

# *BUILDING CONTINUITY*

*( navigating change in built heritage )*

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## ABSTRACT

Caring for built heritage is not only about conservation, but also about curating the past for the present. Engaging creatively with heritage is consequently a way of taking an informed and active part in shaping the future. This thesis explores how architectural alterations, that is allowed to be more closely tied into the history of built heritage, can create architectural values by emphasising a sense of continuity between what exists and what's altered.

This is investigated in general terms through theoretical research and in specific terms through a speculative design proposal. The design brief is to improve the accessibility of the museum Göteborgs remfabrik (i.e. Gothenburg's flat belt mill) by moving one of the looms from the main building to the warehouse. The warehouse is altered to accommodate for this change while also getting an extended purpose of becoming an open part of the museum.

As a basis for the design the thesis creates a theoretical framework on the topic of continuity with subsequent design principles. The theoretical framework investigates past and contemporary trends in adaptive reuse of built heritage, with specific emphasis on irreversibility and imitation as means of creating continuity. In addition a thorough inventory of the warehouse is made to create a deep understanding of its context, current state and history. This inventory uncovers additional potentials and challenges of the warehouse that extends beyond the initial brief.

The final result is a design proposal that explores the potential of demolition, imitation and incompleteness to create a new version of the warehouse that retains its character while realising new narratives and opening up for future change. Emphasis is put on the tectonics of the interventions; how they're built, what they're made of and what spaces they create.

Keywords : heritage; alteration; continuity;

## Student background

B. Sc Biotechnology Chalmers university of technology Gothenburg	2011-2014
B. Sc Architecture Chalmers university of technology Gothenburg	2019-2022
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*It is again no question of feeling whether we shall preserve the buildings of past times or not. We have no right whatever to touch them. They are not ours. They belong partly to those who built them, and partly to all generations of mankind who are to follow us.*

( Ruskin, 1849 )



# PROLOGUE

( introduction and pre-studies )

### **Purpose**

When altering built heritage, extreme caution is generally advised. Reversible and clearly distinguishable alterations are deemed most appropriate to minimise the risk of devaluing the heritage. But could heritage be approached in a way that more equally considers the past and the present as culturally significant? Could additions be allowed to be tied into the history of the heritage, by making a lasting impact that acknowledges that what happens now eventually will become a part of a much larger historic continuum?

This thesis investigates how an alteration can strive to be a part of a heritage buildings continuity. The specific building that's speculatively altered is a warehouse that's a part of the museum of Göteborgs remfabrik in Gothenburg. The design is part of broader discussion on how architects can creatively engage with built heritage, with particular focus on the taboos of irreversibility and copying.

### **Research question**

How can continuity be achieved when altering built heritage?

### **Research background**

In a day and age that calls for fewer new buildings and better use of existing buildings, it becomes important to wonder what drives obsolescence and demolition of buildings, and what architect's can do to stop it.

In "On altering architecture" Fred Scott (2008) states that once a building is built it will eventually face one of three possible fates; remain unchanged at the cost of eventual loss of occupancy; being demolished to leave room for a new building (or something else entirely); being altered at the cost of losing its original glory. Thus, any building that wants to survive will at some point have to be altered. That's not to say that change for change's sake is a good thing for the longevity of buildings. But while conservation and maintenance can protect against the entropy of weathering and decay, it can't protect against irrelevance and disassociation.

As Stewart Brand observed in "How Buildings Learn" (1997), change comes naturally to most buildings. When it comes to heritage however it can become a whole other topic. If and how built heritage can or should be changed is a sensitive subject, which has been approached by many different views during the course of history, often reflecting contemporary trends in architecture and society as a whole (Bedoire 2013).

Since the Venice and Burra charter's was issued by ICOMOS in 1964 and 1979 respectively, there has been a call for a great sensitivity in regards to the historic fabric of built heritage. The Burra charter state, for example, that new work done in existing buildings should be clearly distinguishable and reversible (ICOMOS 2013). With these principles any alteration becomes a separate entity from the heritage, something discrete and disconnected; essentially the opposite of a continuity.

### **Method**

The thesis is based both on research for, and by, design. With the research question as a basis, the research for design included both a critical review of case studies, references and literature on the topic of continuity and alteration, showing how others have answered the research question. This review formed the basis of general design principles.

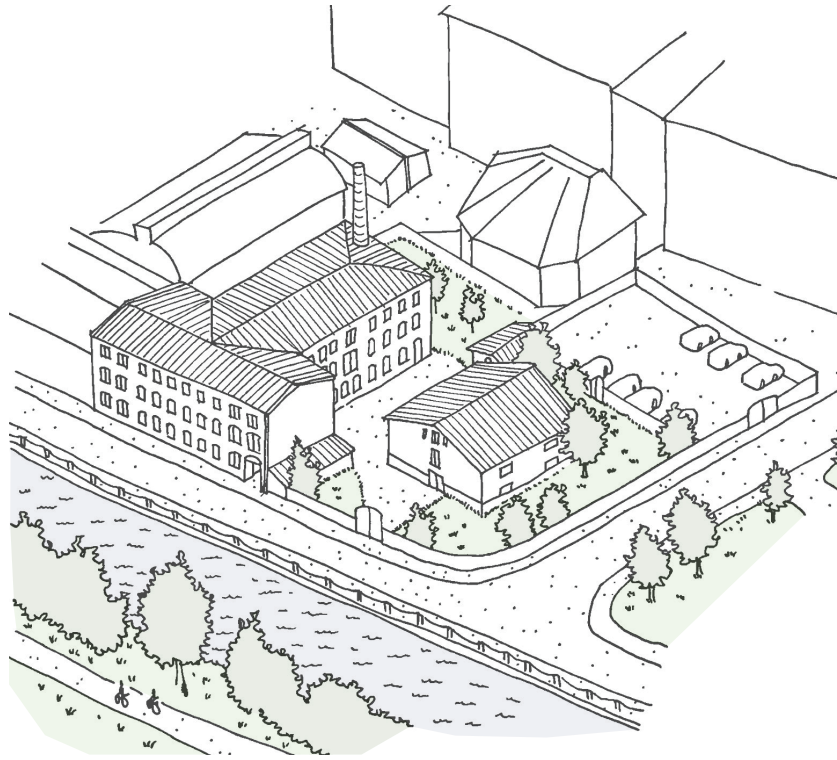
The research by design includes an inventory of the chosen site and a design proposal. The inventory was an extensive look at the host building, seeking to understand its past and present states, as well as its future needs. The resulting design proposal, rooted in the inventory, theory and iterative design work, is expressed in conventional architecture drawings and illustrations, collected in this booklet.

### **Reading instructions**

This thesis consists of five consecutive parts. In the *Prologue* the research question is stated and contextualised, and the site of the design proposal is presented. *Continuity through alteration* contains a summary of theory and reference studies on how others have answered the research question. *The warehouse* is a summary of the inventory and survey of the site. *Opening up the warehouse* includes the the finalised program, concept and design proposal. Finally the result is discussed in relation to the research question in the *Epilogue*.

### **Delimitations**

This thesis focuses more on exploration and reflection, rather than on seeking a specific tangible result. There will be no definite principles or absolute truths to answer the research question, but rather an extension of the overall discussion about how built heritage can be altered in a meaningful way.



*Axonometric featuring the mill with its three separate volumes and the immediate surroundings*



*Site 1:50000*

## The design background

Located just outside the heart of Gothenburg, Göteborgs remfabrik is a collection of buildings that represents a typical workplace of the early 20th century and is one of the best preserved mills of its era across Scandinavia (Birgerson & Wrigglesworth, 1983). Originally established in 1891 as a weaving mill dedicated to industrial belting production, its operations ceased in 1977. Remarkably, very few alterations were made to its interiors during the three decades leading up to its closure, leaving all of the original machinery and interiors precisely where they were.

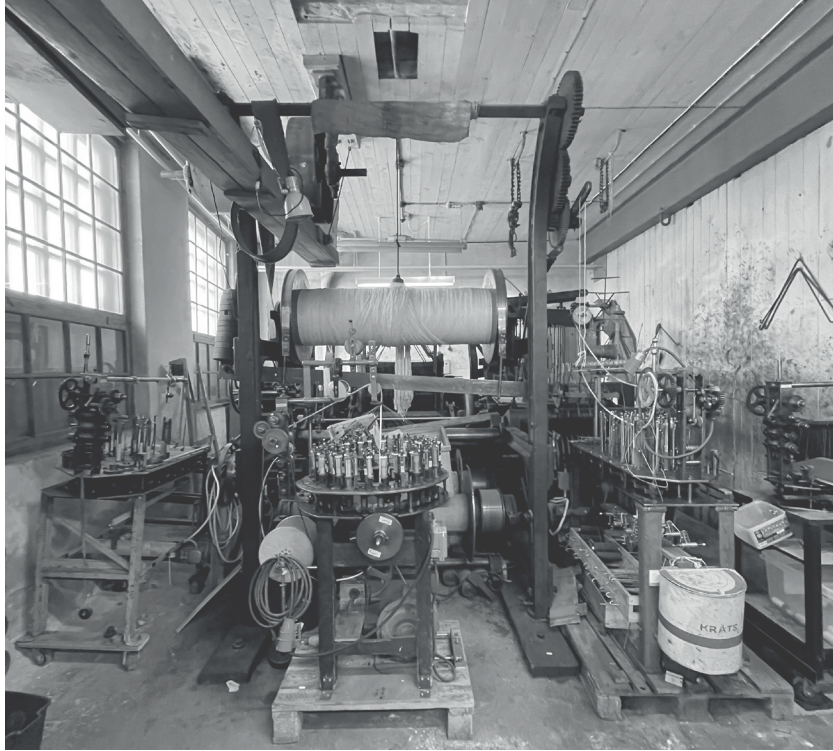
Following its closure, the city of Gothenburg took ownership of the mill's buildings, and today it serves as a "living working" museum managed by a group of dedicated volunteers (Bengtsson, Lindholm, & Rodin, 2015). While the city maintains the buildings themselves, the volunteers are responsible for the museum's operations, as well as keeping the craft associated with the machines alive.

Besides the three-story main factory brick building, the plot features a wooden warehouse, a small garage, the remnants of a garden, and a parking lot (not utilised by the museum itself) where there were once a small residence building for the manager of the factory. The property is surrounded by an almost 2 metre high, red wooden fence.

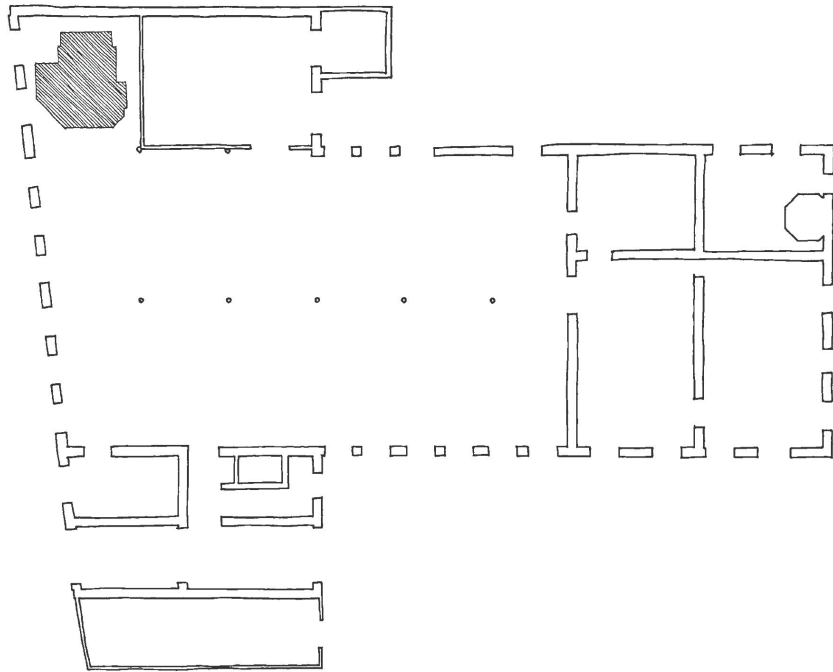
Göteborgs remfabrik has been listed since 1984 (Bengtsson, Lindholm, & Rodin, 2015), meaning that the buildings is officially protected against being demolished or in any way altered. This includes, in this case, both exterior and interior features. In addition the buildings are to be maintained in a way that preserves their cultural values as heritage.

## The site

The mill is situated within an industrial landscape adjacent to the stream Mölndalsån in the Gårda district. While initially an agricultural landscape, at the turn of the 19th century, delivery of coal via Mölndalsån enabled a fast industrial boom in Gårda. The general industrial decline after the 1950s led to many abandoned and demolished buildings, mostly being replaced by parking for the ever increasing amount of cars. The empty spaces has gradually been filled in with post-modern buildings, mostly offices. In the north the office building *City gate* has, with its 36 floors, recently introduced a whole new scale. The industrial setting along the stream still comprises some neighbourhoods that house a variety of well-preserved factories, of which Göteborgs remfabrik serves as an important centre-piece.



*The power loom which could make way for an RWC and an elevator*



*The location of the power loom on the entrance floor of the main building*

### **The design brief**

While the well preserved exteriors and interiors may have the highest heritage status, the most important values of the mill as a museum are probably the fact that the knowledge and memory associated with the workplace has been maintained by the association running the museum, connecting the past with the present seamlessly.

The protected unchanged nature of the buildings does have a major flaw: they have a very limited accessibility. This is especially problematic since the mill is a museum, an important public institution that should be accessible to everyone. There have been plans since the early 2010s to construct a RWC, and potentially even an elevator in the north-western corner of the main building. The primary obstacle to overcome is the relocation of one of the museum's largest power looms, loom 34.

This loom, though quite remarkable, currently sits tucked away in a corner making it difficult for visitors to appreciate it. A possible answer could be to move loom 34 to the currently underutilised warehouse. This could in turn provide an opportunity to transform the warehouse into something that better supports the current role of the mill as a museum.

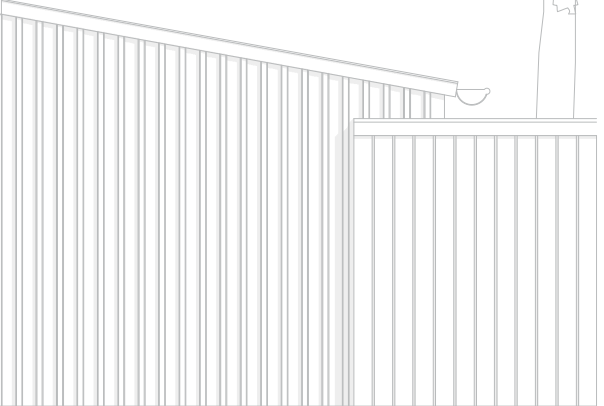
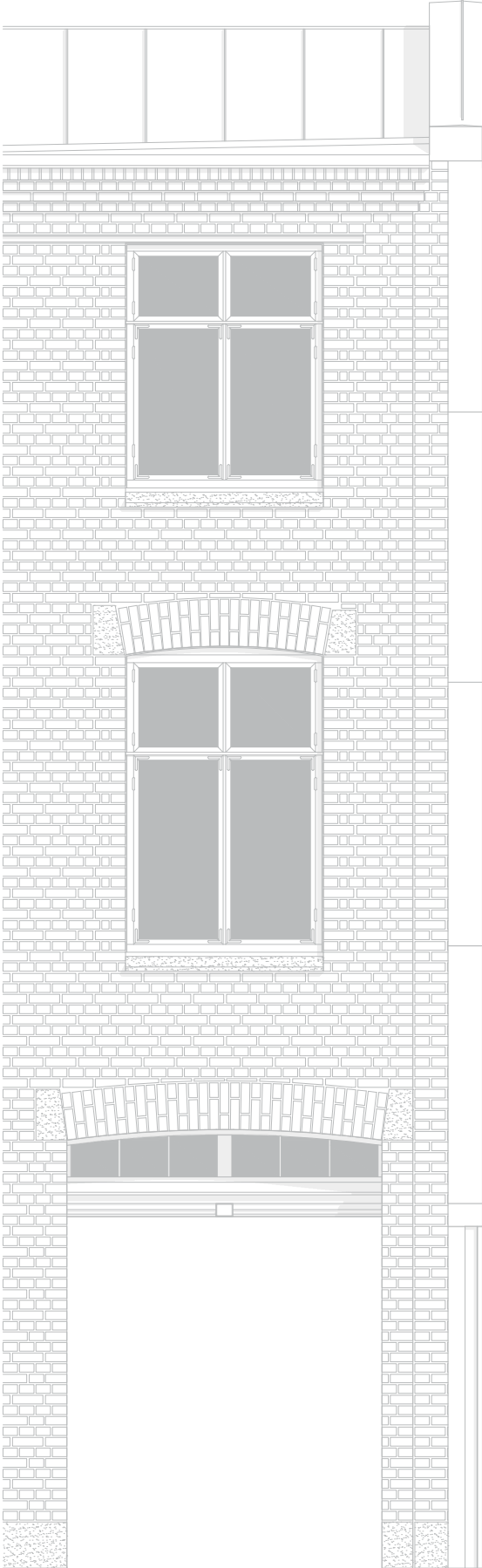
The warehouse does however have a range of challenges in and of itself that would then have to be addressed, such as being unheated, inaccessible, filled with miscellaneous stuff, and to a degree falling apart.

The brief of the design project of this thesis can thus be summarised in these three points:

- ( 1 ) Relocate loom 34 to the warehouse to enable an elevator and RWC in the main building.
- ( 2 ) Make the loom a part of an extended exhibition area in the warehouse.
- ( 3 ) Alter the warehouse to accommodate this new function as a part of the museum.

### **Design limitations**

The design will only focus on the warehouse. It will not consider the legal aspects of dealing with heritage, but rather explore potentials outside of those constraints. In addition, when dealing with an existing building within a limited time frame will mean that some inaccurate assumptions about the building might occur.





# CONTINUITY THROUGH ALTERATION

( theory and reference studies )

## Heritage

Built heritage holds great cultural significance in society as tangible links to the past. They're structures that carry cultural, architectural, and historical values that provides insights into bygone eras reflecting the evolution of society. They are not just physical entities, but fragments of humans collective memory and identity, that warrants preservation.

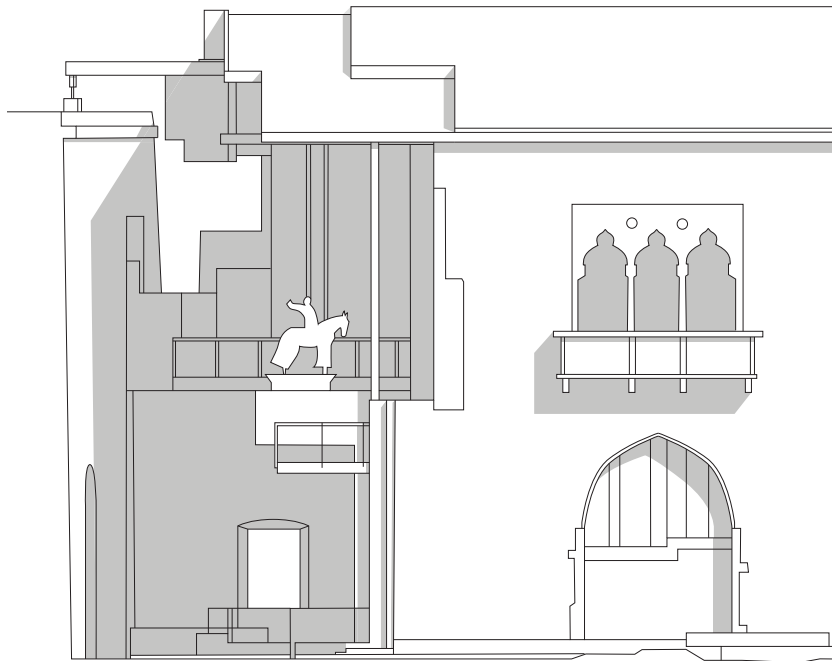
Today, heritage is an increasingly commercialised product, useful for attracting tourists. But heritage is about more than just preserving the past for its curiosities sake, it's an active act of curating the past as a reflection of the present (Harrison, 2012). These active choices are associated with what society wants to carry forward into the future. Engaging with heritage as a creative interaction with the past in our current context, is therefor a way of taking an informed and active part in shaping the future.

## Irreversibility and incompleteness

Approaching heritage as a unchangeable monuments usually implies favouring a very particular configuration and temporal context. An alternative approach is to engage with heritage as the sum of its narratives; its different layers of history, contexts and memories (Plevoets, & Van Cleempoel, 2019). Since heritage buildings are old, and time inevitably leads to change, there are always more or less evident traces from different time periods in all buildings. Any contemporary intervention could then be seen as just another layer of time in an already very complex fabric. This is an approach that's often metaphorically referred to as viewing a building as a palimpsest.

A built example of very consciously interacting with different layers of time is in Carlo Scarpa's transformation of the museum Castelvechio, completed in 1973. The transformation was prompted by damages sustained during the second world war but the building had been changed many times before. It was originally built as a medieval fortification in the mid 14th century, on top of Roman fortifications (Schultz, 2014). In late 18th century the buildings saw extensive additions and demolitions to accommodate napoleonic troops. In 1923-26 the building was then restored in a highly historicised Gothic manner, before being damaged in the war.

Scarpa's distinct approach to the Castelvechio is most evident in his transformation of where the old napoleonic barracks meet the commune wall on the western side of the site (see figure). An entire section of the west wing of the barracks and a staircase that was attached to the wall was demolished, revealing older, Roman layers of the site in the process. Within this newly created void Scarpa introduced a contemporary intervention with the Cangrande statue as focal point. The statue is positioned on a high concrete pedestal, seemingly suspended above the site. On the ground floor, visitors are guided



*The void of Castelvecchio featuring the Cangrande statue*

over a concrete platform to explore the archaeological discoveries, while on the first floor, a bridge directs visitors alongside the Cangrande statue as they pass through the western wall. To shield the statue from weather, a new roof was added that extends from the roof of the west wing. The new roof appears as though being the result of peeling of the old roof, bit by bit, with ultimately only a beam remaining, resting on the opposite wall.

There's an elusive poeticism in Castelvecchio from the juxtaposition of all its different elements and layers. No particular part of the building's history is romanticised, and the additions are clearly stated and integrated. The Roman archaeological traces are interesting in their sheer age, while the historicising additions of the 1920s become a mirror of its own society, interesting in the light of contemporary calls for historicisation. Castelvecchio also shows that demolition is a valid method of exposing previously untold narratives, by exposing something that would otherwise be impossible to see, almost like a real-life sectional cut.

### **Authenticity and copying**

Castelvecchio is largely based on contrast between new and old, and Carlo Scarpa's very personal creative language. The cohesive atmosphere of the host building is in large part lost, and a lot of the attention is drawn to the additions, and the genius of its designer. In recent years there has been examples, such as the alterations of Tate Britain and Sir John Soane's Museum by Caruso St John Architects, that creates new narratives, through much more subtle means. By building upon the atmosphere of the host building, making critical imitations, the alterations creates an amalgamation of new and old rather than distinct layering.

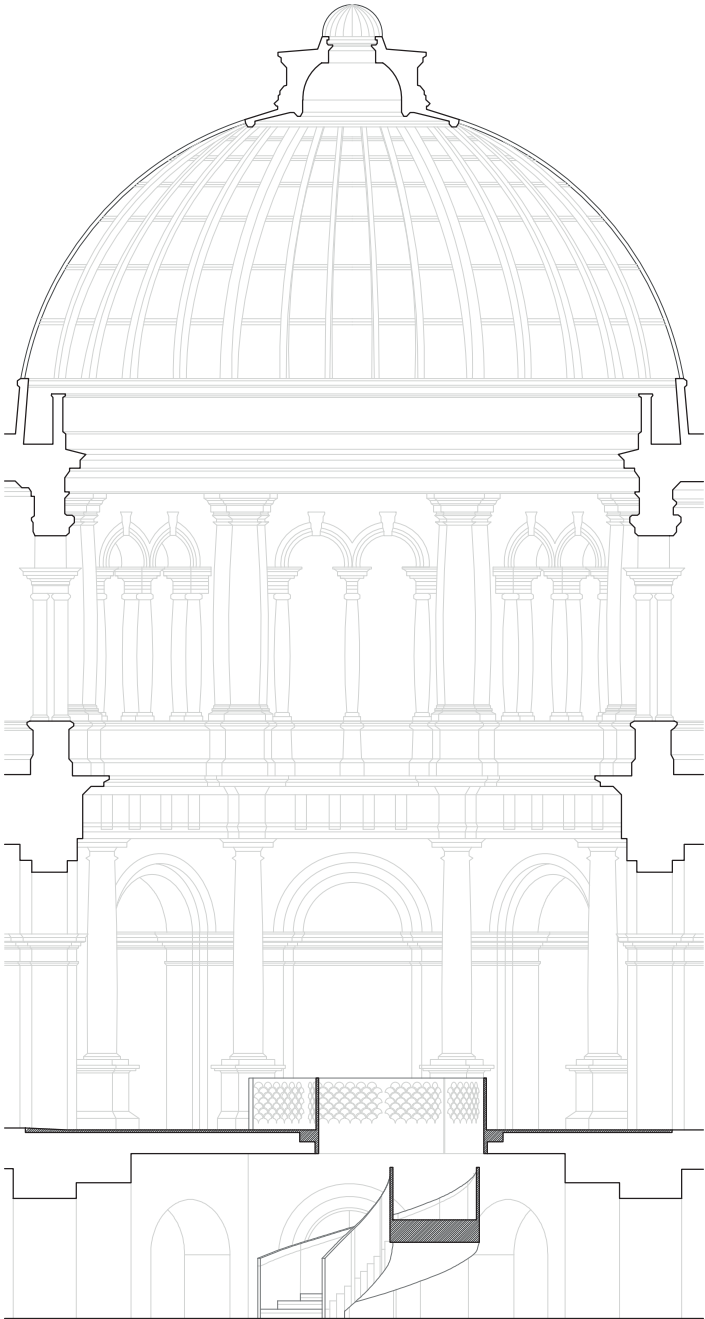
This method, sometimes referred to as *aemulatio*, embraces a kind of critical imitation as a valid method for alteration (Plevoets, & Van Cleempoel, 2019). The imitations aren't strictly copies of what exist or has existed, as would be the practice of strict restoration. Rather they are imitations, or emulations, that builds upon an understanding of the original, which is then translated through contemporary means and needs, extending the idea of the original and in some sense improving upon it.

In the case of Tate Britain, a new spiral staircase was introduced to a rotunda. The staircase, was necessary to improve the circulation to the previously disconnected basement. While a spiral staircase in a rotunda is not a natural part of the classical language, the positioning, proportions, materials and overall aesthetic of the stair and its accompanying scallop-shaped pattern, makes the stair blend in seamlessly. It is as if the alteration is hiding in plain sight.

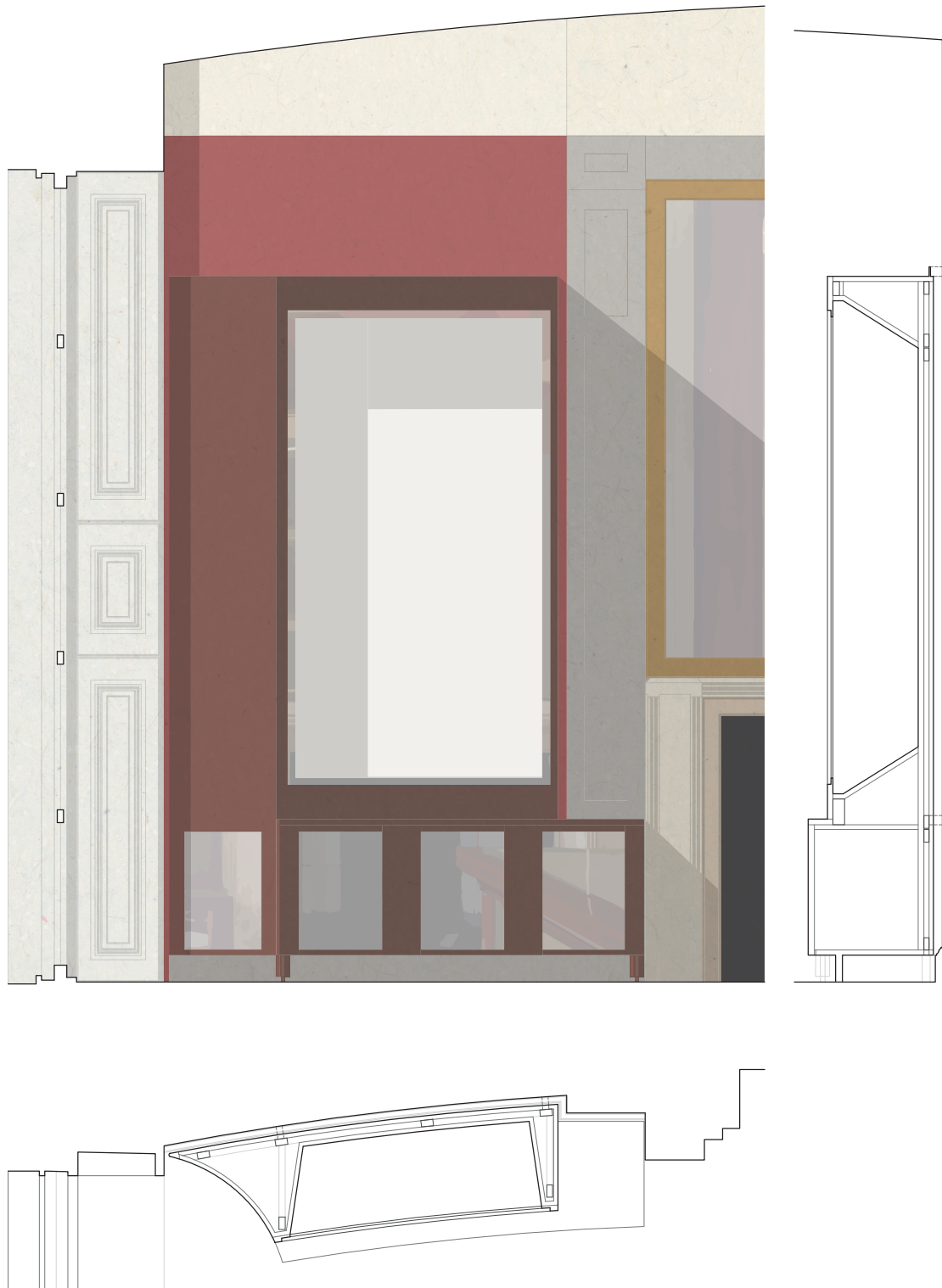
In the case of Sir John Soane's museum, which was basically a furnishing project, Caruso St John's approach emphasised a close relationship between the architectural elements and the furniture already within the museum (Melvin, 2021). For example, they sought to replicate the Soanian practice of ensuring that furniture and architectural elements fit together seamlessly, for example striving for symmetry, even when the complex floor plan made it challenging. This commitment to symmetry was in line with Soane's architectural principles.

The cabinets as shown in the figures relate to existent furniture through the use of mahogany and mirrors, which complements the rooms walls and fireplace. The furniture fits into the curved shape of the room, while being itself curved in response to the window. While the materiality of the furnitures has a close relationship to the context, the technical and functional aspects are very advanced and contemporary. The huge glass doors, with its slim joinery, betrays any notion that this furniture would be made particularly long ago. The cabinet lighting and climate control systems, with its wirings, are sophisticatedly hidden, which both somehow adds to and detracts from the illusion.

In both cases Caruso St John embraced historical research as a fundamental part of their design process. They conducted extensive research to uncover



*Caruso St John's spiral staircase with its accompanying scallop-pattern within the rotunda of Tate Britain*



*Caruso St John's seamlessly added exhibition furniture, in a restored room of Sir John Soane's museum*

the historical logic behind the museum's original design and decoration, to a poetic and subtle effect.

The examples, shows how old and new can melt together to create something else entirely, while still being distinctly rooted in its history and original character. The additions probably won't be noted by most people, and some might even think that they've been there from the beginning. This effect would perhaps also require that there's restorative work done to the older fabric, which blurs the line even further.

### **Towards principles of continuity**

The theory presented suggests that built heritage could benefit from the critical and creative engagement that an alteration would entail. The why's and the how's of successful alteration are however very hard to pin-point, likely because it varies greatly from context to context, and from designer to designer. Some common themes that seems to enable the intervention to become a significant part of the heritage's continuous narrative are:

#### *Making an impact*

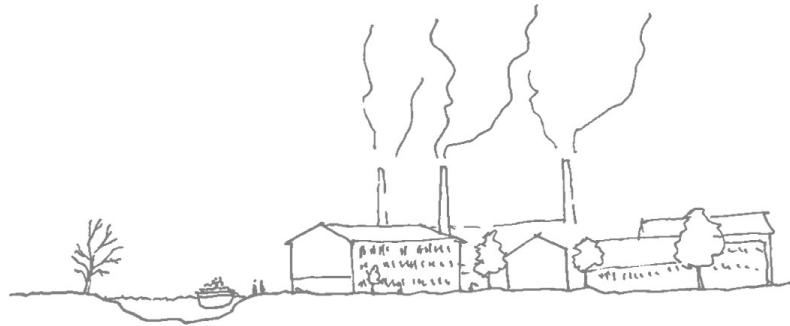
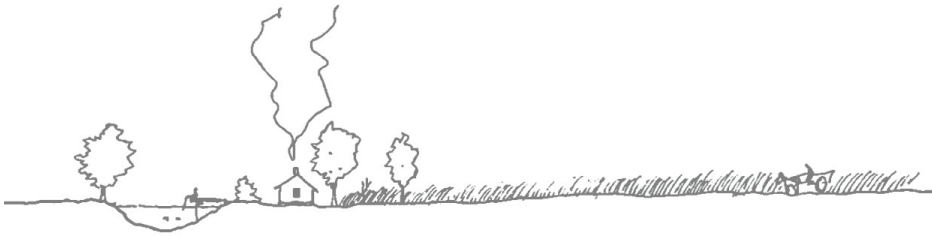
While reversibility isn't necessarily a bad thing it shouldn't be in the way of the architectural quality of the change. If the change can be easily removed the next time change is being done, a whole narrative will be lost. As is shown in Castelvechio, every layer of history carries its own value and authenticity. The impact can be achieved by destructive means such as through demolition (the unfinished underlying structure of the building could be as interesting as the finished surface) or through the addition of valuable new work.

#### *Open ended*

Rather than being reversible, change should be open-ended, being something that can be continued through new work or at least be maintained indefinitely. In the same way that an alteration naturally wants to exploit that which is unfinished, the alteration could in the same way consciously leave loose ends in itself to be continued.

#### *Hiding in plain sight*

While direct copies probably won't stack up to the original, in either interest or quality, a critical imitation can avoid causing abrupt changes to the overall aesthetic and atmosphere of the original building. This can constitute either, or both geometric or material aspects. Imitation can simply stem from using a deep understanding of the host building as an important point of reference.



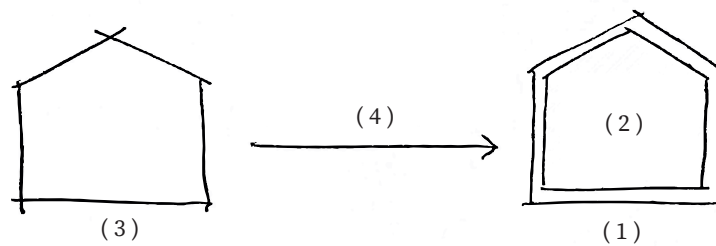


# THE WAREHOUSE

( inventorial studies )



*Exterior towards north*

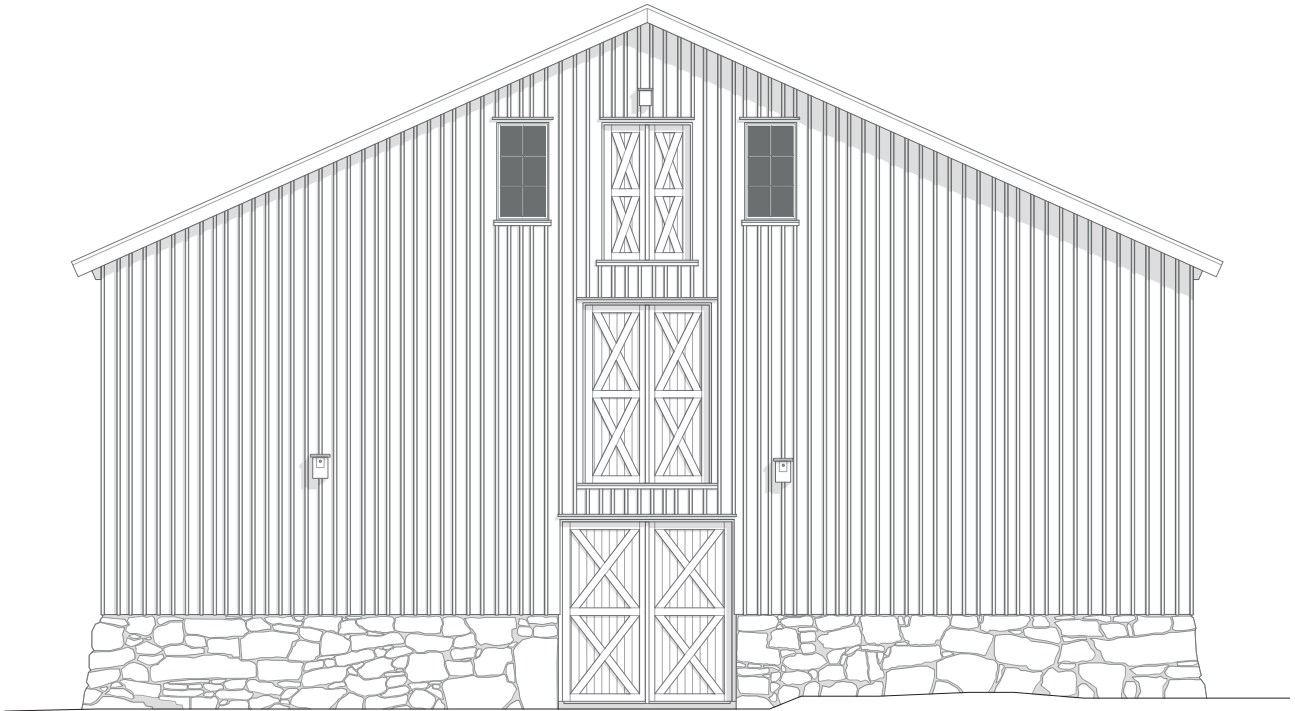


*The inventory's four parts*

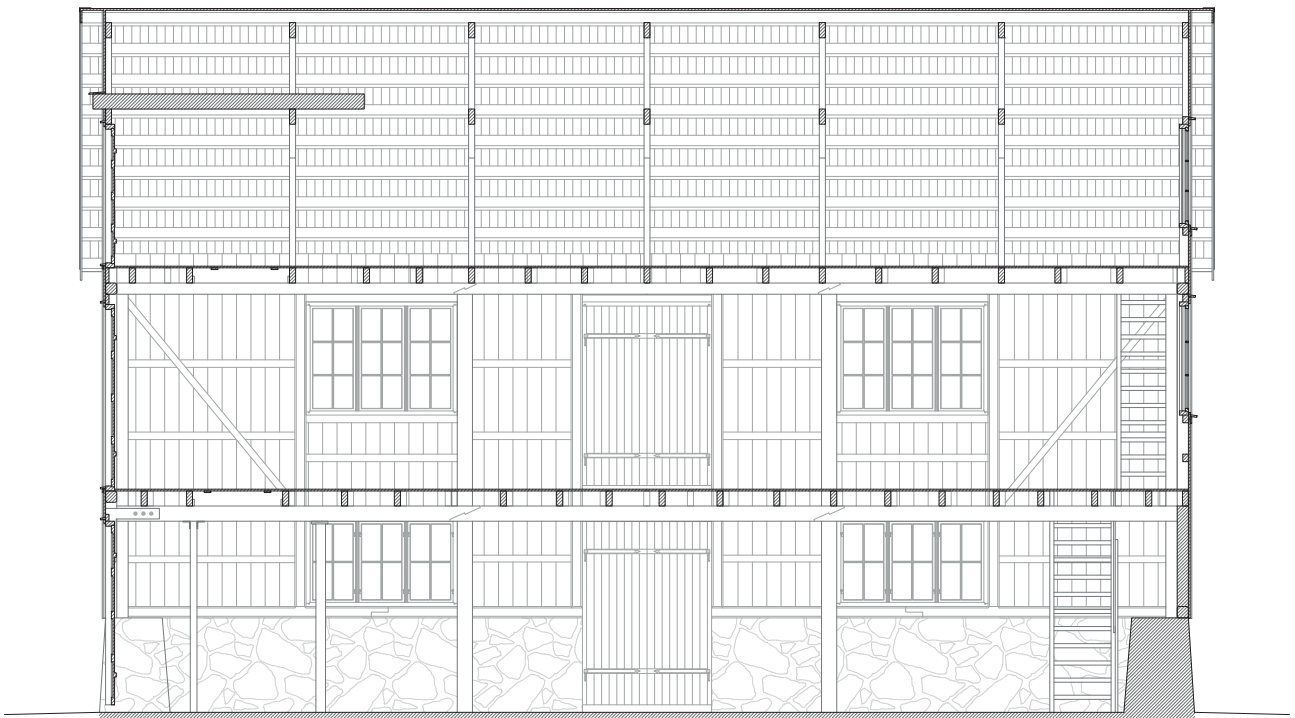
### Stripping back the warehouse

Before any intervention the host building that is to be intervened, in this case the warehouse, need be understood. The following inventory has been largely based on the writings of Fred Scott in *On altering architecture* (2008). He refers to the act of inventory as “stripping back“, which essentially means to understand that which is the underneath the superficial surface of the host building. He recognises this as a work of interpretation. Since buildings are complex structures and historical records usually are inconclusive, in combination with the limits of the person doing the inventory, intuition and interpretation will play its part. The inventory has been broken down into four parts that together tries to cover both the building’s spatial and temporal aspects.

- (1) What the building is made and how it functions as a pure structure.
- (2) How the building is actually used, with its spaces, connections and hierarchies.
- (3) What the original intent of the building was, not only functionally but also as a general type and within the style of its time.
- (4) How the building has become what it is today, and what traces there are of this continuum.



*Elevation towards west 1:100, as found*



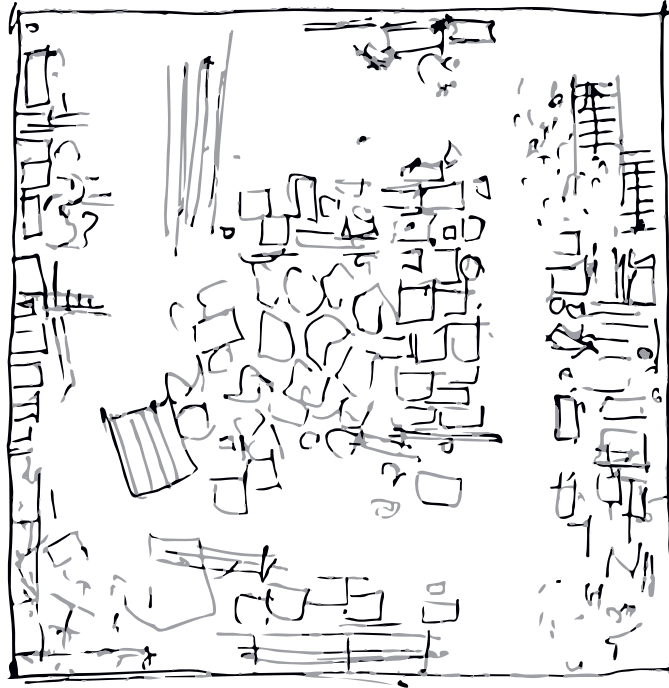
*Long section 1:100, as found*



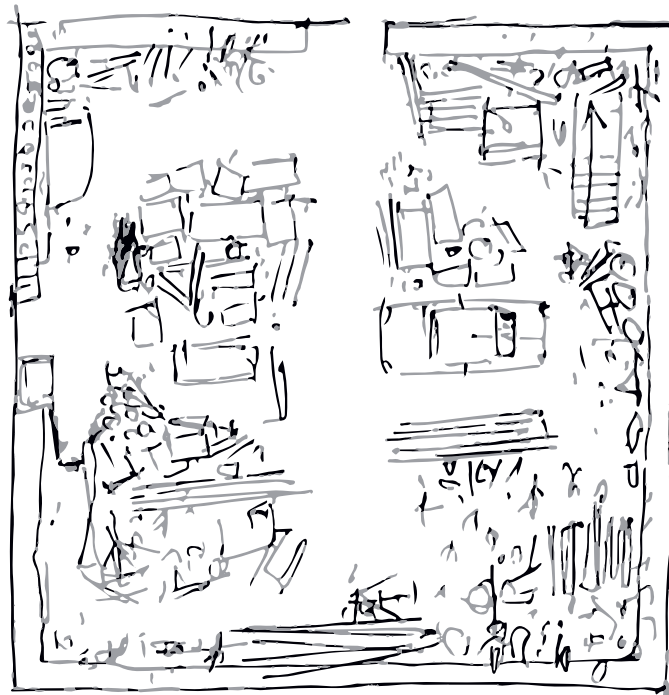
*Attic interior*

### **Material**

The warehouse has an unisolated post and beam structure on top of a deep natural stone wall, with a simple felt roofing. Installations are mostly limited to electricity for lighting. The facade is made up of red wood panelling, with windows and doors in green. Noteworthy are the rudimentary and hand crafted details and joints which makes the building an almost purely wooden building. This hand crafted character are very much on display on the inside since the interior has no additional finish other than simply being the backside of the exterior.



*Upper floor, as found*



*Entrance plan, as found*

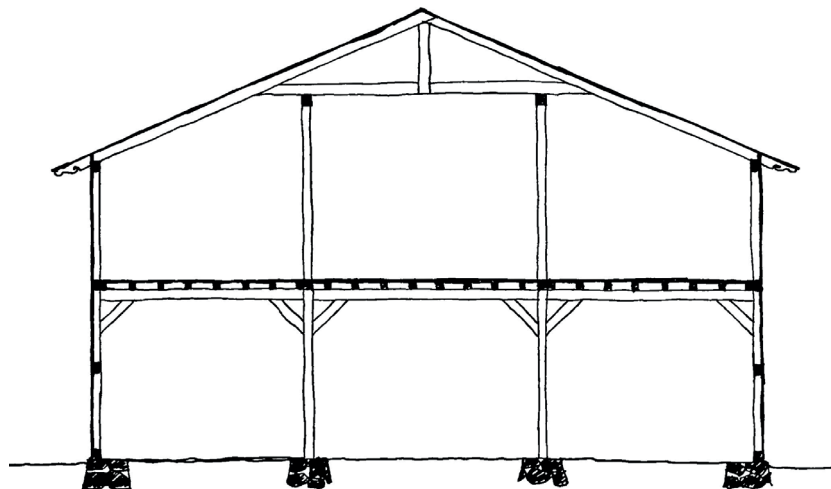
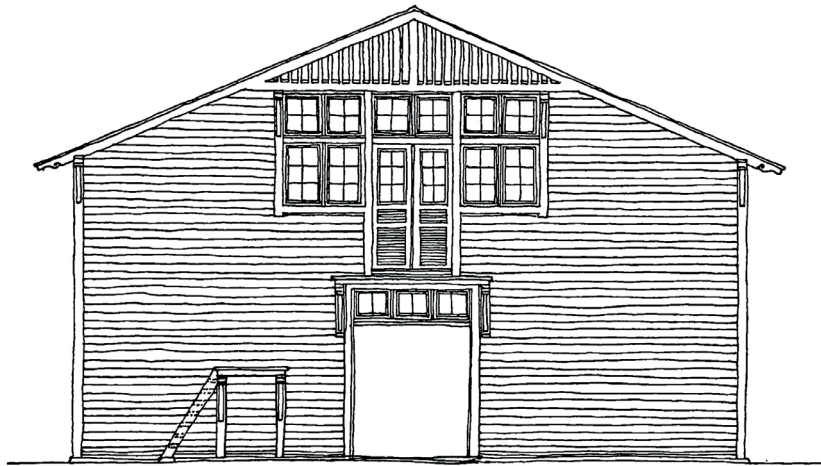
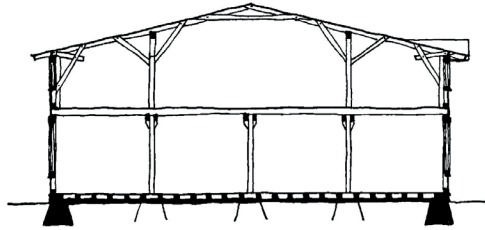
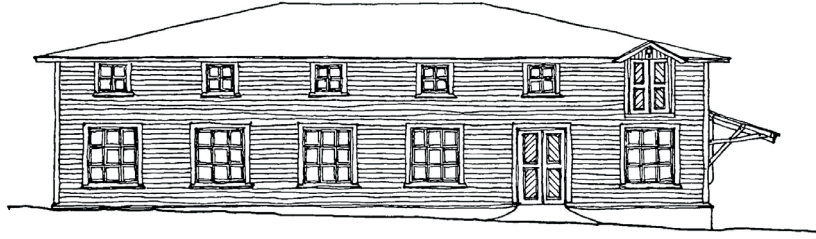


*Interior on the upper floor*

### **Spaces**

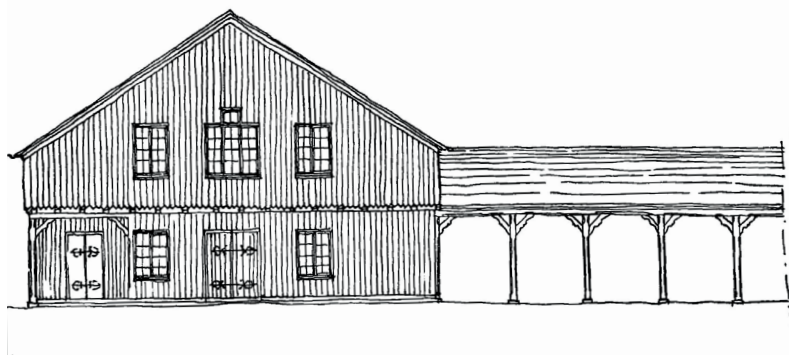
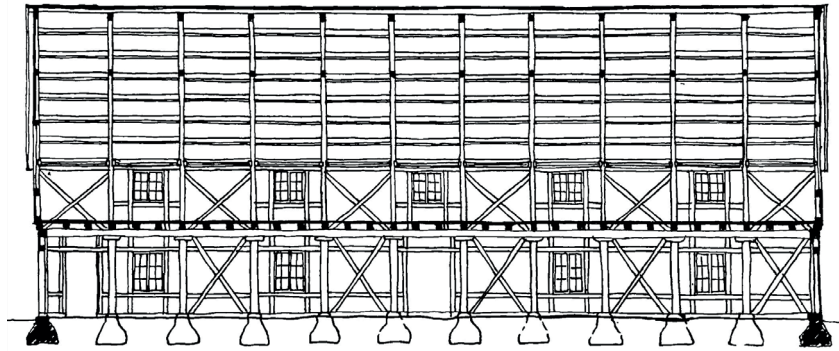
The warehouse consists of roughly 360 m<sup>2</sup> of general use storage space on two floors with no internal partitions. In addition there's a largely unused attic. The building can be accessed on the ground floor from the north and from the west, of which currently only the northern entrance is in use. In addition there are two doors on the upper floor as well as one in the attic. A narrow stair in the north-eastern corner of the building connects the floors.

With the exception of some rudimentary, bespoke shelves the things that are being stored in the warehouse are for the most part located in clusters directly on the floor and along the walls. The things are mostly undocumented, stretching from all parts of the building's history.



*Typical warehouses ( found in archives )*



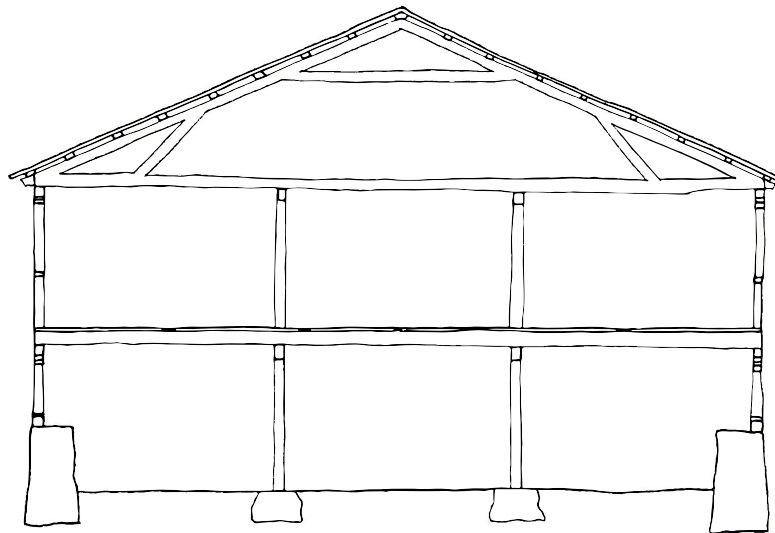
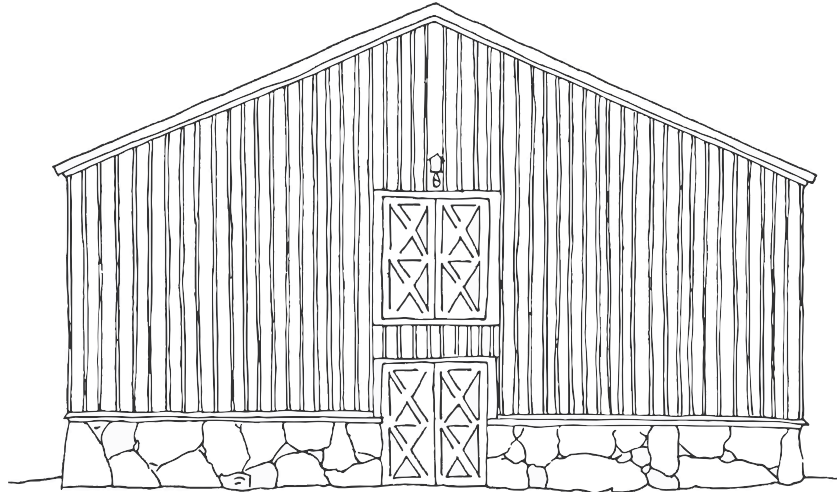


*Typical warehouses ( found in archives )*

### Origin

The warehouse was built in 1918, with the primary purpose of freeing up space in the main factory building (Bengtsson, Lindholm, & Rodin, 2015). While being very ordinary, the building still carries typical traits of the national romanticism that was very prominent of its time. The windows with its many mullions are clear examples of this. The unnecessarily large stone wall is also be indicative of this era.

The wooden warehouse is a typology that used to be very frequent in the urban landscape of the early industrialised Gothenburg. Today there are however few surviving exemplars. Having lost their original purpose and subsequently been deemed too damaged, un-noteworthy, and/or un-economical to adapt to new purposes, they have ultimately been demolished. While proud in their modest simplicity, most of them exist only as drawings in archives.



*Section and elevation according to archives (see p. 28 for current state)*



*Recent structural addition on the ground floor*

### **Palimpsest**

The only documented changes is an renovation of the exterior in 2014 (Bengtsson, Lindholm, & Rodin, 2015). There are evidence of structural reinforcement which was likely made in the same time. These changes are focused mostly on the western part where the primary beams on the ground floor have been reinforced with irons and supporting pillars. As a whole, the building does seems largely unchanged.

The actual building differs from that of the archive drawings, in particular regarding the attic. The archives suggest that there wasn't meant to be an attic floor, and as such no corresponding facade openings. There is however no clear evidence that the building ever looked like the original drawing, but the fact that the windows have a slightly different style, and the openings have different proportions does suggest that it may have been a later addition, though in that case probably not long after its initial completion, perhaps even during construction.



*Exterior towards garden*

## Conclusions from the inventory

### *An everyday pet in a changing area*

The warehouse is by no means an architecturally important building. It is (or at least it was) an everyday building with an everyday purpose. The heritage value of the warehouse is mostly tied to its role as an urban artefact in the industrial landscape of Gårda, rather than being valuable in itself. That being said, the modest and honest craft of the building with its joints and its use of natural materials are very humanising qualities that are rare in contemporary buildings. This curious character is strengthened further by the extreme development around it exemplified by the 36 storey City Gate. In relation to this the warehouse becomes an important local little pet.

### *A closed centrepiece*

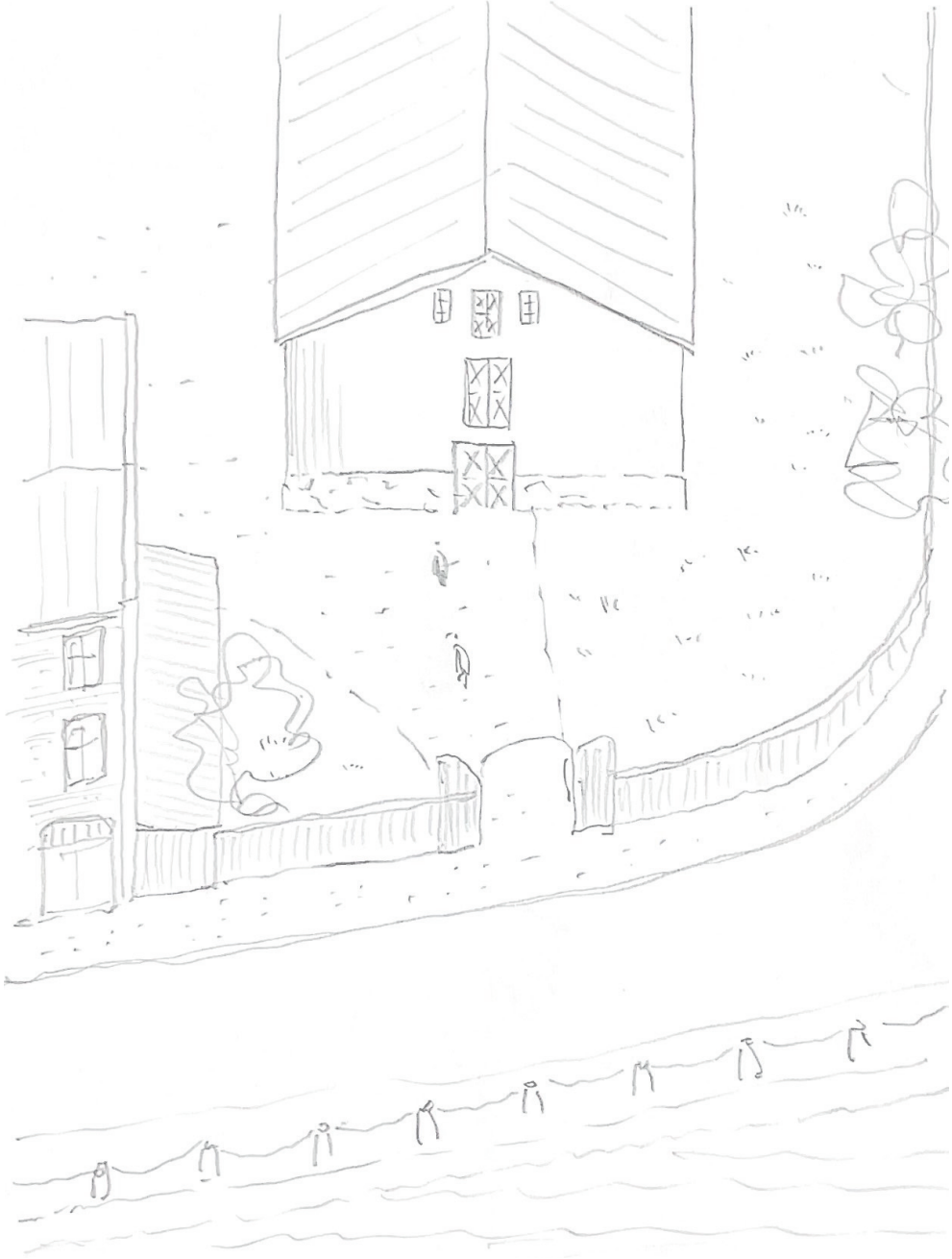
One of the first things that you're greeted by when visiting the museum is the western facade. The facade is however very closed, both in a figurative and literal sense. In addition the warehouse has a very central placement in relation to the plot, so when there are larger cultural events or fairs in and around the museum, having the warehouse being just a set of four walls is a lost opportunity.

### *Disconnected interior*

There are many differences between the exterior and the interior of the building. The exterior radiates a certain care, while the inside has nothing but the bare minimum. The facades have symmetries and rhythms that aren't properly represented on the inside. The building is and has always been in an unfinished state. This dichotomy is an important part of its character and history, but it's also just a result of its functional purpose so far.

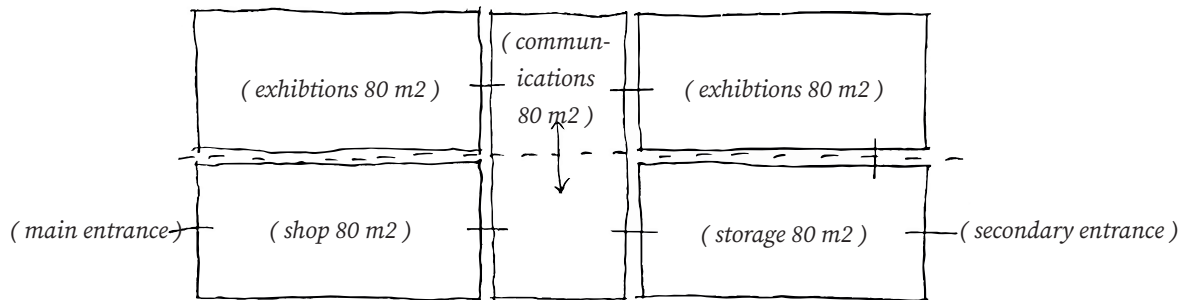
### *Everyday things in an everyday building*

There's no doubt that the things being stored in the warehouse could be sorted and stored in a more efficient manner. Though many of the things are un-noteworthy, some of them are display-worthy very much because of their everyday character, much like the building itself.



# OPENING UP THE WAREHOUSE

( design proposal )



*Program*

### **Program and interventions**

To transform the warehouse into becoming a part of the museum exhibiting the loom 34, while still retaining a lot of its current function and character, the intervention focuses on three specific steps:

#### ( 1 ) Enabling works

To accommodate for the height of the large loom 34, some floor would have to be removed. Removing the attic floor seems appropriate given the fact that the attic floor is unstable and difficult to use as it is. This in turn makes the upper floor into a more appropriate open and bright exhibition area. Not only for the loom, but also for something more in the future. In addition some minor non-structural demolitions are made to enable step ( 2 ) and ( 3 ).

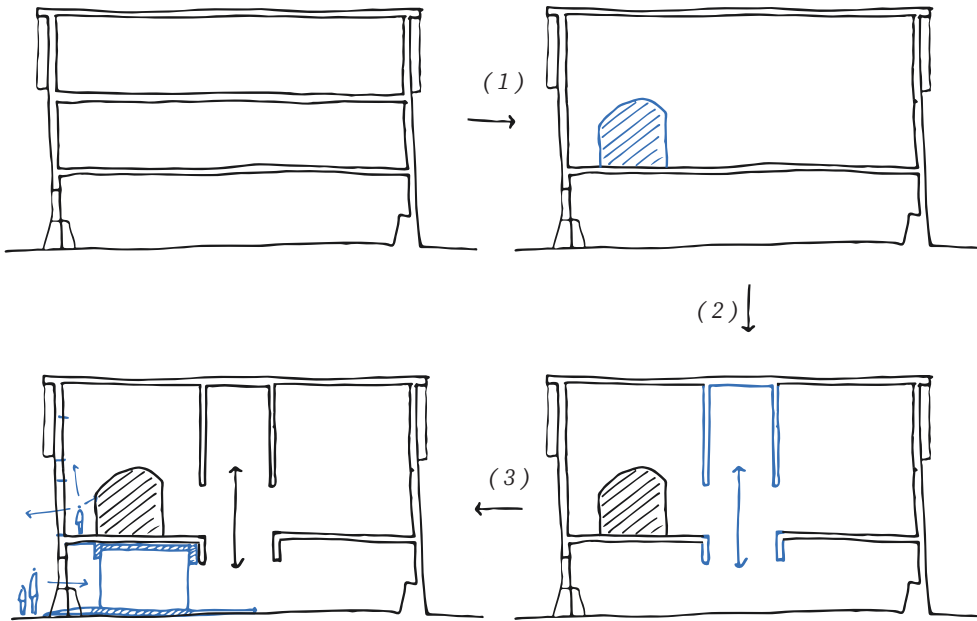
#### ( 2 ) Communication core

To connect the ground and the upper floor a new communication core is added that more properly corresponds to contemporary accessibility needs. This core sub-divides and organises the interior spaces in a way that tries to make sense of the symmetries and rhythms that currently aren't really represented on the inside.

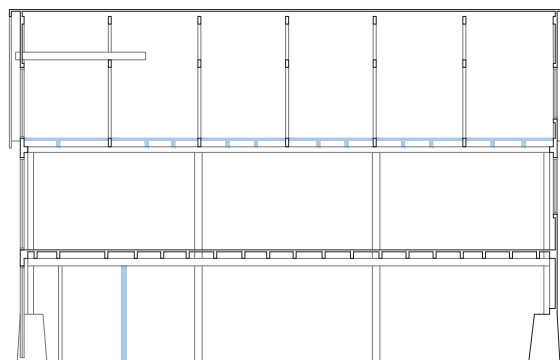
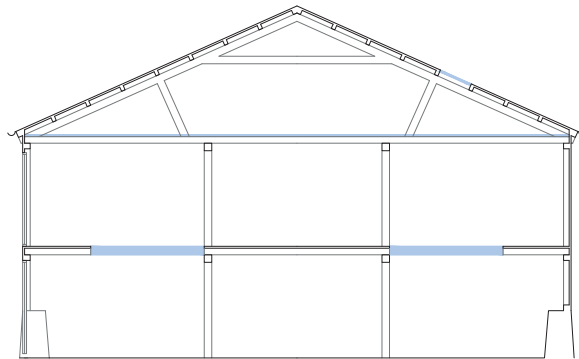
#### ( 3 ) Opening up

On the bottom floor a shop is introduced as the public access point to the warehouse. This space is, in contrast to the warehouse as a whole, to be insulated and air-tight. Additional facade changes are made to further emphasise this new public relationship to the west of the building. The eastern half of the ground floor are maintained for current storage needs.

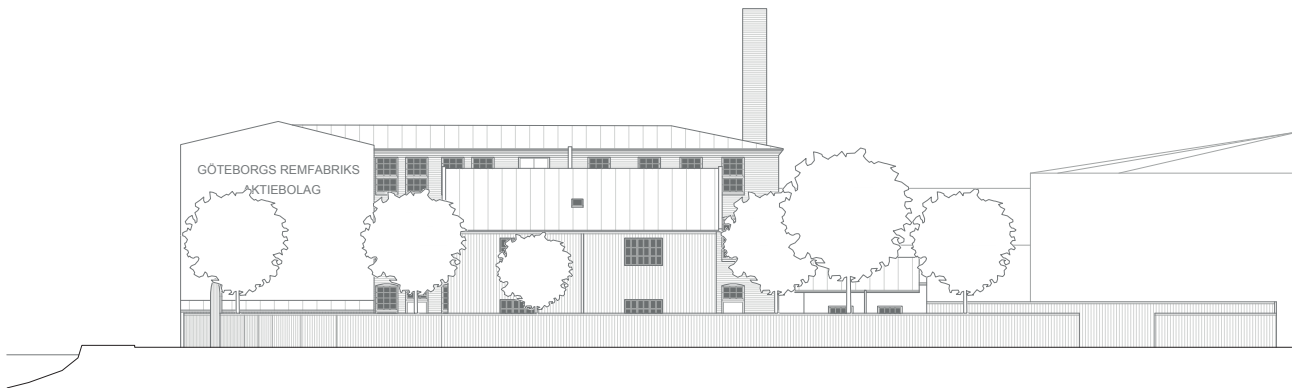




*Interventions*



*Interior demolitions*



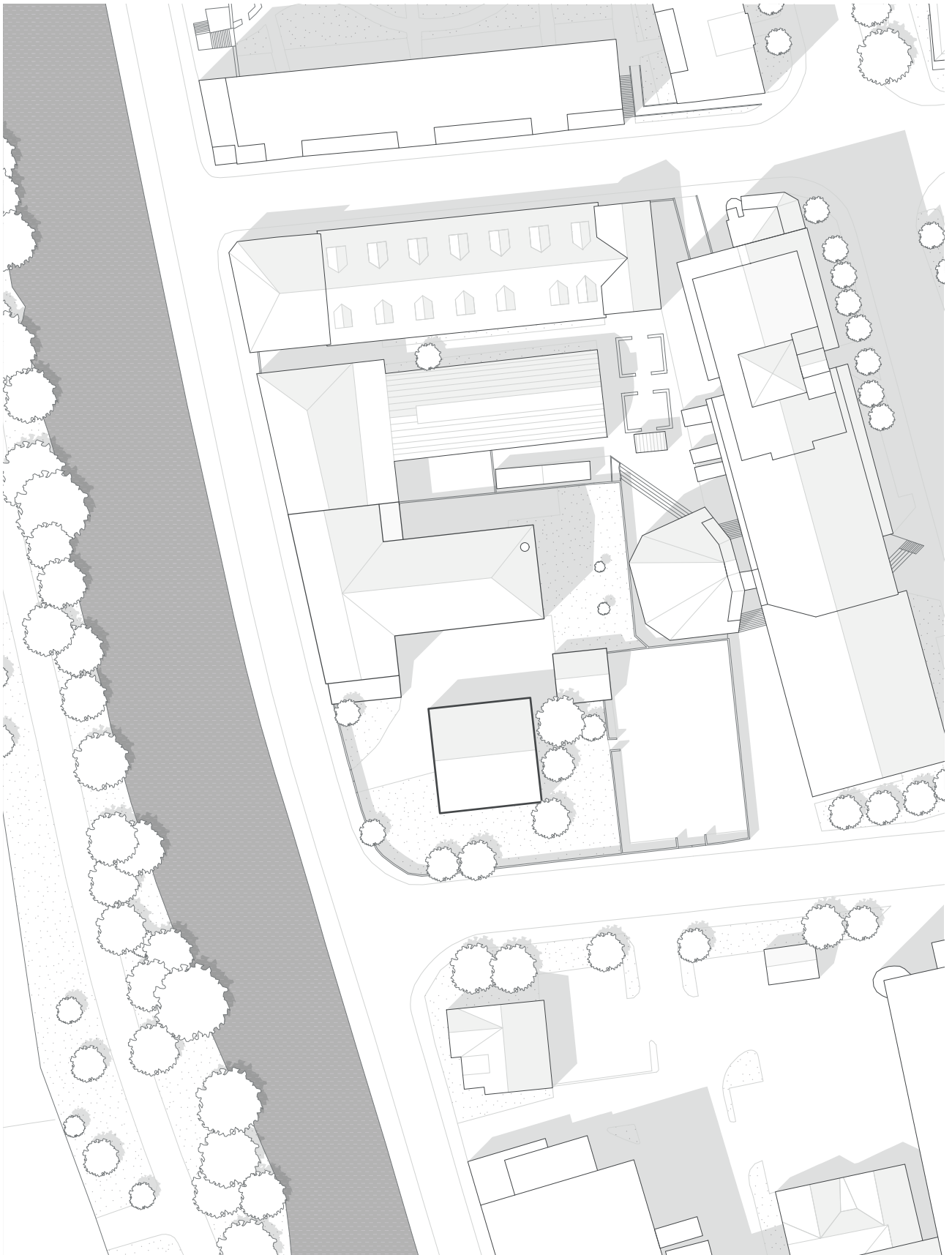
*Site elevation from west 1:400*



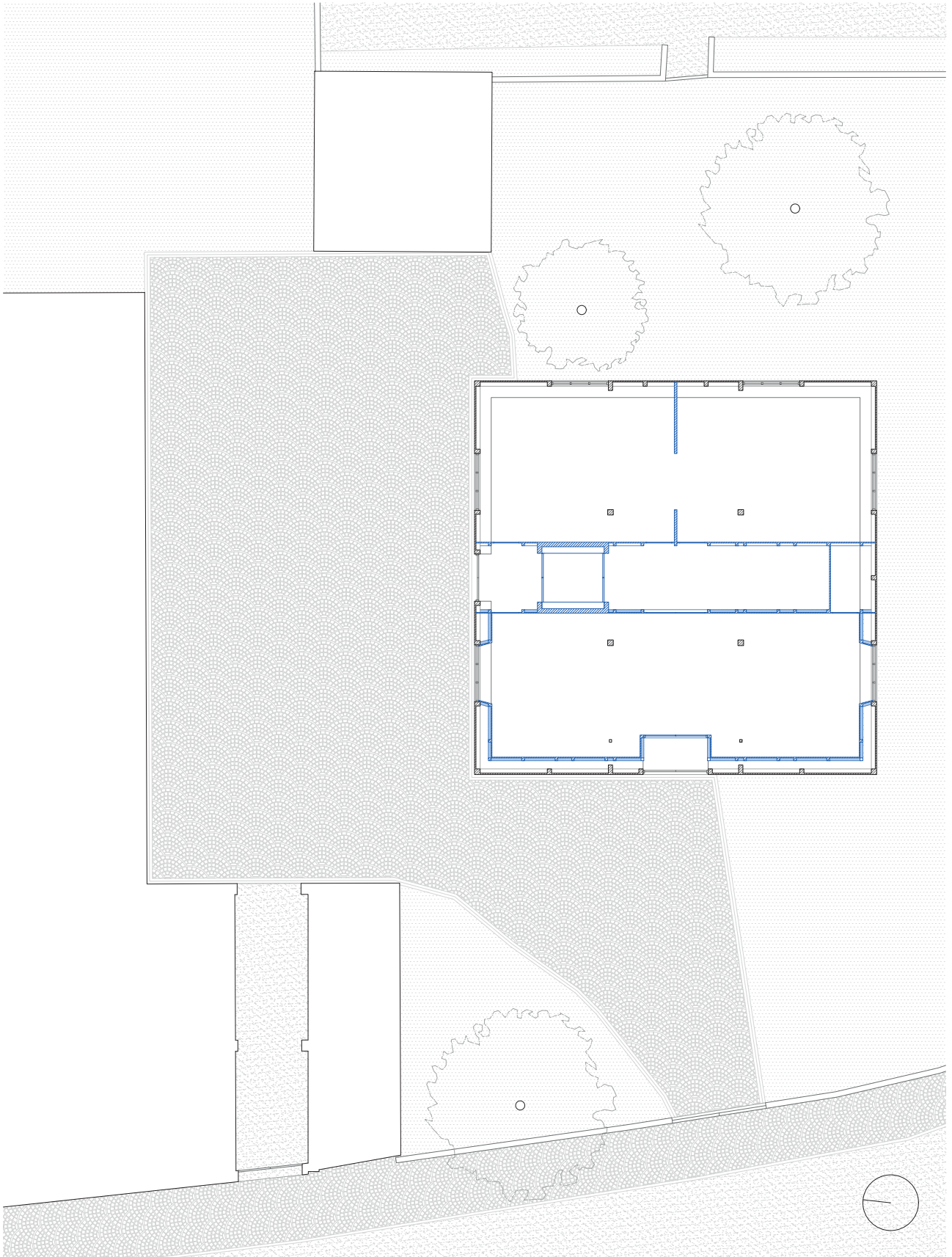
*Site elevation from south 1:400*

### **The exterior situation**

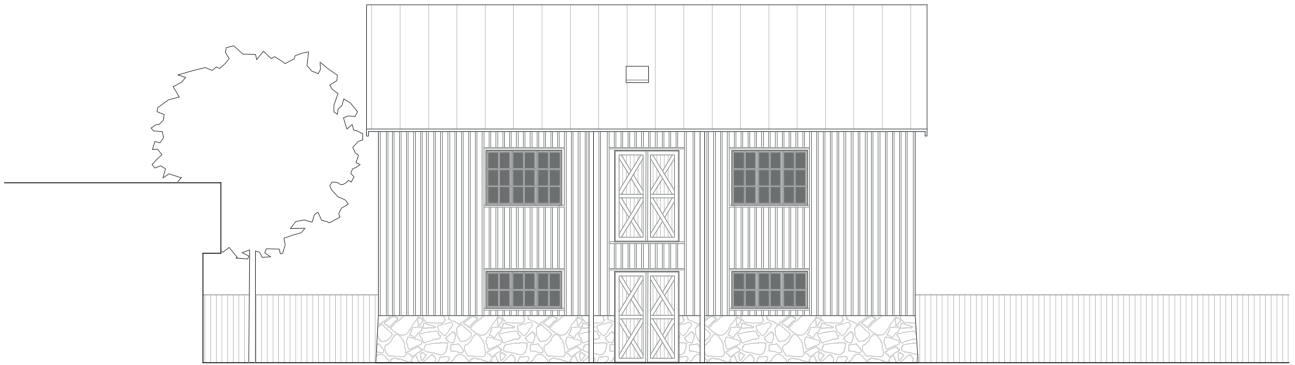
The main entrance into the warehouse takes advantage of the pre-existent axial relationship between the fence-gate and the warehouse. Other than minor facade changes and an added skylight, the facade and the area around the warehouse are preserved as they are.



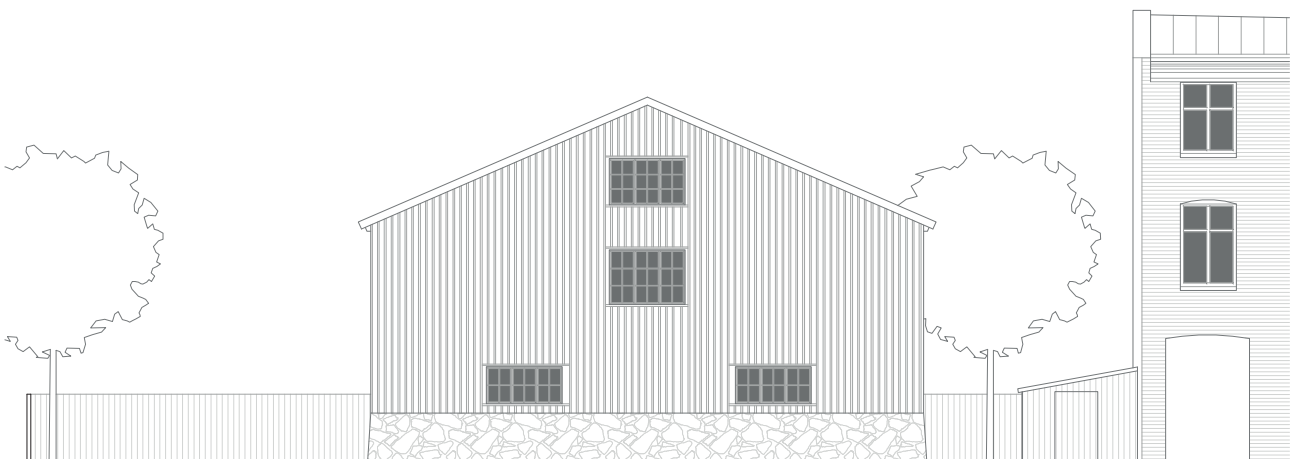
Site plan 1:800



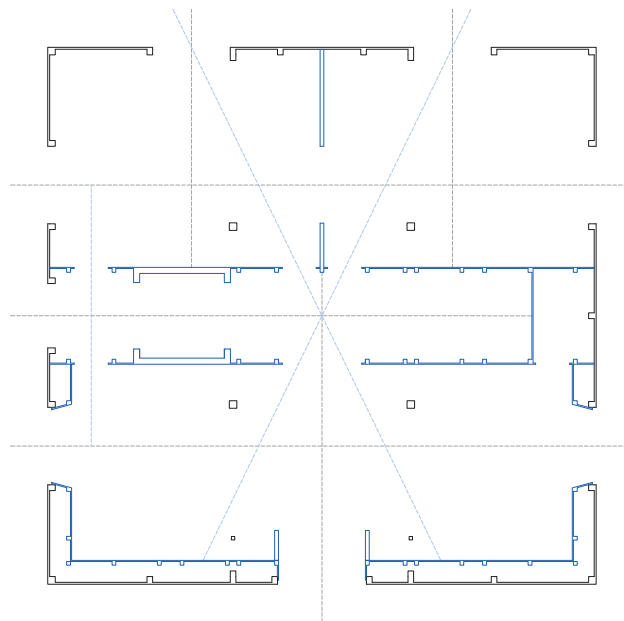
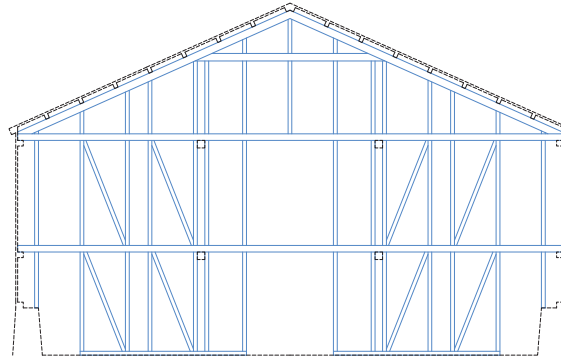
Site plan 1:200



*Elevation from north 1:200*



*Elevation from east 1:200*

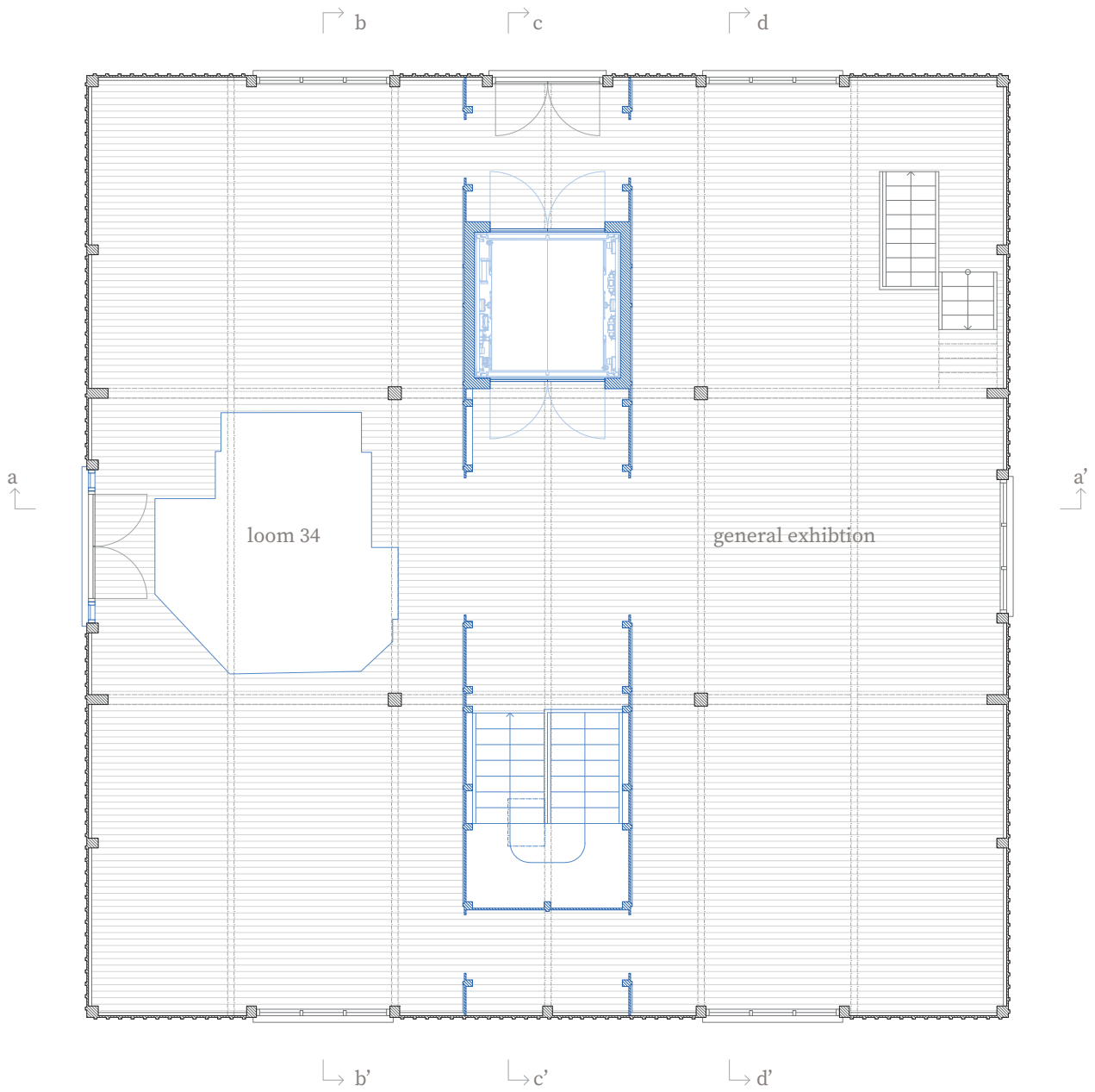


### Structure and spatial reorganisation

As previously stated, the communication core is the primary organiser of the new interior spaces. To make it the addition feel like a natural part of the existing the spatial division emphasises the symmetries and axial relationships created by the existing facade openings. The internal structure of the addition is on the one hand meant to provide additional support for the existing primary structure, but does also follow an independent logic in support of the added elevator and stair.

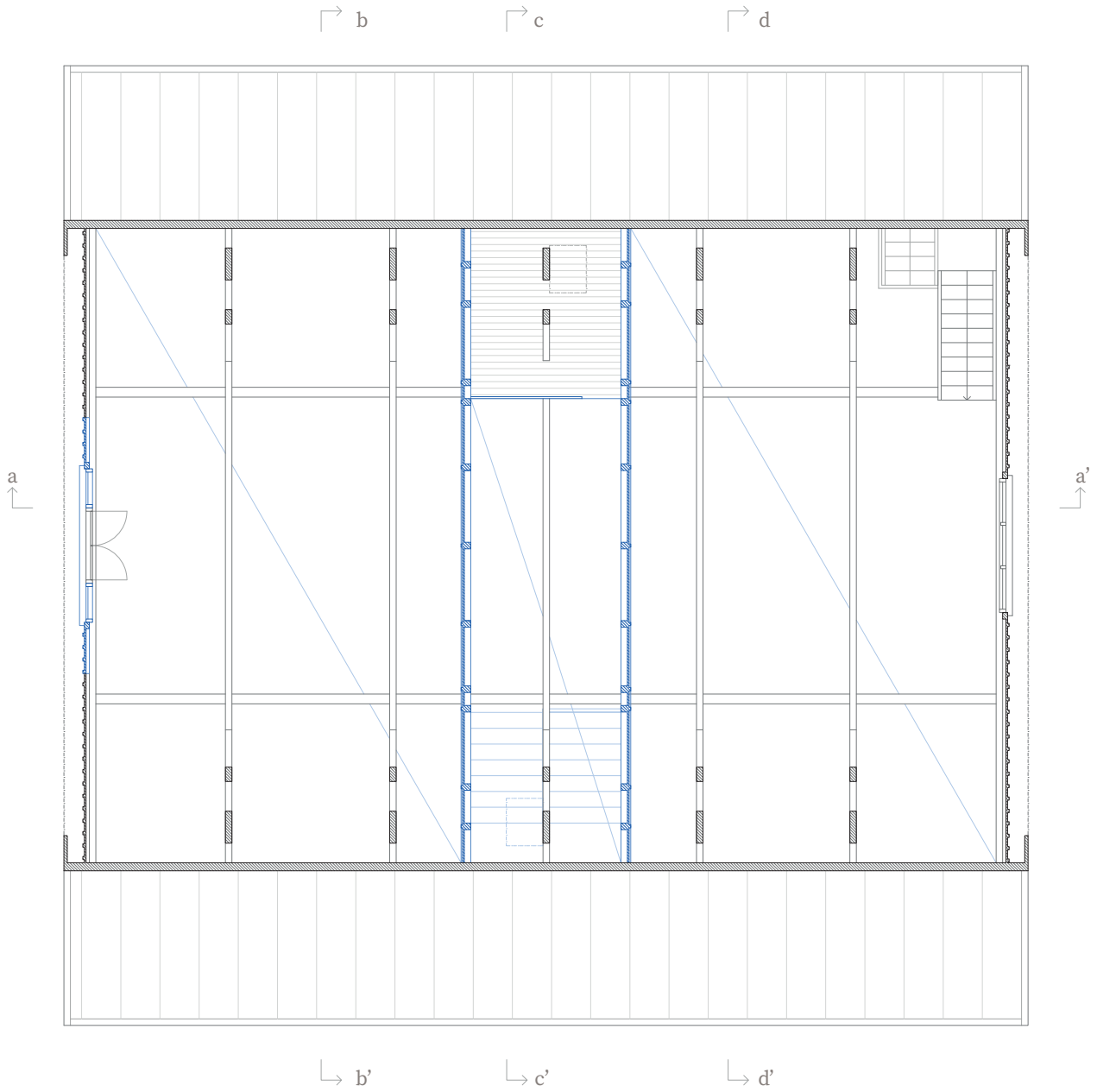


Entrance plan 1:100

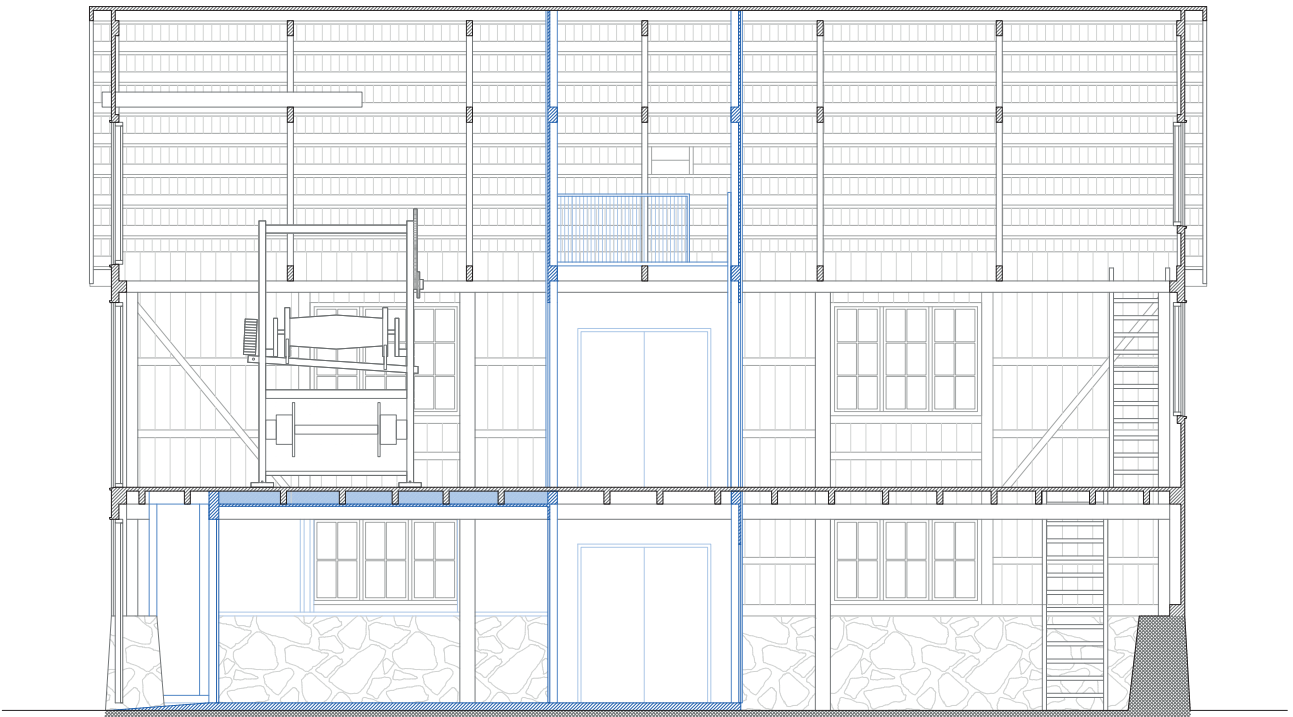


Upper plan 1:100

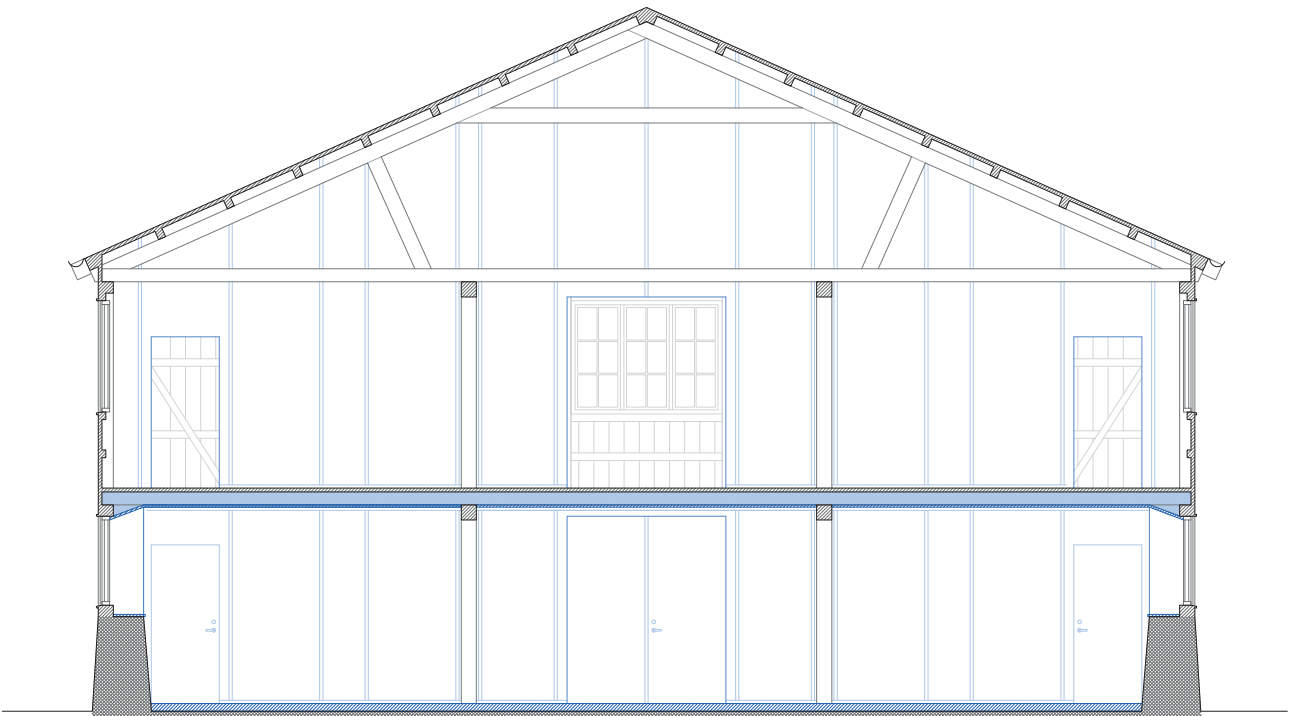




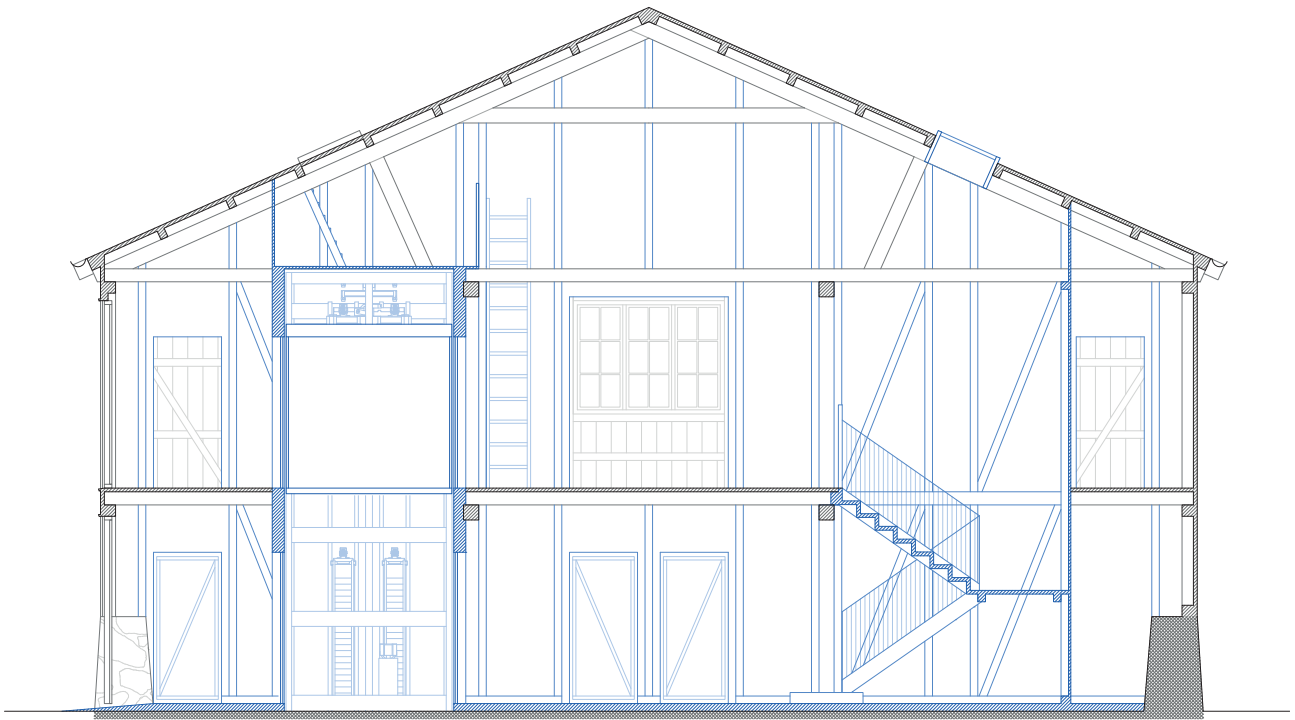
Attic plan 1:100



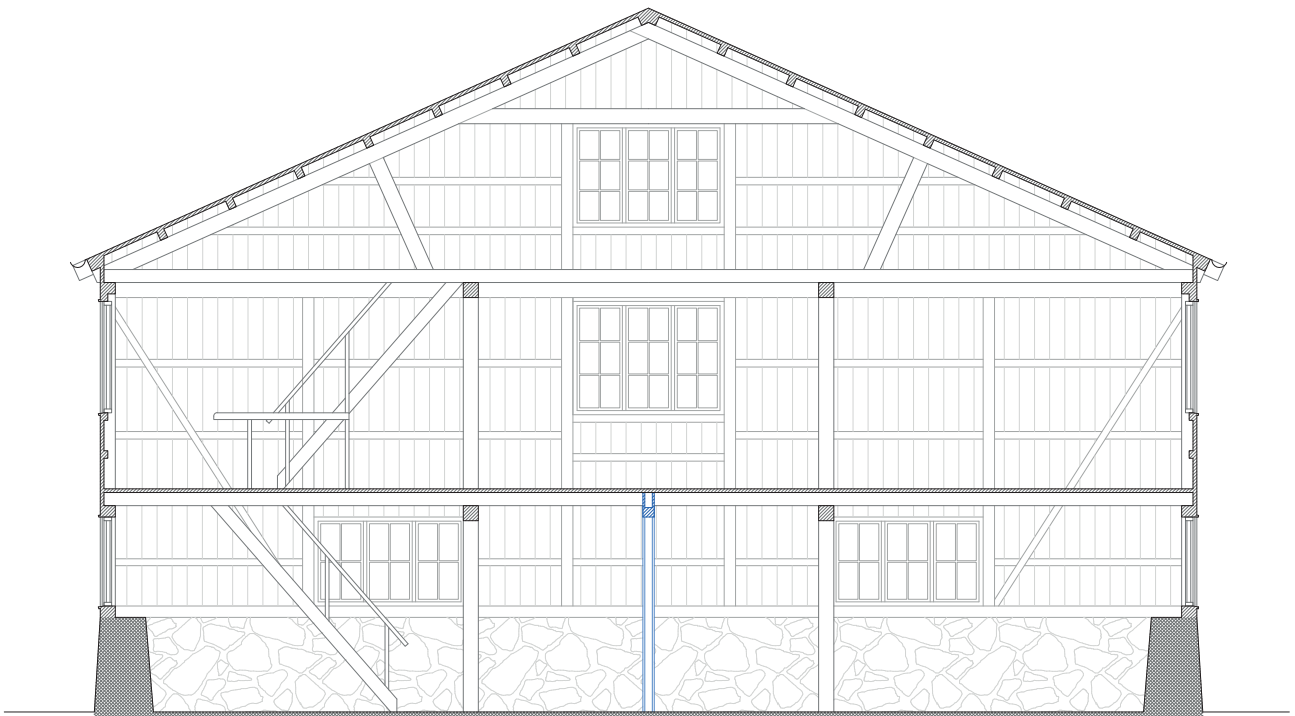
*Section a-a' 1:100*



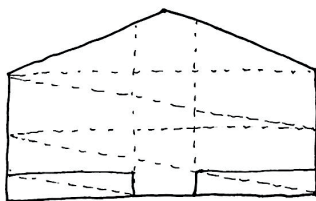
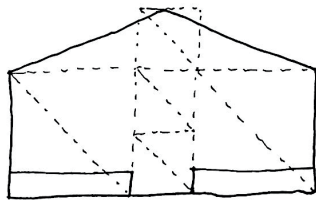
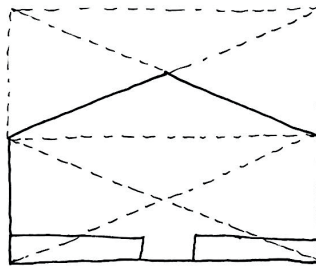
*Section b-b' 1:100*



*Section c-c' 1:100*



*Section d-d' 1:100*

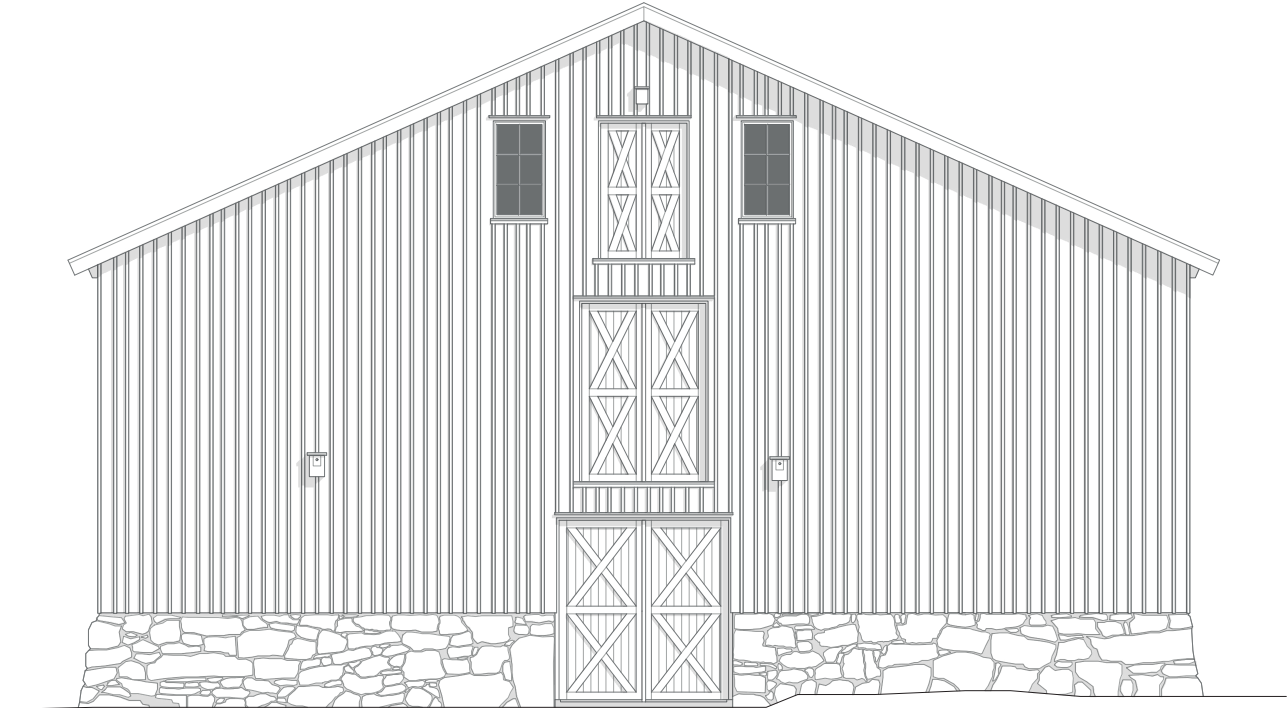


*Facade analysis*

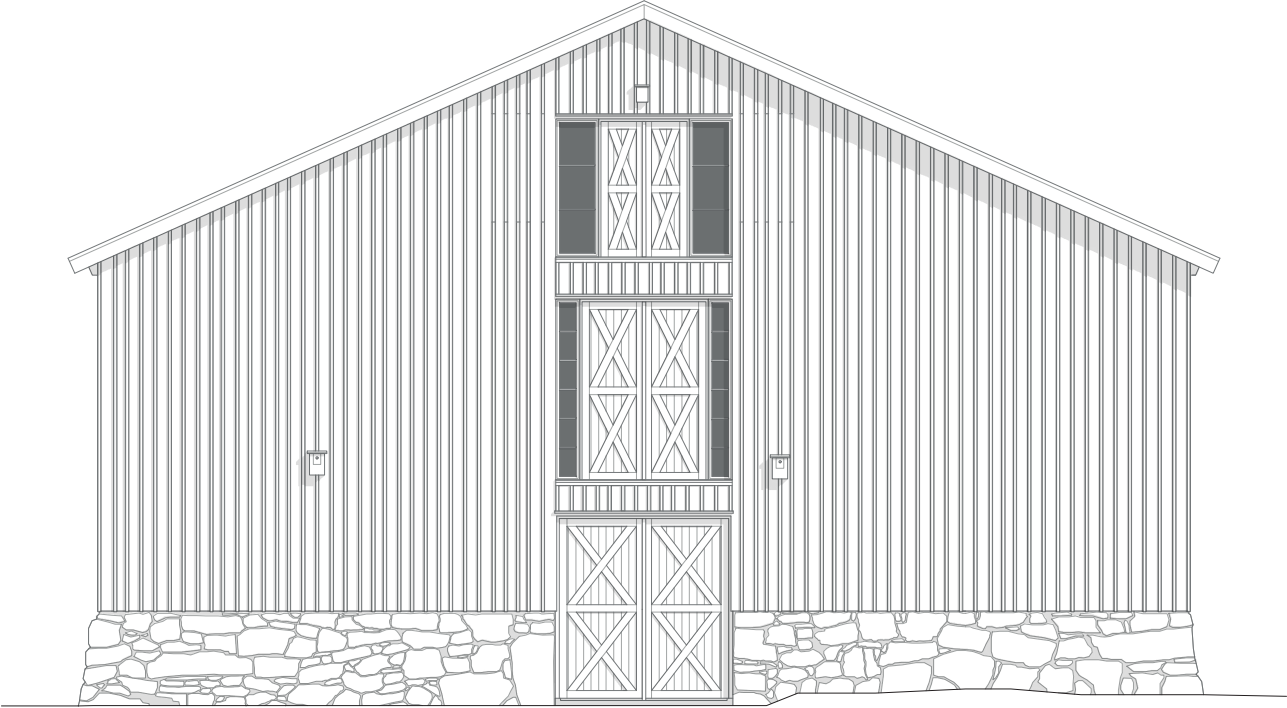
### **About the exterior change**

The perhaps most intrusive change is a change to this facade. The initial goal was to create a protected main entrance, and establishes a more public relationship between the facade and the exterior situation.

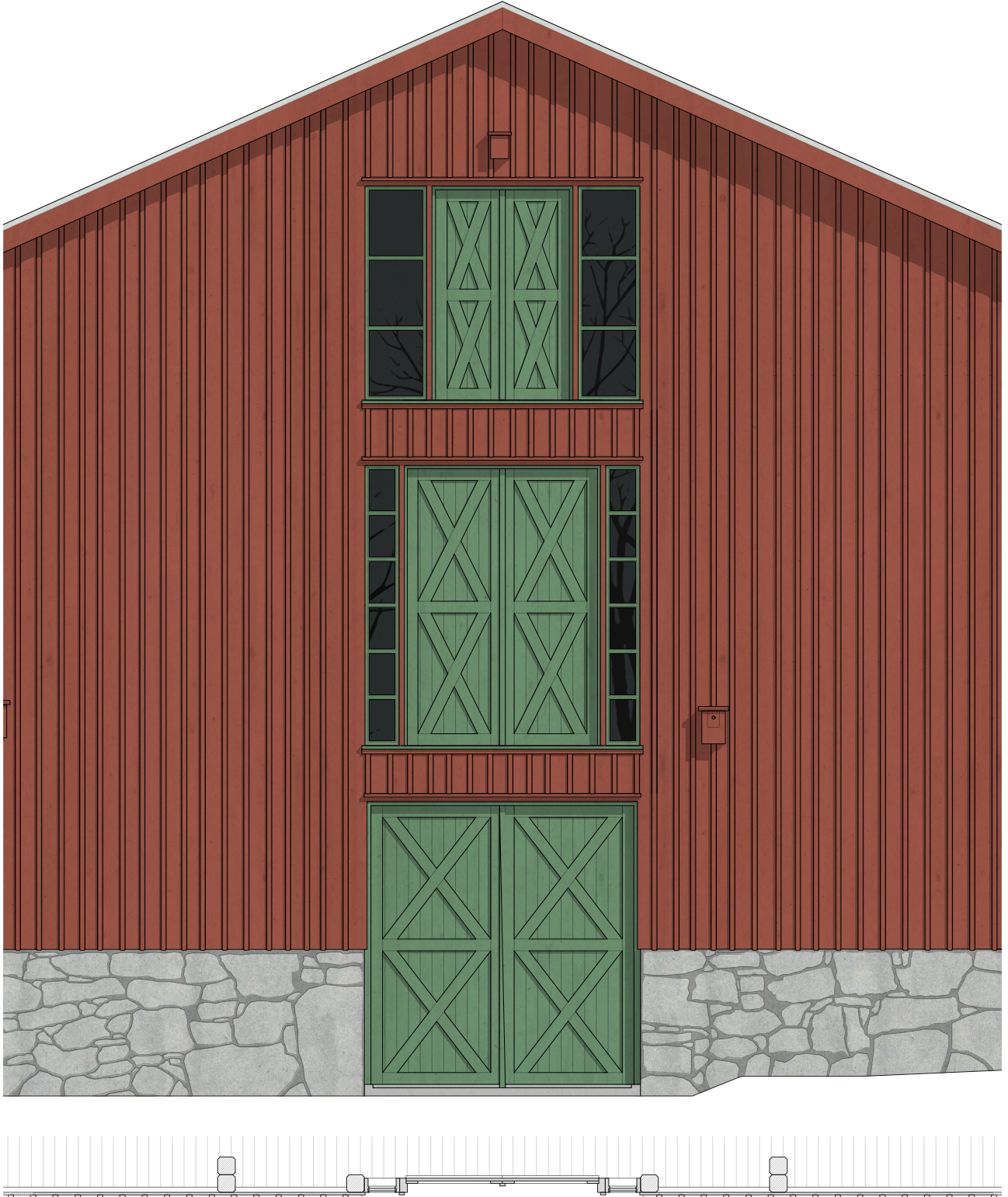
In this there was a opportunity to attempt an alteration that's perceived as a natural and well integrated change. The change preserves this motif of the three doors. Inspired of archive drawings (see p. 32-33) the awkward top windows are removed and instead the doors are surrounded with windows, all in all providing more openings, while still reinstating some new sense of order.



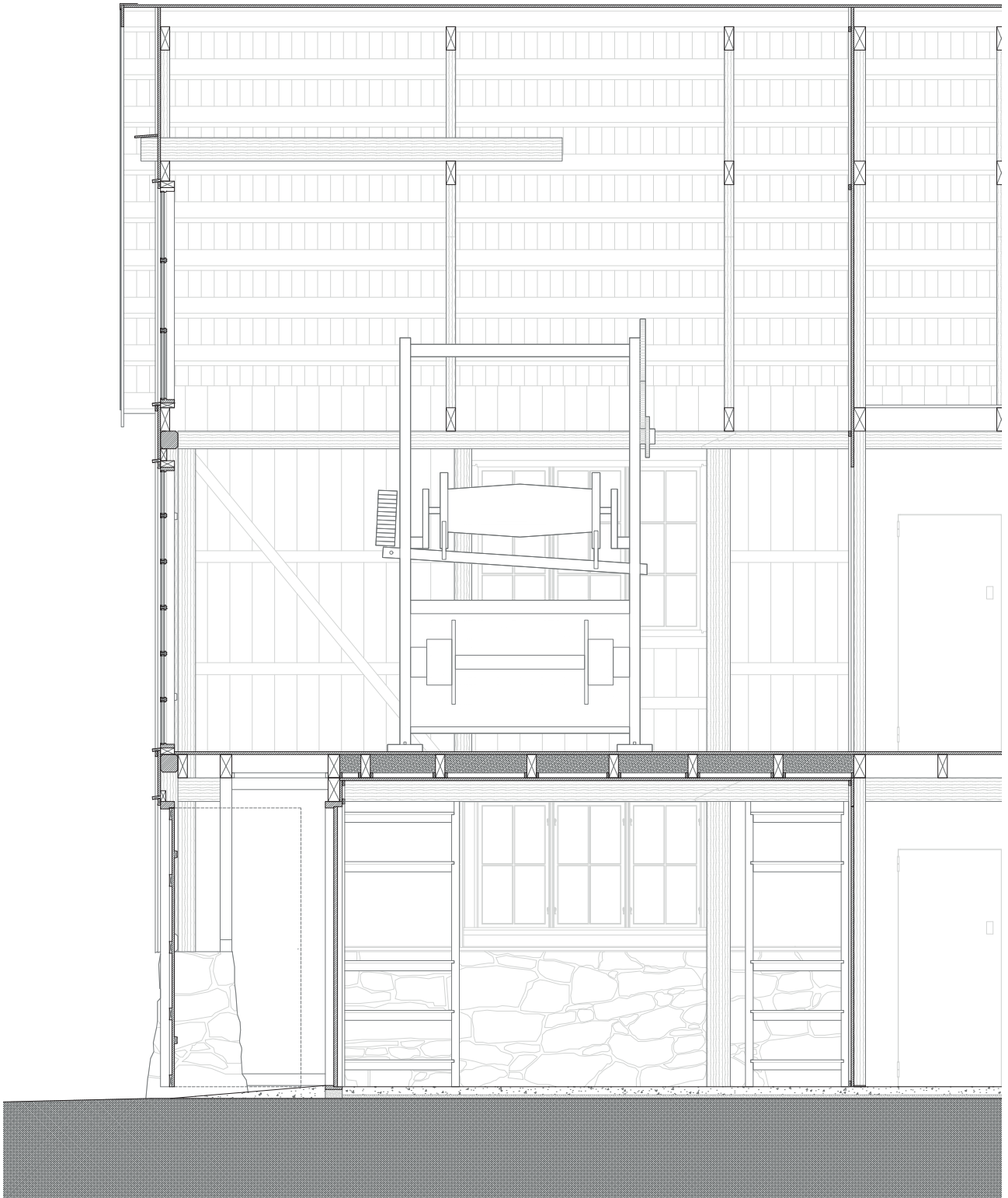
*Elevation from west ( before ) 1:100*



*Elevation from west ( after ) 1:100*



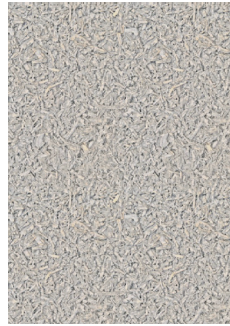
*Elevation entrance 1:50*



*Section entrance 1:50*



*Granite*



*Hempcrete*



*Worn wood*



*Concrete*



*Plywood*

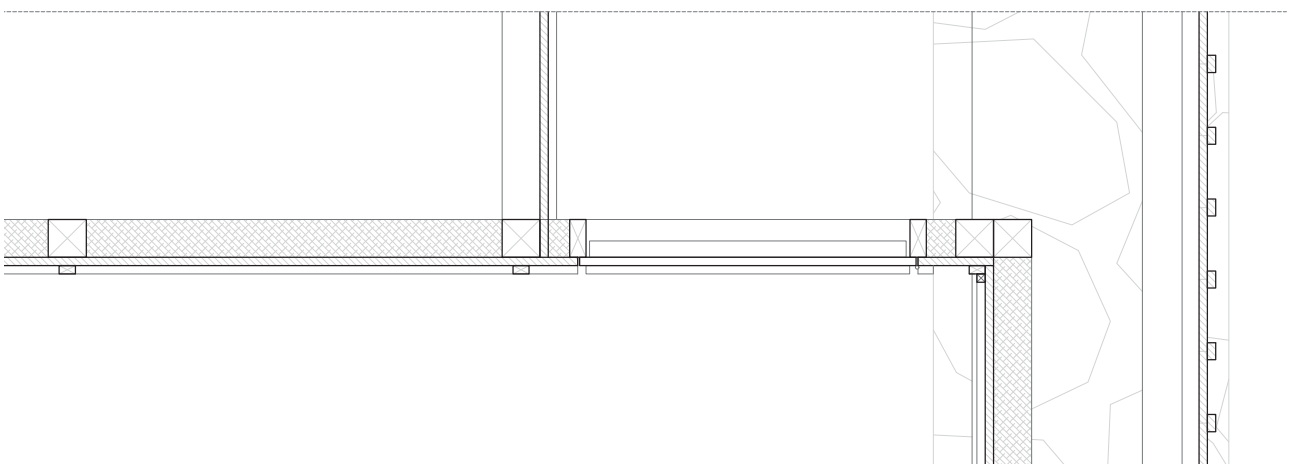
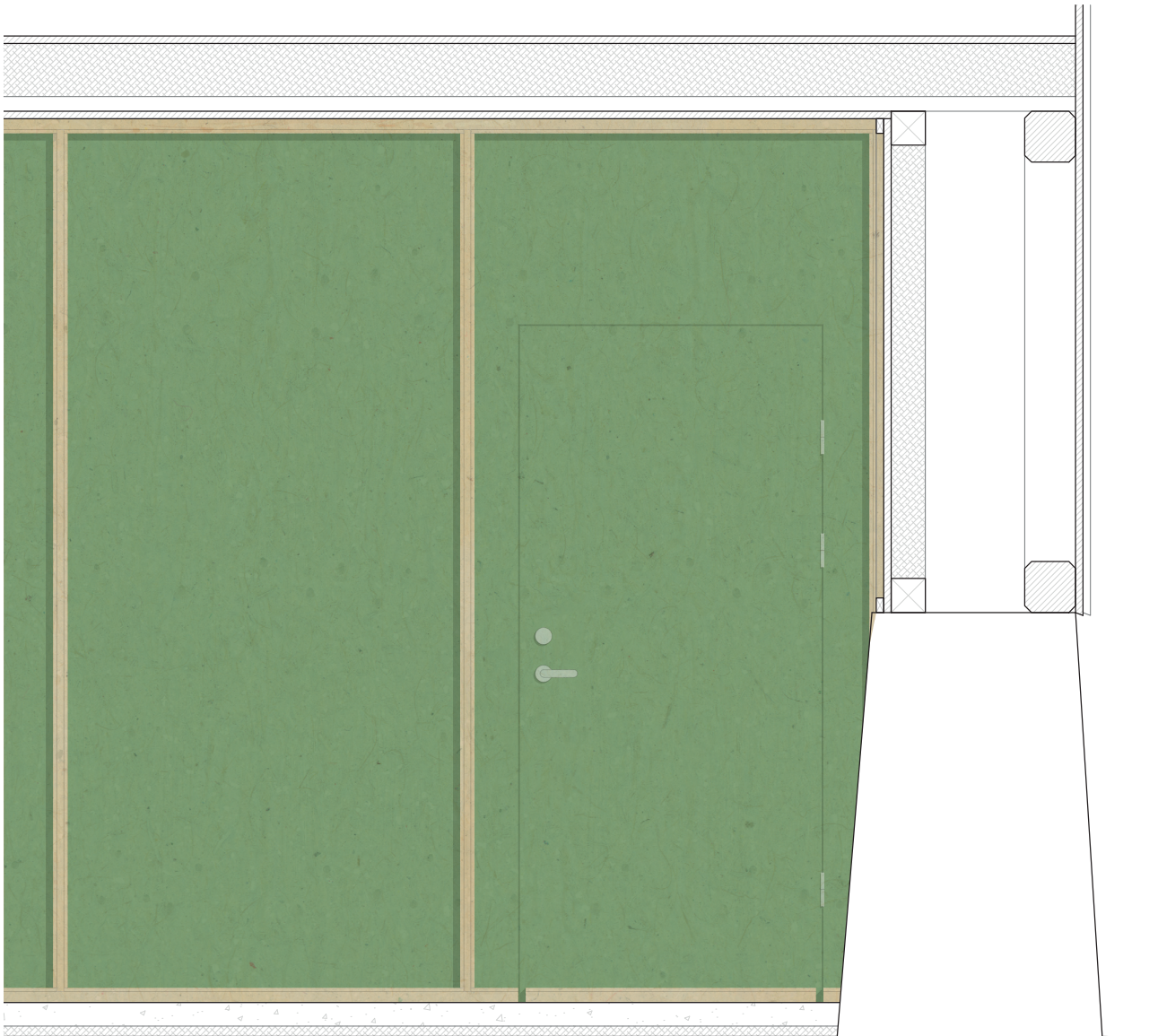


*Pine*

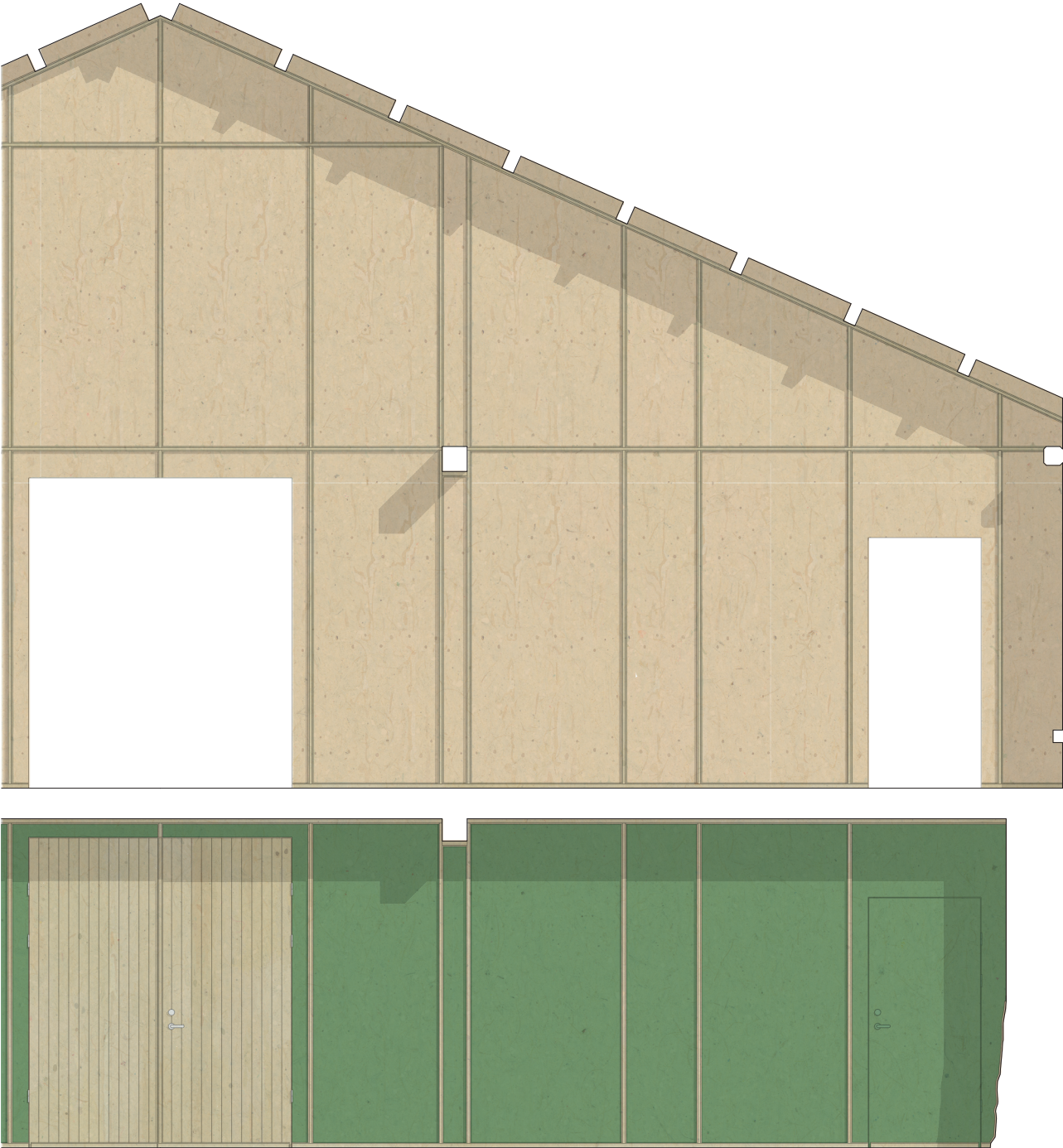
### **About material**

The pre-existent material of granite and worn unpainted wood are complemented with similar raw materials. Much like the building itself the core has a completed, refined front side and an open-ended, unrefined backside. The refined side facing the shop end the exhibitions are dominated by plywood lined with pine. The unrefined side are rather dominated by the structure of 100x100 mm pine posts with its hempcrete insulation on the bottom floor and the backside of the plywood on the upper floor. Details in green connects to the exterior.





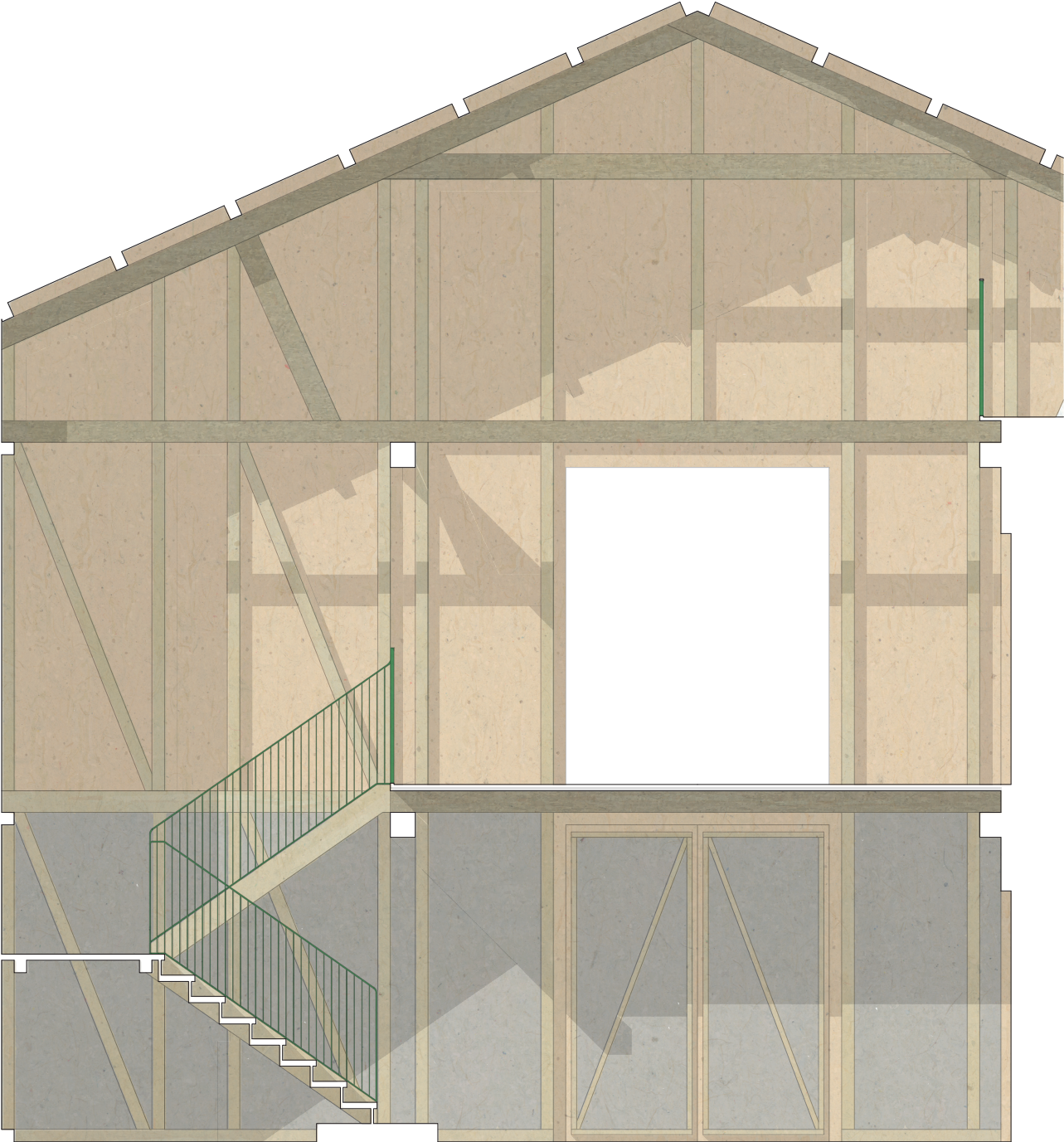
*Detail in shop 1:20*



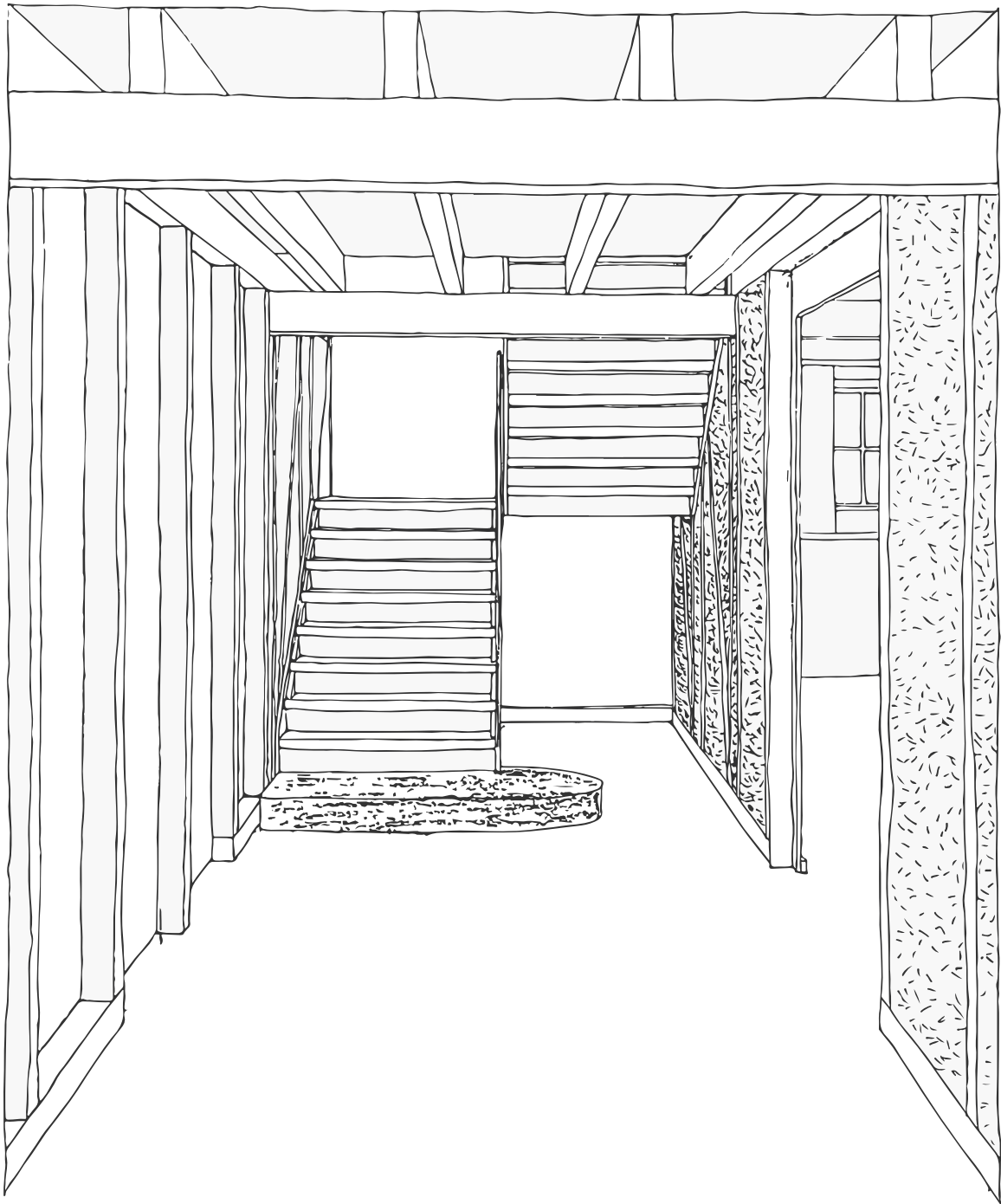
*Elevation shop/exhibition 1:50*



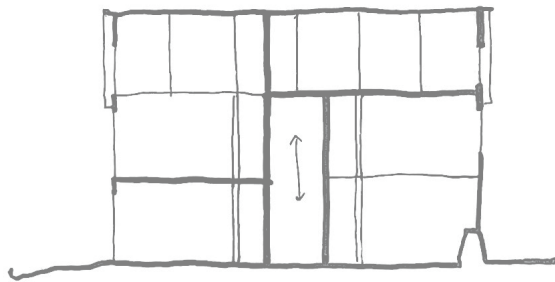
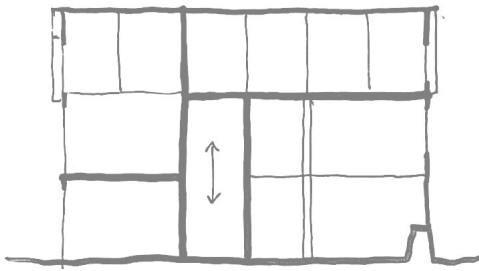
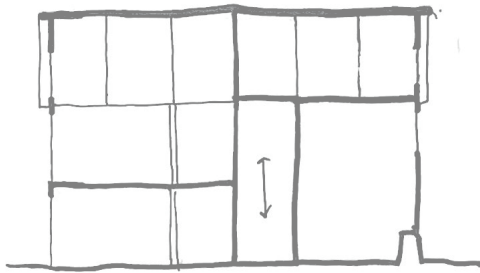
*Interior sketch showing the transition from the dark and heavy entrance floor to the lighter upper floor*



*Elevation stairwell 1:50*



*Interior sketch of stair, with the juxtaposition of insulated and uninsulated surfaces*



## EPILOGUE

( discussion and references )

## Discussion

One of the starting points of this thesis was to challenge the notions of reversibility and distinguishability. Not to disregard them as appropriate design choices but rather to highlight them as being design choices as such. As an alternative, the concept of continuity has been explored, in relation to heritage and alteration.

How does the proposal achieve continuity with its alterations? With the demolition of the attic the initial idea of the warehouse is exposed, while enabling new use, adding both past and future narratives. While the core is likely quite distinguishable, it makes sense of the openings in the facade and as such may give the impression that it has been an original intent. In the facade the present and past exists side by side, without necessarily favouring one over the other or making them distinctly different. If the new facade truly adds value to the building however is difficult to evaluate, but it does show that significant change can be made without impacting the atmosphere as much.

Another theme that wasn't part of the starting point but found interesting is the idea of incompleteness, or open-endedness. In large part inspired by the works of Scarpa this is exemplified by; the preserved stair leading to a missing attic; the exposed backsides and raw surfaces of both the old and the new; the openings without doors. The result is fragmented, but it's not random. It's fragmented in a way that has a complete picture in mind but only executes certain parts of it. There's an overall logic with a lot of conscious gaps. In the same way that historical records often are inconsistent and fragmented, so is the intervention itself. If architecture are to be sustained indefinitely it's perhaps important to embrace this inbetweenness of change. In this project this approach felt natural, when building upon an atmosphere that is in itself incomplete. This open-endedness also includes the programming through a flexible space plan. The spaces could for example be easily adapted to other public functions such as a café, or some sort of community spaces.

A large body of the underlying work of this thesis has been the inventory of the warehouse. Understanding the warehouse has been the most important part of finding a vision for its future, and perhaps also the most educational



experience. However surveying a building is a potentially limitless task. On a small scale there's an infinite amount of details, especially if one starts to consider the crookedness, wear and tear to be of importance. On a larger scale, the context has no particular limit in either time or space. Knowing where start and where to stop is difficult, and finding guidance on this matter has been difficult. Accepting, as stated by Fred Scott (2008), that an inventory is an interpretive work has been a comfort. To this end the inventory has relied on both intuitive and systematic gathering of information.

It's important to note that this thesis does not conclude that the warehouse should be changed. Indeed, while studying and uncovering the warehouse it was difficult not to feel a great respect for its stoic authenticity. The proposal does however highlight some of the potentials of the warehouse that could be realised. And if the warehouse is to remain unchanged it's important to make that decision in relation to the knowledge of what it could be.

All in all it probably holds true, as Bedoire (2013) states, that when altering heritage the outmost carefulness is the safest way to go, and that any intervention can't be too small. During the process however, trying out alterations that would have had a minimum impact felt unsatisfying. Successful architecture needs a certain creative freedom to be engaging for the designer. Architecture should be about the joy of imagining a future, not about making excuses about the present.

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All pictures and illustrations are taken and made by the author.

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**CHALMERS**  
UNIVERSITY OF TECHNOLOGY

Master thesis 2024

Building continuity  
( navigating change in built heritage )