undersized. Despite these limitations, the facility appears well-used and appreciated, with many visitors enjoying the gender separated saunas and common outdoor cold plunge, as well as participating in group training sessions. Some visitors want a common sauna for mixed groups and families.



Figure 24. Skutberget motionscentral by Lars H. Forsby.

Space program development

Mean space program			Reinterpreted space program		
Mean numbers based on the four functional case studies			Reinterpreted numbers based on findings from the study visits		
Space type	Share	Area (m²)	No.	Area (m²)	Notes
Entrance / lobby	4.7%	43	1	40	
Reception	1.1%	10	1	12	
Public WC	1.5%	13	3	12	1*
Café dining area	6.4%	59	1	70	
Café counter	1.7%	16	1	18	
Café kitchen	3.0%	28	3	35	Incl. dishwashing space & walk-in cooler
Café storage	0.4%	4	1	4	
Café staff room / office	0.3%	3	1	7	
Café WC	0.1%	1	1	2	
Changing room	14.5%	133	3	110	Q + O + V
Sauna lounge	1.2%	11	3	30	Q + O + shared*
Showers	4.2%	38	2	24	Q + O (+ V**)
Sauna	1.9%	18	3	36	Q + O + shared*
Changing room WC	2.2%	21	8	21	Q + O + V**
Group training studio	10.7%	98	1	120	Divisible
Gym	5.9%	54	1	60	
Treatment room	0.2%	2	1	10	
Staff room	3.5%	32	1	20	
Staff resting room	0.3%	3	1	7	
Staff worksp. / meetingr.	4.4%	40	4	47	2 offices, 1 meeting room, 1 conference room
Staff changing room	1.3%	12	1	10	Shared
Staff WC / showers	1.0%	9	2	10	2 FWC with shower
Storage / misc.	7.2%	66	8	75	Around 8% is ideal
Waste room	1.7%	16	1	14	
HVAC room	7.6%	70	1	25	Based on similarly sized building
Electrical room	0.9%	8	1	6	
Utility room	1.8%	17	0		Relates to pool
Combined	1.1%	10	0		Not ideal
Circulation	9.2%	85	0	93	Around 10% is normal
Space program (m²)		916			916

*In separate sauna building, **Combined

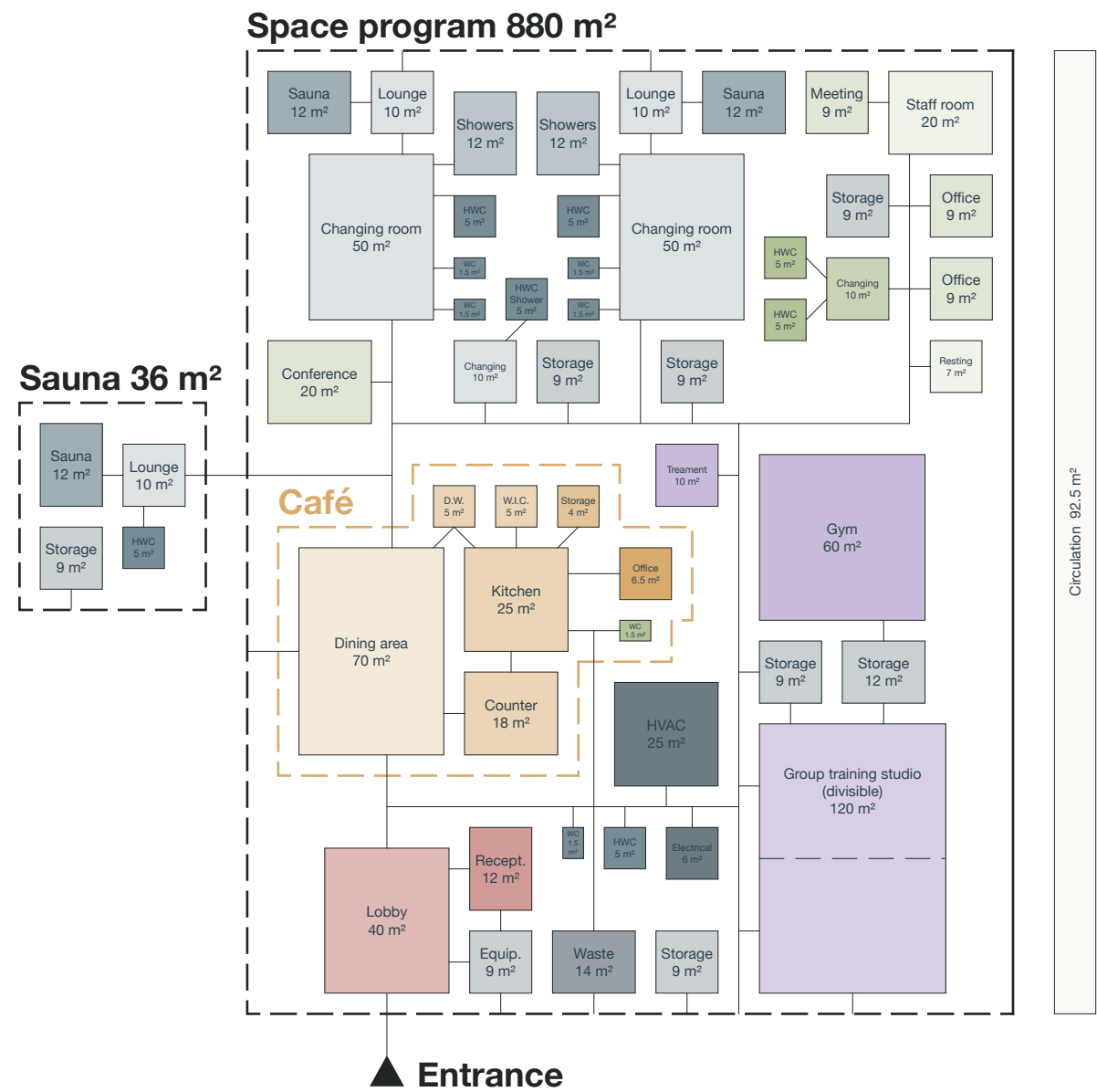
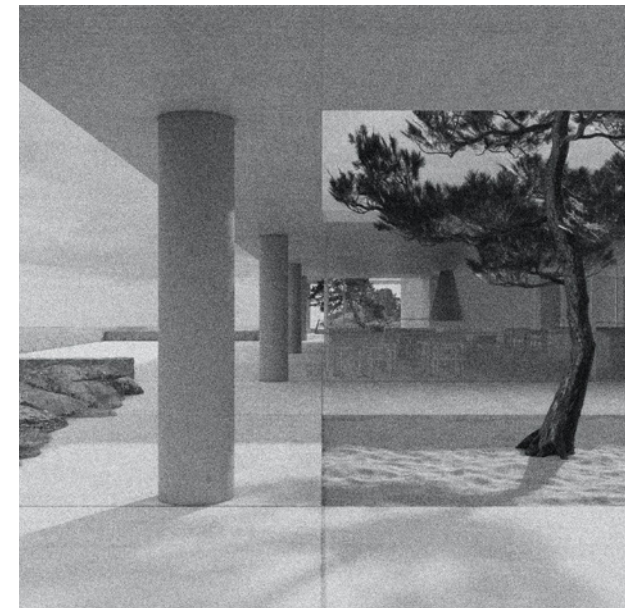


Figure 25. Mean space program and reinterpreted space program.

Figure 26. Ideal outdoor recreation center space program for project site.



III. DESIGN PROPOSAL

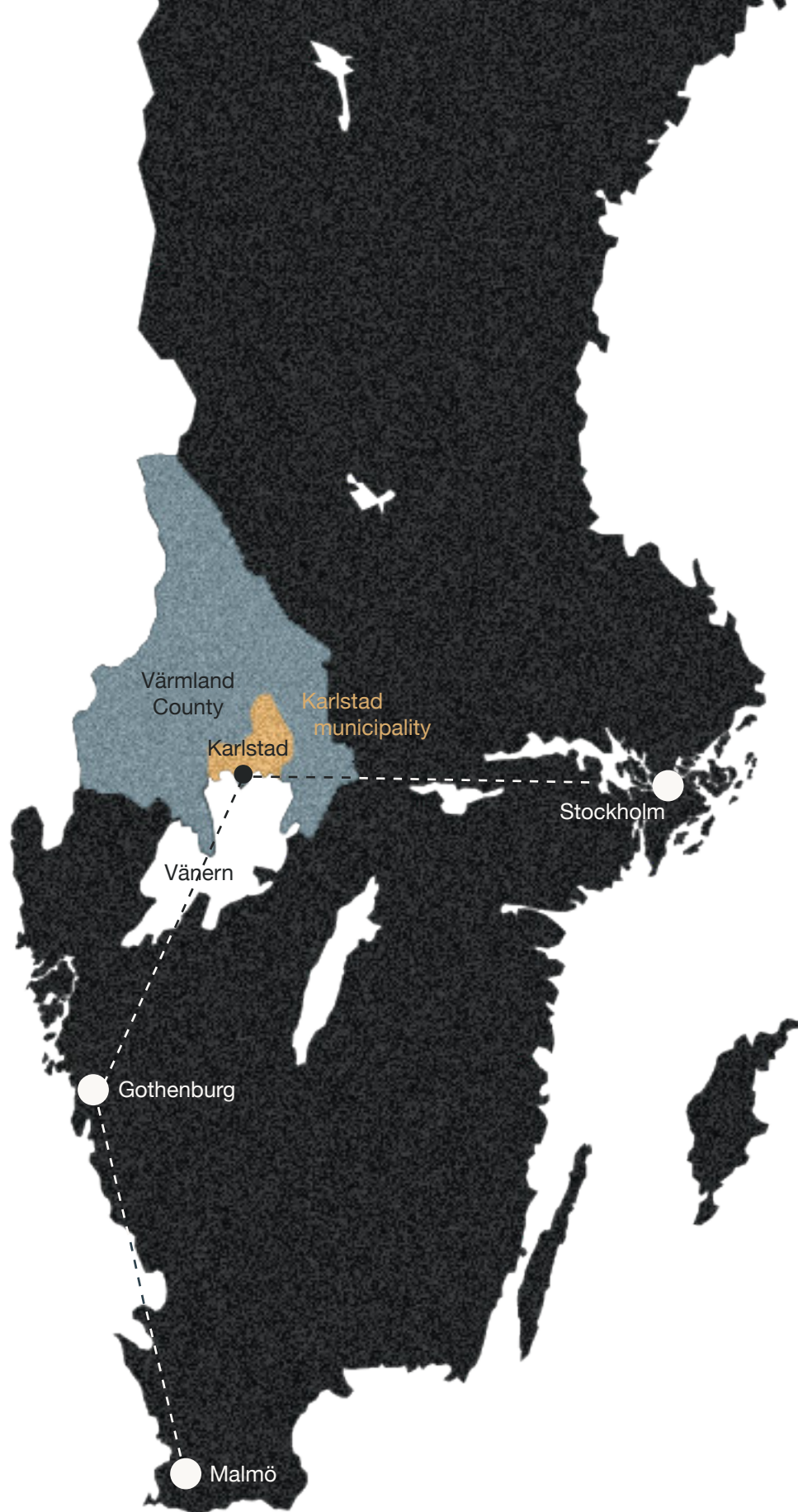


Figure 28. Karlstad in relation to Sweden's three largest cities. (Lokal_Profil, 2009, 2010). CC BY-SA

Intro

The master's thesis explores the design of a new visitor's center in the nature area of Skutberget on the northern shore of Vänern. The design concept seeks to reveal and enhance the site's character and identity through its design, generating atmosphere and an embodied sensory experience through dissolving the boundaries between building and landscape, to deeply connect its users to the surrounding natural environment.

The area of Skutberget

The research on Skutberget is heavily based on information provided by Karlstad Municipality's website, the development program *Planprogram Skutberget* by Karlstads kommun (2024) and the design program *Skutberget Fördjupat Gestaltningsprogram* by White arkitekter (2023). Together, they make up a solid foundation for mapping the current state of the area, its history and development.

The present

Skutberget is a nature area situated about 7 km (a 15-minute drive, or 25 minutes by bus or bike) west of Karlstad's city center. The area is centered around nature, bathing, and wellness, offering a wide range of activities such as swimming, hiking, running, mountain biking, disc golf, outdoor gym, paddling, bouldering, camping, skiing in winter, beach volleyball, miniature golf, soccer fields, and BBQ areas (Karlstads kommun, n.d.). During the summer, a food truck area operates near the main beach (Karlstads kommun, 2025).

Skutberget motionscentral, the existing outdoor recreation center, is mapped and described in the design program by White arkitekter (2023). It houses a small café, changing rooms with showers and sauna, a cold plunge ladder into Vänern, group training facilities, and staff and operational spaces. The use of the changing rooms has declined over the years as visitors increasingly seem to prefer to shower and change at home. The recently reopened café, however, plays an important role in the area by offering meals, attracting not only users of the outdoor recreation center but also casual visitors. The facility remains popular among winter bathers (White arkitekter, 2023).

The past

The name Skutberget (*skuta* = small cargo ship, *berg* = hill, rock or cliff) originates from the area's former use as an anchorage and loading berth, possibly serving as a port for the Fintan farm. The Fintan farm is first mentioned in 1568, marking the earliest historical record of Skutberget. By 1616, a second farm named Fintatorp appeared, and together they formed the original Skutberget estate. The open fields of Skutberget were used for agriculture, as shown on maps from the 1880s–1890s (Karlstads kommun, 2024).

In the early 1900s, Skutberget was owned by the nearby Eriksberg farm to the northeast. By the 1930s, Eriksberg began leasing land for the construction of sports cabins, and in 1944 the entire property was sold to Karlstad Municipality. During this period, new Swedish laws promoting leisure, health, and vacation led to a rise in summer cabin culture (Karlstads kommun, 2024).

In the late 1940s, *Skid- och Friluftsrämmandet* (the Ski and Outdoor Recreation Association) established its presence at Skutberget, marking the start of the area's transformation into a hub for outdoor activity through both municipal and non-profit initiatives. Several new buildings were added to support this purpose, including the Forsellstugan service residence in the early 1950s, and Skutbergsgården in 1955, a building for meetings, education, and gatherings. The goal at the time was to create a recreational area for Karlstad's citizens who didn't own private summer cabins. By the early 1970s, the outdoor recreation center was built, reinforcing Skutberget's identity as a destination for recreation and wellness (Karlstads kommun, 2024).

In 2005, the municipal council decided that Skutberget could evolve from being primarily a local outdoor activity area into a visitor destination for a broader audience. In 2007, plans were approved for an experience-based attraction, and in 2017 work began on a proposed *Moomin* theme park. The detail planning started in 2019 but was cancelled in 2021, leading to the current revision process – aiming to develop a new detail program for Skutberget's future (Karlstads kommun, 2024).

The future?

Karlstad Municipality is currently developing a detail program for the future development of the Skutberget area. Karlstads kommun (2024) summarizes the vision for the area in *Planprogram Skutberget* as follows:

”The vision for Skutberget is to attract more visitors, enhance the area’s appeal, and encourage people of all ages to engage in activities and experiences rooted in nature and culture. Skutberget is to be developed into a hub for outdoor recreation, exercise, and nature-based adventure, making the most of its unique location by Vänern and strengthening the attractiveness of both the municipality and the region. It aims to become an inviting destination that appeals to both residents of Karlstad and visitors from elsewhere.” (s. 8)

The planning program (Karlstads kommun, 2024) further outlines six guiding principles for achieving this vision:

- 1. Make the area inviting
- 2. Connect and refine
- 3. Complement with additional activities
- 4. Develop the area based on its natural, cultural and recreational values
- 5. Create interplay between functions
- 6. Gateway node for adventure and outdoor tourism

The program includes area mapping, definition of entrances, and strategies for strengthening connections and flows across the site. Plans are in place for developing and defining both the eastern and western zones, including new beaches, playgrounds, and jetties in the western part. Overall, the proposed changes are modest in scale but significant in impact, designed to align with, preserve and enhance Skutberget’s existing nature and culture values (Karlstads kommun, 2024).

The planning program also references a public dialogue conducted in 2017 through an online survey in which nearly 2 000 respondents shared their views on how Skutberget is used, what works well, what could be improved, and what they wish for the future. Most respondents expressed a desire to swim and sunbathe, exercise and train, as well as relax and enjoy nature experiences. For the future, many wished for a high-altitude or adventure course, as well as restaurants or cafés, mountain bike trails, and cross-country skiing tracks. Other popular suggestions included jetties, saunas, diving towers, different sorts of wellness activities, winter bathing, cold bath house, pool, music and theater events. This dialogue formed the foundation for the vision outlined above (Karlstads kommun, 2024).

The potential for *Skutberget motionscentral* is explored in the design program by White arkitekter (2023). As of today, no final decisions have been made regarding the building, but several opportunities exist. Currently, the building is largely closed off towards Vänern, underutilizing its unique location, which presents an opportunity to open it up and create stronger connections to its surrounding landscape. Potential developments include outdoor exercise areas, a picnic jetty, a cold-bath pier, and a café with outdoor seating. There is also public interest in establishing a cold bath house or a freestanding sauna (White arkitekter, 2023).

The operational structure of the outdoor recreation center will influence and limit its potential use. If privately operated, it could include commercial wellness activities such as a gym, which the municipality cannot provide directly. Regardless of operation type, the building must remain for the public (White arkitekter, 2023).



Figure. 29. Skutberget in relation to Karlstad city center,*1:100 000. (Lantmäteriet, 2025). Adapted with permission. (SMHI, 2025). CC BY 4.0

Area analyses

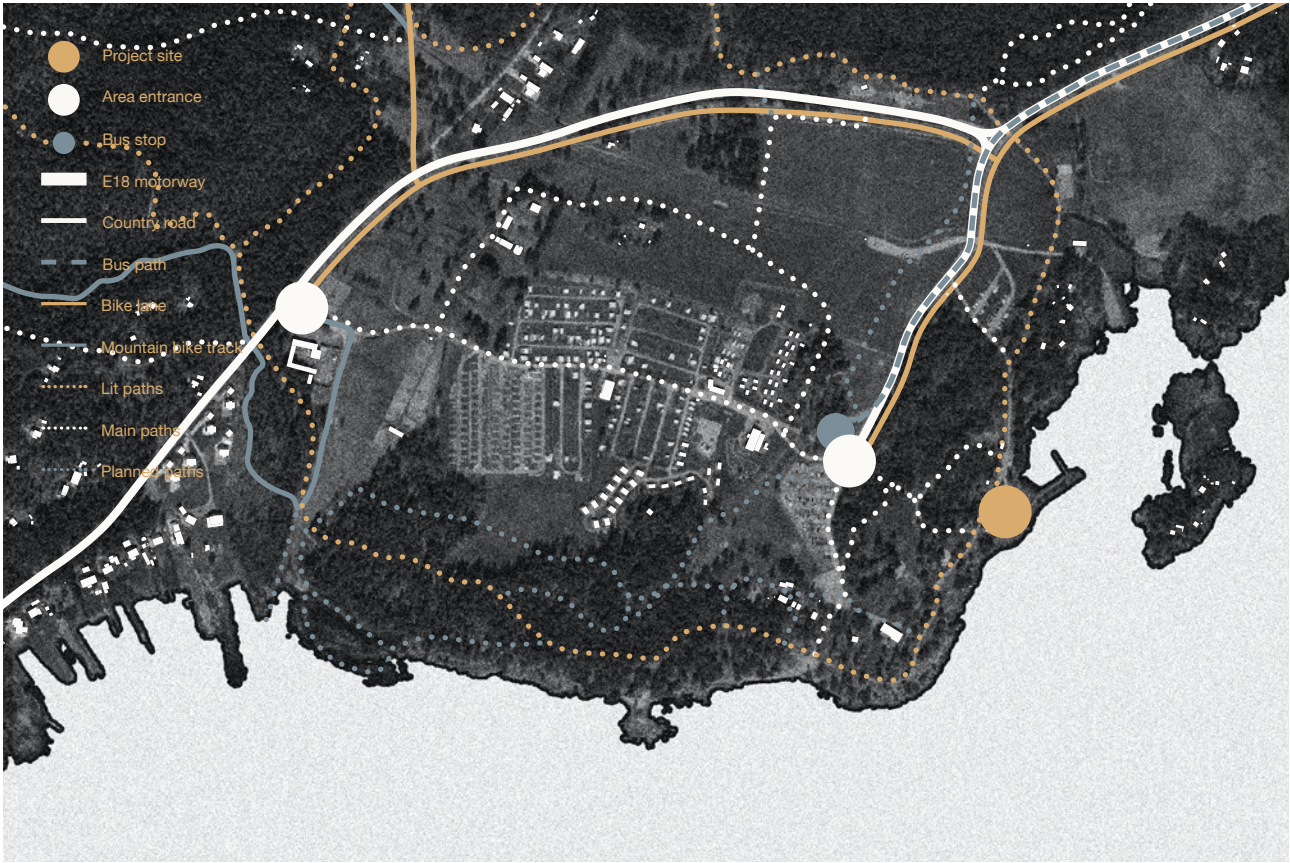


Figure 30. Area entrances, flows and public transport. (Lantmäteriet, 2025). Adapted with permission.

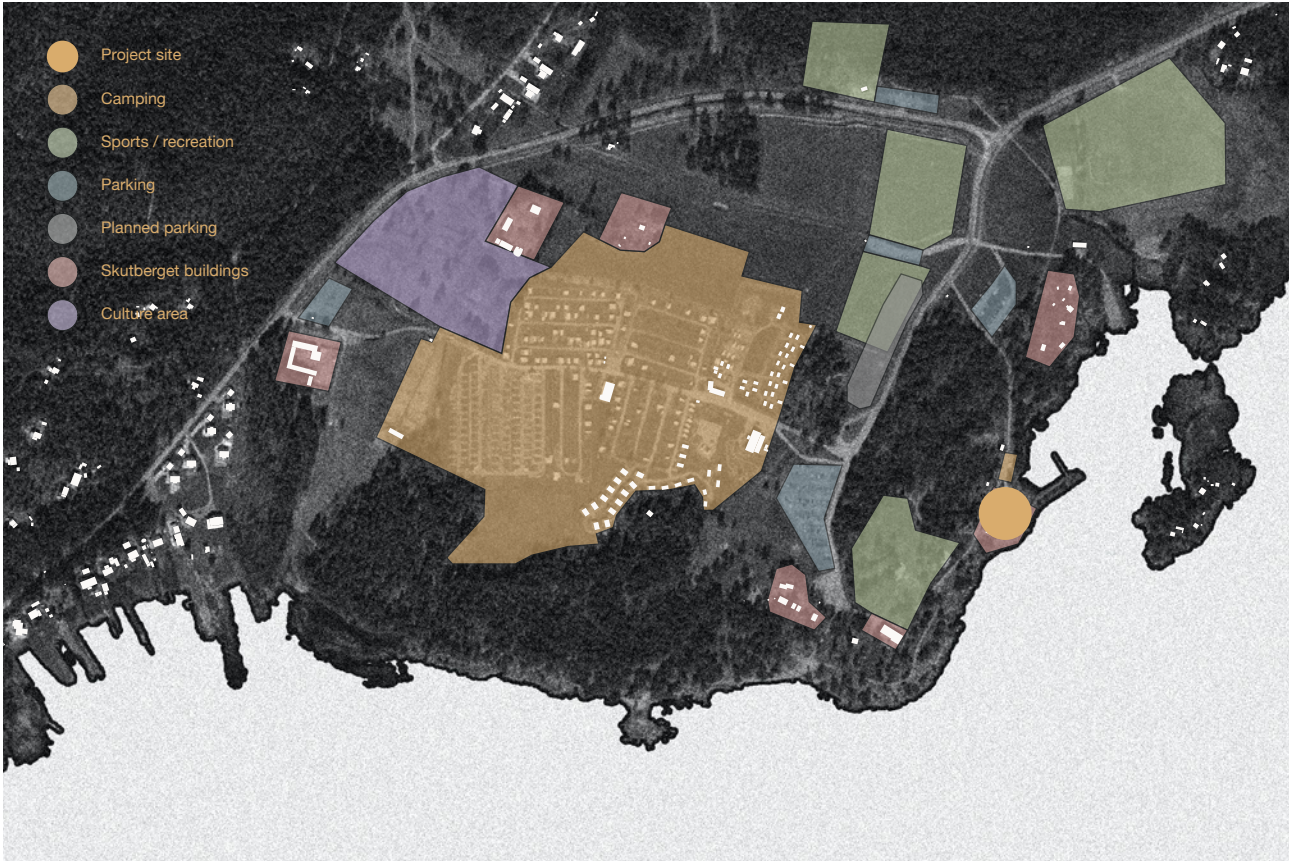


Figure 31. Area usage. (Lantmäteriet, 2025). Adapted with permission.

Scale 1:10 000 (m)

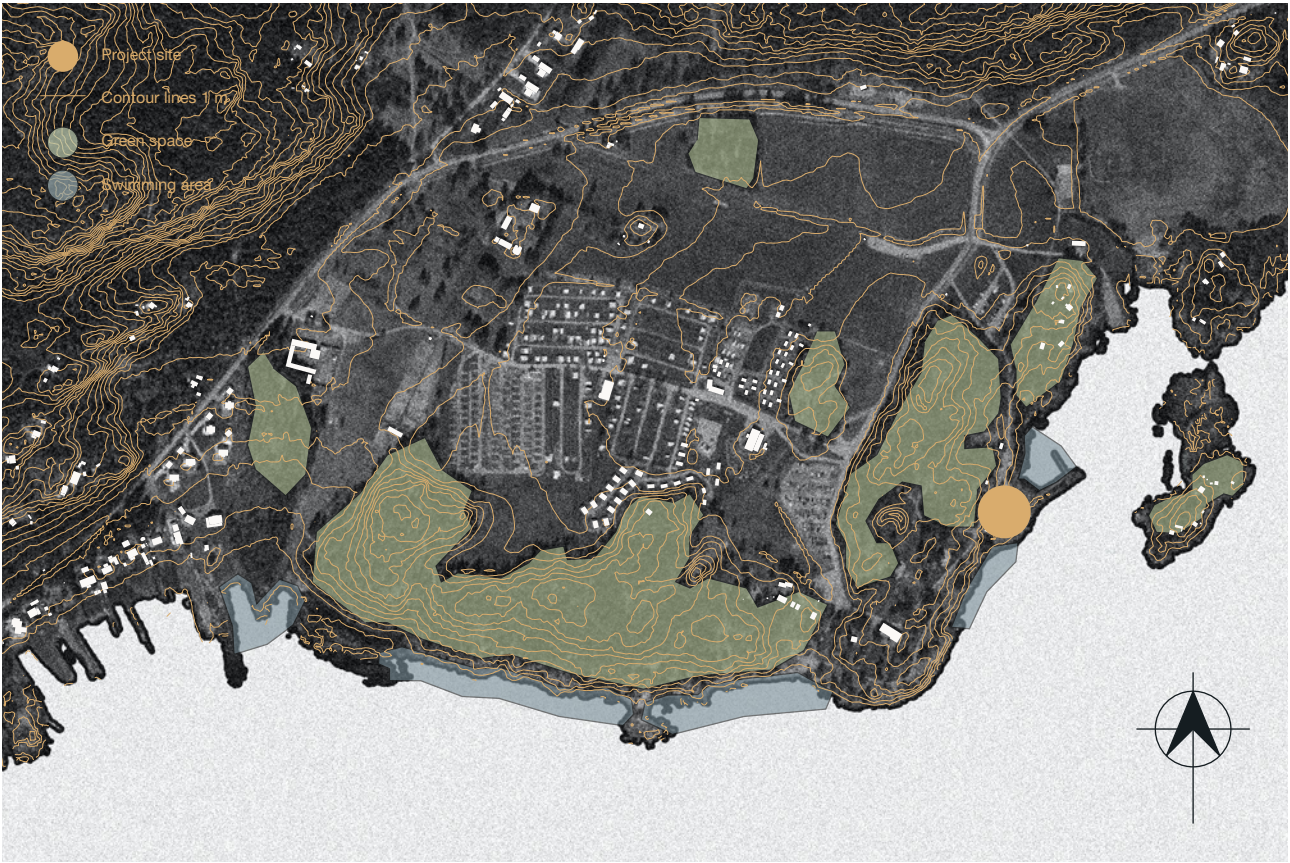


Figure 32. Area landscape and terrain. (Lantmäteriet, 2025). Adapted with permission.

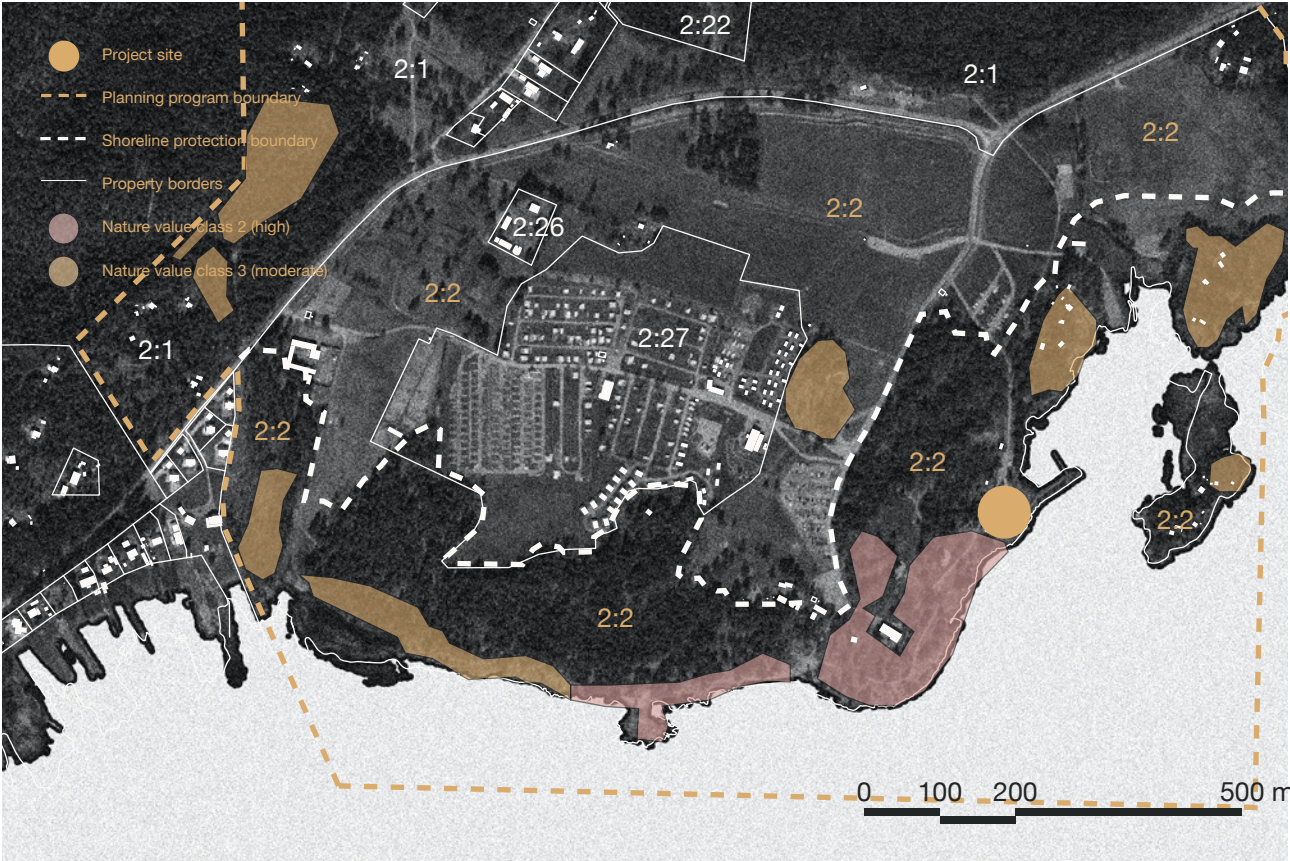


Figure 33. Area properties and borders. (Lantmäteriet, 2025). Adapted with permission.

The site of Motionscentralen

The project site of the current outdoor recreation center is placed on the eastern side of Skutberget, on a small platform of terrain sitting about 1.5 m over water level and 2 meters below the path. It has a sand beach on its northern side, a pier towards north-east and a cliff landscape to the south. On the opposite side of the bay to the east sits a small island with summer cabins. The site provides great views of Vänern towards the south and east.

Site selection

Selecting the site of Skutberget and the current outdoor recreation center is based on my own upbringing in Karlstad, having known and visited Skutberget throughout my life. I believe the site and typology has great potential to become something of high value to the citizens of Karlstad, not having reached its full potential today. The landscape is beautiful and unique with a strong character and atmosphere, which I believe the current center doesn't capture or enhance. The facilities are worn, poorly utilized and doesn't promote the use of its facilities or connecting to nature.

Skutberget motionscentral

The current outdoor recreation center has the potential to be transformed to better meet current and future needs and plans for the development of the area of Skutberget and Skutberget motionscentral.

Early in the master's thesis, and the previous fall's preparatory courses, I had thoughts of doing a transformation project of the center. Without having thoroughly analyzed and inventoried the current center, its potential and limitations, I believe this could result in a great project as well. But decisions must be made, and within the academic context of the master's thesis, to thoroughly explore the research questions, I decided to design a new building to not be limited to the current center's layout and structure as a possible limitation for truly dissolving boundaries.

This does not, however, mean that I encourage demolition of the current outdoor recreation center.



Figure 34. The current outdoor recreationg center.



Figure 35. Cold plunge ladder.



Figure 36. Path to the project site.

Site visit

Notebook reflections, 2nd of October 2025

I arrived at Skutberget at around 10:30 on a calm Thursday morning in early fall. The pine treetops around the site filtered the morning sun, while the calm waters of Vänern created a mirror of the blue sky and fog on the horizon.

It was hard not to fall in love with the site, but it was also hard to ignore how there might be some "catfishing" going on this morning...

Surprisingly to me, there were plenty of visitors in the area on this weekday morning – people of all ages taking walks, alone, together, and with their dogs; people running, barbecuing, visiting the outdoor recreation center sauna and cold plunging.

I went to photograph the cliffs and cold plunge ladder but found it hard to capture a photo without people because of its frequent use! I got to talk to a cold-plunging lady named Jeanette, who told me about the center's popularity and its users' wish for an upgrade. Lucky me!

On the other side of the center, the cliff landscape and Vänern horizon revealed themselves, along with

a large grass area with a few pines and a picnic bench to take in the view. This is the view the current activity center should have had, if the closed off building volume didn't block it...

Throughout the morning, the fog lifted, offering views of small islands in the distance, a windmill park and the Stora Enso industrial area in Skoghall. When the weather turned cloudy and the sun went into hiding, Skutberget didn't seem to be a "catfish" after all, still just as beautiful as during my arrival.

The cliff landscape south of the center really reveals and pinpoints the site's identity and potential, I believe. It reveals both the beautiful view toward the bay and the horizon (not counting Stora Enso...). The natural landscape of cliffs, patched with lichen, pines, tufts of yellow wild grass, puddles of water caught between the cliff crevices, seabirds calmly swimming along the shoreline, and the muted sound of a woodpecker and distant conversations that feels serene and alive.

I truly hope to, and believe I will, capture this atmosphere in my master's thesis project.



Figure 37. Water mirror in the bay.



Figure 38. Sand beach in the bay.



Figure 39. Picnic bench with a horizon view.

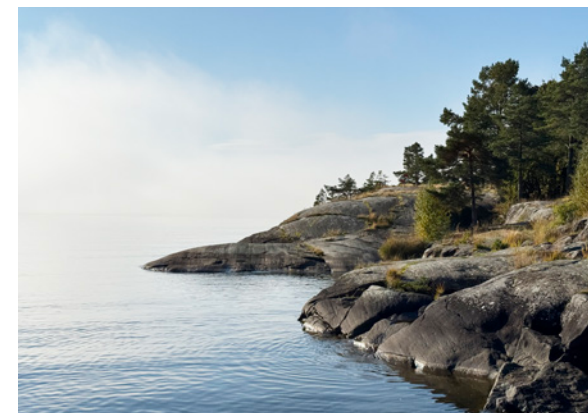


Figure 40. Cliffs to the south.



Figure 41. Cliff landscape.

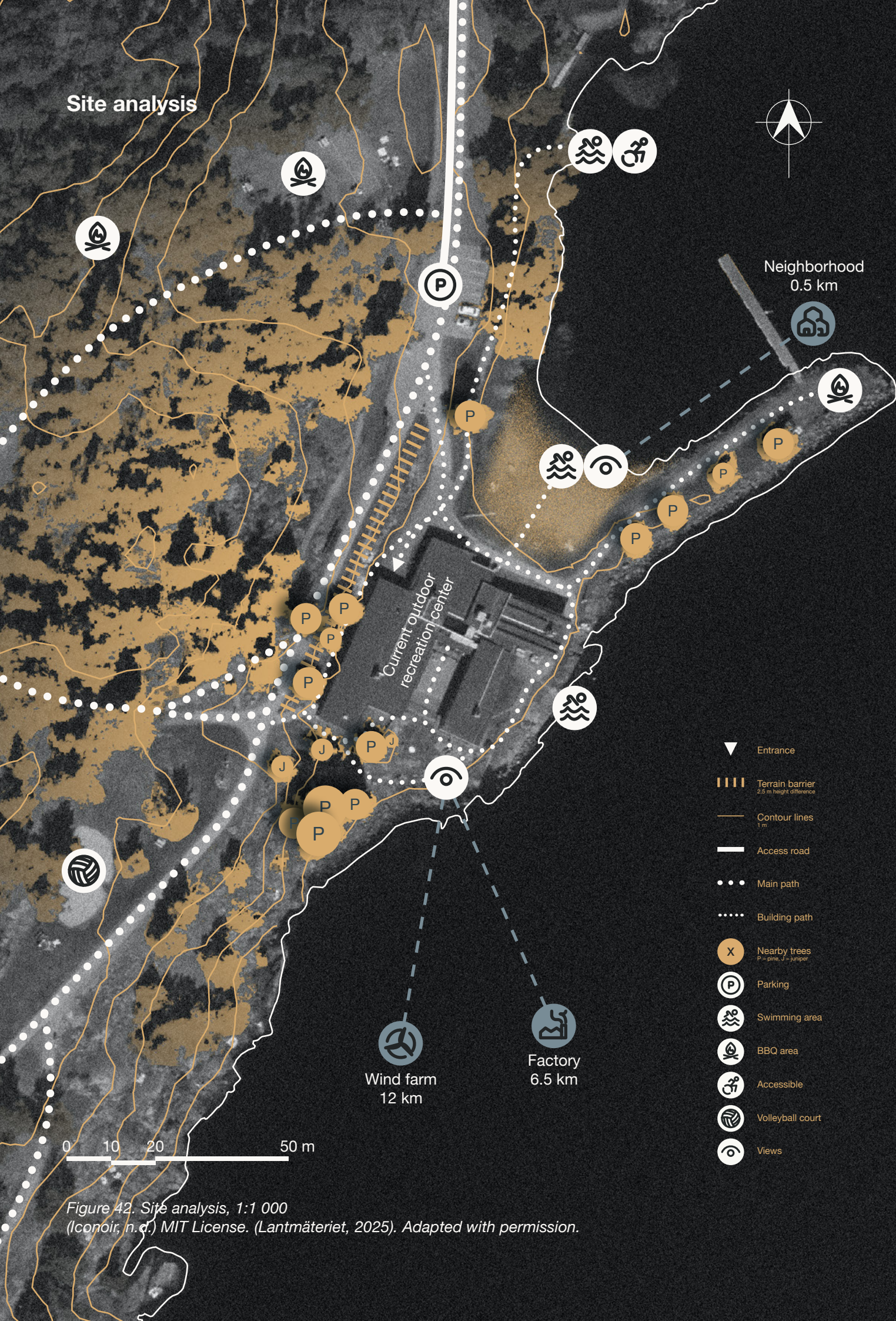


Figure 42. Site analysis, 1:1 000 (Iconoir, n.d.) MIT License. (Lantmäteriet, 2025). Adapted with permission.



Figure 43. Stora Enso industry.

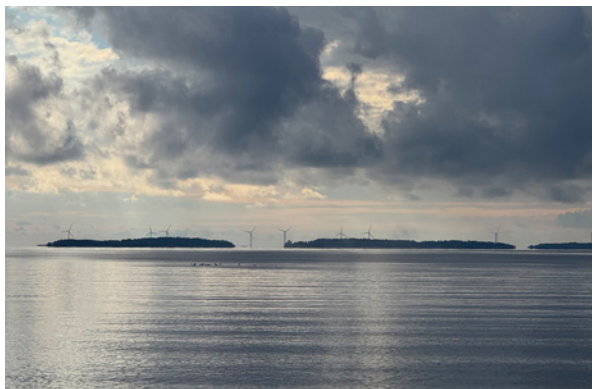


Figure 44. Wind farm.

Nearby buildings

The project site of *Skutberget motionscentral* lies isolated on the western side of Skutberget. The nearest buildings are not visible from the site, being separated by the forest and a distance of 500 m.

The nearest buildings are in the forest to the north, and southwest in the central area by the main beach, directly south of the eastern area entrance. The buildings there consist of Forsellstugan from 1950, Skutbergsgården from 1955, two storage buildings, and a public toilet facility, and in the forest to the north lies four of Skutberget's culture cabins.

All the buildings are painted red and are single-story, except for Skutbergsgården which have two floors and an attic, and a white plastered first floor. Forsellstugan, Skutbergsgården and one of the culture cabins feature red brick-tiled gable roofs, while the other buildings have sheet roofing, with either gable roofs, M-shaped roofs or shed roofs.

Due to the distance to these buildings, their unrelated typologies and small-scale vernacular architecture, they are not considered directly relevant for contextual design.



Figure 45. Skutbergsgården.



Figure 46. Forsellstugan.



Figure 47. A culture cabin.



Figure 48. Public toilets.

Skutberget Visitor's Center



Typology: Visitor's center / Outdoor recreation center
Location: Skutberget, Karlstad, Sweden
BTA: 1 170 sqm
Functions: Leisure equipment rental, café, changing rooms, sauna, multi-purpose hall

Figure 49. The thesis design proposal – Skutberget Visitor's Center.

Skutberget Visitor's Center

The design proposal of Skutberget Visitor's Center is a tribute to the site's landscape, integrating its character and atmosphere into the architecture, while providing functions strengthening Skutberget's identity as a hub for outdoor recreation.

The typology is a take on the typical outdoor recreation center but emphasizes its node function in Skutberget as a visitor's center. The center innovatively introduces a *Fritidsbank* (leisure equipment rental) to the facilities, encouraging recreational activities in the area for visitors, without the need to bring their own equipment. It withdraws

the gym to encourage physical activity in nature and use of the outdoor gyms placed around Skutberget.

The multi-purpose hall accommodates group training, conferences, exhibitions or as a gathering space for school children on field trips. Its placement towards the back of the center gives views through the courtyard and café, and up towards the path due to its double ceiling height. The two openings give beautiful morning and evening light. The prime view of Vänern is reserved to the public via the café, along with the saunas and lounges in the changing rooms.

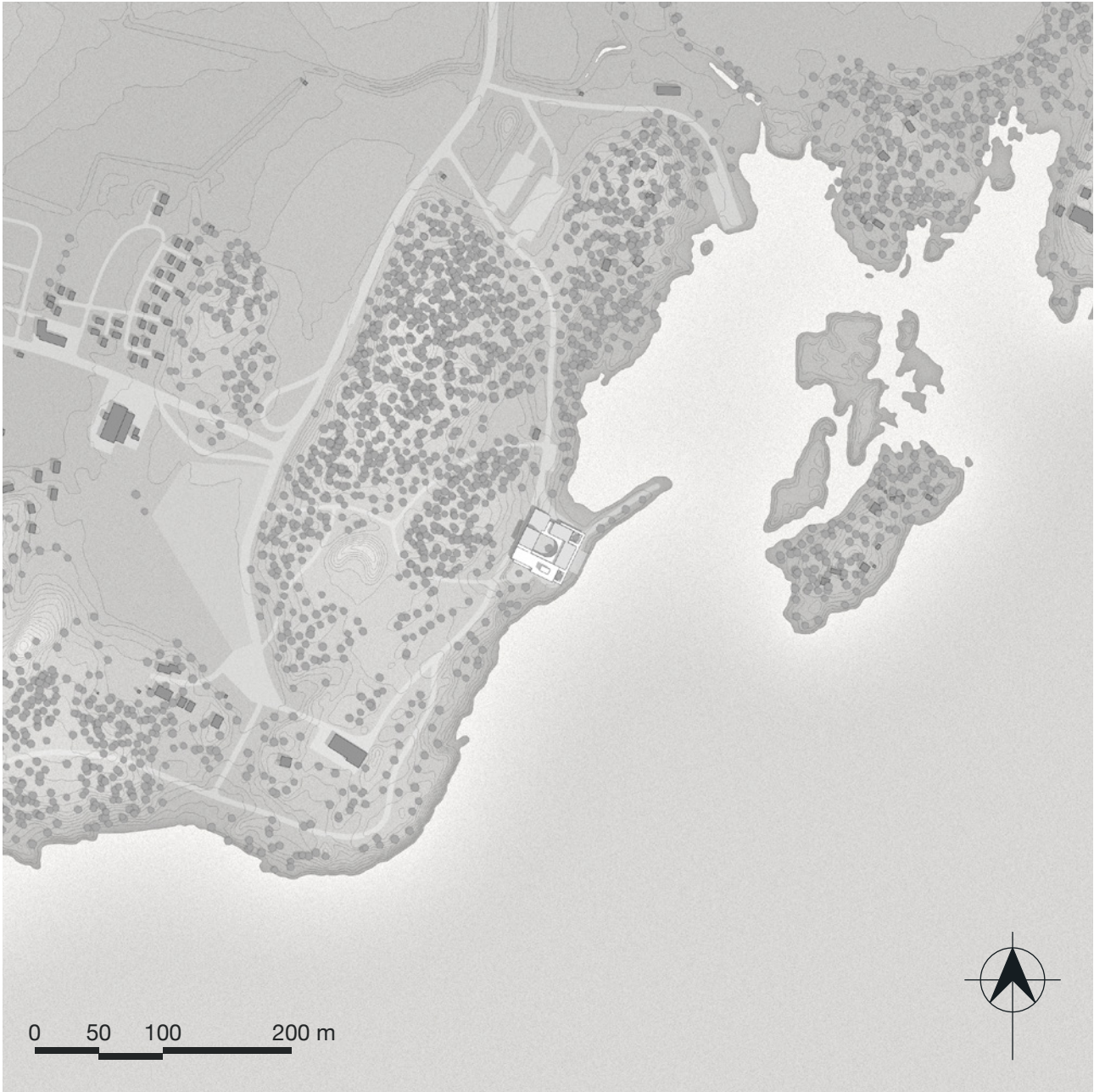


Figure 50. Siteplan, 1:5 000



Figure 51. Courtyard view towards the café.

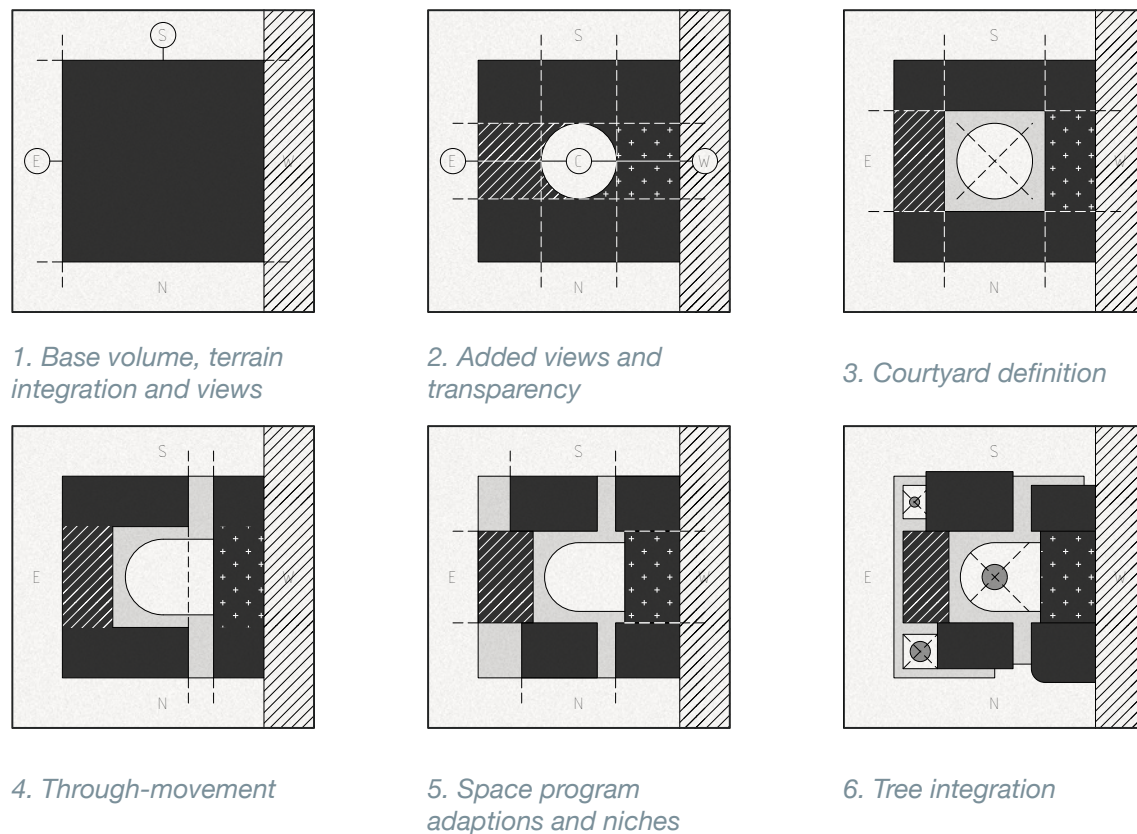


Figure 52. Form development.

Form development

Skutberget Visitor's Center gets its form from the aim to give the core public spaces the prime views of Vänern and atmospheric natural light, while at the same time providing great daylight conditions for the staff area and well-functioning flows for the café kitchen and equipment rental.

The Vänern views are towards south and east, and together with the west side of the building, which is semi-integrated into the terrain, comes the best daylight conditions. The north side is reserved for the main entrance. This gives only half of the building facade good daylight and views, while a quarter is lost to the terrain. By creating a courtyard and a transparent volume towards the east, and by allowing the western volume to grow in height, additional facades with good conditions are added, letting in both more views and natural light.

The space program is organized into two main volumes, separated by a through-flow, and being further divided into six volumes based on functions.

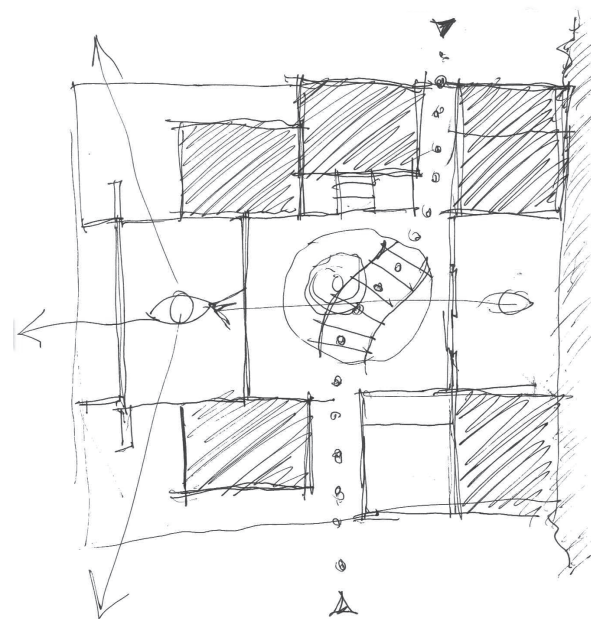


Figure 53. Early sketch.



Figure 54. Siteplan, 1:2 000



Figure 55. Café entrance.



Figure 56. Courtyard view towards the Fritidsbank and restroom hallway.



Figure 57. Café lounge with a fireplace.

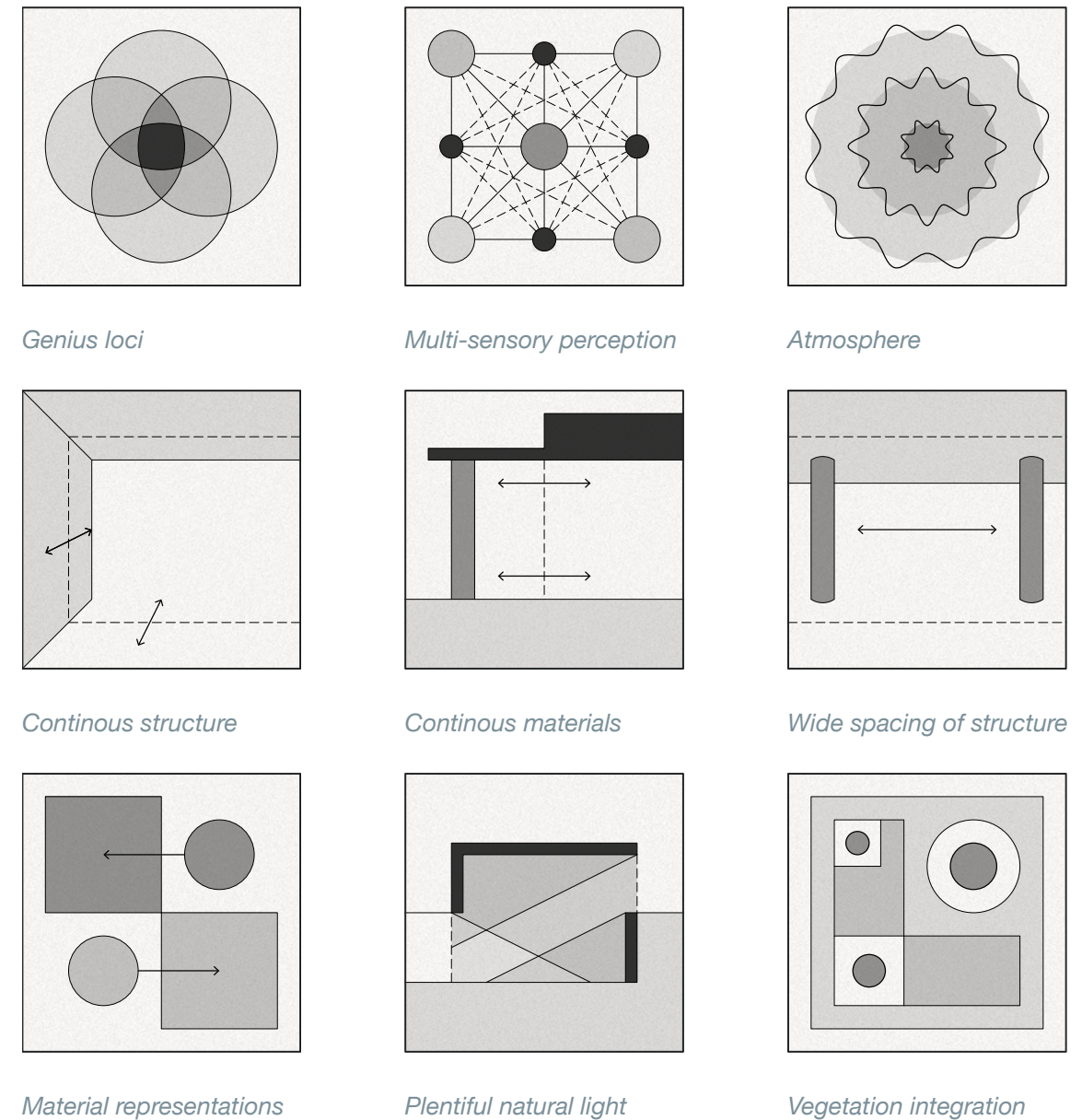


Figure 58. Design principles.

Design principles

The design features are based on the architectural theories of Norberg-Schulz (1980), Pallasmaa (1996) and Zumthor (2006), aiming to enhance the site character and creating atmosphere through a multi-sensory experience. Details of the visual case studies and findings from early sketching have, together with the theoretical framework, exemplified into key design principles for dissolving the boundary between building and landscape.

The design principles are a collection of concrete design approaches, consisting of spatial, material, structural, symbolic and natural implementations.

Through continuous indoor-outdoor extensions of the building structures and its materials, widely spaced loadbearing elements, extensive glazing with hidden frames, giving plentiful views and natural light, the experience of the building boundary is reduced, connecting its users more strongly to the outdoor natural environment.

The landscape of the site is integrated through tactile material representations of the environment, as well as integrated trees, meadow grass and water features.

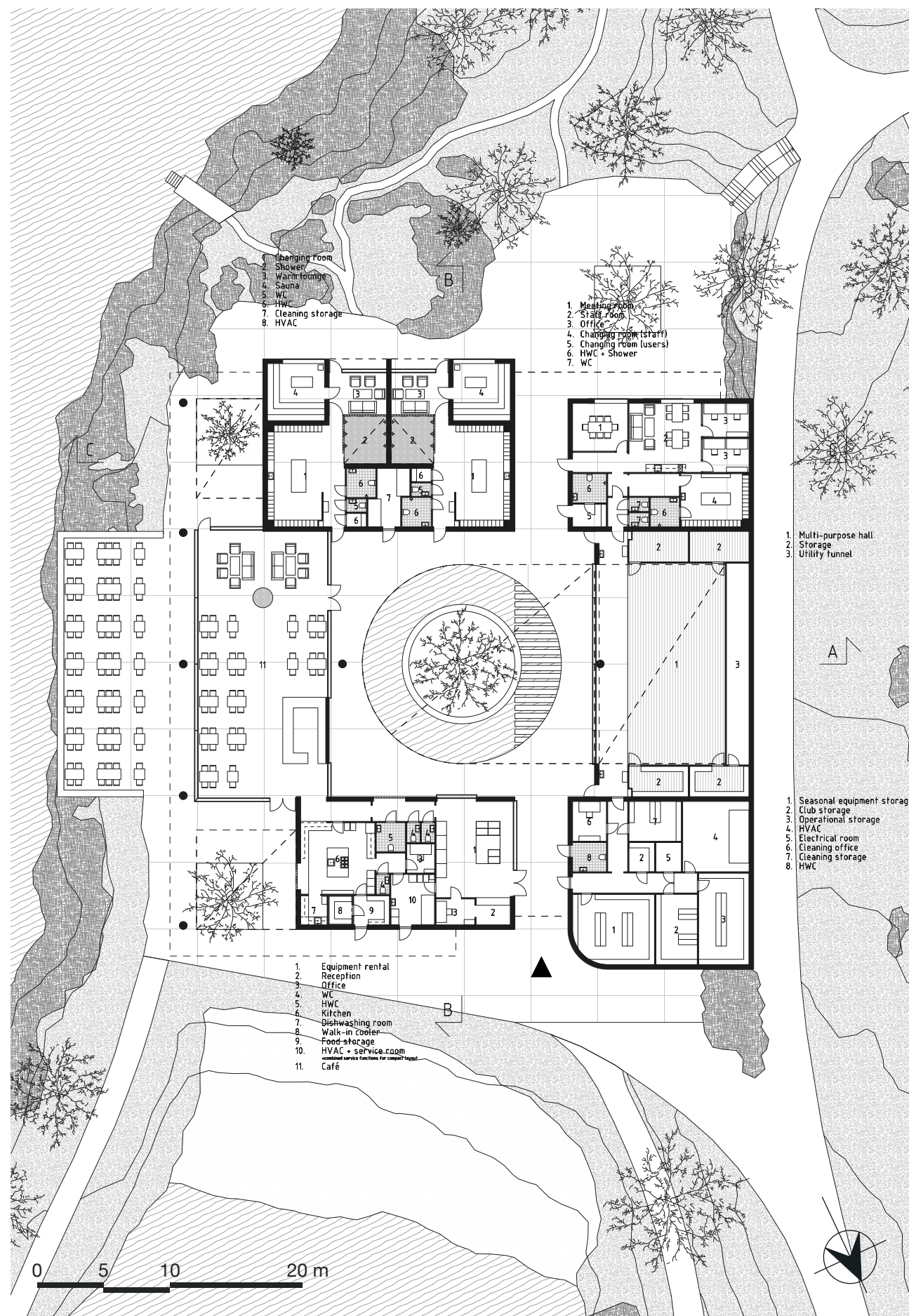


Figure 59. Entrance floor plan, 1:400

Spaces and flows

Skutberget Visitor's Center is a one-floor building complex, semi-integrated in the terrain with a partly walkable roof that connects to the path leading past the building. The space program is organized in two main volumes, each one containing three sub-volumes with one main function each.

The six functions are the reception with a *Fritidsbank* (leisure equipment rental), the café, the changing rooms, the staff area, the multi-purpose hall and the back-of-house functions. The building complex's entrances sits between the two volumes. The main entrance gate is reached from the north, coming from the parking, while a secondary entrance gate is reached from the south by a stairway coming down from the path, both leading into the courtyard.

When arriving at the center, a gently curved wall leads the visitor past the first building volume, containing a public restroom, sports club storage, seasonal equipment storage for the *Fritidsbank* and other operational functions.

Arriving at the entrance gate, the second building volume, containing the reception and *Fritidsbank* is accessible, as well as restrooms shared with the café. This volume also contains the café kitchen. The café can be accessed through the restroom hallway, past the corner outside through its main entrance, or from the courtyard. The café, completely glazed, provides views of the bay, Vänern and the courtyard. It also connects to a terrace for outdoor seating during summer.

The changing rooms are accessed from the courtyard, which is organized around a pine tree and water feature. Each changing room contains lockers, restrooms, a double ceiling height shower room with a ceiling window and glass brick walls, a sauna and a heated lounge for sauna breaks. The sauna and lounge feature large windows with views of Vänern. From the lounge, the outdoor cold-plunge ladder into Vänern is directly reached. An extra changing room is provided in the adjacent building volume for those seeking privacy.

The staff building volume contains a meeting room, a staff room, two offices and a shared staff changing room. Directly outside is space for a staff terrace. The staff building volume connects to the multi-purpose hall, the two sharing restrooms and providing staff direct access. The multi-purpose hall is otherwise accessed from the courtyard by visitors. The multi-purpose hall contains four storage rooms for training equipment and stackable furniture for larger gatherings, among other things. It features large glazing towards the courtyard, and with its double ceiling height it provides views up towards the path leading past the building as well.

On the walkable roof (see page. 64 for floor plan), an outdoor training area and viewpoint with binoculars is provided for visitors in the area walking past. Next to the path, on the second floor of the multi-purpose hall, is a water station for water pit stops or washing your shoes, bicycle or dog if there are muddy ground conditions in the area.



Figure 60. Multi-purpose hall view towards the courtyard.

Light

The strong presence and continuous experience of natural daylight, and its movement throughout the day, is an important feature of Skutberget Visitor's Center. Light moves past building boundaries, stretching deep inside and connecting the indoor with the outdoor.

The building carefully balances its closed concrete facade with complete floor-to-ceiling openings between the wall and ceiling slabs, reducing the feel of typical window and door openings and their apparent boundaries. The interplay between closedness and openness is used to accentuate the experience of light through the carefully selected openings, and through the contrast between light and shadow.

The courtyard acts as a center point with its pine tree casting a shadow that moves like the hand of a clock, reminding the users of the time of day. The other trees integrated in the building, along with the surrounding pine forest and various trees scattered throughout the site also filter the light and makes its presence of nature known.

The building layout is organized for capturing the daylight from east to west in the main public spaces. The completely glazed café is bathed in beautiful morning light, getting shadowed later in the day when the sun is its brightest, only for the warm evening light to be introduced again, filtered through the courtyard pine. Same for the multi-purpose hall, getting morning sun from the courtyard opening and evening sun through the openings up towards the path outside. The changing rooms gets plentiful daylight through the ceiling openings into the shower room and the glass brick walls surrounding it, filtering the strong midday sun. The glass brick is reintroduced in the restroom corridor connecting the café with the Fritidsbank, as well as in the restaurant kitchen, filtering light while providing privacy.

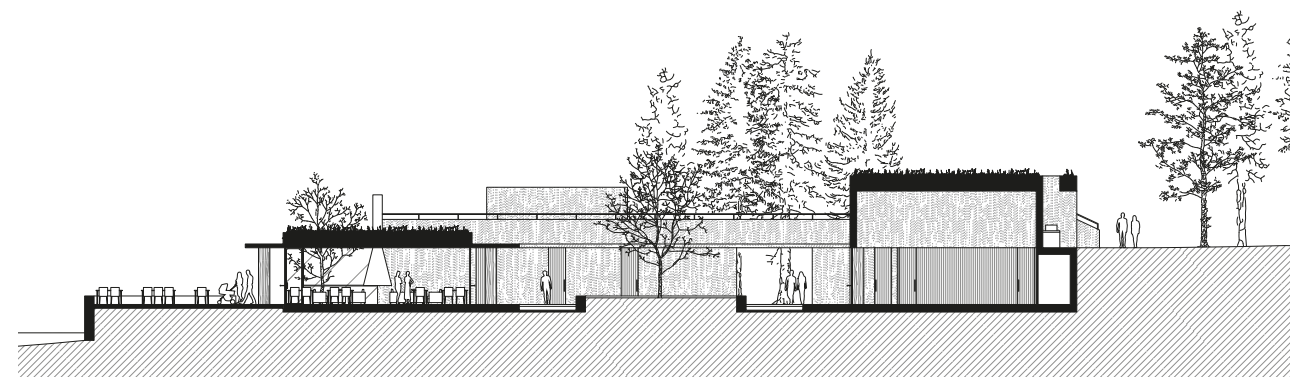


Figure 61. Section A-A, 1:400

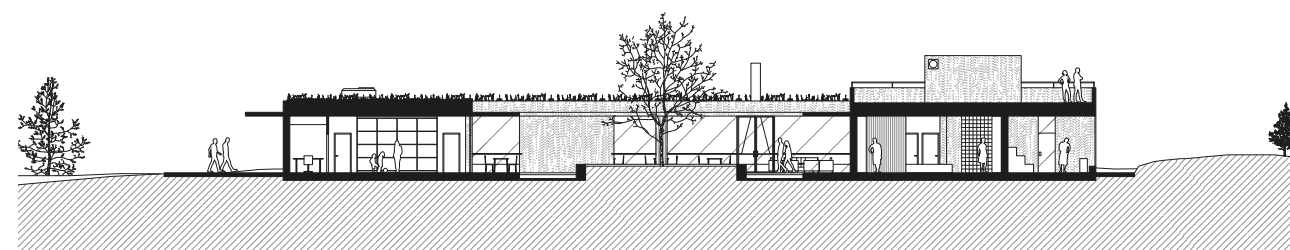


Figure 62. Section B-B, 1:400

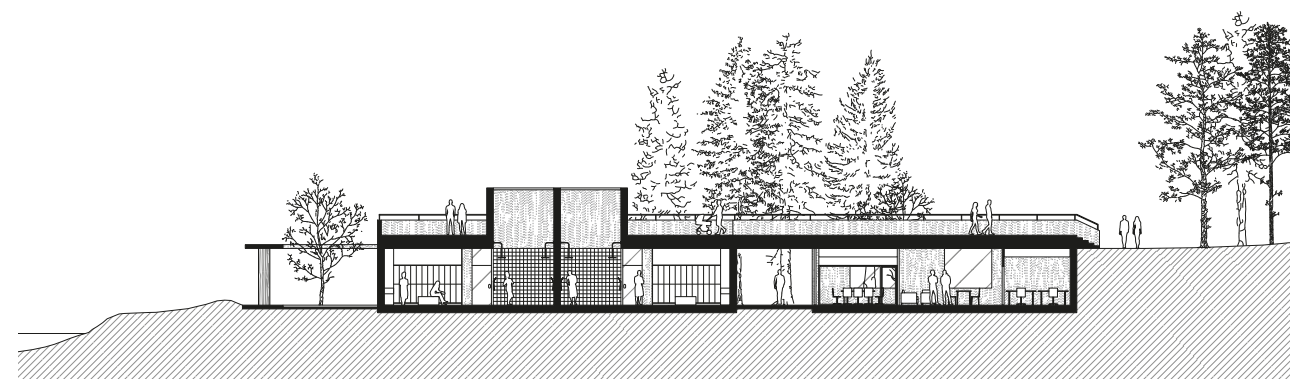


Figure 63. Section C-C, 1:400

0 5 10 20 m

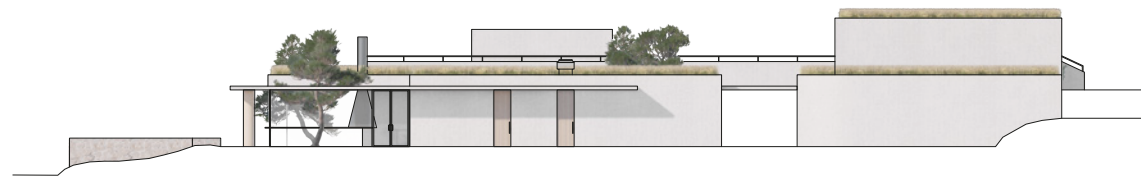


Figure 64. North elevation, 1:400



Figure 65. East elevation, 1:400



Figure 66. South elevation, 1:400

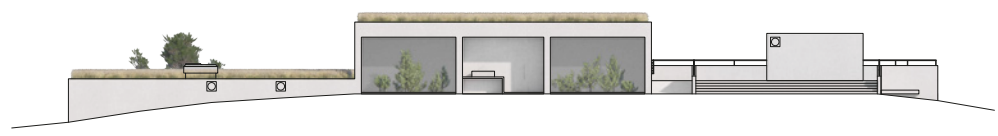


Figure 67. West elevation, 1:400



Figure 68. Water station for water pit stops or washing muddy shoes, bicycles or dogs.

Materials

The building features tactile materials inspired by the character and atmosphere of the surrounding nature of cliff and pine forest. The materials have been selected to evoke a multi-sensory, embodied experience of space and a connection to the natural environment.

The building structure and walls mainly consists of boardmarked in situ concrete, emphasizing the rough and hard cliff landscape, while welcoming thoughts of wood through its texture and grain. The concrete is featured both in the exterior and interior to dissolve the boundary between the two.

The tall doors are clad in ribbed wood, curving into door handles inspired by tree branches. Select feature interior walls in the changing rooms and multi-purpose hall are clad in the same ribbed wood. The remaining interior walls feature wood paneling, separating the interior structure from the exterior, evoking the same contrast as between trees and rock. Other interior features like doors, door frames and furniture are in wood with features of brown leather.

The concrete structure is supported by large wooden pillars in pine wood, same as the forest on site, and extensive glazing fastened between polished slender metal frames, reflecting the surroundings. A select few openings feature glass brick for filtered daylight, as well as the shower rooms.

The concrete grounding is the same in the interior and exterior, featuring cast joints of the same 5 x 5 m grid used for developing the floor plan, allowing grass to grow into the joints as the building ages. The concrete grid opens in places, introducing beds of sand featuring planted pine trees. Other places feature natural pebbles, like in the water feature in the courtyard, the fireplace in the café and in the shower rooms, where they have been grouted for easy maintenance. The multi-purpose hall is the only place featuring a wooden floor, allowing for a gentler sense of space during activity.

On the roof lies a bed of meadow grass, integrating natural elements and amplifying the sound of the wind. The ground terrace stone wall is made traditionally out of natural stone.



Figure 69. Café view.



Figure 70. Fritidsbanken. (Leisure equipment created with Nano Banana, 2026)



Figure 71. Restroom corridor connecting the café and Fritidsbanken.

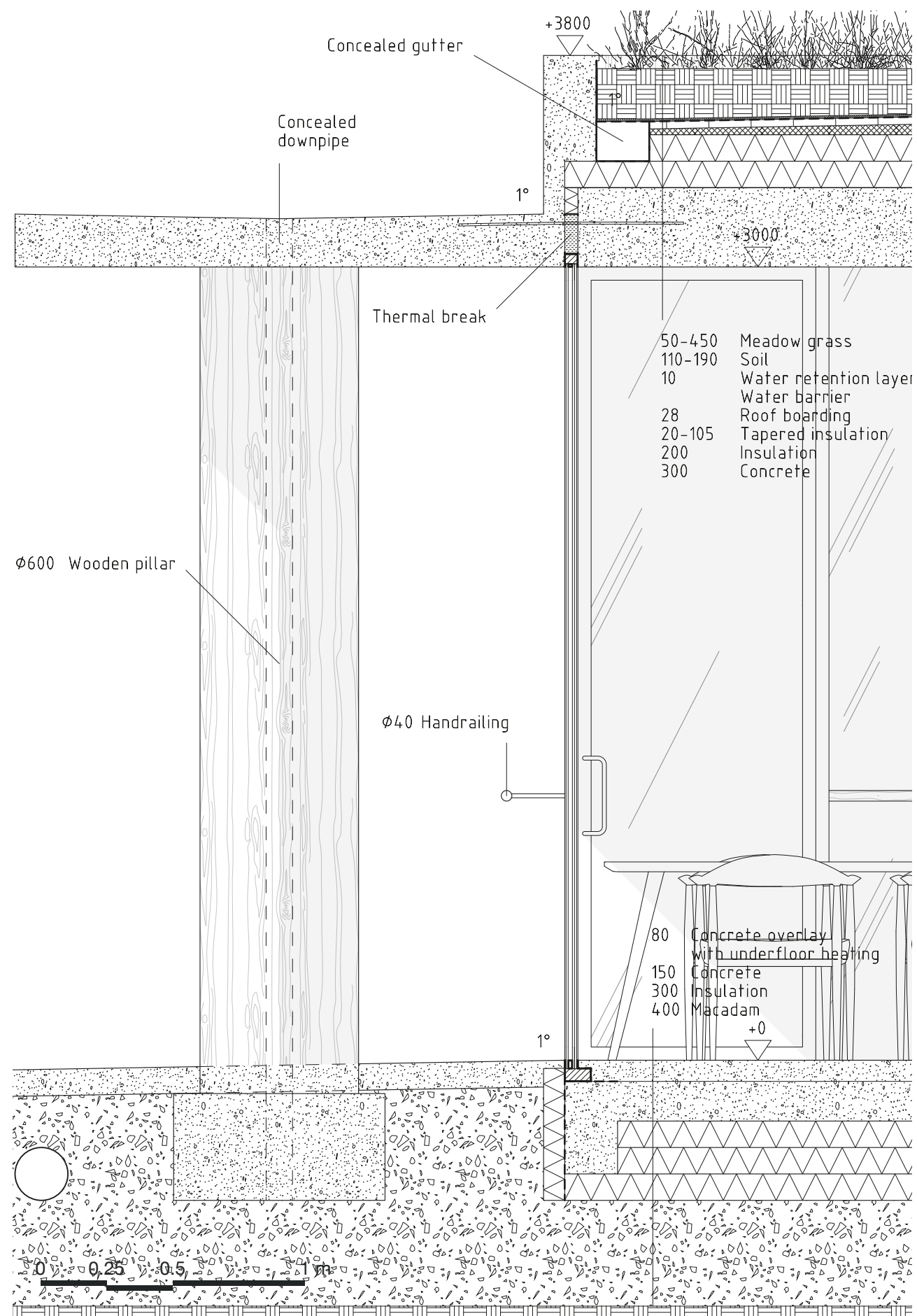


Figure 72. Detail section of café, 1:20

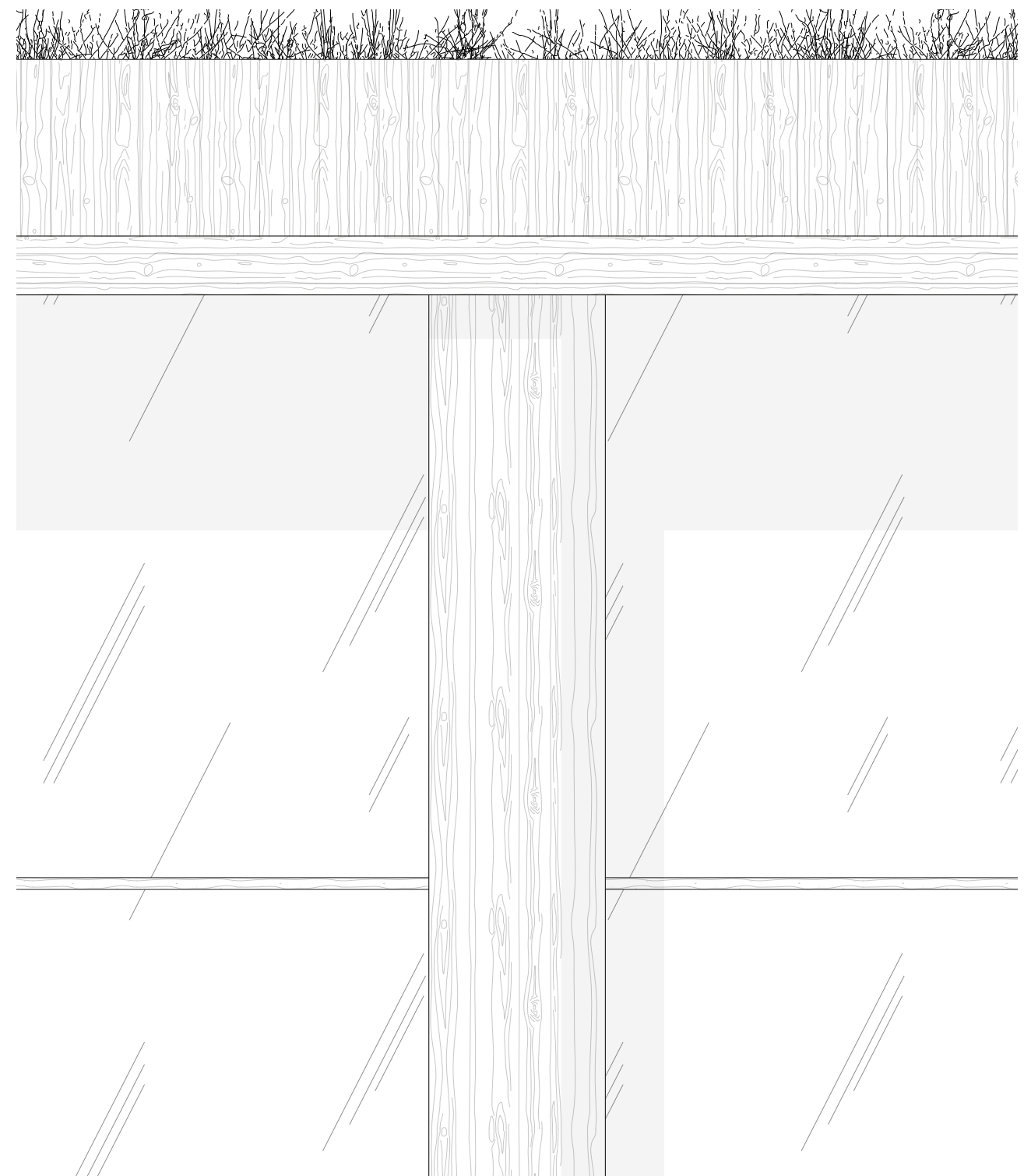


Figure 73. Detail elevation of café, 1:20

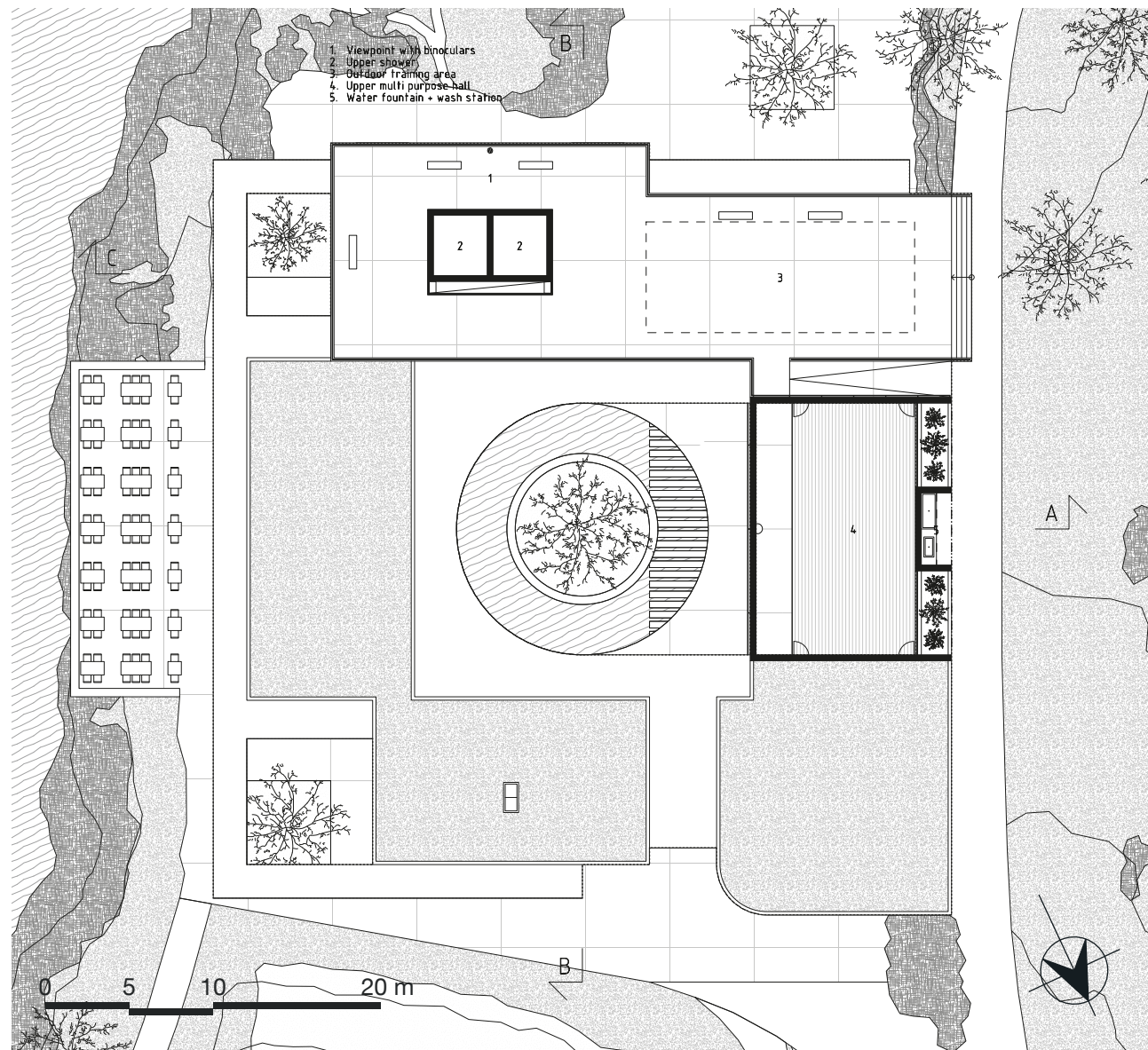


Figure 74. Roof floor plan, 1:400



Figure 75. View of the café from the rooftop.



Figure 76. Evening light in the multi-purpose hall.



Figure 77. Multi-purpose hall entrance with a water fountain, bench, coat hangers and a shoe shelf.

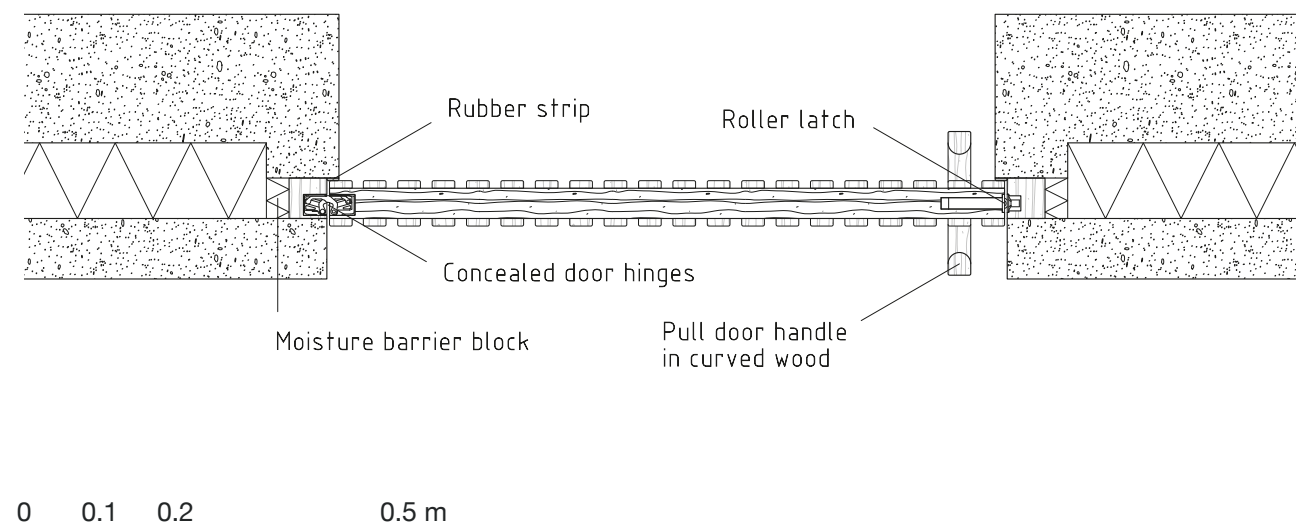


Figure 78. Detail section of door, 1:10

Details

One of the key details of Skutberget Visitor's Center are its hidden window frames, being integrated into the walls, ceiling and ground to dissolve the boundary between interior and exterior. A wooden hand-railing stretches around the glazing, preventing collision with the glass.

The sauna windows feature a slightly darkened and highly reflective glass, clipped onto the facade through slender window clips. This creates the feeling of a completely open space from the interior, while retaining privacy in the sauna as its reflecting the landscape from the exterior.

The courtyard is centered around a planted pine tree. It sits in a bed of sand, providing a place for pinecones to fall and capturing the movement of the wind and physical interactions by visitors. The bed of sand is held up by a concrete frame, providing a place to sit. Around the planting frame sits a shallow pool reflecting light and the surroundings, at its bottom is a bed of pebbles. Movement through the pool is introduced by steppingstones, carefully dimensioned for easy steps.

3-meter-tall doors with pull-handles of curved wood, integrates into the doors' ribbed structure. The door proportions provide a weight and sense of scale, evoking a bodily awareness of space.

In the entrance of the multi-purpose hall and the changing rooms, ribbed walls extend into benches for taking off shoes, as well as extending into coat hangers. The entrances also feature shoe shelves integrated into the wall for a seamless space. The two multi-purpose hall entrances each have an integrated concrete water fountain, serving an important function for gatherings.

Various interior elements feature brown leather, adding another dimension of tactile materials, generating a soft and natural sense of comfort.

The fireplace in the café hangs from the ceiling, enhancing the floating sense of the roof. The woodfire lie openly on a bed of pebbles, reminding of a fireplace in nature. It evokes comforting and familiar feelings with the sound of fire and crackling wood, while serving an important function as natural ventilation exhaust in the café.

The water station on the second floor of the multi-purpose hall acts as a pit stop for people exercising in the area. One side provides a drinking water fountain while the other side is lowered, creating a place for washing muddy shoes, bicycles or dogs.

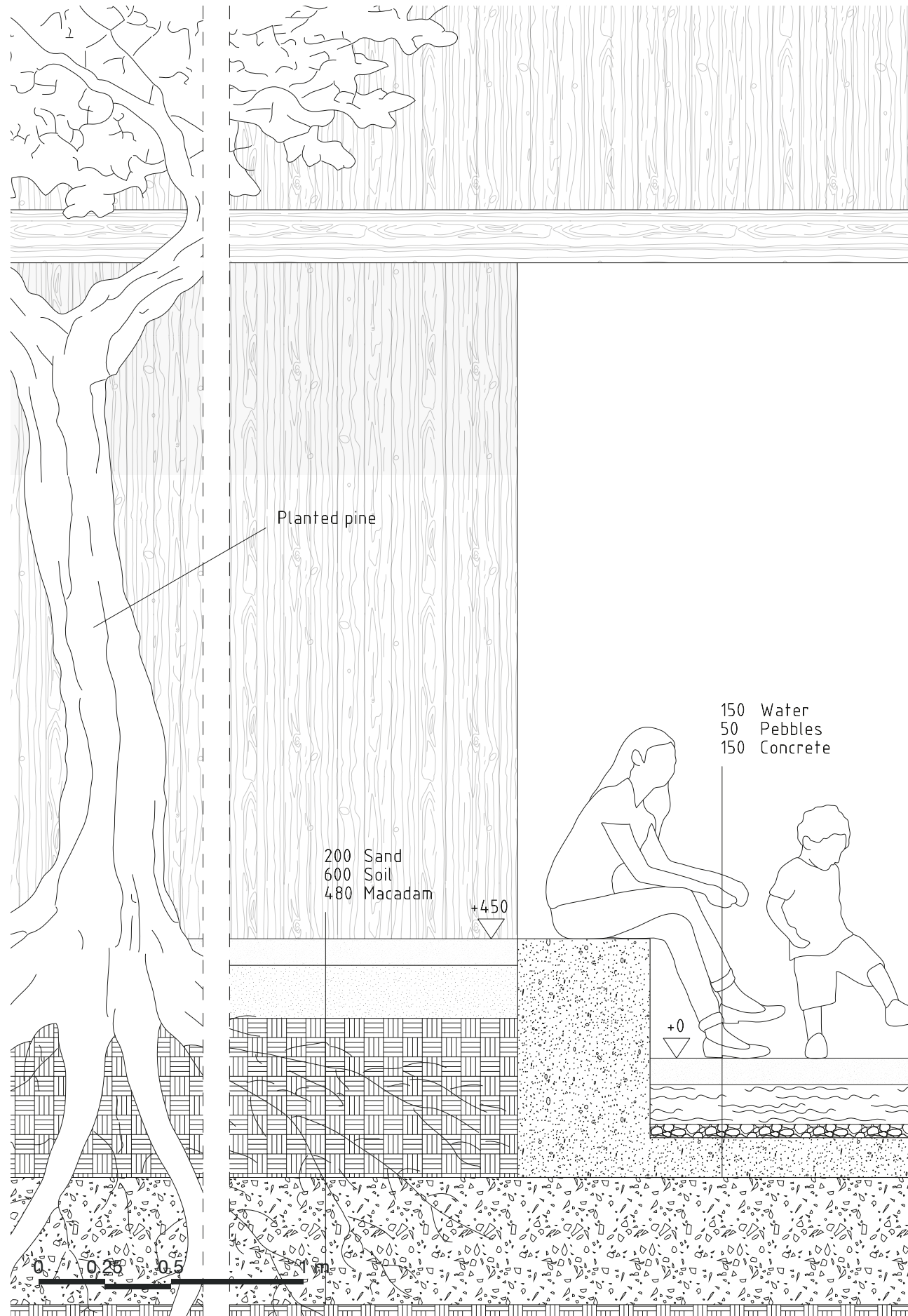


Figure 79. Detail section of courtyard planter, 1:20

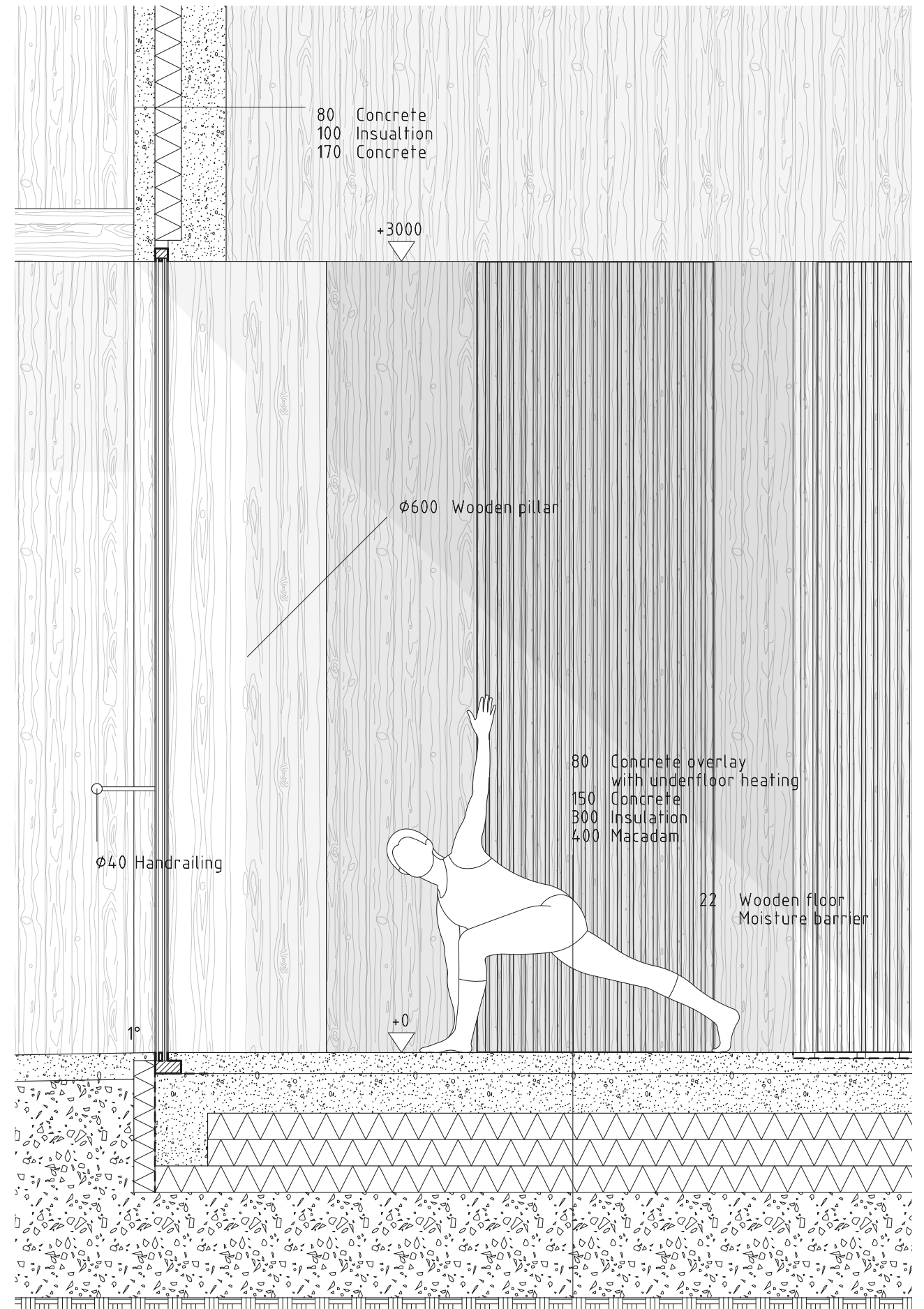


Figure 80. Detail section of multi-purpose hall, 1:20



Figure 81. Changing room.



Figure 82. Changing room entrance view.



Figure 83. Sauna view towards the warm lounge.



Figure 84. Sauna view towards the southern cliff landscape.

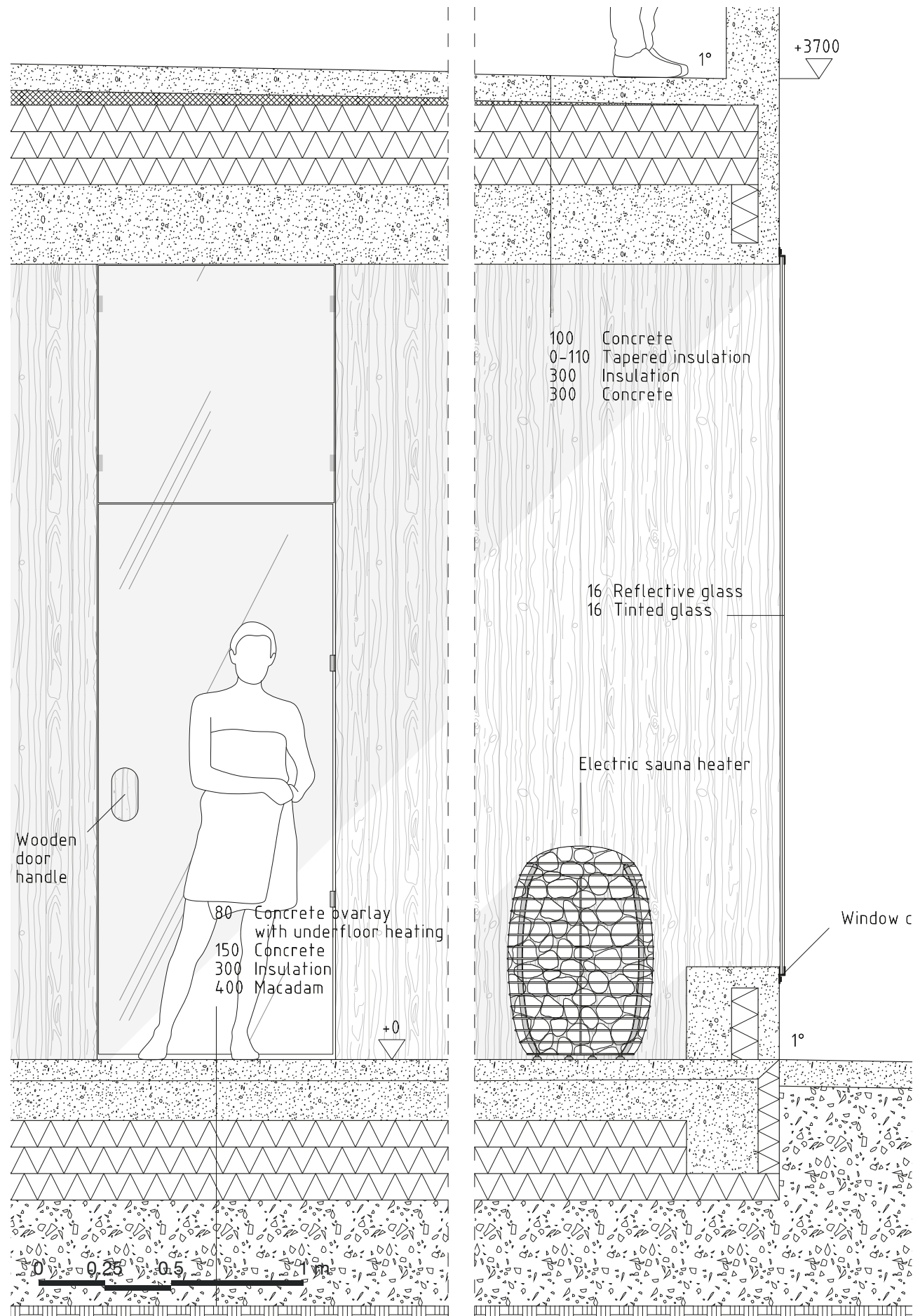


Figure 85. Detail section of sauna, 1:20



Figure 86. Detail elevation of sauna and lounge, 1:20



IV. DISCUSSION

Discussion

In this master thesis, the topic of how architecture can dissolve the boundaries between building and landscape to engage with its natural context have been explored through the design of a new Visitor's center in the nature and recreation area of Skutberget.

The research questions of how architecture can be designed in a boundary dissolving way, and what those design strategies can be, have been answered by working with a phenomenological approach to architecture; through atmospheric and sensory design strategies based on theories of Zumthor (2006) and Pallasmaa (1996), and by enhancing the site character, based on theories by Norberg-Schulz (1980). The questions have been further explored by studying built architecture exemplifying this theme through three iconic works of Sverre Fehn, Ludwig Mies van der Rohe and Lily Reich, and Álvaro Siza, and a contemporary project by Archstudio. The discoveries of the research were distilled into design strategies to further inform the design process. This was supported by continuous sketching and visualization along the way to evaluate the suitability of the design features.

Skutberget Visitor Center provides an example of public recreational architecture in a natural context that through its design argues for architecture's

role in creating a meaningful relationship between people and nature. Architecture's public value is not only functional, but experiential. It can act as an emotional mediator between people, building and landscape through embodied experience. To create meaningful architecture that connects with the surrounding context, not just objects that occupy. The thesis also challenges what a boundary is, not just a physical binary boundary of indoor and outdoor, but rather a boundary defined by experience. To dissolve this boundary can be a strategy for well-being through the experience of increased connection to nature. The design features of this project can act as an example for designing with empathy and care in natural contexts. To create something extraordinary in the everyday, Skutberget Visitor's Center also expresses an innovative take on the Swedish *motionscentral* typology. It focuses more on the experience of and connection to nature through architecture, while still providing a space program supporting outdoor physical activity and recreation, rather than merely providing facilities for changing and training.

On the final seminar, the design proposal was praised for generating atmosphere, a tranquil and contemplative space through minimalistic and tactile architecture emphasizing the rough and natural landscape, in tune with nature through its

terrain integration and low profile. The design was criticized for its heavy use of concrete, leaving more room to integrate the surrounding landscape into its grounding, even though that, according to site characteristics, would mean grass lawn. That is, after all, the *Genius Loci* according to Norberg-Schulz (1980), even though it might be considered unfavorable. Discussions arose of what a boundary is and what a dissolved one would mean, whether its freedom of sight or freedom of movement. The result leans more towards freedom of sight, which might have been overemphasized in the end, in line with Pallasmaa's (1996) critique. This leaves room for further exploring freedom of movement, possibly integrating movable window panels as in the case study of Nordic Pavilion by Sverre Fehn, instead of hidden window frames and massive glass windows. Conclusively, the question of what is suitable for public recreational architecture, especially an outdoor recreation center, was discussed. The resulting architecture feels exclusive in comparison to a typical *motionscentral*, although the typology is relatively ambiguous and unestablished. If it is right or wrong remains unidentified, but it connects to earlier discussions of public architecture's role in fostering meaningful relationships between people and nature, acting as a mediator between the two with the ability to foster well-being through increased connection to nature.

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Visualization resources

- Enscape built-in asset- and material library.
- Furniture 3D-models from BIM Object, <https://www.bimobject.com/>
- Sauna heater 3D-model by Huum, <https://huum.eu/>
- Textures and material maps from Architextures, <https://architextures.org/>
- Photo of runner from Pexels, <https://www.pexels.com/photo/man-running-outdoors-4853076/>
- Photo of smoke from Vecteezy, <https://www.vecteezy.com/png/12658243-digital-realistic-smoke-effect>

Drawing resources

- Adobe Illustrator patterns by Post Digital Architecture, <https://postdigitalarchitecture.com>
- Adobe Illustrator tree brushes by Land Space Architecture, <https://landscapearchitecture.store/>
- Furniture CAD-blocks by CAD Nature, <https://www.cadnature.com/>
- Grass CAD-blocks by CAD Nature, <https://www.cadnature.com/>
- People CAD-blocks by CAD Blocks, <https://cad-block.com/>
- People CAD-blocks by Dimensions, <https://www.dimensions.com/>
- Tree CAD-blocks by CAD Nature, <https://www.cadnature.com/>
- Tree CAD-block by Freecads, <https://www.freecads.com/>
- Door hinge drawing by Simonswerk, from Häfele, <https://www.hafele.com/>
- Roller latch drawing by Häfele, <https://www.hafele.com/>
- Sauna heater drawing by Huum, <https://huum.eu/>

AI

ChatGPT has been used as support throughout the thesis for literature recommendations, language translations and early exploration of technical solutions. All suggestions have been critically reviewed and further developed in dialogue with supervisors.

Enscape's native AI Enhancer has been used to improve the look of rendered tree and grass 3D-assets in various visualizations, and Adobe Photoshop's native AI Firefly has been used to improve the look of rendered hair on people 3D-assets.



Student background

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- ACE400 Architecture in the anthropocene
- ACE475 Material and technique
- ACE360 Nordic architecture
- ACE445 Design systems
- ACE520 Residential healthcare: Housing for seniors
- ACE370 Master's thesis preparation: Academic approaches and general structure
- ACE425 Master's thesis preparation: Design approaches and narratives
- ACE515 Building tectonics 2

