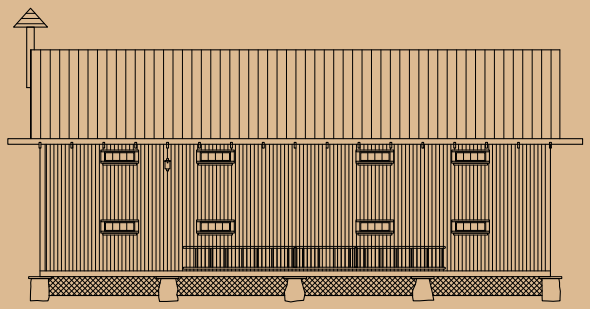
HOMAGE / Museum of rural life in Gothenburg



Klara Mattisson
Examiner / Björn Gross | Supervisor / Mikael Ekegren

Building & Tectonics
Department of Architecture and Civil Engineering
Chalmers University of Technology
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Abstract

From growing up in the countryside, I have always felt fascination towards old barns and byres, located like singular figures in the open landscape. With their honest materiality, robust heterogeneity and careful response to setting, these structures represents an elemental architecture that seem to never pass from time. After reading *Ur den svenska byggnadskonstens magasin*, a book released 30 years ago, where architect Bengt Lindroos declare his enchantment towards aforementioned typologies, I got inspired to create my own obeisance.

Homage is a project that seeks to tribute rural life in contemporary built form. Through tactile, tectonic and telluric qualities create spaces that bonds to both culture and content. With emphasis put on the local history of agricultural properties in the city of Gothenburg, the aim of this master's thesis is to form a public building through interpretations of the traditional Swedish barn and byre. The predicted outcome is a museum of rural life, that collects, archives and displays the memory of a significant past influencing the present. Not least with the building itself as an exhibitional piece.

Keywords: rural life, vernacular, interpretation, landeri, museum

Figure 1: Middagsfodring i en ladugård
Oscar Björck, 1890

Table of contents

I. Prologue

Student background

Klara Mattisson
Born in Kristianstad 1993

Education
Architecture (M. arch.)
Architecture and Urban design, MPARC
Chalmers University of Technology, 2018-ongoing

ARK636 - Master's thesis preparation course 1
ARK641 - Master's thesis preparation course 2
ARK123 - Matter, space, structure 1

ARKSOM - Från idé till färdig byggnad

ARK153 - Architectural competitions
ARK137 - Future visions for healthcare, housing and work 2
ARK595 - Resistant architecture: 1968 and beyond

ARK650 - Sustainable development and the design professions
ARK338 - Material and detail

Architecture (B. arch.)
Chalmers University of Technology, 2013-2016

Design (pre-university)
Öland folk high school, 2012-2013

Natural Science Program
Hässleholm technical high school, 2009-2012

Practice
Internship
Varg Arkitekter, Stockholm, 2016-2018

Discourse

Research question
How can the traditional Swedish barn and byre as typologies be reinterpreted into contemporary built form?

Aim
The aim of this master's thesis is to investigate how the form principles of traditional farm buildings can be used in public architecture of today. The predicted outcome is a museum of rural life in the urban context of Gothenburg, with emphasis put on the local history of agricultural property in the city, as well as an exploration on how culture and identity can define built form.

Method
1. Research *on* design: Studying cases of vernacular architecture as well as literature within the field to find parameters that defines the typologies of the traditional Swedish barn and byre.

2. Research *by* design: Create a translation from these traditional typologies into contemporary architecture. The main focus of this master's thesis is to investigate and communicate the art of construction through precise drawings, perspective renderings and physical models.

Delimitations
The main content of this master's thesis is a speculative proposal for a museum of rural life in Gothenburg. Site and program are estimated by the author, inspired by the report for cultural environment *Göteborg förstärkt: Landerierna* by Göteborgs Stadsmuseum (2018).

The main focus lies in the interpretation of rural culture and traditional farm typologies into contemporary built form. Presented theoretical framework may not be reflected in the actual proposal, rather does it work as an initial guidance in the process of translating rural life into a building.

Reading instructions
I: Prologue presents an overview of this master's thesis' objectives and theoretical framework. *II: Preface* deals with background and method. *III: Proposal* consists solely of drawings and perspective renderings describing the main project. *IV: Epilogue* features summary, discussion and bibliography.

Theoretical framework

Architecture and culture

In his book *Den osynliga arkitekturen* (1987), Finn Werne states that cultural context is an essential parameter of architecture. Irrespective of the constant changes in human relationship to things and identity, there will always be a quest for recognition and belonging. Here, built form is a tool with the possibility of emphasizing heritage within both subtle symbols and elemental tectonics.

Architectural regionalism is a collective concept used to describe different tensions between globalization and localism, as well as modernity and tradition (Canizaro, 2007). Here, *region* is defined as an area delimited by cultural and natural boundaries, for example local climate, topography or tradition. In difference from *vernacular* architecture, which emerges from inherited building techniques, regionalism is a conscious statement enhancing the rootedness.

As an expansion on regionalism, as well as a response to post-modernism and its lack of dialect, Kenneth Frampton explicated his theoretical position of *critical regionalism* in *Ten Points on an Architecture of Regionalism: A Provisional Polemic* (1987). Frampton highlighted the, of that time, fundamental transformation in methods of production and financing, that had led to an increasingly globalized architecture, characterized by rectification and rootlessness.

Organized around ten points, his speculative manifesto proposed various strategies that would enrich building with tactile, tectonic and telluric experiences (Frampton, 1987). For instance, instead of flatten the ground or illuminate the building with artificial lights, architecture should enhance the site's topography and natural conditions. It is also a matter of relation building to building, where new additions interprets the existing. A reminder of the architecture in the periphery and the buildings in-between the great monuments.

> *"If built form is to have a symbolic content, there is a need for a group of people who can interpret the symbols and consciously, or unconsciously, bring meaning to architecture."*
> (author's translation)
> Finn Werne, 1987

Architecture is a composition of symbols that brings meaning to construction (Werne, 1987). Regardless unconscious or direct, the fundamental longing for symmetry, harmony or grandiosity makes visible marks on built form. In both the ancient Greek temple or the traditional Swedish barn, construction itself is a symbolic act of great importance to the local society.

Building and tectonics

After the initial formulation of critical regionalism, Kenneth Frampton continued to build his theory. Among other things, he highlighted that the main definition of contemporary architecture often lies in the *space*, rather than in the elements that enhances and originally creates the space (Cava & Frampton, 2001). Here, a concept beyond the room, which is constituted by the poetics of construction – *tectonics* – that also implies assemblage of not only building elements but also objects and artworks, is described.

In *Constructing Architecture: Materials, Processes, Structures* (2013), Andrea Deplazes explains tectonics as lightweight framework, in contrary to *stereotomy*, which is defined as heavyweight mass. Furthermore, these terms are translated into the two archetypal forms of construction, namely *filigree* and *solid*. Filigree construction is an open lattice where load-bearing and separating functions is defined by different but intertwined elements. Solid construction, on the other hand, is a compact layering of modules or casting, which defines both structural and enclosing functions.

> *"Understanding construction means to grasp it intellectually after grasping it materially, with all our senses."*
> Andrea Deplazes, 2013

In conclusion is architecture about communication – materials, processes and structures are all bearers of information and intention (ibid.). Contrasting tactile experiences, from outside to inside, can effectively lead the visitor through the building as it gives spatial power, memory and character to built form.

II. Preface

Background

The traditional Swedish barn and byre

A great deal had been written about Swedish churches, dwellings and landscapes, but less praise had been heard for the architecture in-between the great monuments. This was what architect Bengt Lindroos observed before publishing his book *Ur den svenska byggnadskonstens magasin* in 1989 – a documentation over seemingly insignificant barns and byres, scattered in the rural landscape along the country. In these strict function-based buildings, Lindroos found both delicate proportions and mighty volumes, as well as remarkable shapes and details.

> *"To be included in this picture book, a building need only be beautiful, or if not quite so beautiful it need only have character, or if not beautiful at all it need only have a sense of humour or again it may be quite insignificant but still have some remarkable detail, or it may be downright ugly but interestingly so, or again it may no longer exist except as a charismatic ruin."*
> Bengt Lindroos, 1989

Ever since the first settlements in human history, there has been a need for her to conserve, and in all different times, storage has been given a construction (Lindroos, 1989). During the expansion of manor farms, the size of storage strikingly increased, evolving from root cellars into larger rectangular volumes crowned with gable roofs. Every building had its specific function – the barn stored grains, while the byre contained animals – and the shape is directly depending on its practical use, which continuously has been simplified and rationalized, creating certain parameters for design.

Traditional barns and byres are often built without blueprints and by unnamed originators (Svala, 1993). Early agricultural architecture, the so-called *allmoge*, took its proportions from manual work, reflecting both location and the people operating there. Timber structures dominated the main part of Sweden, while stone buildings were more common in the south and along the coasts. The barn was normally elevated from the ground to prevent from moisture and rodents, while the byre had a high base to protect the building from its dwellers. Falu red was the general facade colour.

Barns and byres were valuable buildings for the farm due to being the core at which the rural life circulated in a vital cycle (Lindroos, 1989). With time, these buildings also became symbols of wealth and status, which manifests in neat conformation and detailing. Like rural temples, the buildings had sculpted portals, profiled cornices and polished pilasters. The great value was also

represented in the often monumental placement in relation to the manor and landscape. In the mid 1700's, the parliament began to discuss a potentiation and improvement of agriculture in Sweden (Svala, 1993). A series of standardised drawings of farm buildings were made, which accentuated efficiency and quality. The rational barn and byre were strictly symmetrical with straight angles.

During mid 1800's, a large redistribution of agrarian land, called *laga skifte*, resulted in the larger and more coherent farm properties. Thereafter, the architecture is characterized by functionalism and industrialisation. The traditional rectangular plan was replaced with large-scale square halls and common building elements were cement blocks, eternit and corrugated metal sheets. Important keywords were *maintenance-free* and *cheap*.

Despite the redistribution, there were still movements favoring tradition, culture and craftsmanship. National romanticism pointed out the importance of localism represented in elemental and pure forms. Rural gothic, or so-called *snickarglädje*, became an expression for future belief and pride in the work at the farm (Svala, 1993). Here, no building were unimportant and it was recognized that an intentional design supported both health and wealth.

A lot of barns and byres are nowadays empty shells without contains, forgotten and threatened with decay. (Lange, 2011). These rural temples were once the main core in Swedish economy, but as the agricultural industry has grown, new demands have occurred for its buildings and for many farmers the old barn is archaic and unfit. Still, every person can recognize a barn and agricultural environment is perceived by many as a shared asset and a cultural heritage. There seem to appear a certain atmosphere in an old barn, almost like sacred space where light seep through the sparse planks as the lit dust wanders. An alive history of old settlement in a contemporary landscape.

> *"Perhaps one does not feel connected with agriculture and all its details itself, but the landscape and the common right to move freely in it is a well-known concept. Here, the recognizable nature of the buildings has a given role to play."*
> (author's translation)
> Ulrich Lange, 2011

Figure 2: Göteborg från Landalabergen
Edward Bergh, 1860

The Gothenburgian 'landeri'

Liseberg, Olskroken, Bagaregården. Most part of Gothenburg is built upon former agricultural land and numerous of districts and streets are named after former farm properties, that provided the city with victuals from its founding in 1621 until a little over the turn of the century in 1900 (Göteborgs Stadsmuseum, 2018). The right designation of this concept is the Swedish word *landeri*, which describes a major coherent domain within farmland donated by the crown. Later, the term would also refer to only the manor building at their respective area of agricultural land.

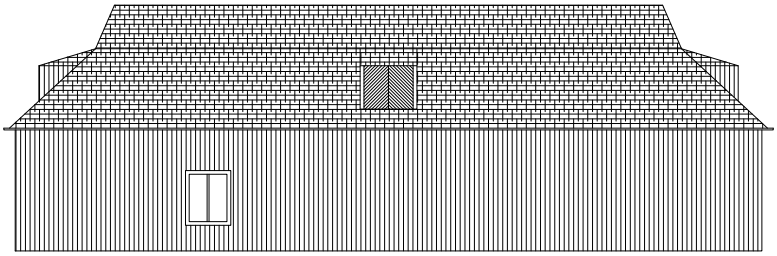
Initially, the landeri was uncultivated and mainly used for summer leisure by bourgeois citizens, which had been given a part of the donated land in reward for higher positions in society (Enhörning, 2006). Eventually, these domains turned into agricultural property and was extended with mansions, dwellings, warehouses and barns. The landeri was sometimes submitted to specific functions, such as having a guesthouse, cultivation of certain things or providing a public park for the residents of the city. Some common crops to cultivate were oats, beans, hemp and potatoes.

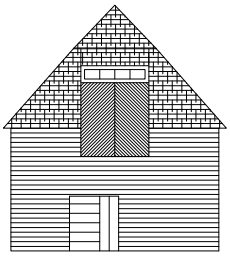
Owning a landeri led to new living habits for its merchants, which only nobility and men of church previously could afford (Enhörning, 2006). A large number of farms became an important status symbol for the whole city and the landeri became a forum for introducing new ideas and technical innovations, proving that this rural land did significant contribution to the development of Gothenburg. As society became industrialized and the need for agricultural land decreased, some farms evolved into factories producing tobacco, bricks or rope (Göteborgs Stadsmuseum, 2018). In the beginning of the 20th century, the last landeri was closed and a lot of agricultural land started to be reformed to make way for the growing city.

During the years of 2017-2018 a vision for cultural environment was made by the city museum to highlight and strengthen the cultural and historical value of the landeri, due to how the extensive development of *Västlänken* affected aforementioned buildings (Göteborgs Stadsmuseum, 2018). The Gothenburgian landeri is mentioned as national interest and there are demands for further information and knowledge. Not only does streets and districts bear the names of these former farm buildings, they also provide the urban environment with both complexity and clarification regarding elementary structures, historical depth and diverse aesthetics.

Typology studies

Drawn references from *Ur den svenska byggnadskonstens magasin* by Bengt Lindroos, 1989.

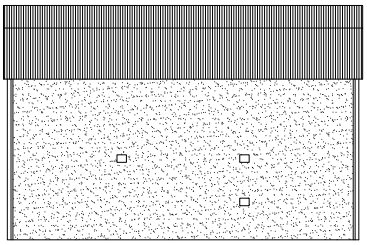


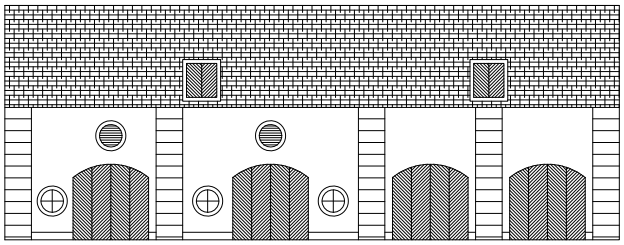


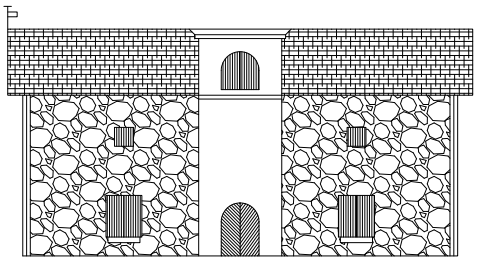
Regardless size of farm, epoch or content, traditional Swedish barns and byres seem to resemble in a lot of ways. Through typology studies and literature reflecting upon the culture and idiom of rural architecture, this master's thesis seeks form principles as tools for the design of a contemporary building in the context of Gothenburg.

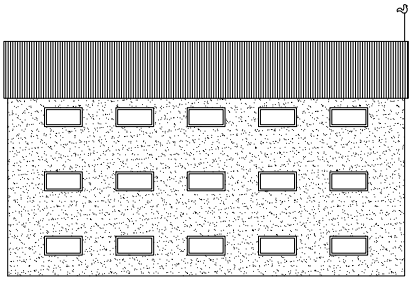
Local tradition

The context of the Swedish west coast is rewarding in that sense that here is where different building traditions are foregathered (Länsstyrelsen Västra Götaland, 2002). In the landscape one can find barns and byres built in both stone, timber and brick, often with a long rectangular floor plan and several functions within the same volume.







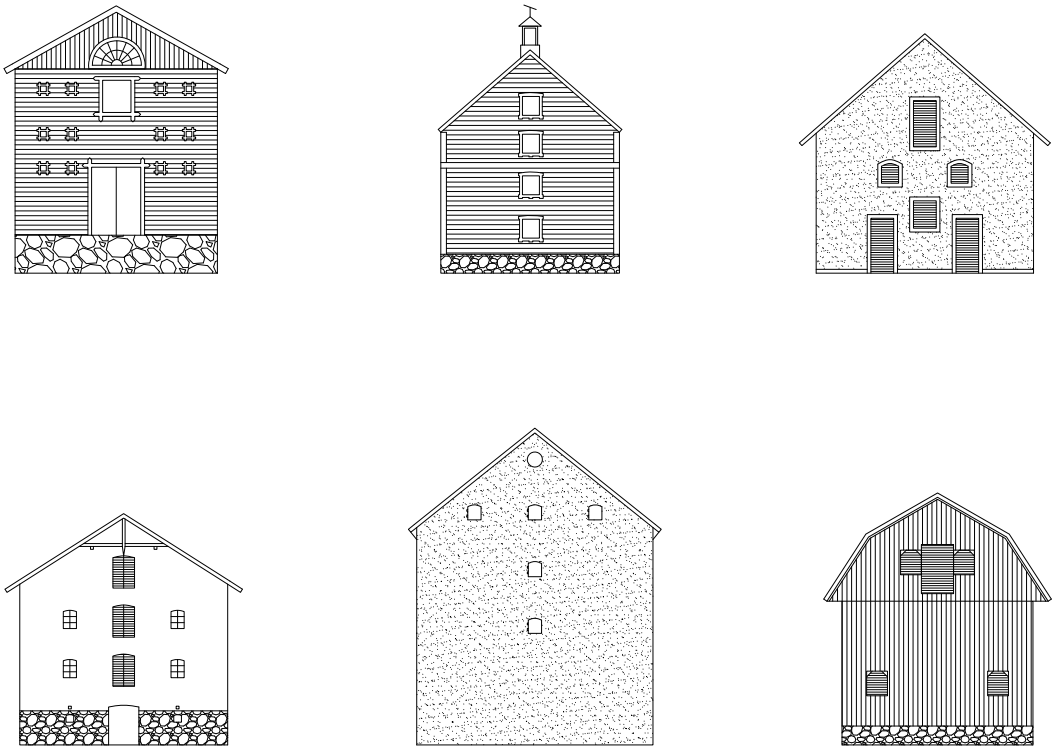


Placement

Storage buildings are an essential element of the agricultural landscape (Svala, 1993). Important parameters for placement are topography, vegetation, logistics and existing buildings. Barns and byres are often built at an angle of 90° or parallel to the manor, creating the characteristic rural courtyard.

Construction

Barns and byres were built when the need for a specific function occurred at the farm and the construction expressed their use (ibid.). If containing animals, the building often had more solid and durable stone or brick walls, while the hay storage and roof was built in filigree timber constructions.

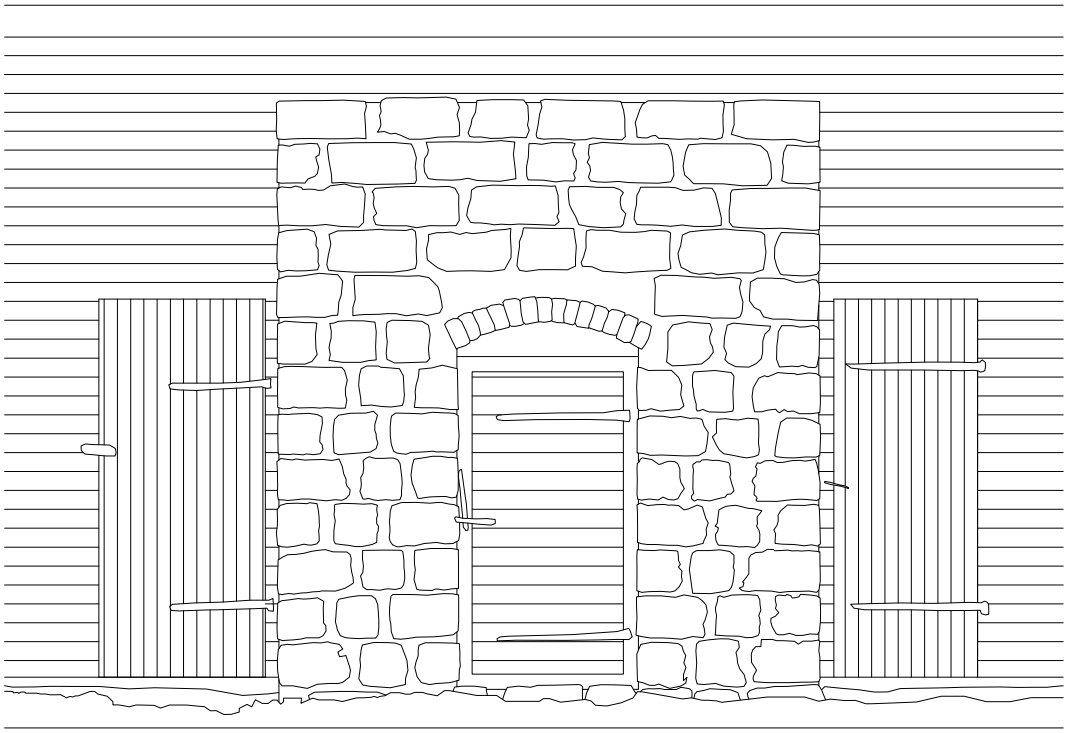


The gable and the roof

Perhaps is the gable motif one of the most distinctive features of the traditional Swedish barn and byre. The roof pitch depends on material and varies between 20-30° for tiles to 40° for grass (Svala, 1993). This also influences the eave and roof overhang. What perhaps distinguishes the most between traditional and modern rural buildings is the construction span, where the contemporary need to store big machines results in broad volumes and flat silhouettes.

Horizontal and vertical order

Storage of animals - the byre - often has a distinct horizontal fragmentation between masonry and timber. The solid base protects the building from its large inhabitants, while it also makes the building readable from outside with a fragmentation of the materials that tells the viewer about function, floor height and slab disposition. Storage of crops - the barn - often manifests a more vertical expression, with panel direction and pilasters as influencing elements.



The rectangular plan

These traditional typologies commonly have a rectangular plan due to both construction span, cardinal direction and functional logistics (Svala, 1993). One room comes after another, often with separate purposes within the same ritual.

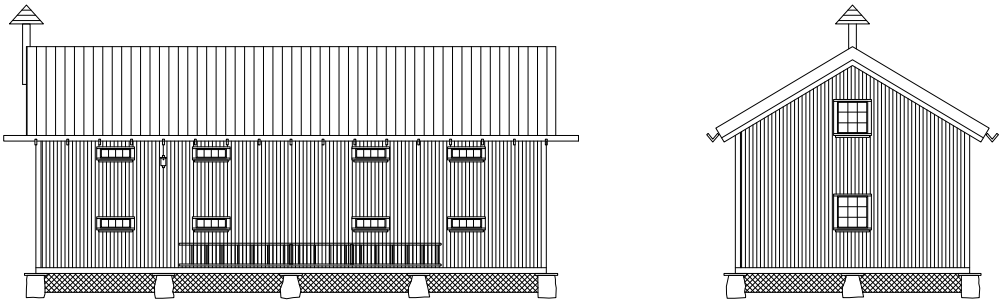
Openings

Openings are often quite few to keep the building warm, but are at the same time carefully placed to take advantage of daylight (ibid.). Sliding gates, to protect from wind, are commonly placed on opposite facades due to transportation logistics.

Ornaments and tectonics

Often built without blueprints and mainly for practical needs, the aesthetics and beauty of barns and byres mainly lies in their construction. But pride of the building and its function also contributes to examples of ornamentation and decorations (ibid.).

Reference studies



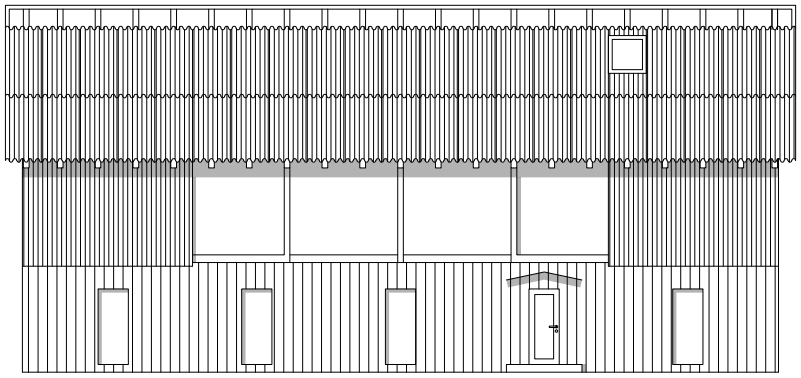
Red barn
Unknown, 1800s

In different places around the city, one can still find traces from when urban was rural. Located at Gothenburg's botanical garden, a small granary in falu red houses temporary exhibitions. The building is built out of timber, with a gable roof in brick tiles, crowned with a small clock-tower.

As a reference study, the old barn embodies elemental tectonics and rythm with its placing of openings and granite plinths. The rain gutter contributes to a clear eave, whilst irregular details, such as the clock-tower, leads up to a more interesting and playful whole.

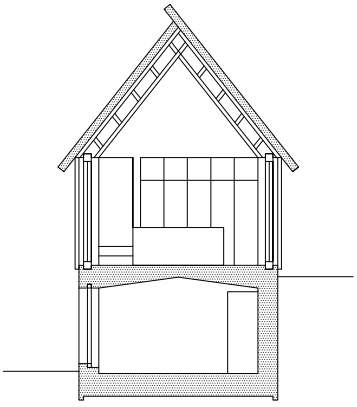
Elevations
1:200 (A4)

Red barn
Klara Mattisson, 2020



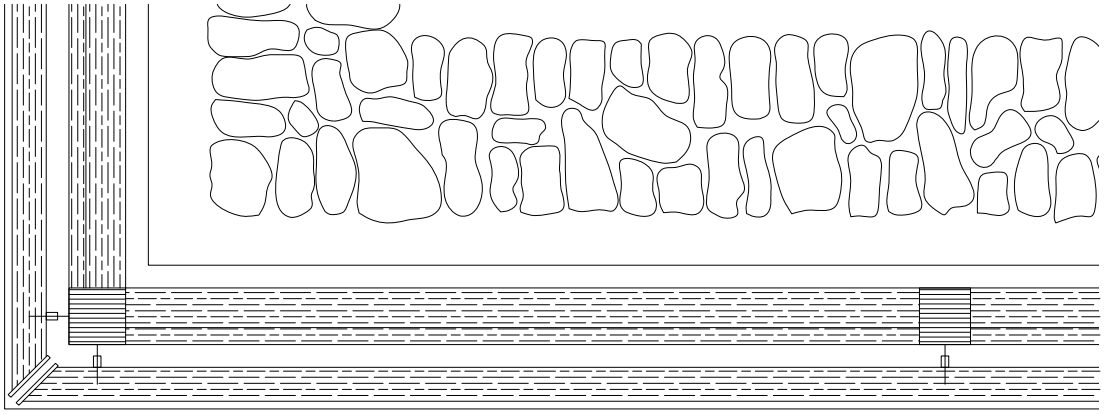
House Schneller Bader
Bearth & Deplazes, 2016

House Schneller Bader in Tamins, Switzerland, is a contemporary example of interpretation of the byre typology. The long and narrow volume has a solid base with a filigree structure on top. Especially interesting is the materiality, where the concrete relate to the wood with its timber formwork.



Elevation & Section
1:200 (A4)

Figure 3: House Schneller Bader
Andreas Graber, 2016



Shelter for Roman Ruins
Peter Zumthor, 1986

Shelter for Roman Ruins is a protective structure as well as an exhibition space for an Ancient Roman archaeological site in Chur, Switzerland. Except for Zumthor's inspirational sensitive architectural approach, this reference contributes with detailing for filtering daylight and sight. The timber lamella referring to the experience of the interior of an old barn.

Horizontal Section
1:20 (A4)

Shelter for Roman Ruins
Klara Mattisson, 2018

Site

Vasa kyrkoplan

The proposal is going to be located at *Vasa Kyrkoplan* in the *Lorensberg* district in central Gothenburg. The plot offers closeness to significant cultural scenes, for instance *Götaplatsen* and the art museum, as well as to important public paths and transport areas. The site is chosen primarily since it was the location of a former landeri, namely *Götaberg*, during 1800-1899 (Göteborgs Stadsmuseum, 2018). The farm property consisted of two manor buildings together with several small barns and byres and the adjacent fields was mainly for pasture. In 1899, the landeri was redeemed to make way for the church and the land became public parks.

An addition of a museum will broaden the existing cluster of exhibition spaces, as well as contribute with clarification of the historical layer that is vaguely present on the site today. At the same time, there could be a challenge within placing the rural typology, even an abstract one, in the middle of this urban context. The new volume aim to strengthen the meeting between *Molinsgatan* and *Engelbrektsgatan*, as well as enhance the courtyard of the church and parish house.

The existing architecture at the site consists foremost of solitary volumes in brick and housing blocks in stone. *Vasakyrkan* was drawn by architect Yngve Rasmusson as a result of a competition and built during 1904-1909 (Lönnroth, 1999). The building is characterized by its neo-romantic style, granite facade and detailed ornaments. *Vasa församlingshem* was drawn by architect Bo Cederlöf and built in 1959. Even if relatively small, the brick building is complex and constantly shifts in character and form. The additional project aim to correspond the most to the parish house due to similarities in scale.

Site plan
1:4000 (A4)

1. Vasakyrkan
2. Vasa församling
3. Engelbrektsgatan
4. Molinsgatan
5. Aschebergsgatan

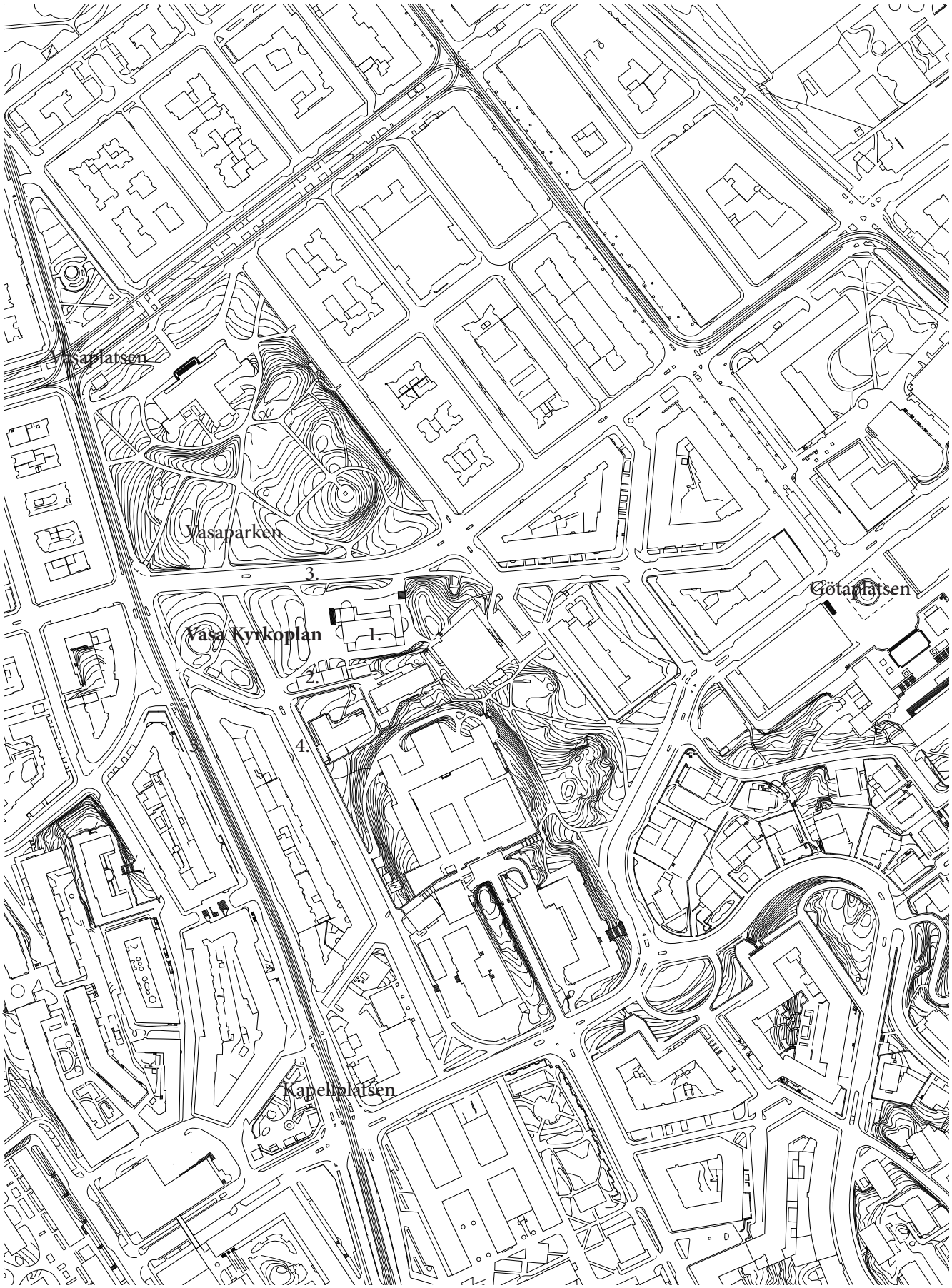
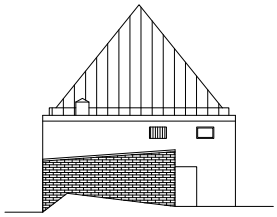
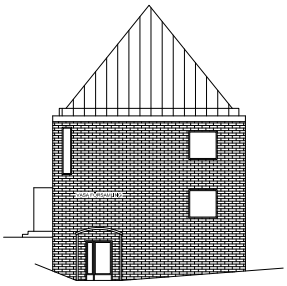
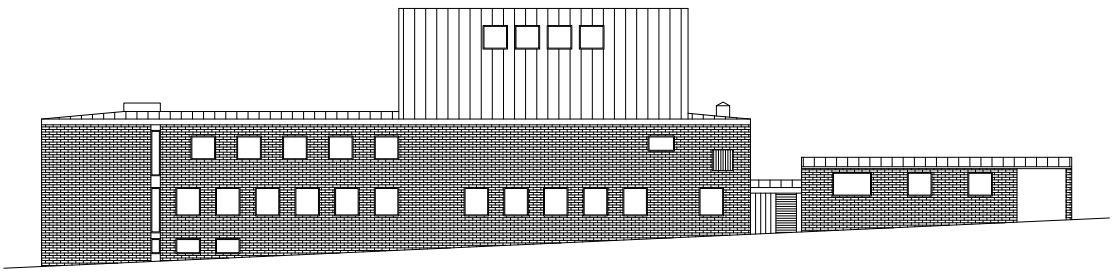
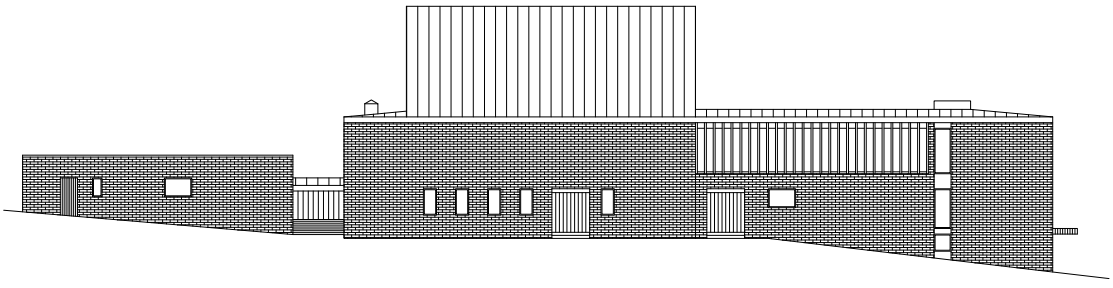

Vasaplatsen
Vasaparken
3.
Vasa Kyrkoplan
1.
2.
4.
Götaplatsen
Kapellplatsen

Figure 4: Vasa Kyrkoplan
Göteborgs Stadsmuseum, 1912







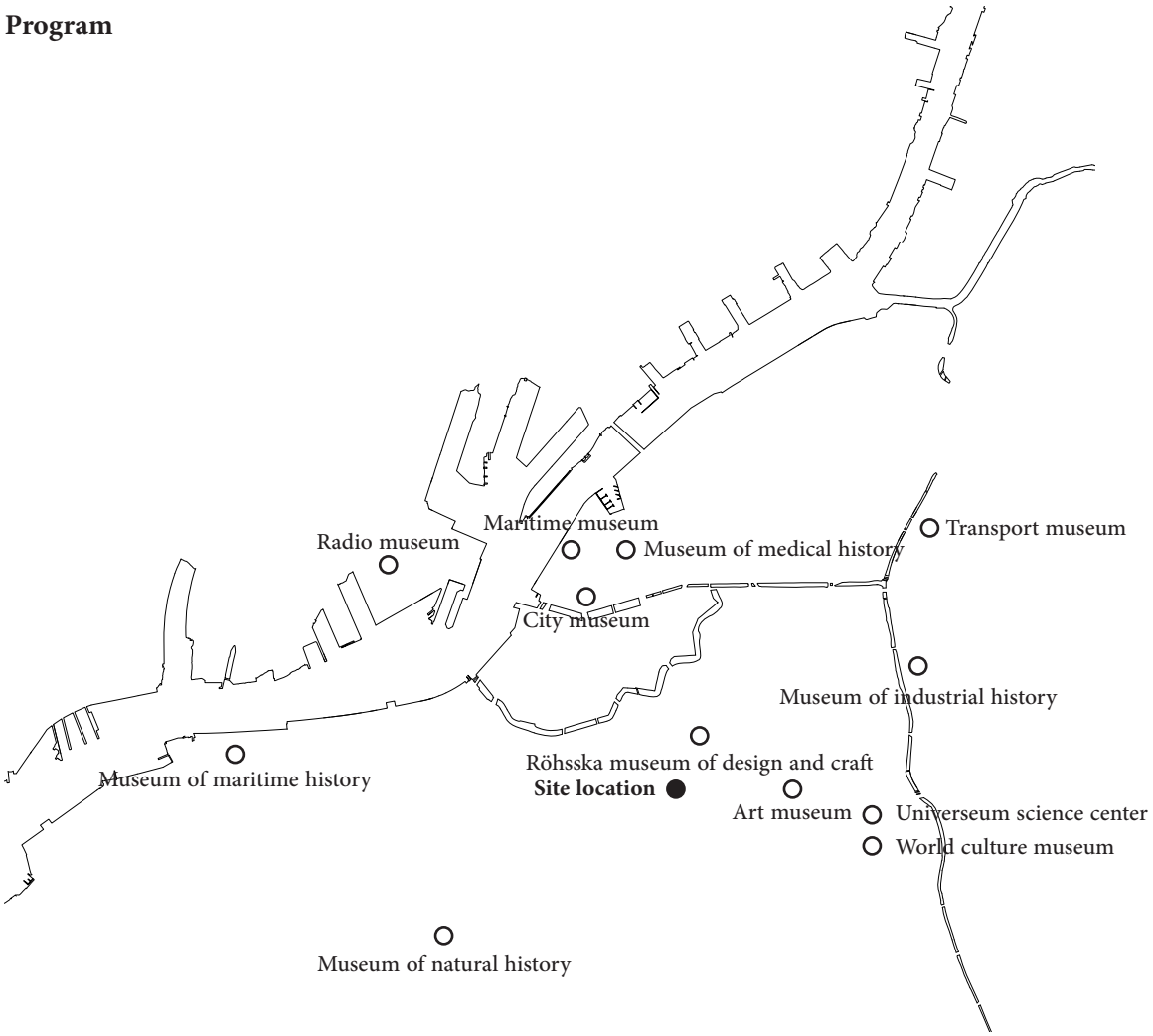


Vasa församling
1:400 (A4)

Vasa Kyrkoplan
Klara Mattisson, 2020

Vasa Kyrkoplan
Klara Mattisson, 2020

Program



Existent museums

Like any other city, Gothenburg houses a variety of museums with both local, national and international approach. What perhaps stands out is the nautical heritage, which mainly manifests in two major museums for maritime history. Another local characteristic is the production of Volvo cars, which are dedicated a museum at the factory, outside the city center.

The addition

According to a report on cultural environment (Göteborgs stadsmuseum, 2018) there seem to be a deficiency in the display of the agricultural heritage of the city. Within the framework of *rural life,* the addition aim to display both historical and contemporary exhibitions within an identifiable volume. The space also aim to be flexible in order to host different kinds of cultural events. Furthermore, the building contains a café which can operate on its own during closure.

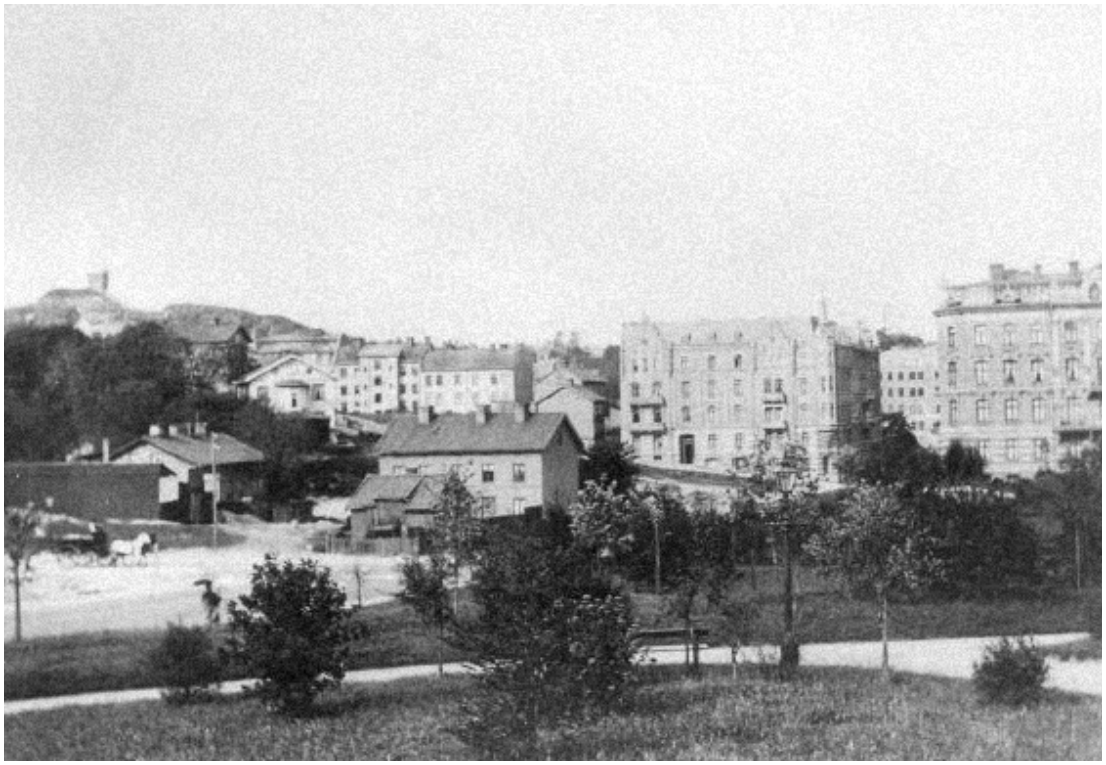


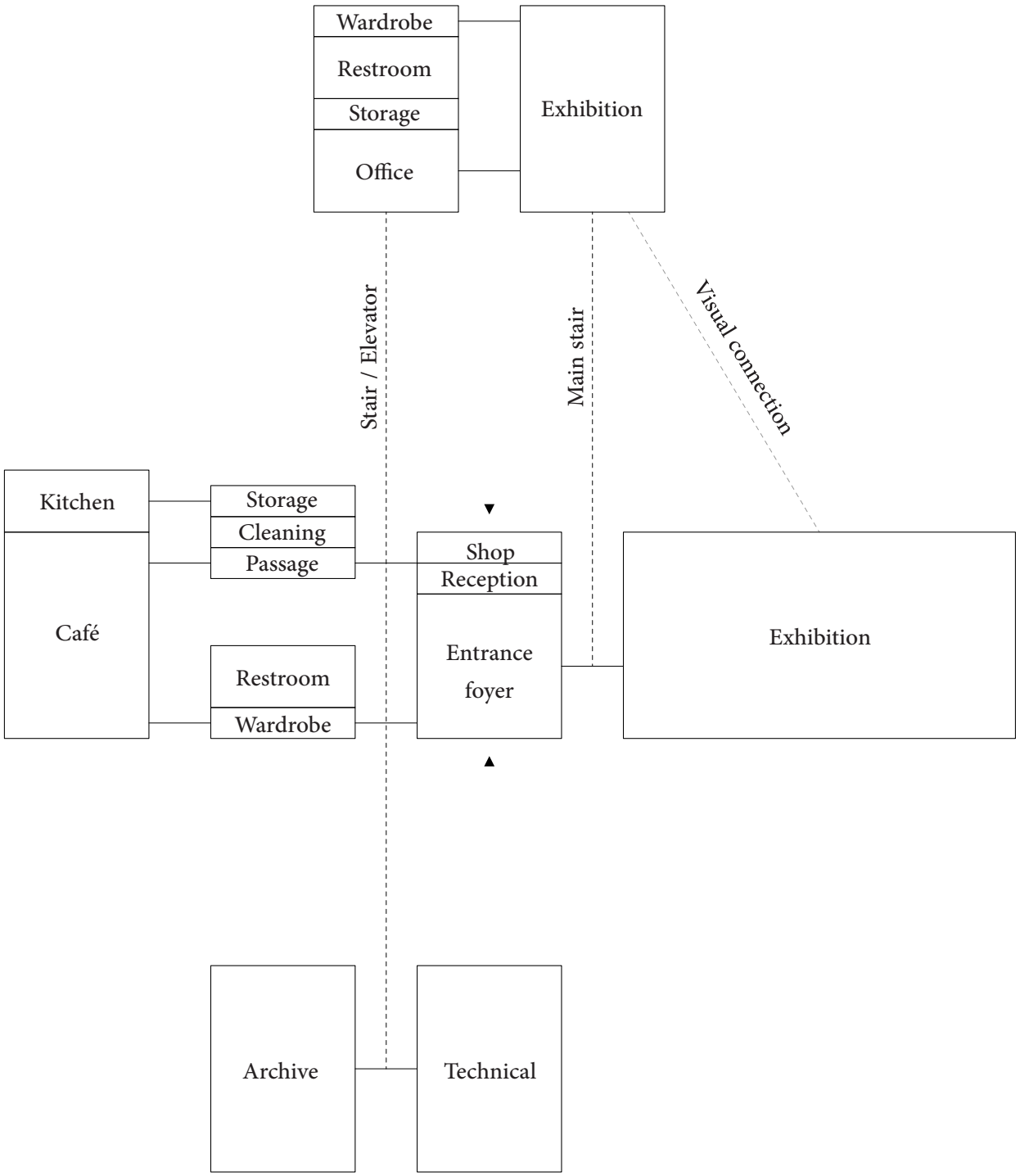
Figure 5: Vasa Kyrkoplan
Göteborgs Stadsmuseum, 1890

Space program

Museum of rural life in Gothenburg /
Göteborgs Landerimuseum

Foyer services		*Other facilities*	
Entrance / reception	70 m²	Storage / Archive	70 m²
Coffee shop / kitchen	75 m²	Cleaning	5 m²
Restrooms / lockers	50 m²	Technical	55 m²
		Stair / Lift	15 m²
Exhibition facilities		Office	25 m²
Exhibition 1st floor	160 m²		
Exhibition 2nd floor	70 m²	**Total**	**~600 m²**
		Footprint	**~420 m²**

Connections



III. Proposal

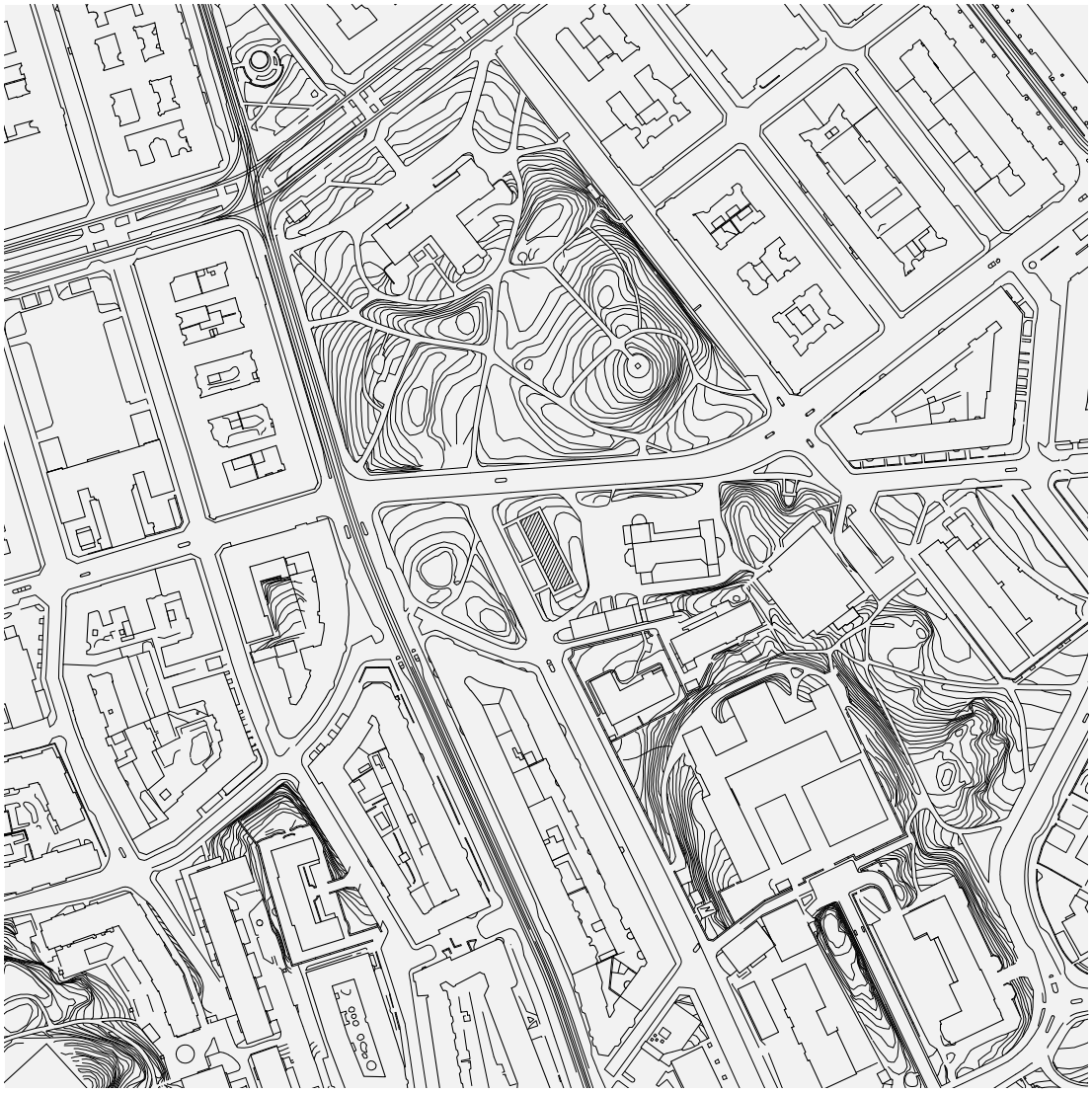
Situation

Located in the middle of the stone town, a barn could perhaps be seen as a stranger. But fact is, about a century ago farm buildings were still a fairly common picture within the city center. *Museum of rural life in Gothenburg / Göteborgs Landerimuseum* is an exhibition space that aim to display the coexistence of rural and urban. Aside from a permanent exhibition over Gothenburg's agricultural heritage, the museum will be occupied with temporary events concerning culture and identity.

The new museum is situated at *Vasa Kyrkoplan*, which is also the location of the former landeri property *Götaberg* (1800-1899). Today, the site is foremost defined by the great church *Vasakyrkan* and its parish house *Vasa församling*, together with the main street of *Engelbrektsgatan* and various solitary volumes in brick or stone. Also *Vasaparken* and other vegetation is clearly present in the surrounding area.

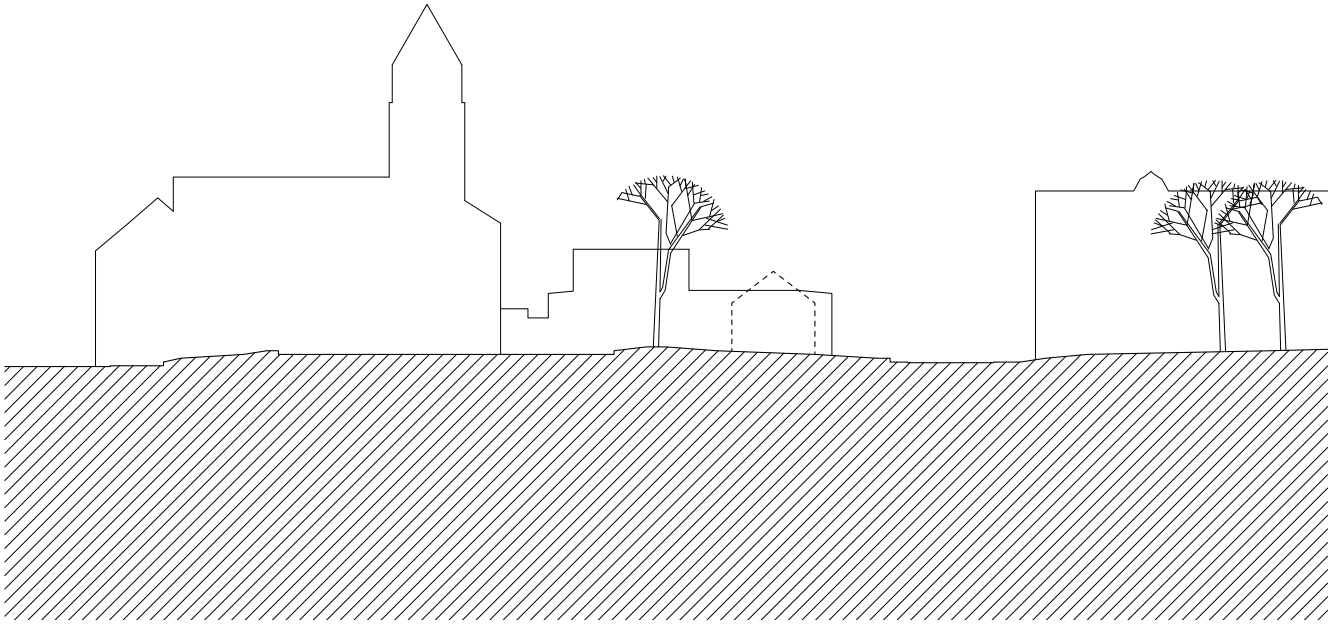
The building follows the direction of *Molinsgatan* to strengthen the meeting with the main street and further define the courtyard of the church and parish house. All openings are placed at opposite facades to create sightlines through the building. Furthermore does the new typology contribute with both complexity and clarification regarding historical depth and diverse aesthetics at the site.

View from Vasakyrkan

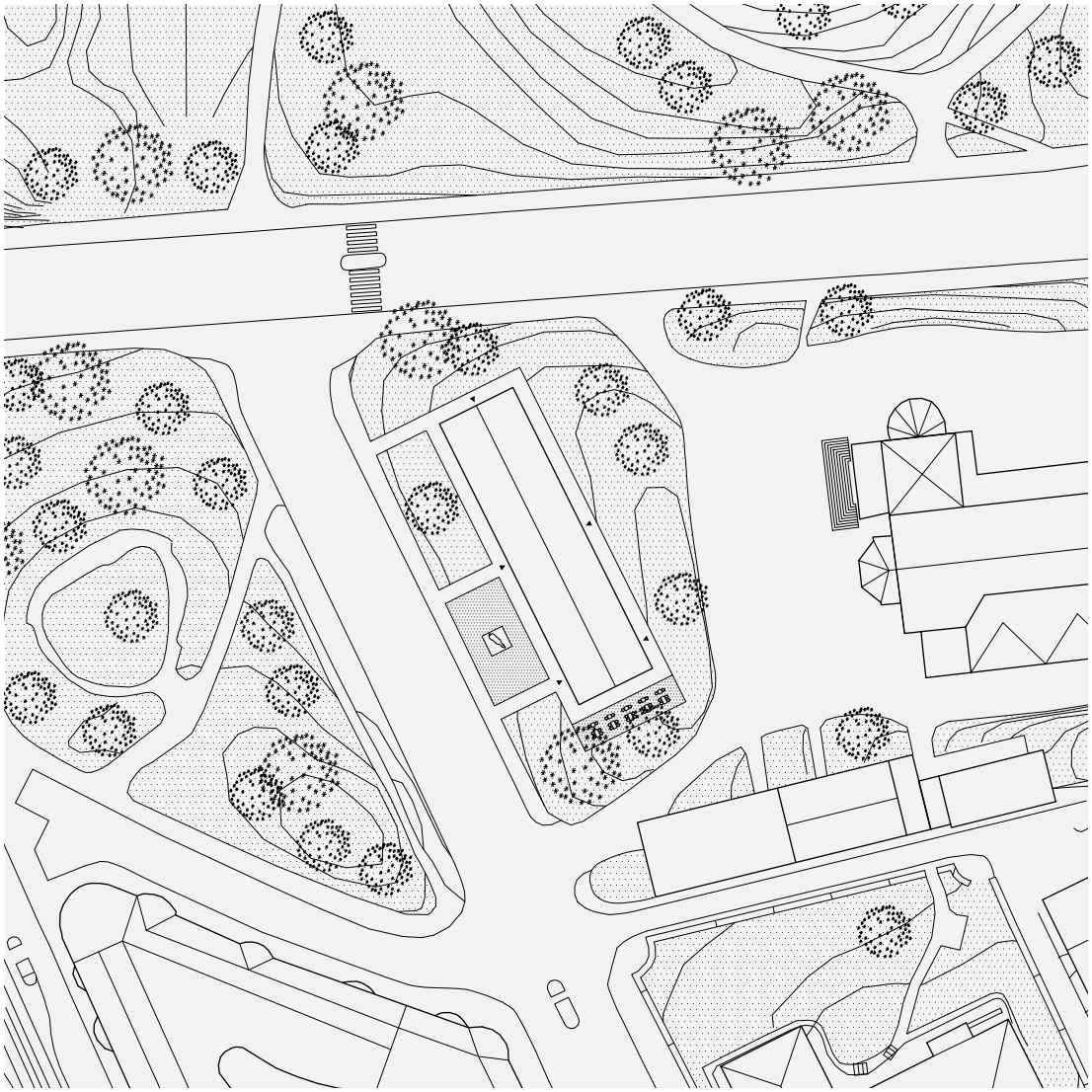


Site plan

1:4000 (A4)

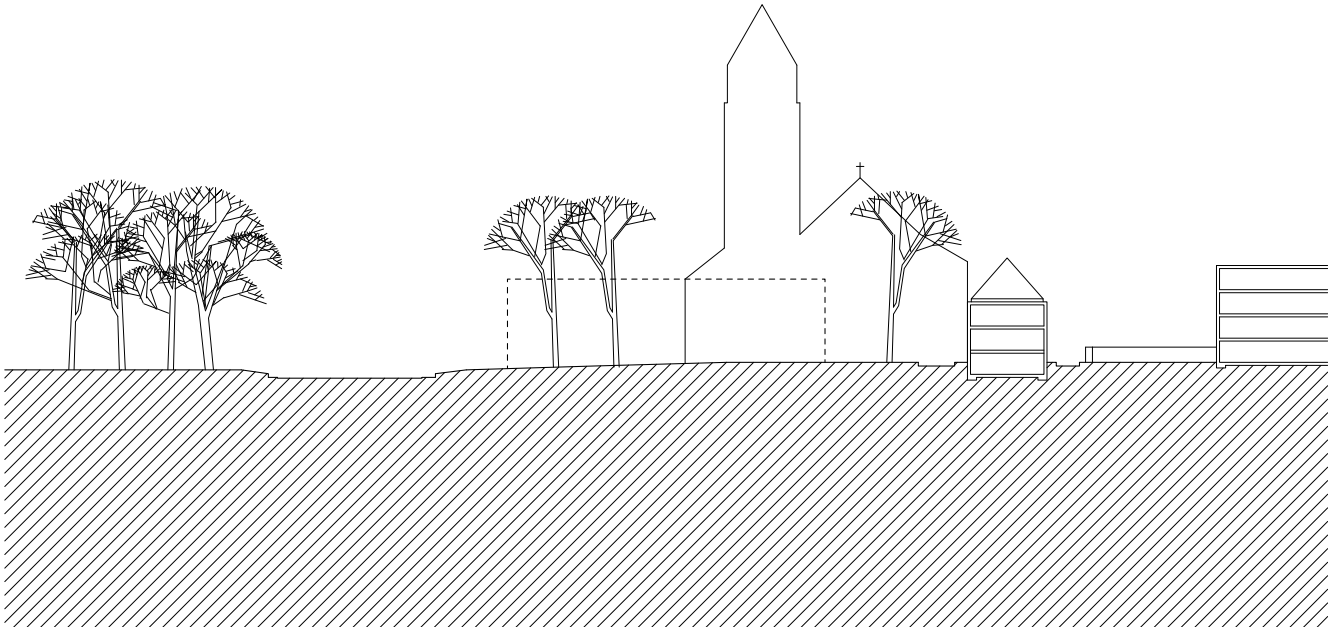


Site section
1:1000 (A4)



Site plan

1:1000 (A4)



Site section

1:1000 (A4)

Site & Building
Physical model
1:400

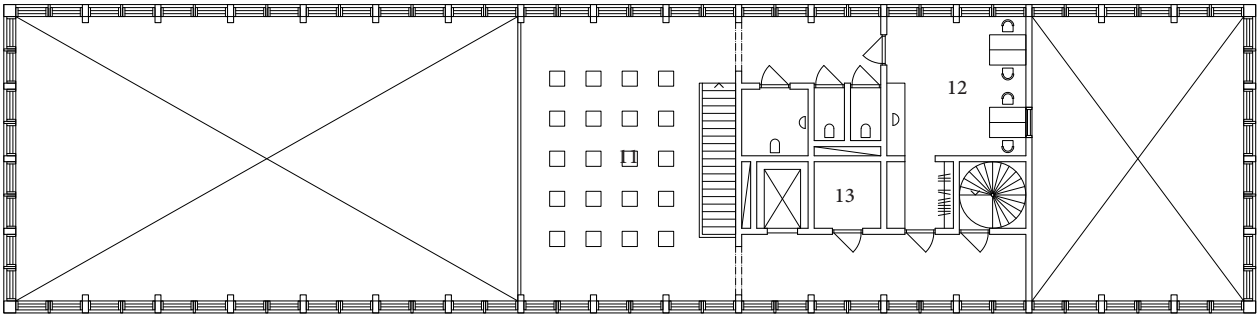
Building

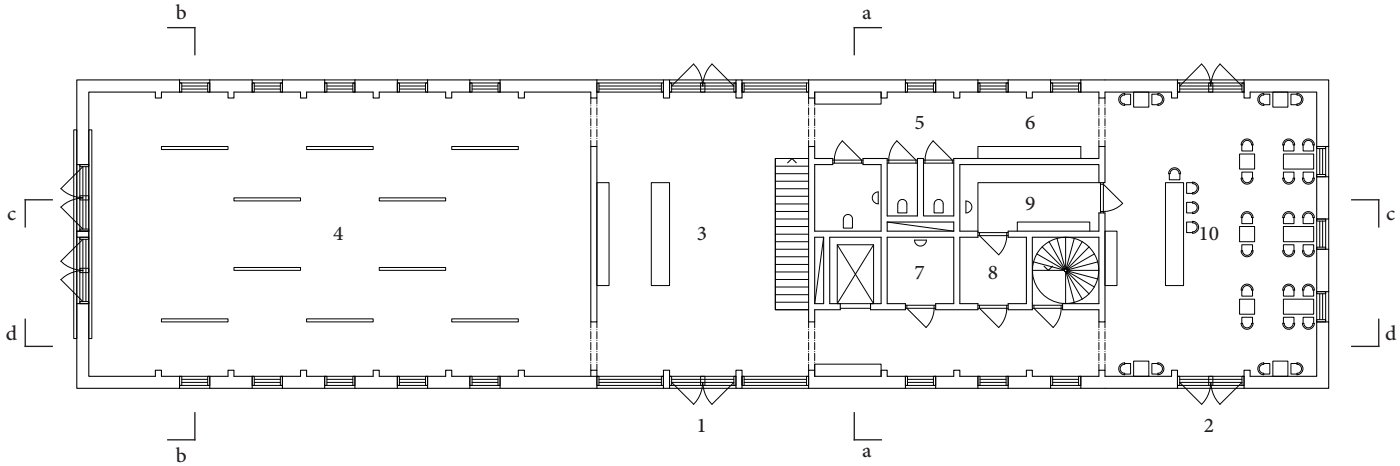
Museum of rural life in Gothenburg / Göteborgs Landerimuseum is in total 595 m^2 and is an exhibition space displaying urban agricultural heritage. The building is a contemporary interpretation of the traditional Swedish barn and byre as it reflects a familiar rural architecture with its long and narrow volume crowned with a gable roof. The exterior expression is defined by the solid base in concrete and the above filigree construction in timber.

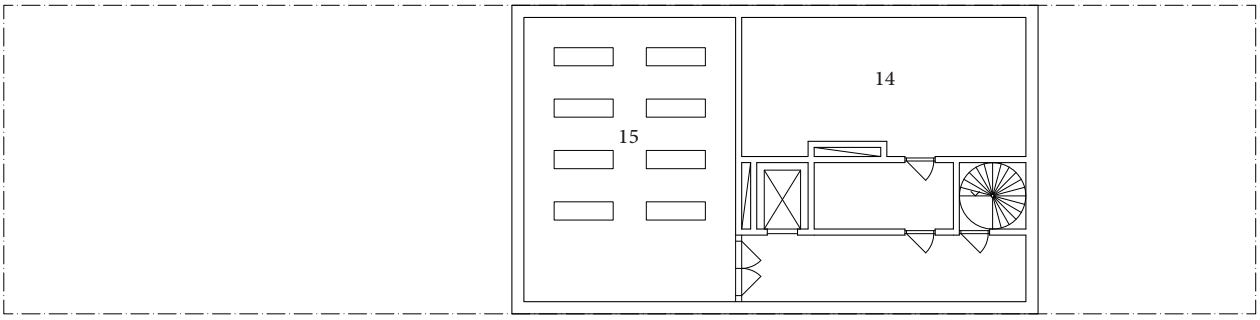
The visitor enters the museum in the very middle of the volume (1), a motif that often can be seen in the traditional rural architecture. Similar to the ante-chamber of an church, the ceiling height of the entrance foyer (3) is comparatively low, to enhance the experience of the spacious exhibition hall (4) behind the reception and museum shop. Upstairs hints the exhibition loft (11), which is reached through the main stair in the entrance foyer or the elevator in the passage.

On each side of the main stair are two passages including supporting functions, such as restrooms (5) and lockers (6), eventually leading to the café (10). On the first floor are staff areas (12) and in the basement are the museum storage (15) and technique facilities (14).

1. Entrance to the museum
2. Entrance to the café
3. Entrance foyer
4. Exhibition hall
5. Restrooms
6. Lockers
7. Cleaning room
8. Café storage
9. Kitchen
10. Café
11. Exhibition loft
12. Office
13. Technique room
14. Technique area
15. Museum storage





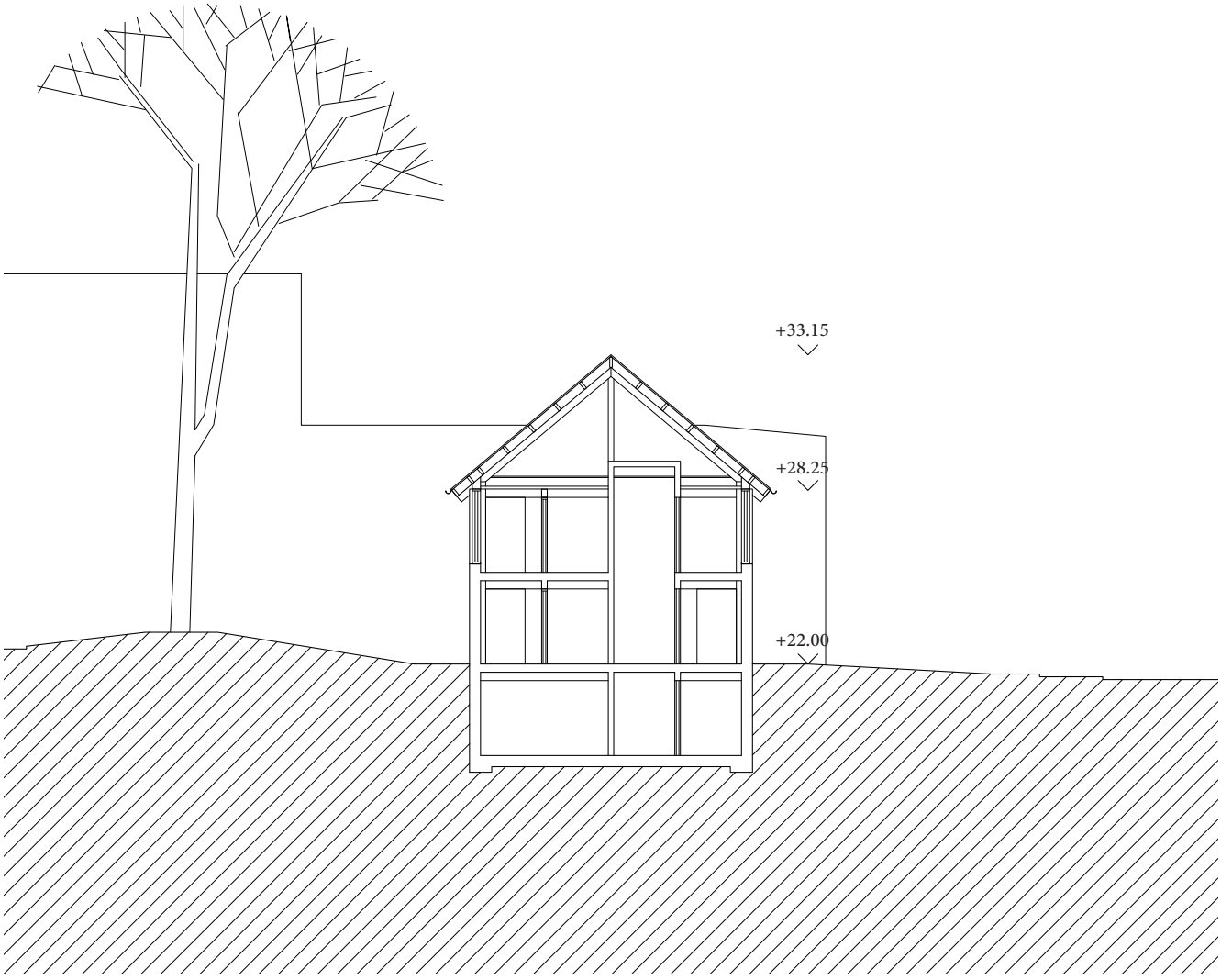


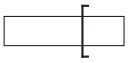
Floor plan 1

Floor plan 0

Floor plan -1

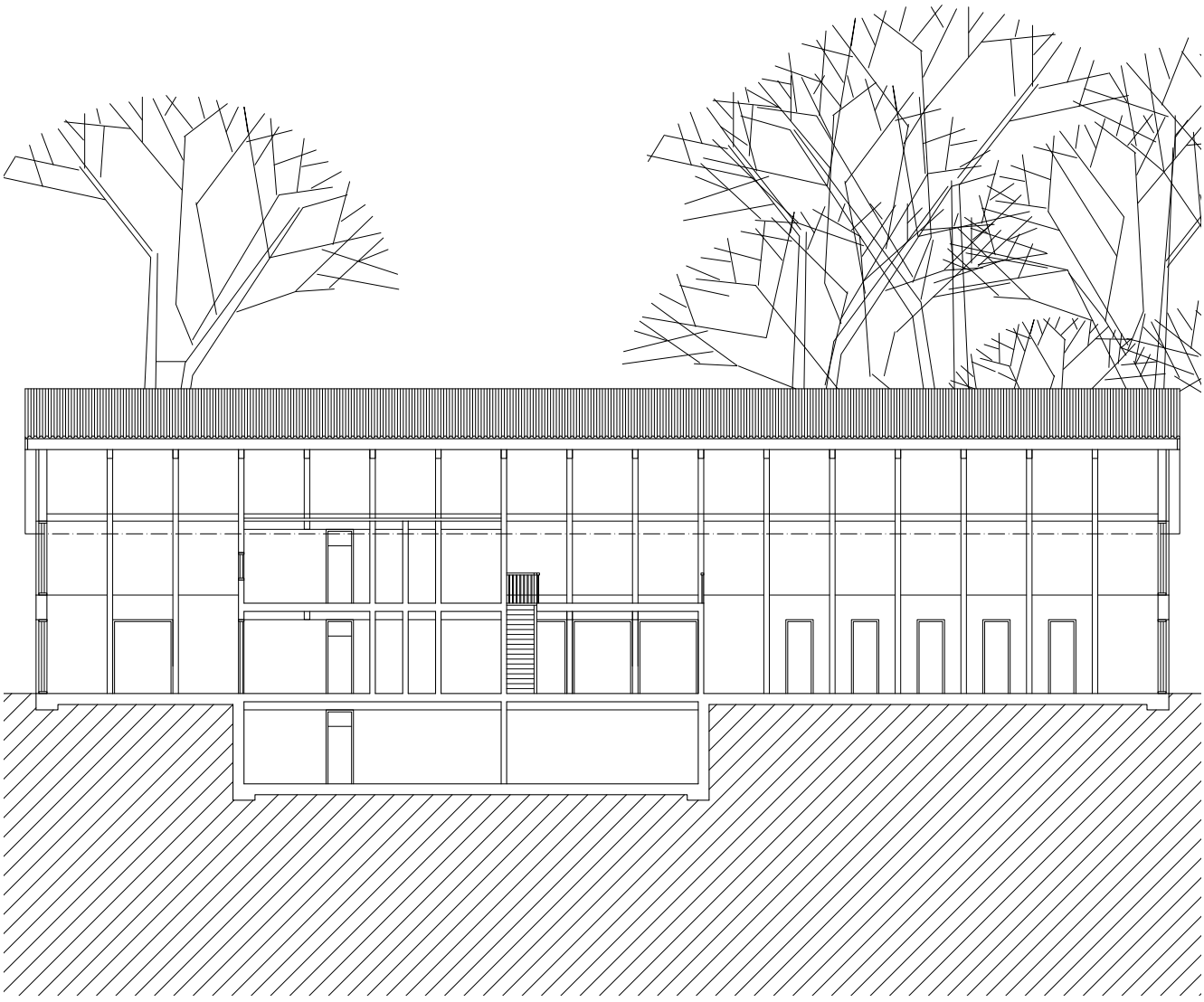
1:250 (A4)





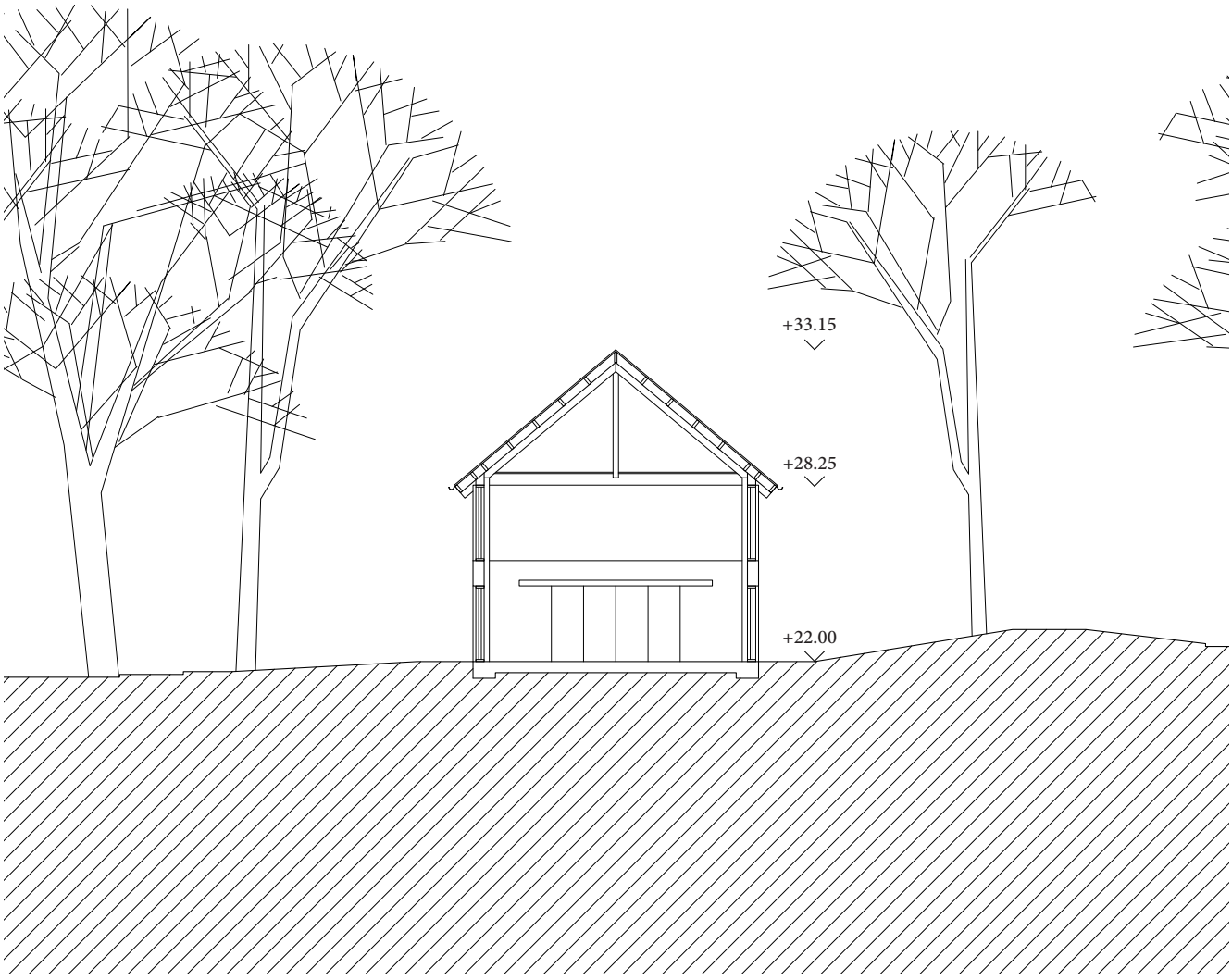
Section a-a

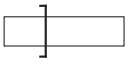
1:250 (A4)



Section c-c

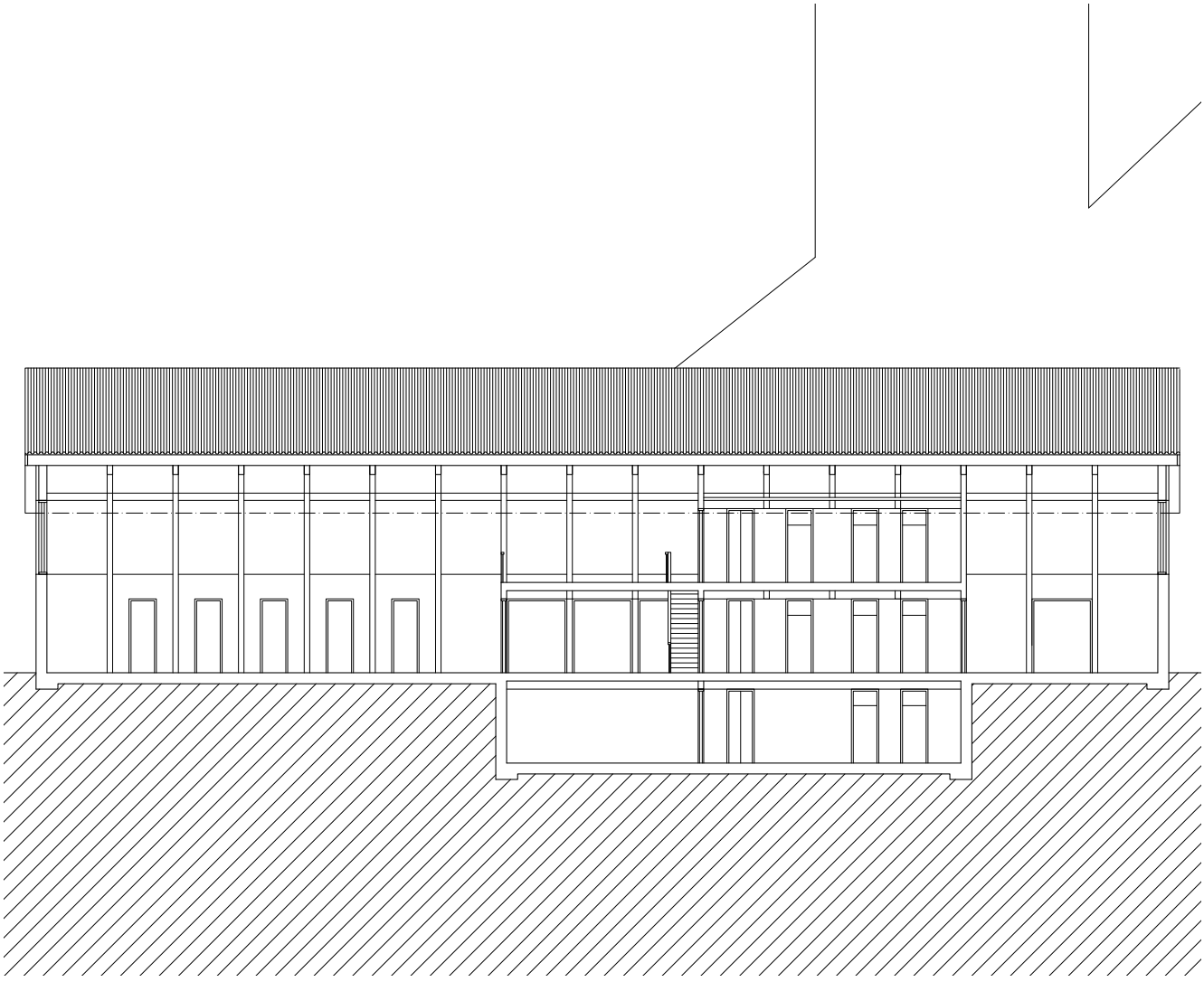
1:250 (A4)





Section b-b

1:250 (A4)

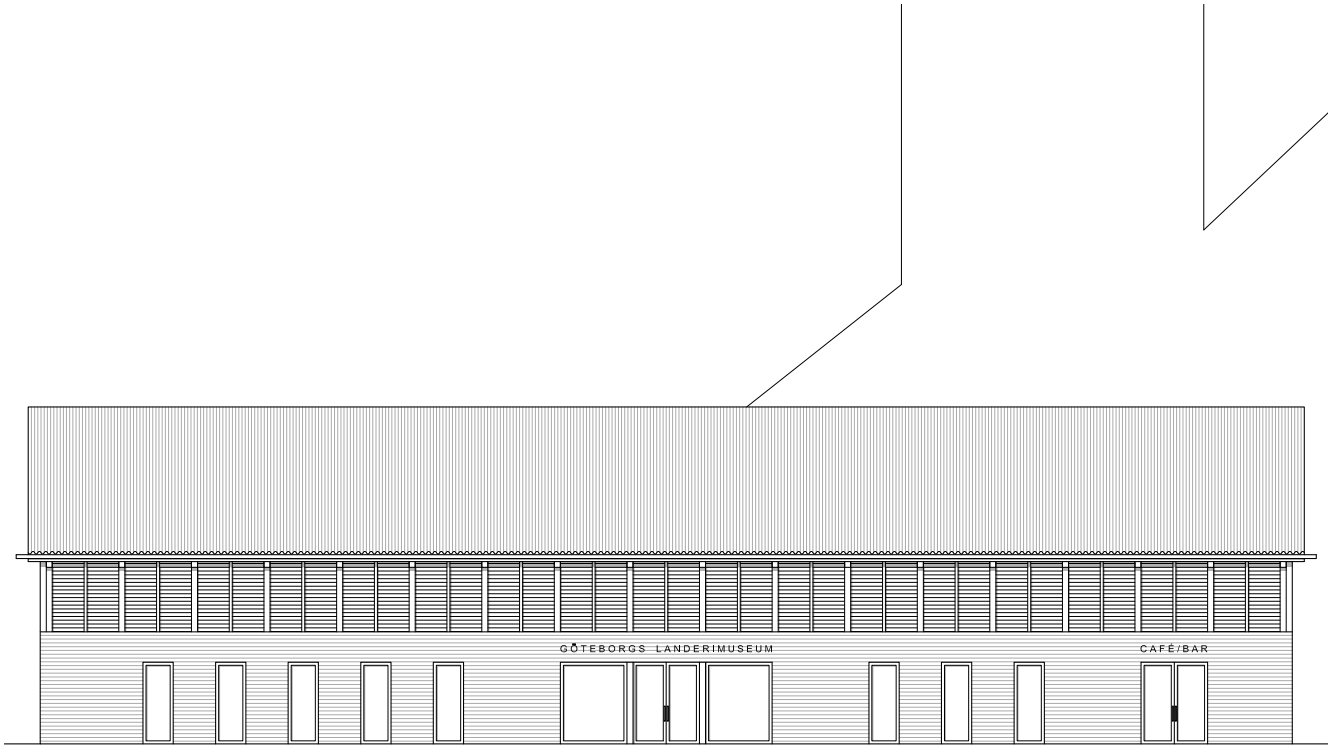


Section d-d

1:250 (A4)

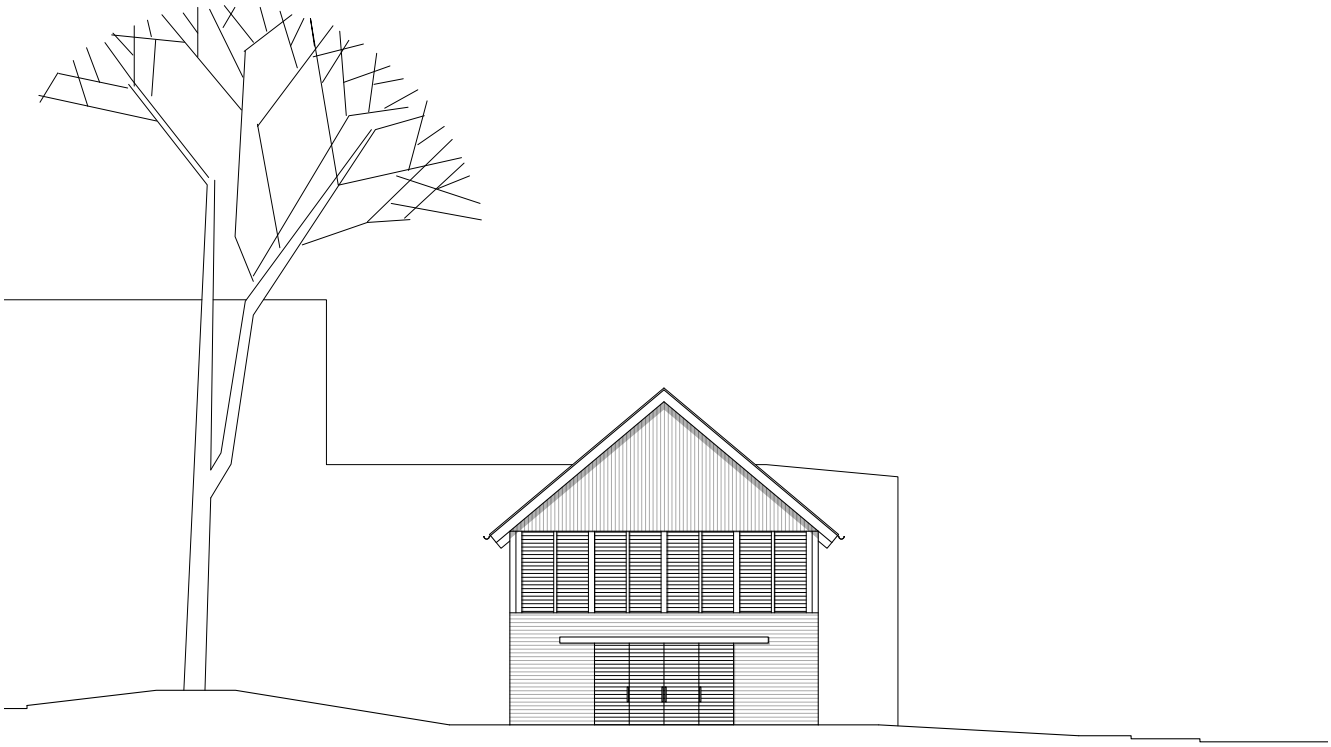
Elevation South

1:250 (A4)



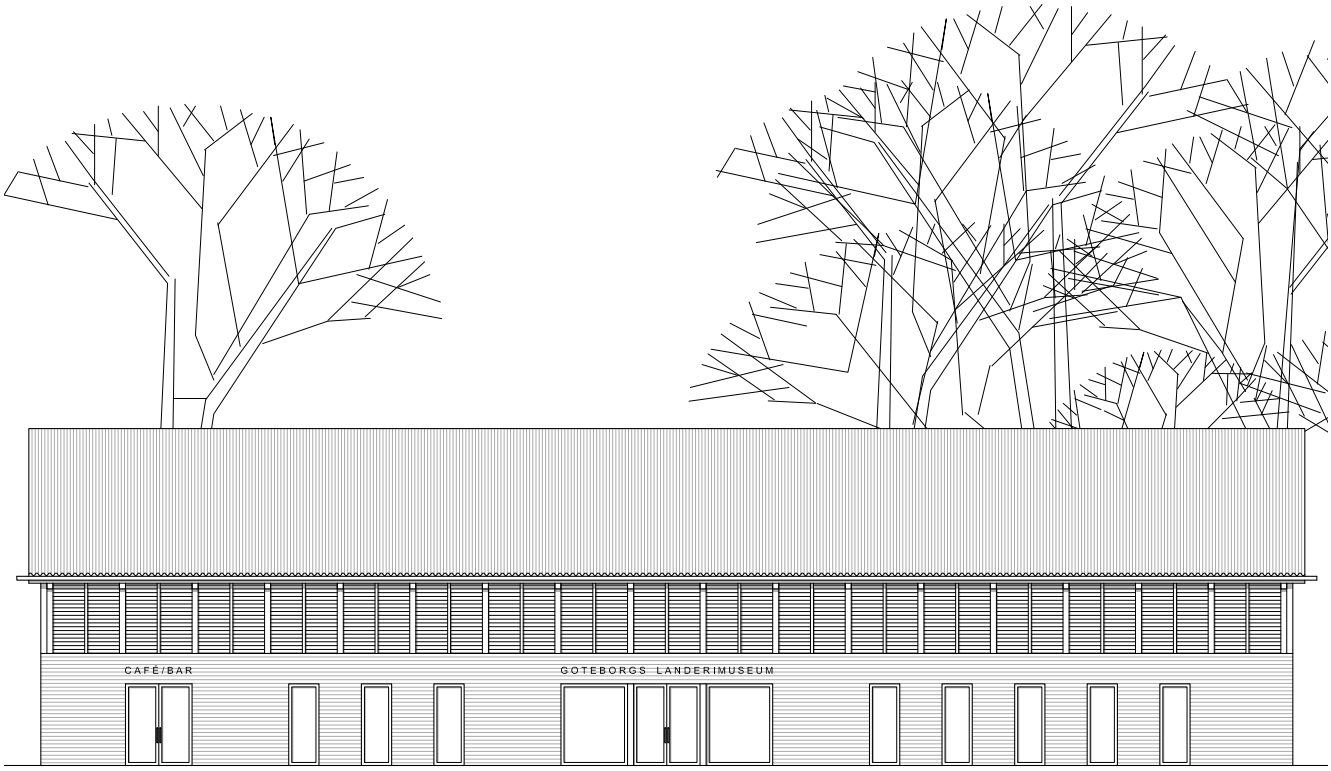
Elevation West

1:250 (A4)



Elevation North

1:250 (A4)



Elevation East

1:250 (A4)

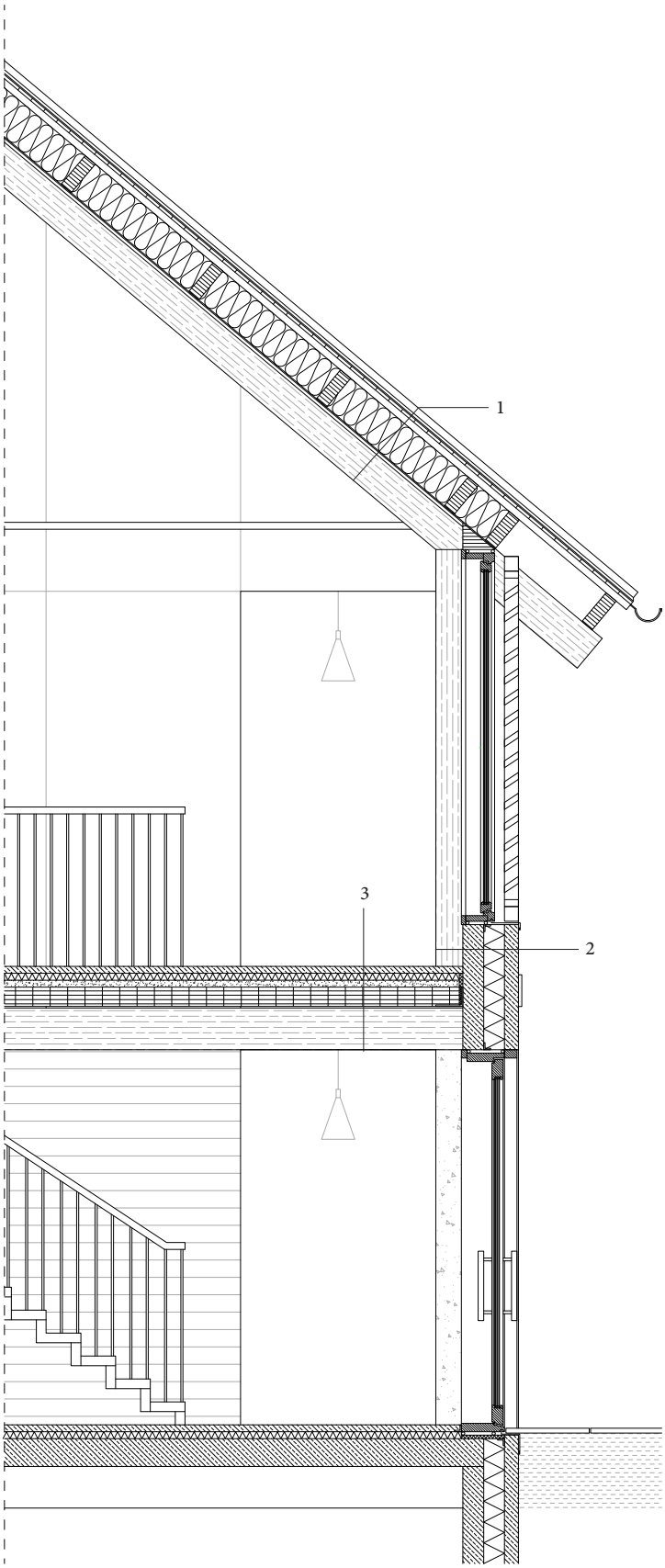
Detail

The materiality is characterized by concrete and timber in coexistence. There is a distinct horizontal fragmentation between the compact base and the open trusswork, which is directly inspired by the traditional byre typology. This makes the building readable from outside and tells the viewer a lot about function, floor height and slab disposition.

The timber formwork concrete abstracts horizontal panels and contributes with the more raw aestethics. The second floor is defined by the raster frames which filtering daylight and sight, referring to the experience of an old barn or byre, when the light seep through the sparse planks in the wall.

Except for deep directional lights, the building is sparsely illuminated. This to enhance the filtering raster, especially in the exhibition hall, which is open between floors. Timber, concrete and steel in distinct assembly creates a spacious experience and the essential gable form.

Entrance foyer



1. Roof

Corrugated metal sheet	
Roofing felt	5 mm
Timber panel	22x120 mm
Ventilated cavity	45 mm
Covering layer	5 mm
Thermal insulation	270 mm
Vapour barrier	5 mm
Timber panel	22x120 mm
Glulam top chord	180x225 mm

2. Wall

Timber formwork concrete	100 mm
Thermal insulation	150 mm
Fair-face concrete	150 mm
Glulam pillar	180x180 mm

3. Floor

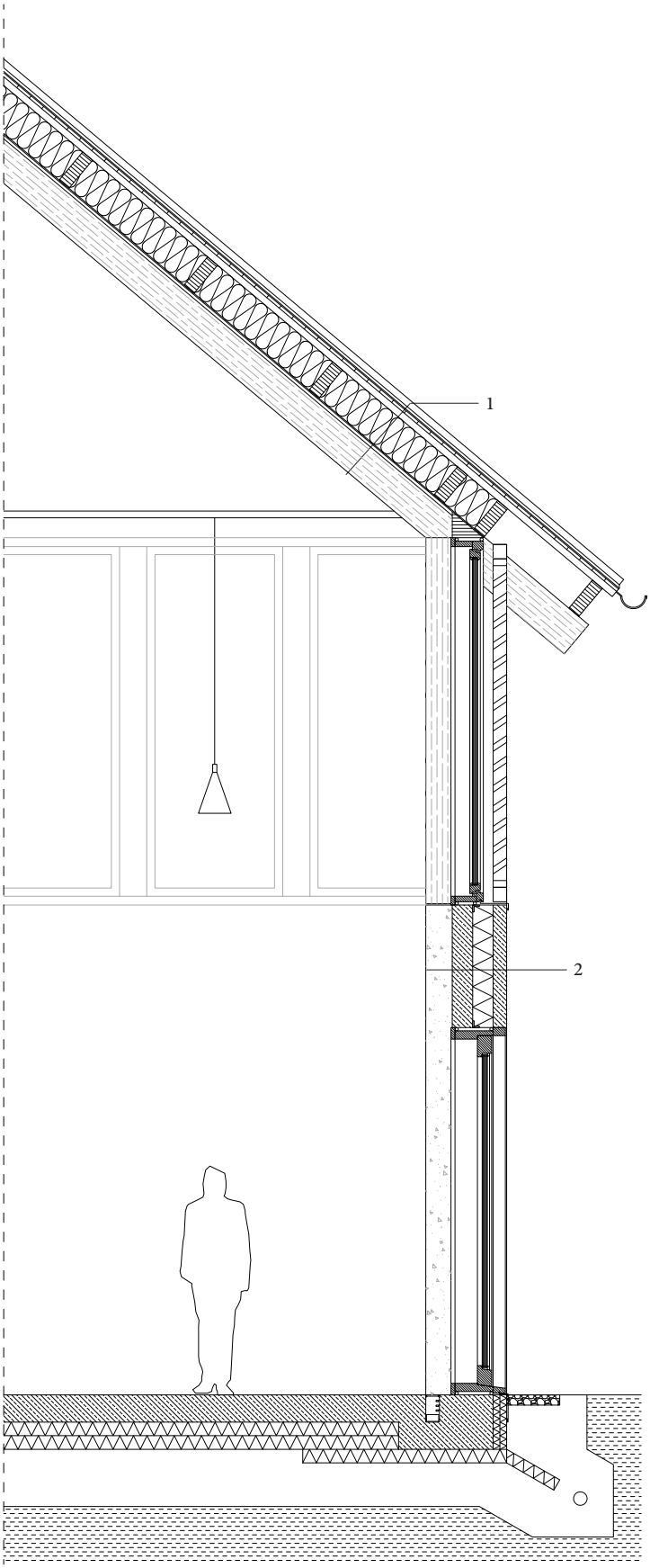
Cement screed	50 mm
Seperation layer	0,2 mm
Insulation	50 mm
Elastic bonded fill	50 mm
Cross laminated timber	150 mm
Plywood sheet	12 mm
Glulam beam	180x225 mm

Entrance Section

1:50 (A4)

Entrance Elevation

1:50 (A4)



1. Roof

Corrugated metal sheet	
Roofing felt	5 mm
Timber panel	22x120 mm
Ventilated cavity	45 mm
Covering layer	5 mm
Thermal insulation	270 mm
Vapour barrier	5 mm
Timber panel	22x120 mm
Glulam top chord	180x225 mm

2. Wall

Timber formwork concrete	100 mm
Thermal insulation	150 mm
Fair-face concrete	150 mm
Concrete pillar	180 mm

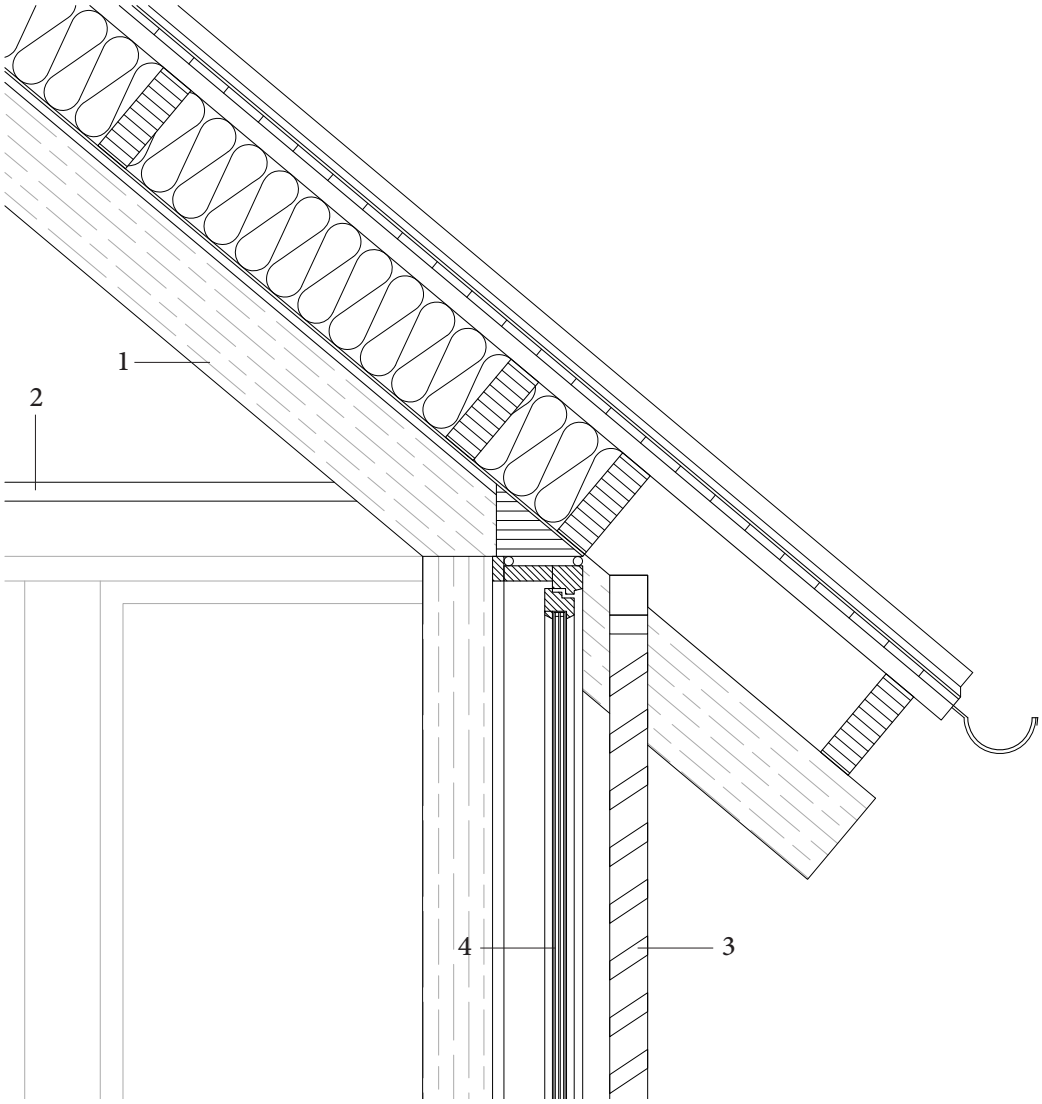
Exhibition hall Section

1:50 (A4)

Exhibition hall Elevation

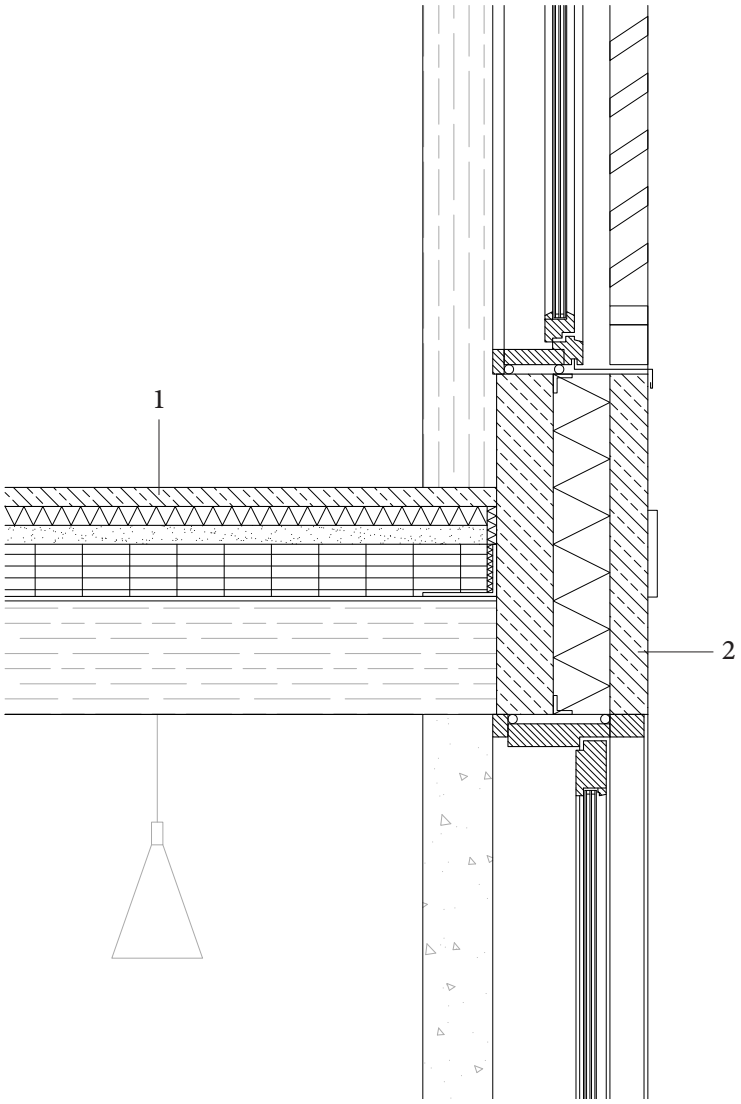
1:50 (A4)

Exhibition hall



1. Glulam truss 2. Steel tension rod
3. Wooden raster in falusvart 4. Openable window in ash

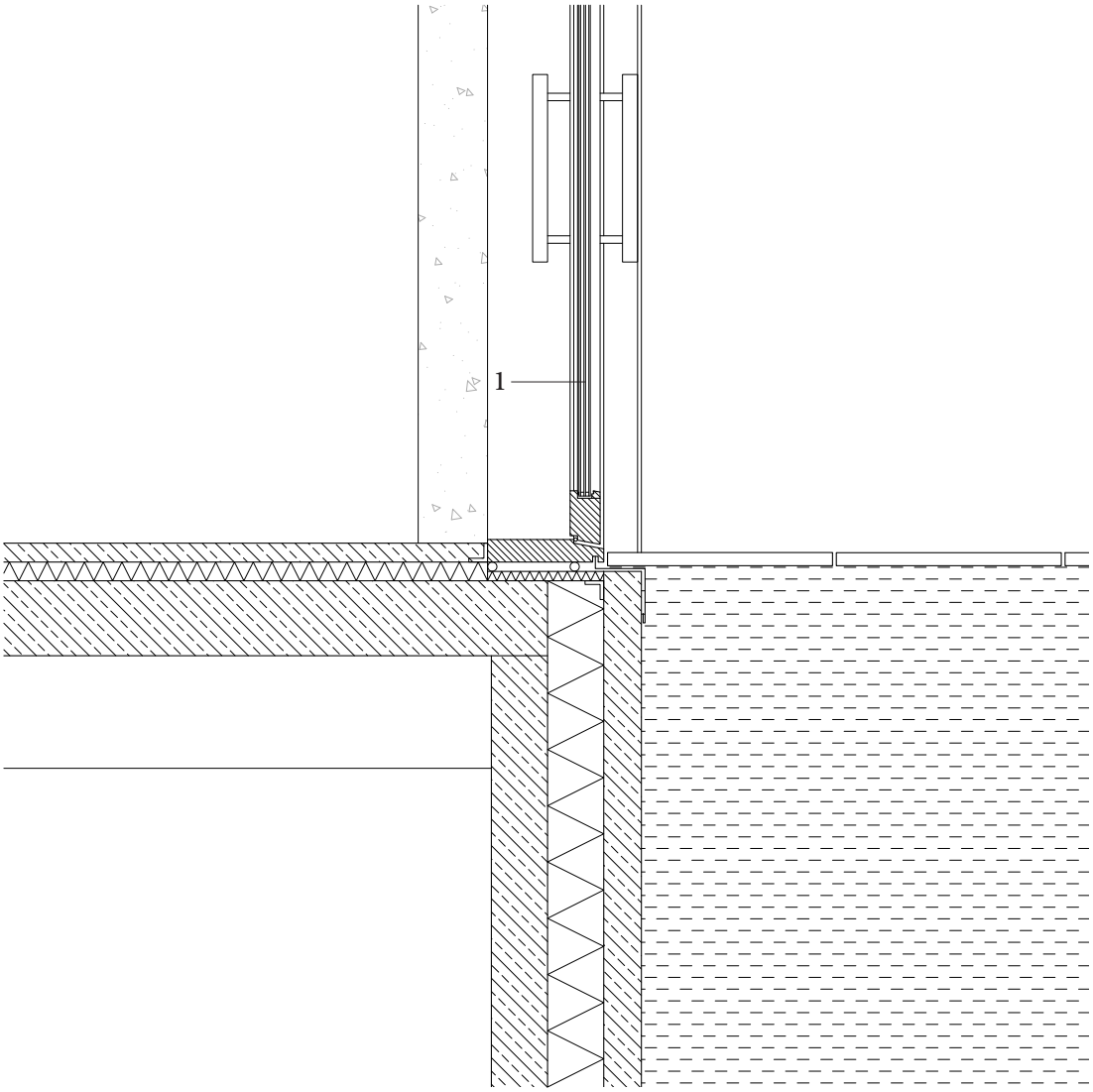
Roof - Wall
1:20 (A4)



1. CLT floor 2. Timber formwork concrete

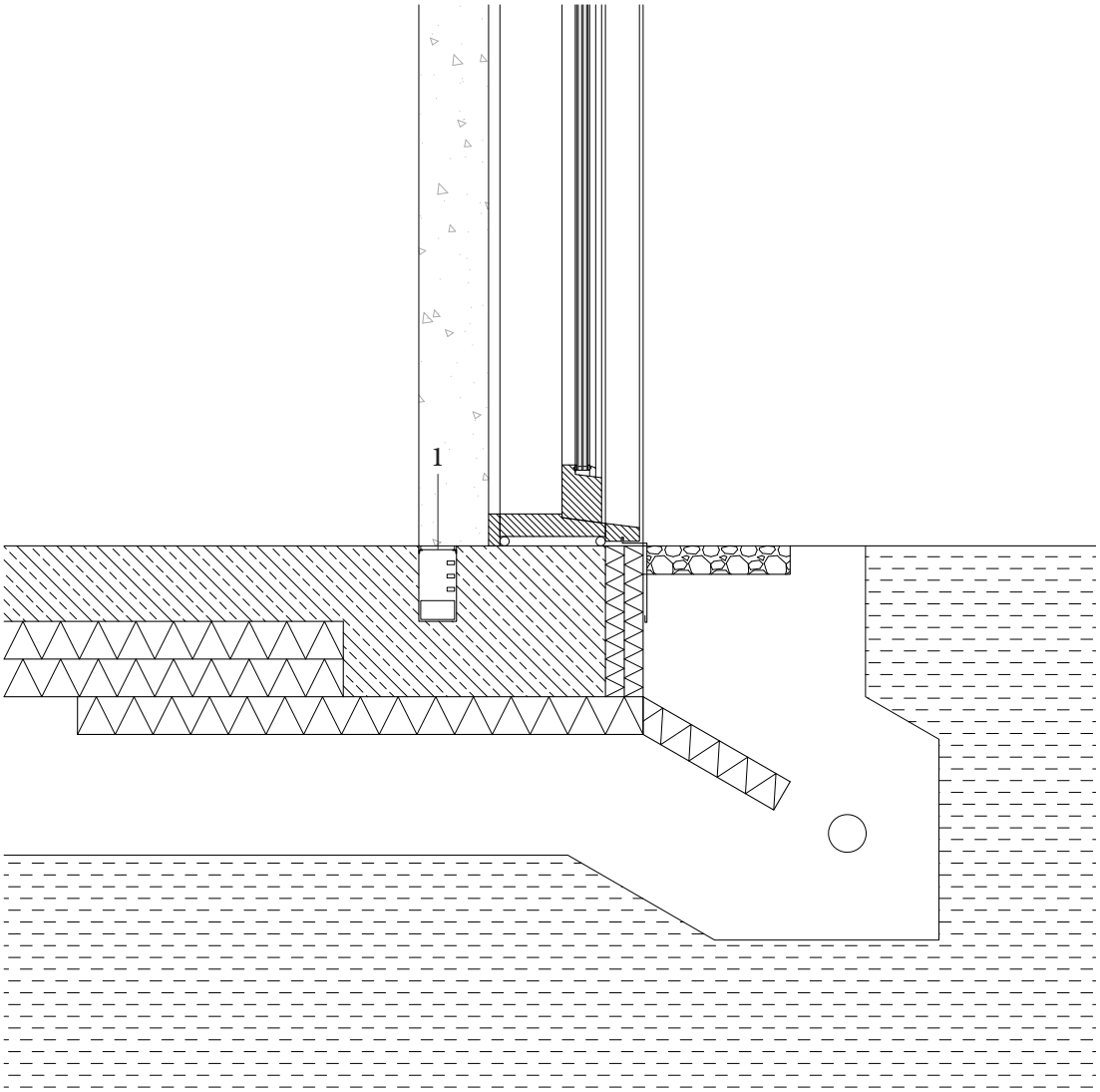
Wall - Floor

1:20 (A4)



1. Entrance door in ash

Wall - Ground
1:20 (A4)



1. Ventilation grid

Wall - Ground

1:20

Café

IV. Epilogue

Summary

This master's thesis began with the question: *How can the traditional Swedish barn and byre as typologies be reinterpreted into contemporary built form?* Furthermore, two important concepts within the theoretical framework were stated, namely *Architecture and culture* and *Building and tectonics*, with the aim to connect identity and built form. The predicted outcome was a museum exhibiting rural heritage within an urban setting.

A typology study were performed (research *on* design), which lead to the definition of parameters describing the traditional Swedish barn and byre that could be used in the forthcoming design process (research *by* design). The search for a site had its point of departure in the local history of agricultural property (landeri) within the city of Gothenburg. The eventual location for the project were chosen due to that context, as well as its central position in the city, where the rural could both contrast and relate to the urban.

The proposed building is a museum of rural life, built out of concrete and timber in coexistence. The rectangular volume, crowned with a gable roof, intend to reinterpret the familiar form of rural architecture, thus within an urban setting. The project is presented in a set of drawings, perspective renderings and physical model.

Reflection

How can the traditional Swedish barn and byre as typologies be reinterpreted into contemporary built form?

This master's thesis has answered the research question through an architectural project interpreting ideas of rural construction and identity into contemporary built reality.

Typology parameters
Local tradition: The museum is a hybrid construction of concrete and timber, which is a representation of the rural building tradition of the Swedish west coast and it also contains different functions within the same volume. Instead of falu red, exterior timber is painted in falu black. *Placement:* The building is situated according existent structures at the site, creating the characteristic rural courtyard.

Construction: Refering to the traditional byre, the building has a solid base and an open structure on top, thus containing art and sculptures instead of animals. *The gable and the roof:* The volume is long and narrow, wtih a roof pitch of 40°, to create a towering expression. At the north gable, there is a symbolic motif of sliding gateways. *Horizontal and vertical order:* The building has a distinct horizontal fragmentation, defined by materiality and direction. *The rectangular plan:* With an elemental geometry for construction, cardinal direction and functional logistics, the building contains traces of manual work at the farm within the disposition of rooms in line. *Openings:* In the solid base, the openings foremost defines at the entrances, which are placed at opposite facades. The structure on top is defined by the timber raster, which is filtering daylight and sight. *Ornaments and tectonics:* Sparsley use of ornamentation, instead the beauty may be exposed in the elemental form and construction.

Discussion
During the process, one of many challenges has been the choice of site and the relation between the new addition and existent buildings. It always seem contentious to bring a new typology within an available setting, thus this project aimed to both connect and contrast rural and urban. I believe this is a constant discussion within the architectural field and perhaps this master's thesis project can serve as an either bad och good ground for future positions.

What occured to me throughout the project is the broad spectrum of interpretated barns and byres in contemporary built form. Perhaps because it is a familiar architecture that appeal to many. For me, *traditional* is becomming equal to *elemental*, which results in an architecture that is sustainable over time.

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Figures

Figure 1: Björck, O. (1890). *Middagsfodring i en ladugård / Feeding time in a cow shed* [Artwork]. Photo: Nationalmuseum. Public Domain.

Figure 2: Bergh, E. (1860). *Göteborg från Landalabergen ...* [Artwork]. Photo: Annika Persson / Göteborgs Stadsmuseum. Public Domain.

Figure 3: Graber, A. (2016). *Bearth & Deplazes, private house, 2016, 6/7* [Online Image] Retrieved from https://andreasgraber.com/tamins-2016/ Reprinted with permission.

Figure 4: Unknown. (1912). *Hörnhus Engelbrektsgatan - Molinsgatan. I fonden Vasakyrkan ...* [Photograph]. Photo: Göteborgs Stadsmuseum. Public Domain.

Figure 5: Olson, C. M. (1890). *Engelbrektsgatan mellan Molinsgatan och Aschebergsgatan ...* [Photograph]. Photo: Göteborgs Stadsmuseum. Public Domain.

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AVANCEZ
1829