

Layers of time

An investigation of transformation by adaptive reuse



Klara Lidström
Chalmers School of Architecture
Matter Space Structure
2023
Supervisor: Naima Callenberg
Examiner: Daniel Norell



CHALMERS
UNIVERSITY OF TECHNOLOGY

Year of publication: 2023

Title: Layers of time

Subtitle: An investigation of transformation by adaptive reuse

Author: Klara Lidström

Institution: Chalmers School of Architecture

Department: Matter Space Structure

Examiner: Daniel Norell

Supervisor: Naima Callenberg

Master's program: Architecture and Urban Design

Student background

Klara Lidström

Umeå School of Architecture 2017 - 2020

BFA in Architecture

Chalmers School of Architecture 2021 - 2023

M.Sc Architecture and Urban Design

Studios:

Material & Detail

Matter Space Structure 2

Architecture & Urban Space Design

Table of content

iii	Student background
6	Abstract
7	Dictionary
8	Background
9	Research questions
10	Discourse and approaches
12	Theories and strategies
14	Gamlestaden
16	Kvarteret Gösen
20	M-verkstaden
24	The Atlas
26	The site
28	Exterior investigations
44	Interior investigations
58	Details
62	Applied design strategies
66	Transformation
68	M-verkstaden
70	The West building
74	The Central building
78	The East building
82	Discussion and reflection
84	References
85	Thank you

Abstract

Dating back as early as during the French revolution, and probably before that, until today's expansion of our societies, the question of reuse within architecture has been widely discussed and become more and more of a prominent topic. As a sustainable approach intending to extend the life of old buildings and work as an economically beneficial strategy on how to further develop our cities, adaptive reuse is an architectural theory that's been evolving for centuries characterized by its many different theories and approaches.

However, with an expanding building stock consisting of unused buildings of different typologies and historical identities, the question of how these approaches might be developed and used within modern society is something that is still to be further explored.

This thesis aims to investigate one possible approach within this field by researching the strategies of palimpsest, translatio, imitatio and aemulatio and their effect upon a building of cultural and historical heritage.

The building that will be investigated is M-verkstaden, a former industrial building residing in Kvarteret Gösen in Gamlestaden, a place of great historical importance for the development of the area. Starting out in 1907 when Svenska Kullagerfabriken, SKF, started their production in the neighborhood, until today, Kvarteret Gösen is considered a landmark in Gamlestaden. But with the relocation of SKF the area is today facing a transition from a closed industrial neighborhood into a future public place, something that brings the topic of adaptive reuse into question and how the identity of this place will be translated.

By documenting M-verkstaden as a palimpsest and then applying the strategies of translatio, imitatio and aemulatio onto the research the intention is to give a possible answer to this question while also adding to the discussion of what adaptive reuse might be and how it can be further developed.

Keywords: *Adaptive, Reuse, Heritage, Palimpsest*

Dictionary

Adaptive - providing, contributing to, or marked by adaptation: arising as a result of adaptation.

Reuse - to use again especially in a different way or after reclining or reprocessing.

Heritage - property that descends to an heir.

Palimpsest - something having usually diverse layers or aspects apparent beneath the surface.

(Definitions taken from <https://www.merriam-webster.com/>)

Translatio - to translate the original into something new which includes having a critical approach towards the original.

Imitatio - to create an equality between the old features and the newly added features.

Aemulatio - to intertwine the old layers with the new ones.

(Van Cleempoel & Plevoets. 2019)

Background

How do you approach our built cultural heritage? And what role does its past use and narrative play in its future? Historically this is a topic that's been discussed over and over and resulting in different answers and solutions depending on how the building has been regarded historically and culturally, but also depending on which theory you are relying on. This is also something that's been evolving along with the development of our societies, with some buildings being left empty when their program have been considered outdated while new activities emerge demanding to use that space for their purpose. Demolition has many times been the answer but with a growing demand for sustainable solutions and a building stock which contains culturally protected buildings and old industrial areas the answer of reuse have become more evident.

The issue is not only about reusing for the sake of it but it can also be seen as preserving a place's identity, avoid urban sprawl and as an economical benefit when instead of building new old buildings can have their life prolonged by expanding a building's life from cradle-to-grave. The matter of adaptive reuse is therefore something to take into consideration in urban planning but while this is a sustainable approach worth expanding the use of it also raises new questions concerning how reuse within architecture can be done in a way that avoids green washing and instead contributes to a sustainable development within the field and what the theories developed actually means when applied onto a building.

This master thesis will therefore research one possible approach, influenced by the notions of palimpsest, imitatio, translatio and aemulatio, concepts used within adaptive reuse that aims to be used as methods for how buildings of historical and cultural value can be reused and find new narratives. (Van Cleempoel & Plevoets. 2019)

As a canvas for these theories stands M-verkstaden. An old workshop building from the 1900s that resides in Kvarteret Gösen in Gamlestaden. (Göteborgs Stad Stadsbyggnadskontoret. 2017) The building is part of a larger context of

historical industrial buildings that was constructed when SKF was established in the area, an establishment which also led to the further development of Gamlestaden which also helps explaining why the neighborhood is important for the area. (Göteborgs Stad Stadsbyggnadskontoret. 2017)

The current plans, by the city, for the building involves programs that are very different from the original, (Lange, et al. 2011) which is understandable, and the plan also underlines the importance of taking care of the cultural and historical heritage of Kvarteret Gösen by preserving a larger part of the area as well as keeping traces of use that are visible. (Lange, et al. 2011) However, the plan doesn't really mention or suggest how this will be carried out so the question remains: how do you approach our built heritage? This is something that will be further investigated in the next chapters of this thesis.

Research questions

How can one transform a building of historical and cultural value based upon strategies which are aimed at preserving, highlighting and build upon the traces and layers of time and use?

What can a possible transformation look like when implementing the methods of imitatio, translatio and aemulatio within adaptive reuse?

Delimitations

This thesis is a speculative project and the intention is to add to the conversation of adaptive reuse and how that might look like by exploring what a transformation could result in when using the approaches of imitatio, translatio and aemulatio. It is also a comment on the notion of adaptive reuse in consideration to the traces of usage and time and how these strategies within the theory also creates a hierarchy concerning which layers are acknowledge as being valuable and which ones that aren't.

The aim is not to solve all of the issues that follows upon the interventions and the author is also aware that there are many regulations that restricts how the building can be reused. Instead the intention is to regard M-verkstaden as a symbol for industrial buildings that are to be subjected to a transition from a previous program to a completely different new one and how this also becomes a conversation about how to regard the history of the building and it's layers of time.

Reading instructions

This thesis starts with an introduction to the subject of adaptive reuse and the theories, creating the framework which this thesis works within. Then the site of Gamlestaden is introduced together with M-verkstaden which is the building that's being addressed using the methods of imitatio, translatio and aemulatio. This is followed by an atlas of the building compiled by the research of the building's layers. The design explorations is then presented together with the final outcome and a zoom in on details explaining how the methods have been implemented and the result, with a comparison to existing situations within M-verkstaden.

In the chapter which discusses the implementation the different layers of time are recognized through a system of representation where the current layout is represented through photo collages, the original added layer through black line drawings and the new added elements through blue line drawings.

Photos: The existing layer
- The original layer
- The newly added layer

Discourse and approaches

Adaptive reuse

An important aspect within this thesis has been adaptive reuse and the strategies within this field. Adaptive reuse is a theory within architecture that started to gain recognition during the 1970s, however the thought of reuse of buildings and different approaches towards this is something that has been addressed earlier than that although often without any thought about the heritage of the built and rather because of economical and practical reasons and sometimes as a way of restoring the identity of a place and prolonging the life of a building. (Van Cleempoel & Plevoets. 2019)

Then during the nineteenth century two different approaches emerged: the restoration movement mainly promoted by Eugène Emmanuel Viollet-le-Duc (1814-1879) whom advocated for buildings to be reused and translated to today's needs. The other approach was supported by John Ruskin (1819-1900) and the thought that historical buildings should be protected, conserved and maintained without being tampered with. (Van Cleempoel & Plevoets. 2019)

These different directions led to further debate when Austrian art historian Alois Riegl (1858-1905) analyzed the two approaches and concluded that they addressed different views on authenticity where Viollet-le-Duc and the restoration movement being in favor of restoring the built heritage and removing all traces of age; something he explained as being a combination of newness-value and age-value. While Ruskin and the anti-restoration movement were promoting a method where all traces of ages was kept; the age-value. Riegl found that both sides had valuable points and concluded that he was in favor of adapting the built to new use although keeping the traces of their history; adaptive reuse. (Van Cleempoel & Plevoets. 2019.)

Another view on these directions was voiced by Camillo Boito (1836-1914) whom criticized both, Viollet-le-Duc for his approach

leading to the loss of the buildings authenticity concerning materiality while Ruskin's views was impractical. (Van Cleempoel & Plevoets. 2019) Boito instead tried to develop an approach in between these two arguments and argued that the conditions for how restoration should be carried out should depend on the specific conditions of the built and therefore differ, with this he proposed eight principles that could be used for reuse. (Van Cleempoel & Plevoets. 2019.)

Influenced by this further discussion and the views of Boito in 1931 an international document, The Athens Charter, was introduced as an attempt of trying to formulate a policy regarding modern conservation in relation to the destruction that had been made towards the built during WWI. (Van Cleempoel & Plevoets. 2019) The thought was that the restoration should be done in a way that prolonged the lives of the built but that it should be done with consideration to its history or aesthetic. (Van Cleempoel & Plevoets. 2019) Following more international debate and conferences restoration of the built heritage came to be regarded as something that should only be carried out under certain circumstances. This led to a division between the conservation and restoration movement and the modernist, with the modernists regarding the built heritage as a barrier for development. (Van Cleempoel & Plevoets. 2019.)

However, the fields of conservation and architecture became closer and following the years after WWI and WWII, with an increasing amount of buildings in need of restoration, the notion of adaptive reuse started to being regarded as an approach within conservation practice. (Van Cleempoel & Plevoets. 2019) This was further established in 1976 when Radolfo Machado published "Architecture as Palimpsest", introducing palimpsest as a metaphor, proposing that adaptive reuse could be seen as a way of layering where the existing can be a part of the future.

(Van Cleempoel & Plevoets. 2019)

This approach influenced further within adaptive reuse and today there are many different approaches and strategies regarding how to deal with our built heritage and the reuse of a building. (Van Cleempoel & Plevoets. 2019)

This is a subjective interpretation of parts within adaptive reuse and the purpose is to illustrate some of the discussions and strategies that exists within this field as to give an overview of how it's been developing and how it is a relevant topic in today's society.

The history of adaptive reuse is what has shaped the framework that will be used within this thesis where palimpsest has worked as a starting point when researching about M-verkstaden and then further the strategies of translatio, imitatio and aemulatio have been used in order to create possible transformations that can be applied onto M-verkstaden.

The reason for working with adaptive reuse is motivated by a curiosity of what these strategies actually mean and how they could be used in a transformation. Since there are many different theories and philosophies in regard to what is appropriate when dealing with a building of cultural and industrial value the decision was to use strategies that are focused on transformation rather than conservation because of the current conversation regarding the future of M-verkstaden. It also has to do with the future for urban planning where a need for space in combination with a building stock which contains unused buildings will mean that a sustainable approach forward will be reconsidering the use of them and here adaptive reuse and strategies within this field stand to gain if these approaches are further discussed.

Theories and strategies

Palimpsest

Working with the building as a palimpsest can be regarded as letting ghosts of the past use of the building, traces of what has previously been but perhaps have been removed since then, be left visible without removing or covering it up. Instead the intention is to let these previous signs of use be part of the future and co-exist with the new added activities. (Wong, 2017)

Translatio

Translatio is about creating a similarity towards the original, not about creating an exact copy but rather about having a critical approach and using that when translating the object. (Van Cleempoel & Plevoets, 2019)

Imitatio

Imitatio means creating an equality between what is added and what is already there. (Van Cleempoel & Plevoets, 2019)

Aemulatio

Aemulatio is a method which departs from the common thought within adaptive reuse that it should exist a clear contrast between the old and the new in order to respect the history of the built object. Instead this approach argues that there should be a more intertwined relationship where the existing is incorporated into the hidden or lost qualities of an object in order to reestablish these values.

Furthermore the thought is to build further onto the physical and spiritual identity, the genius locci. This can be done by the improvement of an object by additions, highlighting different qualities and not necessarily in a way that copies the original style although the intention is that the added layer should blend together with the existing. (Van Cleempoel & Plevoets, 2019)

Methods

The Atlas

The atlas is a documentation of M-verkswagen which has been influenced by the notion of palimpsest and by using the drawing as a tool. The research has been conducted by documenting the building through photographs and in combination with the original drawings and line drawings showcasing the building's history, current state and potential. The method has been carried out without placing any value in concern to the existing traces, instead it's been about discovering these traces and include them within the research.

The transformation

The information within the atlas has later on been used within the exploration process where a possible transformation of M-verkswagen has been investigated through the application of the strategies of translatio, imitatio and aemulatio. This part can be regarded as having a conversation with the building, conducted by using the drawing as a tool which also embodies the buildings answer to the strategies and displays what these approaches could result in.

Palimpsest

M-verkswagen: the layers of the building

Research about changes
Categorize transformations
Identifying patterns



Translatio

Translate the research in a critical yet similar way to the original

Imitatio

Create an equality between the existing layers and the added

Aemulatio

Intertwine the old layers with the new added layer



Transformation

Implementation of the methods and the result, showcasing a possible transformation that through *translatio*, *imitatio* and *aemulatio* could be added to M-verkswagen

Gamlestaden

Right next to Sävån resides Gamlestaden in the North eastern part of Gothenburg, an area that is full of life and influences from different eras of time. (Göteborgs Stad Stadsbyggnadskontoret. 2017) It's also situated quite close to the central parts of the city yet the area can be perceived as cut off from these parts due to the large roads that shields it off from the city centre. (Göteborgs Stad Stadsbyggnadskontoret. 2017) Still this connection is regarded as very important in connecting the North eastern part of Gothenburg to the rest of the city which makes Gamlestaden an area worth developing further as to strengthen this relationship. (Göteborgs Stad. n.d.)

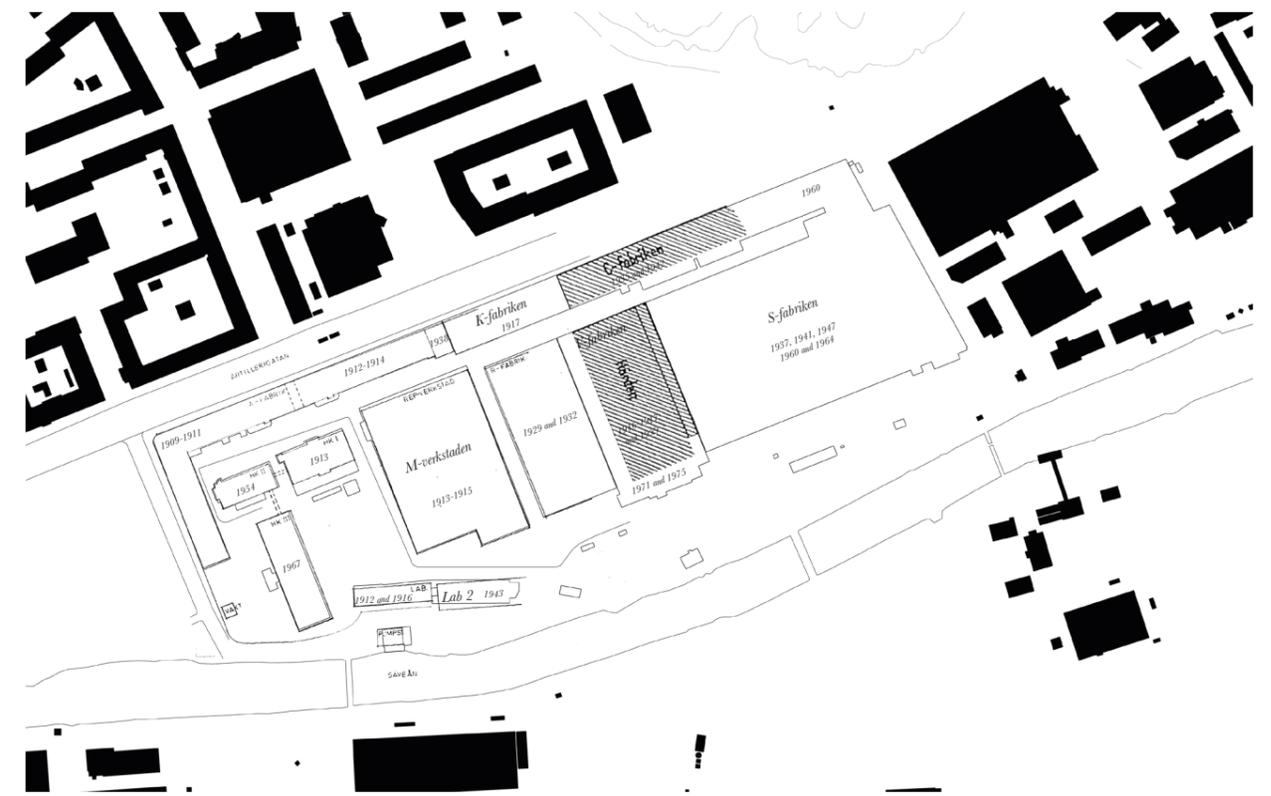
The area is also part of Gothenburg's origin of industrial heritage in the city with traces of industry from the 1800s. (Göteborgs Stad Stadsbyggnadskontoret. 2017) Gamlestaden is furthermore an area that consist of a mixture of buildings (Göteborgs Stad Stadsbyggnadskontoret. 2017) with older developments in the style of landshövdingehus (gouverner housing), wooden houses, brick buildings and newer developments with more colorful expressions in the facade, something that also adds to the identity of the place.

As part of it's industrial heritage Gamlestaden was once upon a time home to Gamlestads Fabriker (Göteborgs Stad Stadsbyggnadskontoret. 2017) a textile company (Lange, et al. 2011) from where Svenska Kullagerfabriken, SKF, was developed and founded in 1907. (Bydén, et al. 2010) The foundation of SKF also lead to the establishment of Kvarteret Gösen, the original home of SKF and its factories and headquarters. (Göteborgs Stad Stadsbyggnadskontoret. 2017) Kvarteret Gösen can be well recognized when entering Gamlestaden as it's portrayed by the long brick facade which goes along Artillerigatan and works as a passage into the old industrial neighborhood.

The future plans for Gamlestaden, according to the City of Gothenburg, is that it will be twice as many inhabitants living here in the future due to the closeness to the city, the existing infrastructure

of roads and public transportation and the possibility of expanding the area by new constructions but also through the reuse of the old historical neighborhoods by Gamlestads torg and Kvarteret Gösen. (Göteborgs Stad. n.d.)

Currently with ongoing developments at Gamlestads torg (located to the West of Kvarteret Gösen) and recent additions made in the area North west of Kvarteret Gösen, the neighborhood stands in the centre as a reminder of the old Gamlestaden and how it will be transformed can therefore be seen as a symbol of what the future of Gamlestaden might look like and what role the industrial heritage will continue to have within the area.



Map of Kvarteret Gösen and each building's year of construction. The map is a collage of a contemporary site plan and modified plans from 1941 and 1973.

Kvarteret Gösen

Kvarteret Gösen is a part of Svenska Kullagerfabrikens, SKFs, oldest factory area and consists of buildings of high quality built at different stages from 1909-1967 where each building can be seen as representing a typical time era and a certain type of production. (Göteborgs Stad Stadsbyggnadskontoret. 2017) With large facades facing the outside streets and then a more small-scale type of architecture represented inside of the area it displays an unusual type of neighborhood within Sweden. (Bydén, et al. 2010)

The district expanded along with the growth of SKF, not only with the construction of new factories within Kvarteret Gösen but also with housing for the workers and other services. (Göteborgs Stad Stadsbyggnadskontoret. 2017) Most of the buildings within the area are made out of different types of brick and with a variation of roofs. (Göteborgs Stad Stadsbyggnadskontoret. 2017)

In 2017 SKF started to move out of its old buildings in Kvarteret Gösen and into new ones close by. (Göteborgs Stad Stadsbyggnadskontoret. 2017) The question is therefore what the future of the area looks like. Some of the suggested plans for the area has been to make it more public and introduce centre activities, commerce, offices, schools and housing in the neighborhood. (Göteborgs Stad Stadsbyggnadskontoret. 2017) However, since Kvarteret Gösen is part of Gothenburg's conservation program, due to its industrial and cultural heritage, the intention is that new activities should be adapted to the old buildings and that in case of new construction it should also be executed in accordance to the existing buildings and that traces of the industrial use should be kept visible as a reminder of the areas history. (Göteborgs Stad Stadsbyggnadskontoret. 2017)

Although the area stands as an important reminder of Gamlestadens heritage some of the old factories are in a too poor condition to be kept, therefore K-fabriken, S-fabriken and V-fabriken will be deconstructed (Göteborgs Stad Stadsbyggnadskontoret. 2017)

while C-fabriken, M-verkstaden and R-fabriken will be kept. (Lange, et al. 2011) The thought is that the material from the torn down buildings should be reused in the construction of new buildings and that they should resemble the style of the original buildings. (Göteborgs Stad Stadsbyggnadskontoret. 2017)

According to the antiquarian precautionary plan some things to be taken into consideration for the future of the neighborhood is the industrial character which gives the area a sense of authenticity, that each building should be considered as an individual and that its values should be taken into consideration for the new added program. (Lange, et al. 2011) If additions or maintenance are made it should be done in a way that is visible but still in consideration to the original and how it will be affected. (Lange, et al. 2011)

Today, there are no adopted plans of what the future of the neighborhood looks like and these are only suggestions. Still, if the area is to be reused the question of how that will be done remains.

Because while there is a strong belief within the plans of maintaining the identity of Kvarteret Gösen and its recognized that its a key part of the history of Gamlestaden and its industrial character, its also important to remember this not only by keeping the buildings as symbols but also in how the transformation is executed. The history of Gamlestaden as an industrial area and a place for workers is something that needs to be considered when approaching this area and in its transition from being a closed off place to becoming a public one. How will this transformation affect the area and how can it become inclusive and in accordance to its history instead of becoming a symbol of gentrification?

Since the plan doesn't really mention anything about these issues or how the plans will be carried out these questions remain unanswered and the buildings within Kvarteret Gösen therefore risk end up being completely changed in favor for a commercial use or empty where the buildings are left as mere ghosts of an industrial past.



The brick facade of Kvarteret Gösen

Photograph taken by the author

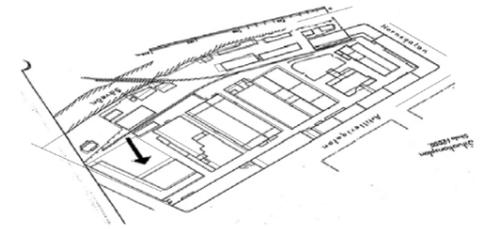


Kvarteret Gösen

Photographs taken by the author

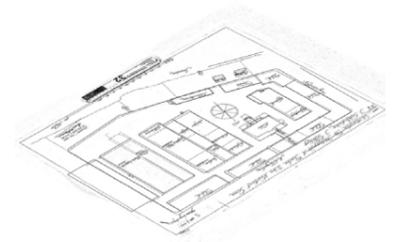
1941

Expansion of Svarv I, later called Svarv II. Today only the facades facing the North and the South are visible.
Architect: F O Peterson



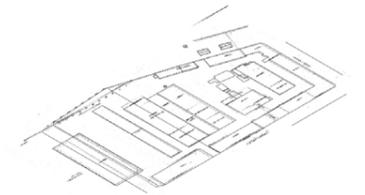
1928

Development of R-fabriken, used as a revolver lathe.
Architects: A Krüger & Son and Alex R Petersson.



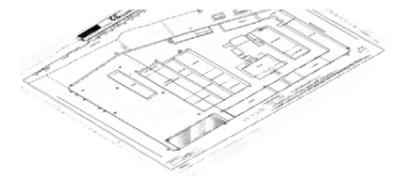
1917

A shed next to M-verkstaden is further expanded (torn down today.) V-fabriken is built right next to M-verkstaden.
Architect: Ernst Krüger.



1915

Expansion of M-verkstaden by connecting the East and West part with a Central building. The added building was used as a machine workshop and smithy.
Architect: Ernst Krüger.



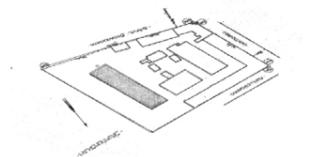
1914

Expansion of the second part of M-verkstaden. The building was used for carpentry, castings and rollings and sandblasting. Expansion of A-fabriken.
Architect: Ernst Krüger.



1913

Development of M-verkstaden, including the construction of a chimney that has been torn down since then.
Architect: Ernst Krüger



Original plan drawings are not done by the author

M-verkstaden

One building that is part of Kvarteret Gösen is M-verkstaden. The architect behind the building was Ernst Krüger and it was constructed in 1913-1915 at different stages. (Lange, et al. 2011)

Originally the building consisted of separate parts with the first one, the West part, being constructed in 1913 and consisting of a basilica with a large workshop hall and connecting aisles. (Göteborgs Stads Stadsbyggnadskontoret. 2017) The building was originally used as a power plant, machine workshop and smithy. (Lange, et al. 2011) Then with the further expansion of SKF and the need for more spaces the second building, the East part, was constructed in 1914 in a similar style, hosting activities such as a carpentry, a casting- and rolling workshop and sand-blasting. (Lange, et al. 2011) Then in 1915 the buildings were connected by the construction of the Central part, consisting of a steel framework, to be used as a machine workshop and smithy. (Lange, et al. 2011)

Originally there was also a shed placed next to the building as well as a large chimney, situated next to the South gable of the West workshop, however today the chimney is gone and the shed has been deconstructed. (Lange, et al. 2011)

M-verkstaden has been especially mentioned in Gothenburg's conservation program due to its high quality and how the different parts represents a rational industrial architecture (Göteborgs Stads Stadsbyggnadskontoret. 2017) made in a national romantic style. (Lange, et al. 2011) The three different parts are made out of red bricks with wall fields between the pillars in the facade (Göteborgs Stads Stadsbyggnadskontoret. 2017) and with a base consisting of paving stones. (Lange, et al. 2011) They have marked gables and small ornaments made out of white bricks (Göteborgs Stads Stadsbyggnadskontoret. 2017) that represents the symbol of transmission. (Bydén, et al. 2010) And even though each building has been constructed at different stages they all have a common architectural language. (Göteborgs Stads Stadsbyggnadskontoret. 2017)

The thoughts in the plans concerning the future of M-verkstaden is for the traces of time and industry to be taken into consideration. (Göteborgs Stads Stadsbyggnadskontoret. 2017) According to the antiquarian precautionary plan the buildings original shapes should remain as well as the roofs. (Lange, et al. 2011) The original and rebuild details and parts is also to remain the same and if maintenance is needed it should be done with similar methods and materials. (Lange, et al. 2011)

Further on the plan concludes that the new programs should be adapted to the building and if there is a need for added windows these should be placed where original windows have been covered up and should in that case be designed in consideration to the character of the building and with the participation of an antiquarian. (Lange, et al. 2011)

Future programs that have been identified as suitable for future use of M-verkstaden is educational, sports, culture or theatre for example. (Lange, et al. 2011) This plan for what the future use of M-verkstaden could be is just a suggestion and hasn't been decided yet.

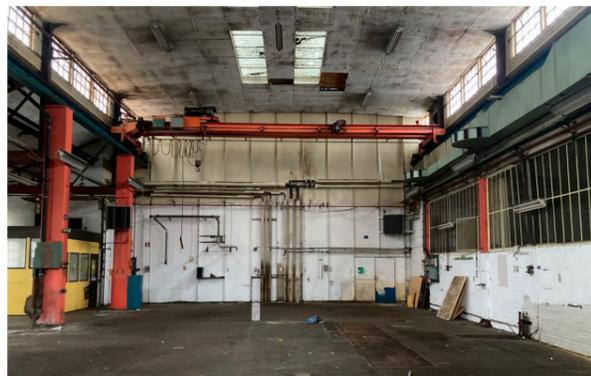
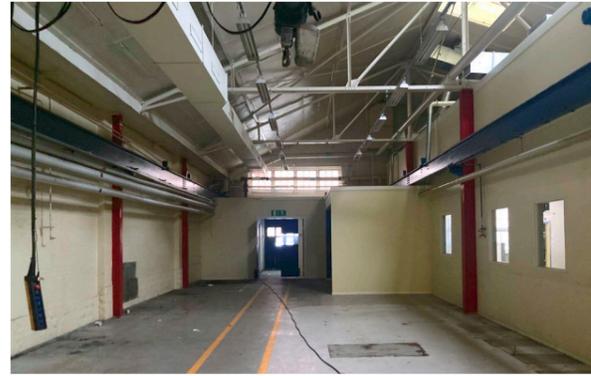
Still, if the building is to be reused the question remains, how should this process of reuse be carried out? This is very important since the suggested activities differs quite a lot from the original purpose of M-verkstaden. There is also a question of hierarchy concerning which layers of time that shall be kept since it's mentioned that original details could be brought back. The question is therefore how existing traces of use will be handled and if the desired outcome is to restore M-verkstaden into what it originally looked like or if the past changes also can be part of its future.

These are considerations that this thesis aims to analyze, working within this proposed plan but with the point of departure in exploring how a possible transformation could be carried out that doesn't start with the program. The aim is to analyze if it's possible to find guidelines for what a possible future transformation might look like by analyzing different layers of time and traces of use that M-verkstaden has been exposed to.



M-verkstaden

Photograph taken by the author



M-verkstden

Photographs taken by the author

The West part of the building

Photographs taken by the author

The Central part of the building

Photographs taken by the author

The East part of the building

Photographs taken by the author

The Atlas

The atlas contains documentation of M-verkstaden which was carried out on site by photographing the building and then using the drawing as a tool by combining the photos together with the original drawings and line drawings. The influence within this stage of the process was the notion of palimpsest. Palimpsest can be regarded as letting traces of past use remain visible within the building (Wong, 2017) and this influenced the atlas in highlighting the changes that have been done and how the current condition of the building differs from the original layout.

Since M-verkstaden has been in use for a long time the building has undergone transformations in accordance to the current activity within. There are therefore clearly visible traces of past ghosts in the building, something that appears evident even when you first approach the building and observe its facade where the original design is intertwined with newer additions of replaced windows, doors, closed openings and such. The intention therefore of creating an archive of information, an atlas, influenced by palimpsest was to recognize these traces of time and use as something to be taken into consideration in a transformation as to prevent the identity of the building from being lost.

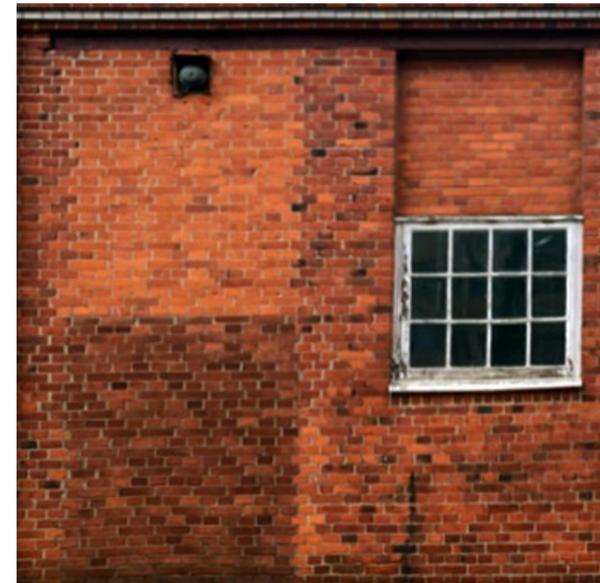
Throughout this process what has become clear is how the buildings interior and how it's been changed has been carried out without any concern to the original facade. Instead windows and openings have been closed and replaced and walls and levels have been added which cuts through and across existing windows.

Color has also been used as an important element to bring coherence and character inside of the buildings, such as the continuous use of two-toned walls within the East building, the use of bright colors on added walls and smaller spaces in the West and East buildings, but also as an element to highlight doors, the buildings structure and other elements, something that can be found throughout all three parts.

All of these factors can be found as common elements throughout the building but still

the three parts have very different characters and in some cases there are even a noticeable difference within each part as well. For example, in the West building where all three parts of the building have a very different style compared to one another.

In conclusion it's worth noting that concerning M-verkstaden it's been the building that has adapted to the program rather than the other way around which has resulted in a building containing many different characters and layers. What is therefore worth recognising is that these traces of time and use are also valuable in order to understand the history of the building, even though they have compromised the original layout.



Photograph taken by the author

Traces and layers of use in the facade

An example of palimpsest found in the West facade. Here visible traces of past layers of the building can be found and remains a part of the existing layout of the building.



Collage showing changes in the facade

A drawing of the original elevations combined with photos of the existing layout showing the changes that has been done but also visible traces of the historical layers.



1. Facade of Kvarteret Gösen towards Artillerigatan



2. Huvudkontor 1 and A-fabriken



3. North facades of M-verkstden, the West building



Map of Kvarteret Gösen overlaid with site plan from 1967

Original site plan drawing is not done by the author



4. HK I, A-fabriken and the West facade of M-verkstden



5. South facades of M-verkstden, the West building



6. South facade of M-verkstden, K-verkstden and R-fabriken

All photographs are taken by the author



1:300

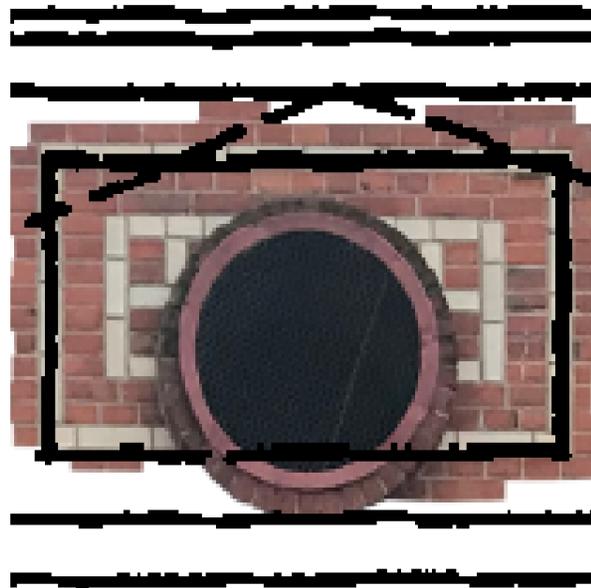
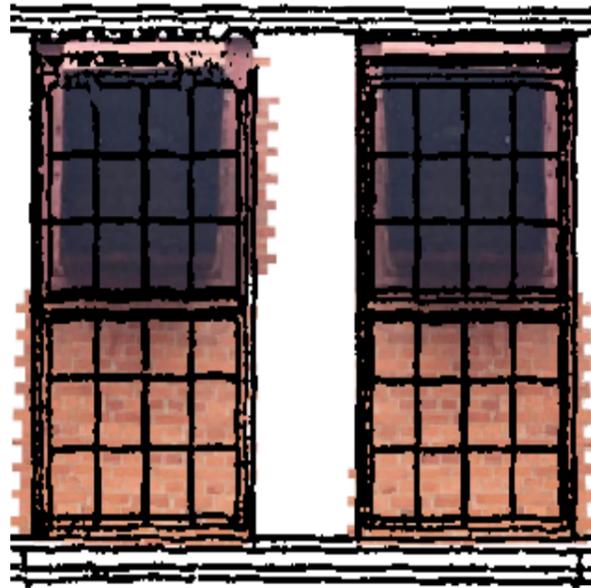
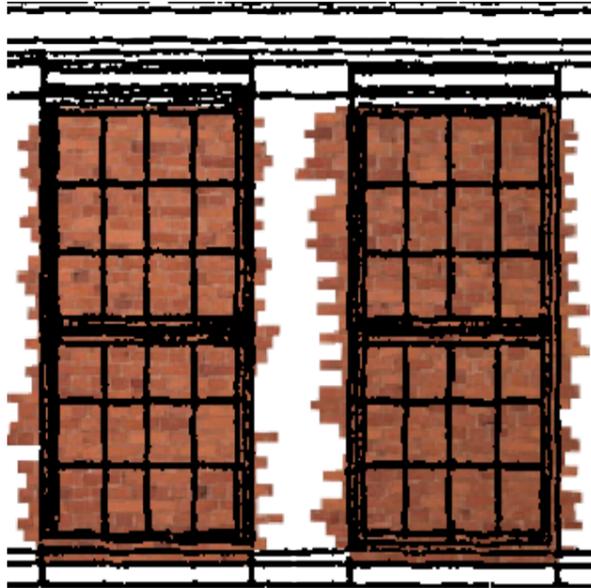
Original elevation drawing is not done by the author

North facades

Investigation of the North facades through a combination of original elevation drawings and photos. The original drawings shows the layout of the facades when M-verkstaden was built, the added photos shows the existing changes that have been done while the rest of the facades remain as it was.

Most part of the original windows in the West building has been shut but the original main entrance remain. Some additions have also been

made in terms of added ventilation. Regarding the Central building much of the original layout remains however a new main entrance has replaced the old one and ventilation has been added. In the East facade the main part of the larger original windows have been replaced by two separate ones with added bricks inbetween. The former main entrance has been replaced with windows and a new one have been added to the right of it.



North facades details

From the top left:

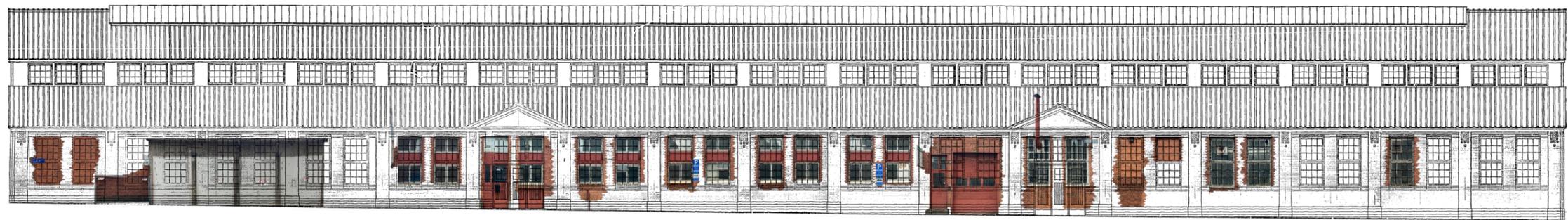
1. Blocked windows in the West facade.
2. Added ventilation in the West facade.

3. Original windows but with a new main entrance in the Central facade.
4. Added ventilation in the Central facade.

From the top left:

1. New added windows in the East facade.
2. New windows replacing former larger ones in the East facade.

3. New window and main entrance in the East facade.
4. Original bottom part of the windows but with added bricks in the middle in the East facade.



1:300

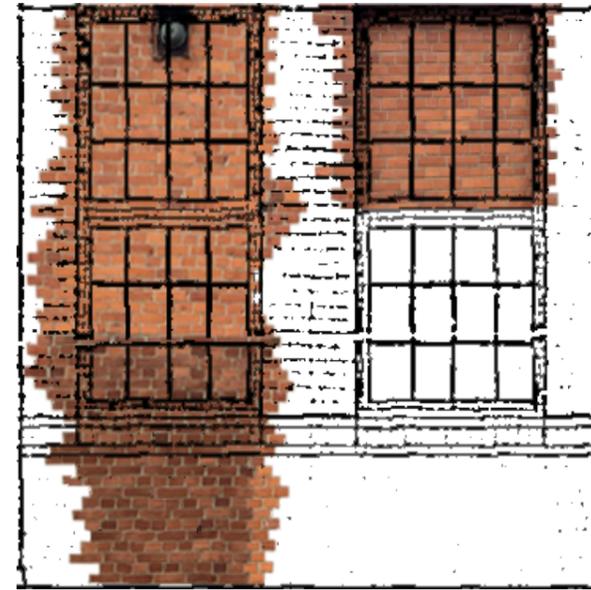
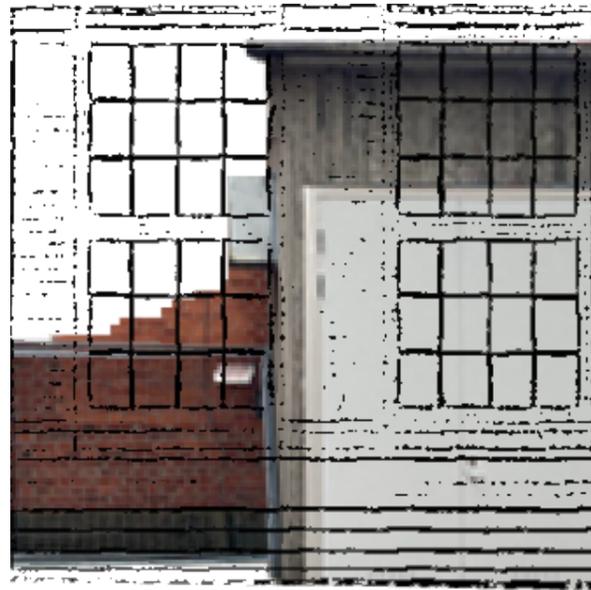
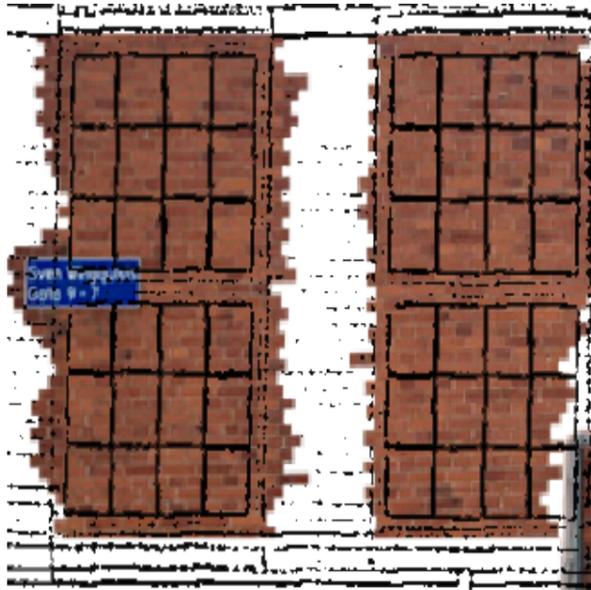
Original elevation drawing is not done by the author

West facade

Investigation of the West facade through a combination of the original elevation drawing and photos. The original drawing shows the layout of the facade when M-verkstaden was built, the added photos shows the existing changes that have been done while the rest of the facade remain as it was.

Many of the original windows have been blocked with added bricks in the same style as

the original although the contours of the former windows can still be seen due to the lightness of the brick. Furthermore a small concrete shed has been added, old entrances has been replaced by new ones or by windows and while some of the original windows remain many of them have added details such as ventilations , etc.



West facade details

From the top left:

1. Blocked windows with a new added street sign.
2. Added concrete building.

3. New entrance and windows.
4. New windows.

From the top left:

1. New entrances replacing former windows.
2. New windows replacing a former entrance.

3. Blocked windows.
4. Original windows with added details.



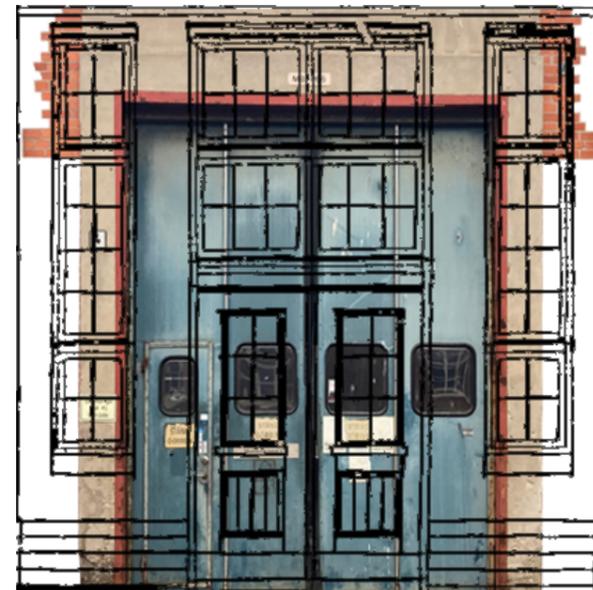
1:300

Original elevation drawing is not done by the author

East facade

Investigation of the East facade through a combination of the original elevation drawing and photos. The original drawing shows the layout of the facade when M-verkstaden was built, the added photos shows the existing changes that have been done while the rest of the facade remain as it was.

Many of the original windows remain but with some added details. However most of the original entrances have been replaced by new entrances or by windows. There is also an added staircase in the North east that has probably worked as an emergency exit from the added first floor inside.



East facade details

From the top left:

1. New windows and added emergency exit.
2. New entrance.

3. New windows replacing original larger ones.

From the top left:

1. Former windows have been shut and windows have replaced the entrance.

2. Original window with added chimney.
3. Replaced entrance.



1:300

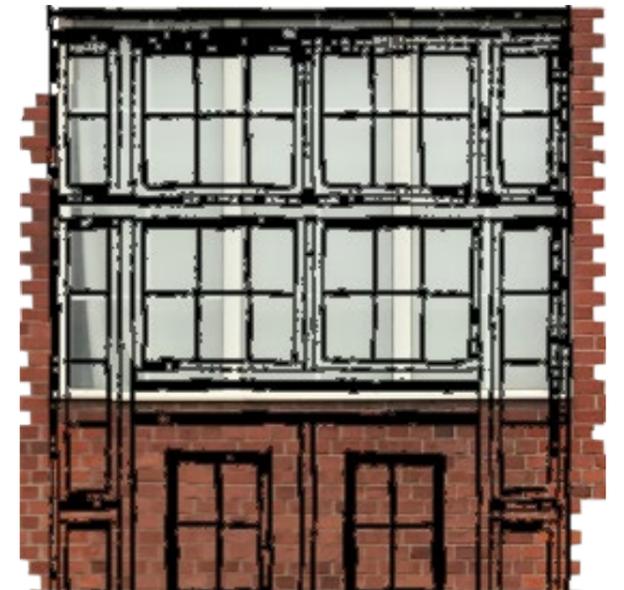
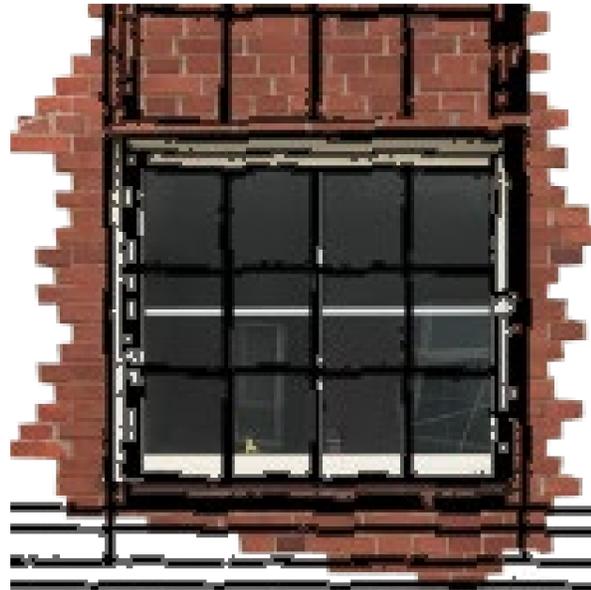
Original elevation drawing is not done by the author

South facades

Investigation of the South facades through a combination of original facade drawings and photos. The original drawings shows the layout of the facades when M-verkstaden was built, the added photos shows the existing changes that have been done while the rest of the facades remain as it was.

The main part of the windows in the West

facade have been replaced by new windows or entrances with a new entrance also replacing the old one. In the Central building there has also been a lot of changes with newly added entrances and new windows, resembling the original, replacing the old ones. In the East facade most of the original windows have also been replaced by similar new ones and the former entrance has been replaced by a large window.



South facades details

From the top left:

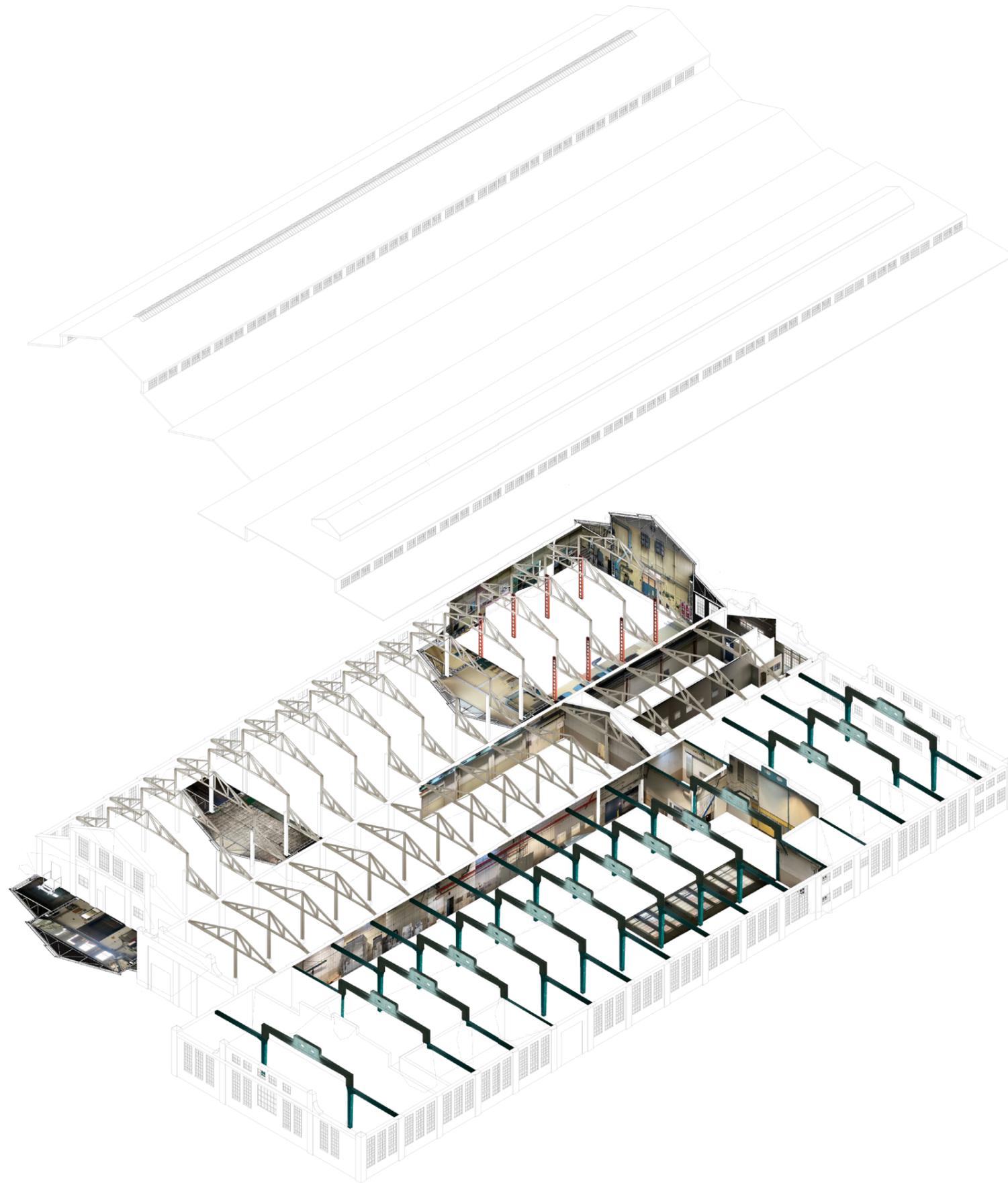
1. New entrance added in the West facade.
2. New window in the West facade.

3. Replaced main entrance and added door in the West facade.
4. Added entrance in the West facade.

From the top left:

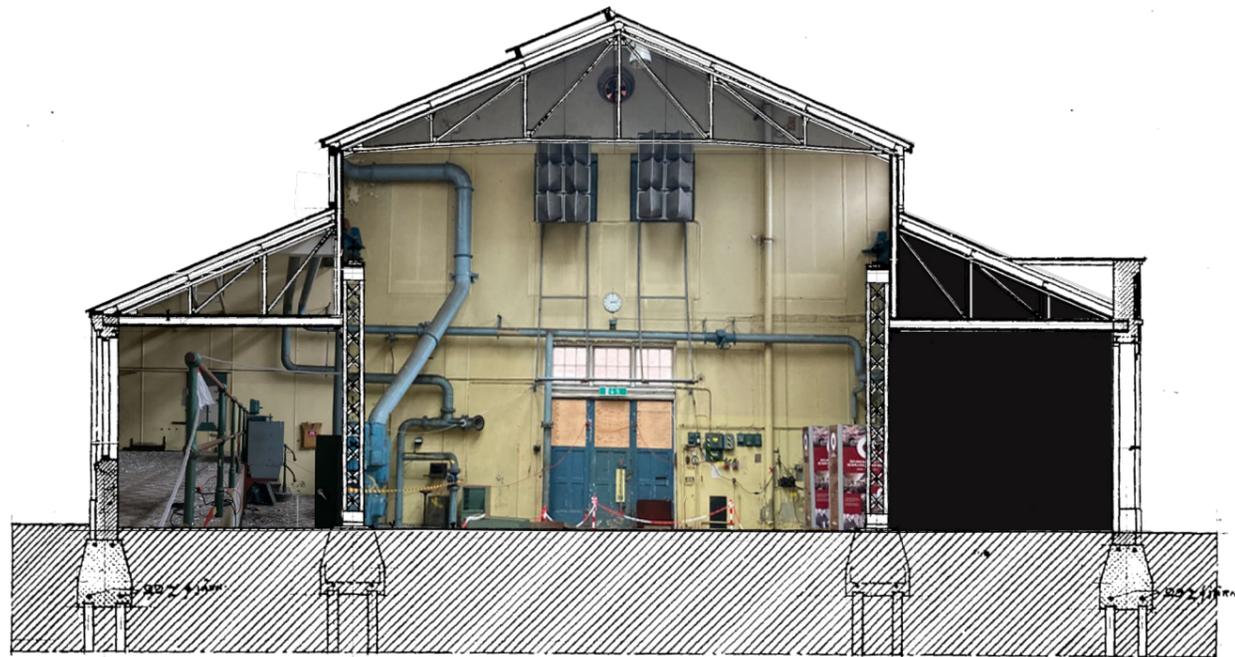
1. New entrance in the Central facade.
2. New entrance replacing former windows in the Central facade.

3. Original windows replaced by similar new ones in the East facade.
4. Windows replacing the main entrance in the East facade.



M-verkstden

Exploded isometric drawing showing the main division of the three parts of M-verkstden in its current state, as well as photo sections of the interior and the materiality of the structure.



1:150

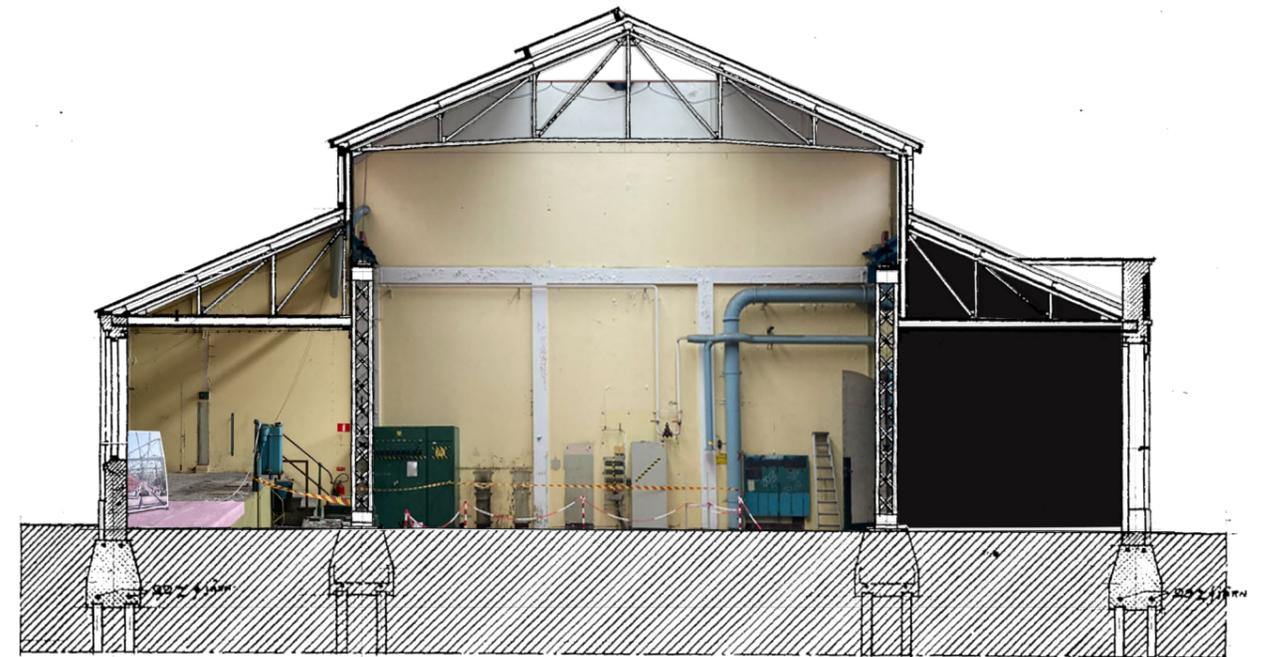
Original section drawing is not done by the author

Interior North west part, North wall

Photo section of the North interior wall of the West building showing the inside of the North west part through a combination of photos, line drawing and the original section drawing.

Inside this part of M-verkstaden most of the

windows have been covered up. On the West side there is a podium that can be entered from staircases on each side. On the East side there's added spaces through out this part of the building which covers up the wall.



1:150

Original section drawing is not done by the author

Interior North west part, South wall

Photo section of the South interior wall of the West building showing the inside of the North west part through a combination of photos, line drawing and the original section drawing.

There is no connection between the North part

of the West building and the rest of the West building, instead it's seperated from the rest and to access another part of the building you need to use a different entrance from the outside.



1:150

Original section drawing is not done by the author

Interior middle west part, South wall

Photo section of the middle south interior wall of the West building showing the inside of the middle west part through a combination of photos, line drawing and the original section drawing.

Inside this part of M-verkstaden there are more

windows although not the original ones and also many added rooms and levels.

This wall, which separates the middle part from the southern, is covered in insulation with an entrance to the South part of the building.



1:150

Original section drawing is not done by the author

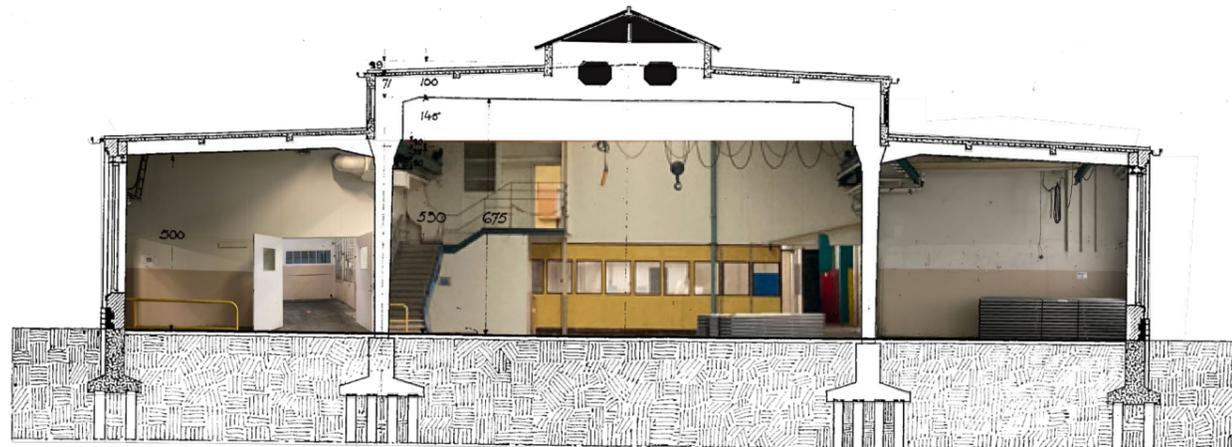
Interior South west part, South wall

Photo section of the South interior wall of the West building showing the inside of the South west part through a combination of photos, line drawing and the original section drawing.

This part of the West building is lighter than the

two others and there are several entrances from the outside.

This part of the West building also contains many smaller added rooms and levels.



1:200

Original section drawing is not done by the author

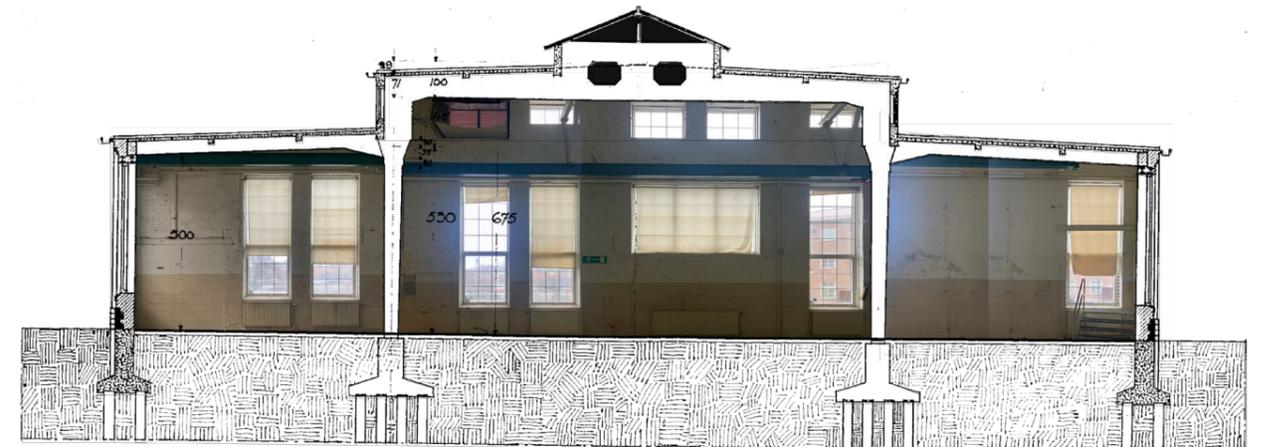
Interior middle east part, North wall

Photo section of the middle north interior wall of the East building showing the inside of the middle east part through a combination of photos, line drawing and the original section drawing.

This wall separates the former carpentry

workshop, in the North, from the casting- and rolling workshop in the middle of the building.

The photos also displays several doors accessing smaller rooms inside of the building and to the left there's a ramp leading to a door which connects the East building to the Central.



1:200

Original section drawing is not done by the author

Interior South east part, South wall

Photo section of the South interior wall of the East building showing the inside of the South east part through a combination of photos, line drawing and the original section drawing.

This is the former sandblasting workshop and

also a very light part of the building with many windows, similar to the original ones, displayed as well as an improvised emergency exit to the right.



1:300

Original elevation drawing is not done by the author

Interior wall of the Central building, West side

Investigation of the interior wall of the Central building, the West side, through a combination of an original elevation drawing and photos. The original drawing shows the layout of the facade when M-verkstaden was built, the added photos shows the existing changes that have been done while the rest of the facade remain as it was.

The interior wall is originally the outer East wall of the West building and the original layout was done in the same style as the existing West facade. However, in its current state the main part of the windows and the doors have been shut. Some information is missing in the South part of the building since those parts haven't been accessed.



1:300

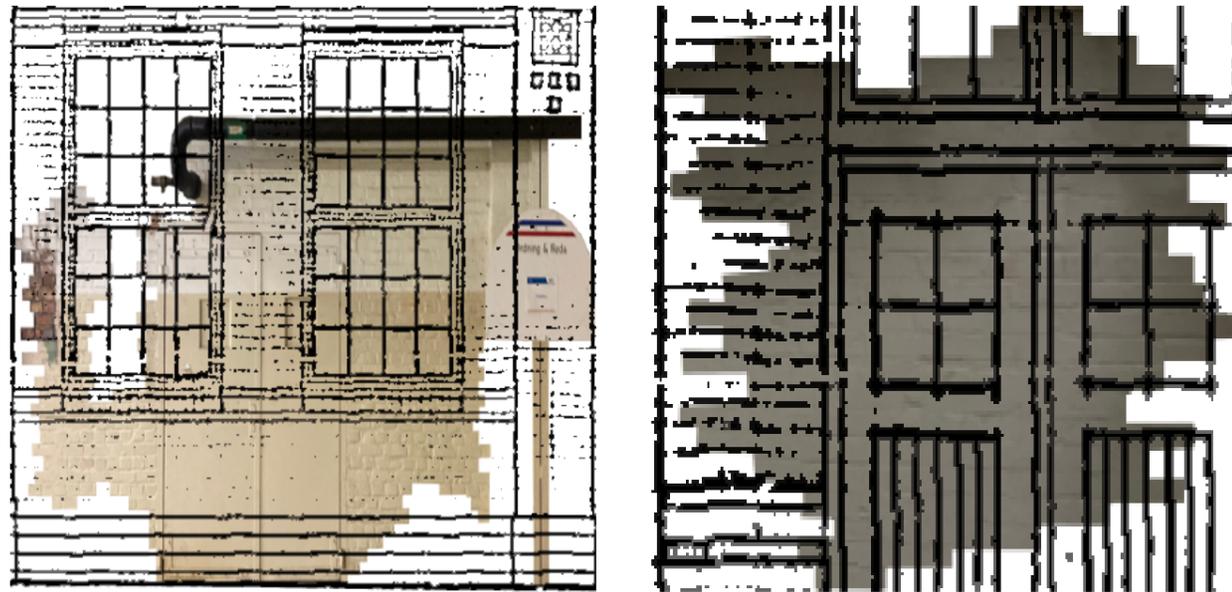
Original elevation drawing is not done by the author

Interior wall of the East building, West side

Investigation of the interior wall of the East building, the West side, through a combination of an original elevation drawing and photos. The original drawing shows the layout of the facade when M-verkstaden was built, the added photos shows the existing changes that have been done while the rest of the facade remain as it was.

The interior wall is originally the outer West wall of the East building and the original

layout was done in the same style as the existing East facade. Similar to the previous study most of the original windows and doors have been shut. However, some doors have been added which connects the East building to the Central building. There are also some added windows. Some information in the North part is missing due to those spaces not being accessed.



Central building, West wall details

From the top left:

1. Bricks covering up former windows.
2. Original entrances covered by bricks.
3. Former windows covered by bricks and installations.



East building, West wall details

From the top left:

1. Added emergency exit and bricks covering former windows.
2. Former windows covered up by bricks.
3. New windows replacing old ones.
4. New door connecting to the Central building.



Photograph taken by the author

Added entrances

An added emergency exit in the South part of the East building. The exit seems rather improvised with only an added staircase and tape framing the lower part of the window.



Photograph taken by the author

Wall colorization

Picture showing two added interior walls within the East building. In the left addition color has been painted on to the wall while in the right

addition the darker tone is also represented by the wood as well as added color, possibly to create a similar layout throughout the building.



Photograph taken by the author

Added walls

An added wall inside of the middle east building which cuts through a window. The wall is placed inside of a bathroom in an added space.



Photograph taken by the author

Building within the building

A small added building inside of the South part of the West building. Throughout M-verkstaden there are added spaces and some of them consists of walls with larger windows and different color combinations.

Applied design strategies

The starting point of these explorations of a possible transformation has been about investigating how M-verkstaden responds to the implementations of *translatio*, *imitatio* and *aemulatio*, which could be regarded as having a conversation with the building. Since M-verkstaden has undergone many transformations during its lifetime the layers of present times and the traces of use have limited the original layout with interventions that are compromising the facade, the question is therefore how the past and the present can co-exist and what it means to implement these strategies onto the building? What would *translatio* in terms of translating the original layers onto the existing conditions of the building result in? What does it mean to create an equality between the layers, in terms of *imitatio*? And how can the layers be intertwined by the use of *aemulatio*?

This process therefore began with smaller explorations where the key component once again was the drawing but this time the approach was to layer the information discovered within the atlas onto the existing condition of the building.

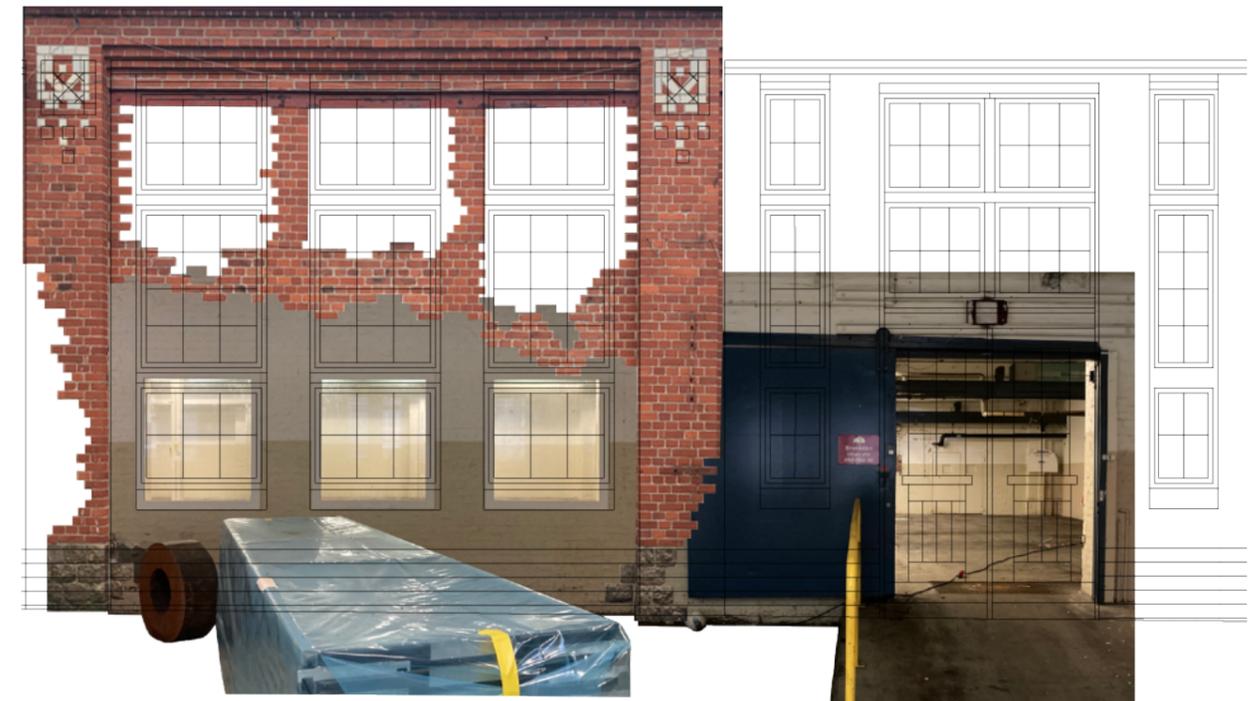
In the beginning this was done in smaller steps and through a combination of collages and line drawings where the present would meet the past in order to figure out the meaning of these strategies. The discoveries within these experiments were that in order to translate old layers of the building it will be unavoidable to having to address the hierarchy concerning which traces of use that are considered valuable. Since the past changes have been done in a rather drastic way and because they are also part of what is the traces of industrial use, these different layers collide, therefore the question of how the history of the building will be displayed is part of the core considering M-verkstaden's future.

In consideration to this it's also hard to create an equality between the layers since any intervention can be regarded as degrading the value of the present because it interferes with it and ultimately will result in reducing those traces or in any other way compromising them. The strategies of *translatio* and *imitatio* will

therefore inevitably lead to an assessment of what is considered as qualities and what is considered as imperfections, something that no matter how it is executed will end up as intertwined with the existing regardless of whether it's a huge transformation or just the mere addition of a chair within the building.

But, because these explorations had been carried out in isolated scenarios unaffected by each other the continuation of the process was to bring them together, exploring how they would affect each other and how this chain of reactions would be responded to by the building.

Given the size of the building and the intention of creating situational scenarios within it the decision was made to limit the conversation onto three selected parts, each one representing one section of each part of the building: the northern part of the West building, the northern part of the Central building and the middle section of the East building. This was also done as to include three different characteristics of M-verkstaden and explore how this could also affect the result of the strategies.



Collage of interior wall

Collage showing the merging of the inside West interior wall in the East building mixed with the outside facade showing similarities in window placement as well as how the original bricks line up with the new colored ones.

The collage shows a possible *aemulatio* between

the different time periods but also a *translatio* with the new windows and the door being merged together with the old, placed where the original once were. In this way the different layers can co-exist, however this also shows a collision between the old layers and the new ones.



Collage of layers

Drawing showing the translation of the original brick facade together with the colorized brick facade in the East building, merged together onto the South wall in the North part of the West building. This application can also be seen as a translation of the existing two toned walls in the East building. What is revealed is also a part of

the opposite wall in the Central part, highlighting that there is currently a lack of connection in between different parts of the building, something which could be established by applying the strategies.



Collage of original windows

Application, translatio, of the original windows onto the East wall in the North part of the West building. The photograph shows the additional spaces that have been constructed along this wall which would block the view of the original windows resulting in the windows being cut in the lower part, a situation which can currently be

found within M-verkstaden. In these situations the building responds in a way that is similar to how previous transformations have been conducted.

Transformation

In the final exploration the drawing has once again worked as a tool and been a combination of photos representing the existing layer, black line drawing which represents the original layer and blue line drawing which represents the added new details.

The aim with this process was to discover the effect when each transformation reacts to one another, together with the present state of the building and what kind of discoveries that could be found within this research.

In this conversation with the building what was difficult was the discovery of how each translatio of a layer, original or present, resulted in the interference with the current layout of the building with the result that present traces of industrial use had to be removed in order for the layers to be able to co-exist.

The thought therefore of creating an equality through the strategy of imitatio became difficult since the removal of current details felt like a decision which also implied that the existing state of the building was less valuable and had to be compromised in favor of the transformation, wether it was about translating original layers or patterns within the existing design.

Following this the notion of aemulatio became easier because the previous steps also meant that the layers became instantly merged, not always creating a harmony but rather a situation where the transformation is breaking through the present state, a result which at times also lead to the discovery of how the building then responds to this by creating a situation that can be found today within the building, such as two toned walls, walls that are cutting through windows, a mixture of the original facade with elements from the new and previous states of the building that becomes present again.

Since the transformation of the building has been the focus in this thesis the question of a program became secondary and was considered rather as what became appropriate in consideration to the transformation and the suggested plans where the

programs that has been suggested for M-verksta-den are theatre, sports, culture or education.

The exploration therefore came to discover how the responses of the building could inform what possible programs in this plan that could be applied onto the transformation of the building, something that also became a step which further highlighted the difficulties of letting past traces of industrial use become a present layer within a completely different activity.

Throughout this conversation with the building the implications of imitatio, translatio and aemulatio has given different responses depending on the character of each part and the result was a change that could also affect how the industrial history of M-verkstaden could be read.

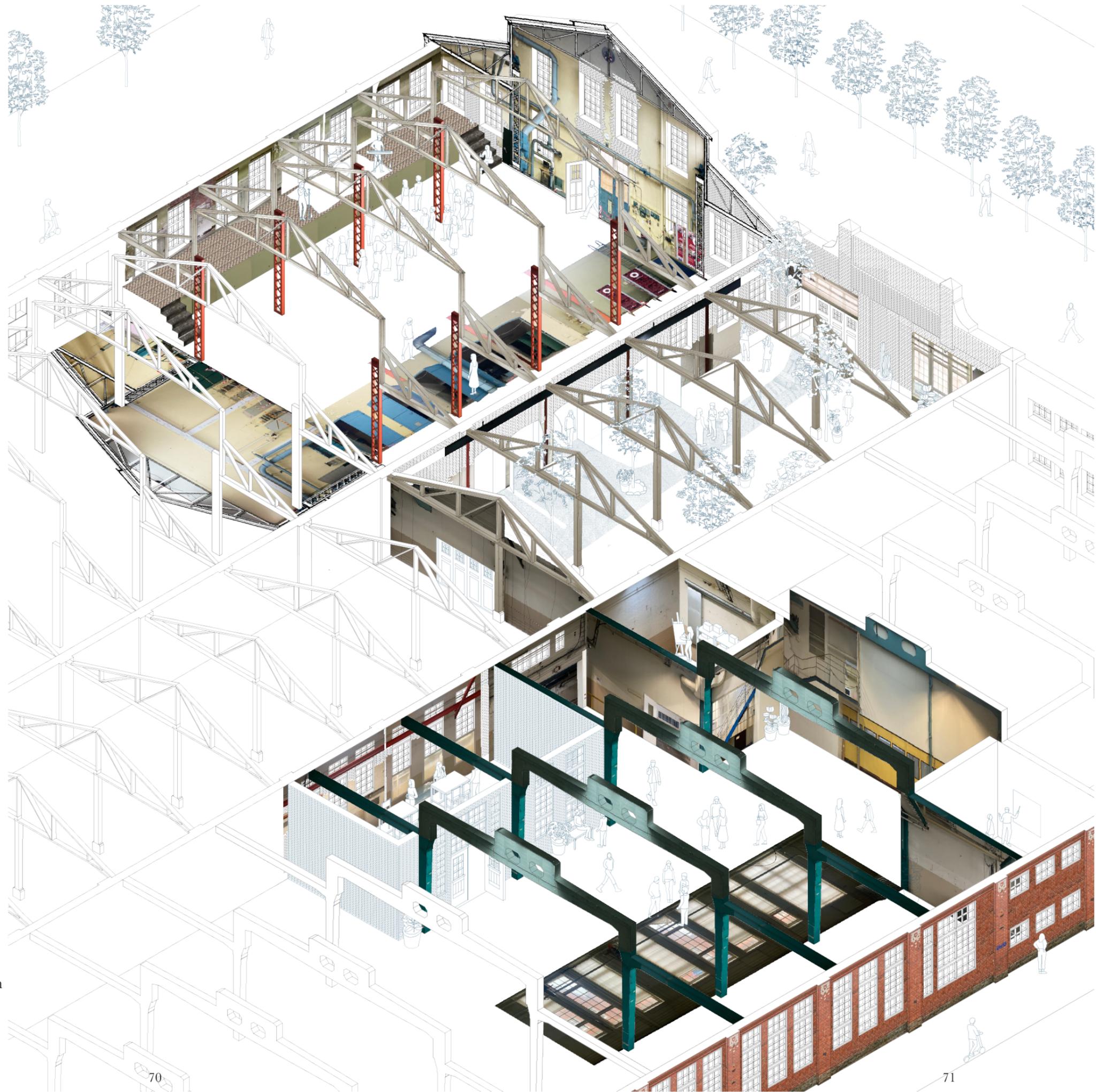
In the transformation of the North part of the West building what becomes noticeable is how this transformation also creates a state where traces of previous use have to be removed. The question therefore on how to preserve this while also opening up the space is something that will therefore become a situation where the transformation and the suggested program will make an imprint on the building that might also make it's previous activities harder to understand.

For the Central building the transition from being the darkest part of M-verkstaden into becoming the brightest, when transformed into an outdoor space, was a combination of making the building more open but also to let in more light into the space. This also creates a situation where a step in the production line ends up completely changed and although traces of past use are still present this transformation highlights the different needs that a future program could have in contrast to a past one and the difficulty to merge this with consideration to a buildings history.

In the middle section of the East building the decision to translate original layers into a pattern of present use poses the question of what is to be considered as original in a transformation? Because although the translated layers are of an original layout they create a contrast in the present state of the building where they will be

read as new additions although inspired by the previous state of the place, bringing into light the question of what is to be considered as the original layer within M-verkstaden?

Because of all of these considerations the conversation has therefore been a constant struggle between the history of the building and the possible transformations that might occur within a future use with a final result that embodies this ongoing discussion.



The transformation

The application of translatio, imitatio and aemulatio showing the transformation of M-verkstaden.

The West building

The North part of the West building is in its current state a space full of traces from industrial use with installations and machines visible. Currently this part of the building also contains the entrance that is closest to the entrance of Kvarteret Gösen, an element that could be further enhanced also by creating a better flow between this part and the other parts of M-verkstaden.

This part of the building is also one of the places where most of the original facade have been altered through the removal of the windows. The primary light source is therefore the skylights.

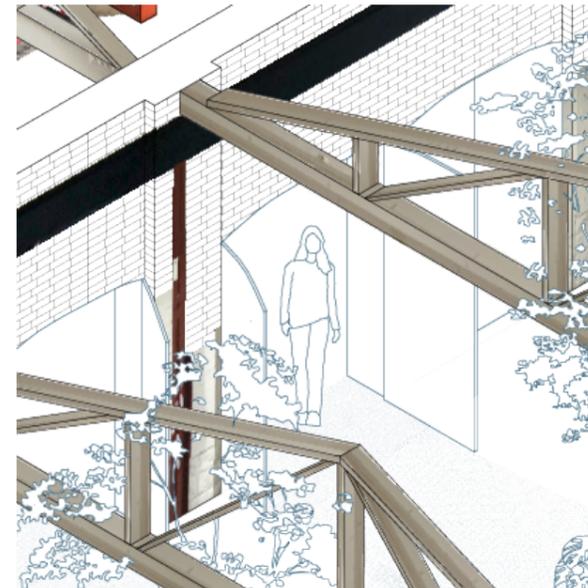
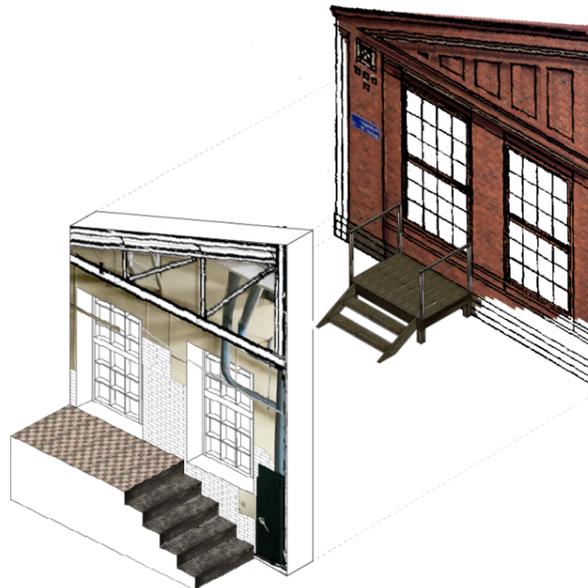
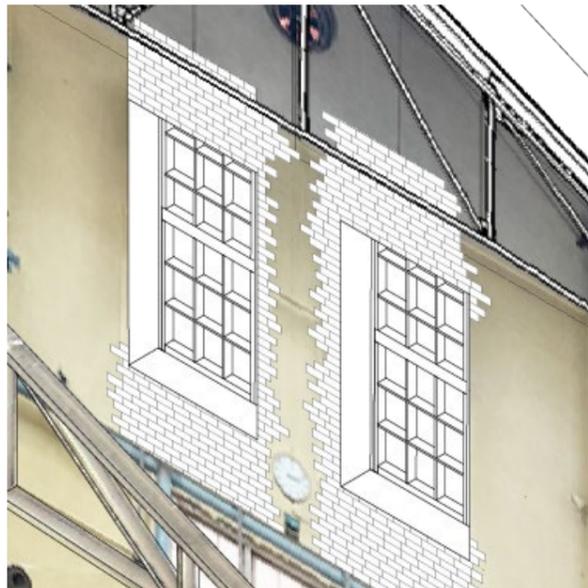
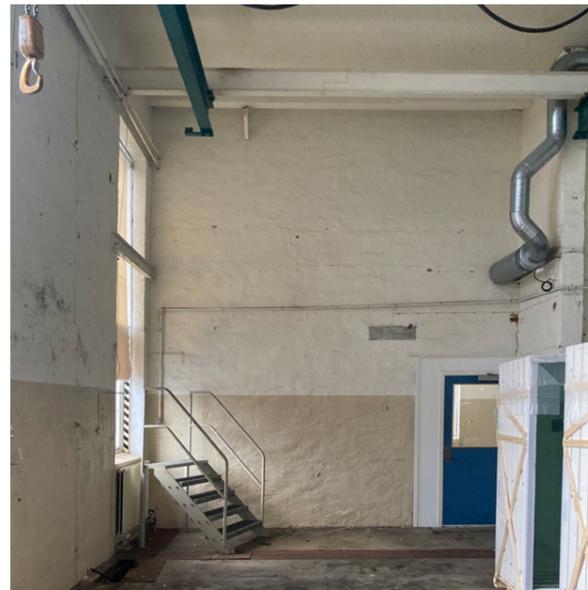
The first exploration was therefore to see how the reaction would be when bringing the original windows back. The result was a variation in consideration to how the facades had been transformed, in the West facade there are still visible traces of the windows while in the North the windows have been covered more thoroughly and also at places with the additions of installations and ventilation. The translation therefore was followed by the emulation of elements with the original brick facade being brought back in order to intertwine the layers.

The window placement also became a suggestion of an existing pattern that can be found in M-verkstaden today. Since the bottom window in the North west part is situated closely to the podium, the implementation of an added staircase turned this into an entrance.

In the East west part of the building there are also currently smaller added spaces that can be accessed by a couple of blue doors. Given that there is a lack of connection between the West and the Central building these doors through translation was turned into passages into the central building. This translation also came to follow the pattern of using blue as a guiding color for entrances in M-verkstaden.

Reflecting on a program for the West building the existence of the podium came to suggest the possibility of this space being used for cultural events, in accordance to the suggested programs by the city.





Details and applied strategies: the West building

From the top left:

1. Existing facade and ventilation in the North facade, underneath is the translation of the original windows brought back. The translation in combination with aemulatio created a situation where the original brick facade is brought back,

replacing the ventilation.

2. An added entrance in the East building, a layer which became a translation when the window close to the podium was turned into a possible entrance with the addition of a staircase on the outside.

From the top left:

1. Blue doors connected to smaller spaces in the East part of the West building. Underneath the doors have been translated into entrances to the Central building, with an aemulatio in the facade where parts of the original outer wall has become

visible again.

The Central building

Today the Central part of M-verkstaden is the darkest part. Consisting of the previous outer walls of the West and the East building, connected by facades in the North and South and a roof, this building can be regarded as mere connection between the others.

Following the added connections to the West building the further translation of this wall created an aemulatio where two existing layers in the building emerged. One of the discoveries was the creation of a two-toned wall, that can be found in the East building today, however, this became a version where the lighter part is visible in the lower part and the darker, consisting of the original brick facade, is visible in the upper part.

The other layer that was discovered was how, in the translation of the original windows onto the wall, a situation emerged where the added spaces in the West building cuts through the windows, something that can also be found today in the East building.

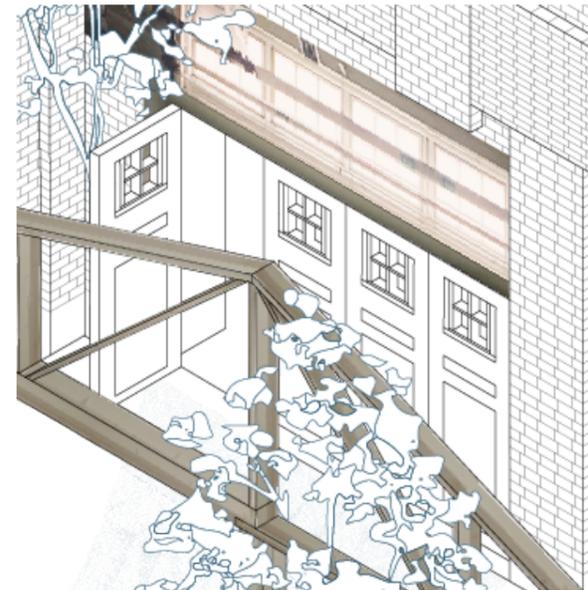
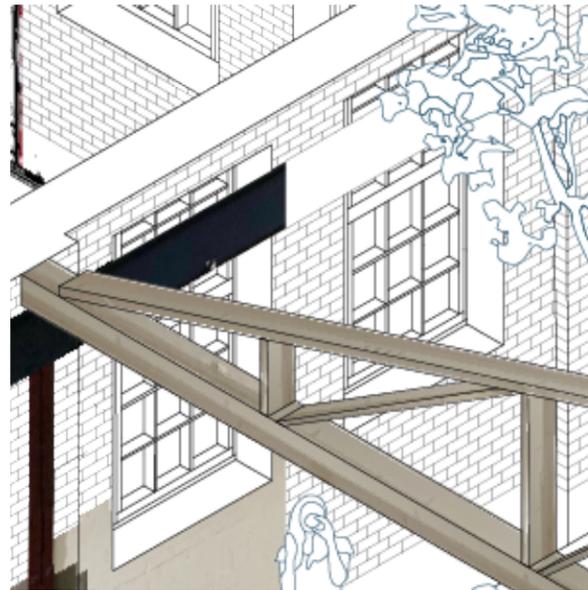
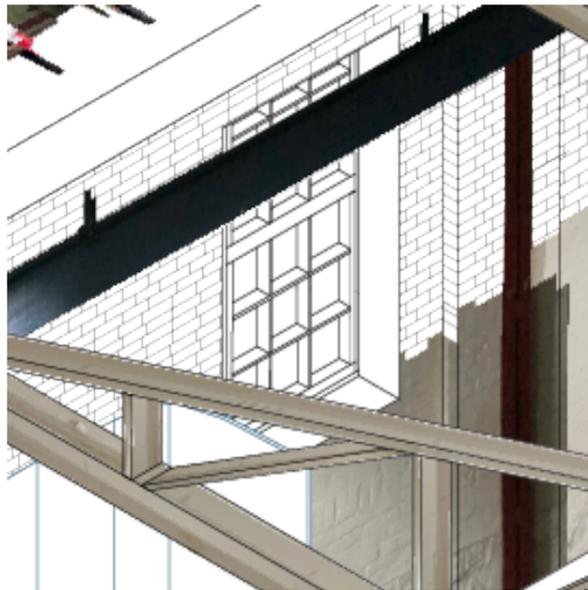
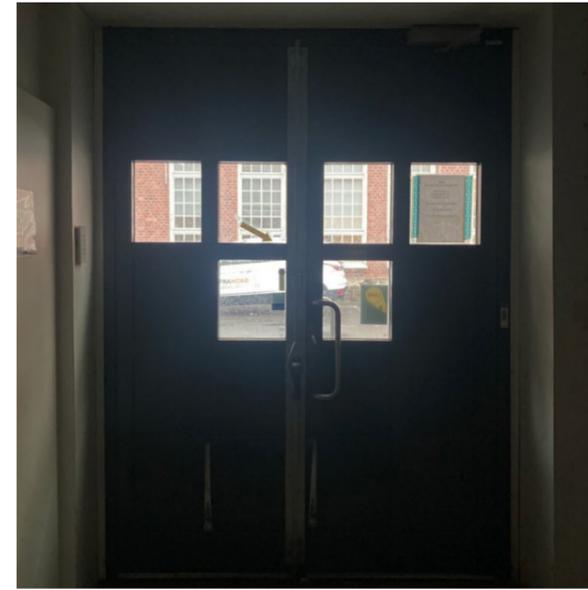
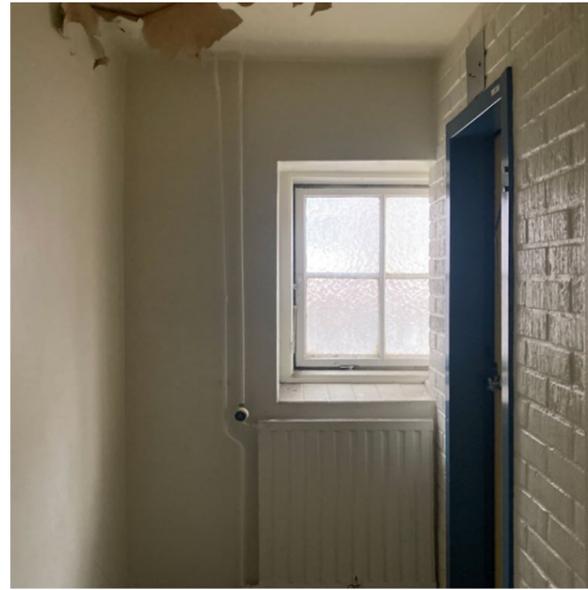
The start of this translation, which had begun to open up the building, was more enhanced with the decision to remove the roof. Since the central building has previously, before 1914, been in a state of being unbuilt, this became a translation of the historical layer and an aemulatio where the previously darkest part becomes the brightest when turned into an outdoor space.

Following this the relationship to the outside became more evident to further build upon with the translation of the original entrance, replacing the current, which also resulted in the aemulatio where the original brick facade becomes the dominant layer.

This translation is also mirrored onto the opposite wall, replacing what was previously just an opening into the other part of the building. Instead this becomes a distinct entrance into another part of the Central building, highlighting how this part now has its own distinct character.

In relation to this transformation a situation were created where the intention of opening up Kvarteret Gösen also becomes the program in the Central building, embodying this vision and how it effects the current state of this part.





Details and applied strategies: the Central building

From the top left:

1. Two-toned walls that can be found throughout the East building, a layer which was discovered in the translation of the doors and windows in the West facade although with the original bricks in the upper part becoming the darkest and the existing

bricks in the lower part the brightest.

2. A wall which cuts through a window in the East building, a layer which can be found in the Central building when the translation of the original windows results in them being cut by the added spaces in the West.

From the top left:

1. The existing main entrance into the Central building, underneath the translation of the original entrance has replaced the old one, a transformation which also resulted in the emulation where the original brick facade becomes dominant.

2. The existing passage between the North part and the rest of the building. In the transformation the translation of the main entrance has replaced this, resulting in a more enclosed outer space and a more visible connection towards the other parts.

The East building

The East building is today one of the lighter parts of M-verkstaden with many of the original windows still present in the East facade. The building is also a mixture of smaller added spaces in the North and in the South and a large space in between, embodying two characteristics that can be found in the other parts as well.

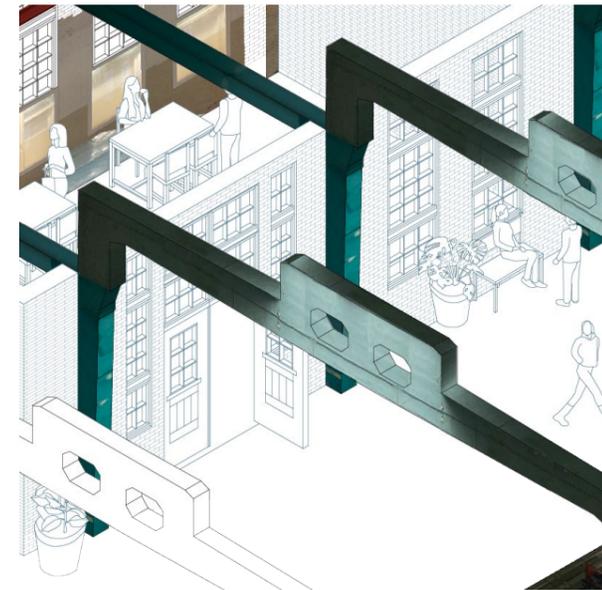
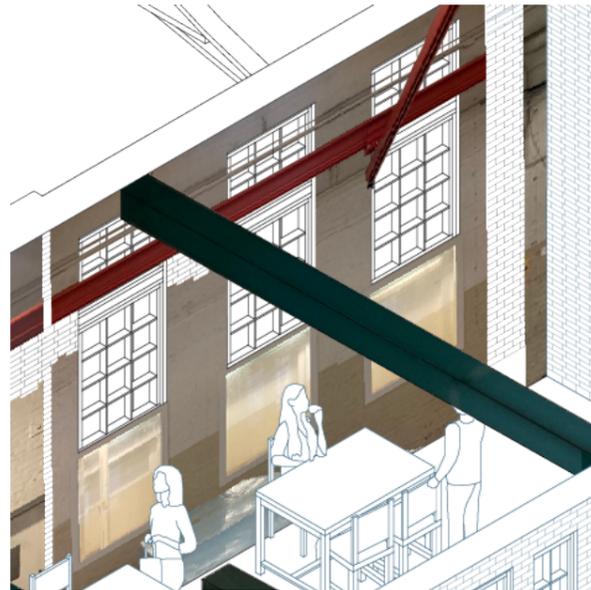
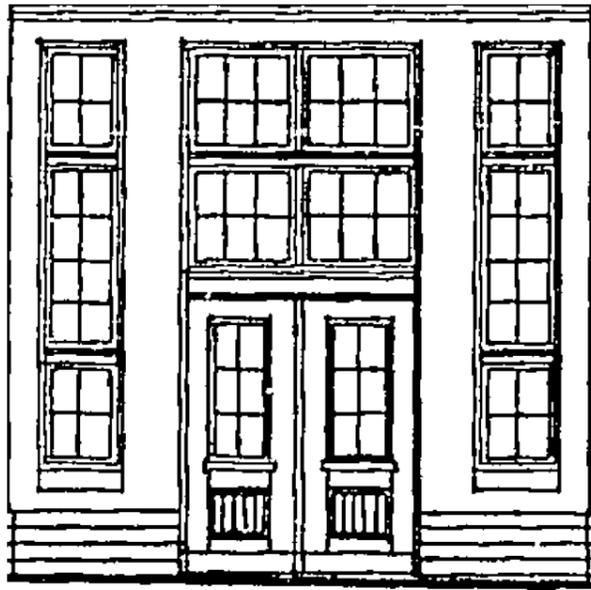
As with the previous explorations in the other parts, this transformation also began with a translation of the original window placement in the former outer wall. The reaction this time was different from the previous since parts of the present layers lined up with the original in how the placement of the existing door lines up with where the original ones would have been placed. A similar situation was created by the windows, where the existing windows lined up with the bottom part of the original ones, also resembling traces in the facade where there exists a mixture of original windows and new ones.

What is also worth noticing is how the existing door that connects the East building to the Central also follows the pattern of the blue entrances.

Furthermore, since one of the details that was found in the atlas was the building-within-a-building and the East building consists of many added smaller spaces, the next step of translation came to include this layer. Framing the entrance the translation of an added smaller space also came with the decision to translate a pattern of windows and entrance that can be found in the original layer of the East facade.

The decision was made as to explore how this original layer would appear when translated onto the existing context and also in the shape of an existing pattern. However, as a critical translation the decision was made to merge selected parts of this original layer so that the entrance and the windows would fit in between the pillars. With this translation, the emulation creates a contrast where the original layout stands out in the context where the walls in the East building has been given a coherent layout with two-toned walls.





Details and applied strategies: the East building

From the top left:

1. Original layout of the outer wall, underneath what can be seen is the aemulatio when the translatio of the original is merged with the existing and the existing entrance lines up with the placement of the original one.

2. Layout of the windows in the opposite wall, consisting of the original ones. Underneath the translatio shows how the aemulatio results in the existing windows replacing parts of the original windows.

1. A small building-within-a-building that can be found in the South part of the West building. This layer has been translated into the East building but in a combination with a pattern of the original layer (displayed in the picture to the right) creating an aemulatio where original layers are

translated in a shape found in existing layers, also creating a contrast between these traces of the original placed in the existing context in the East building.

Discussion and reflection

Throughout this process what became difficult was the constant clash between the original layers and the present. By using the strategy of imitatio in terms of translating original layers such as windows, entrances and programs, the result immediately became a reminder of how much the present state of the building has changed from the original. The result was therefore an interference with the existing conditions and led to the removal of many elements, traces of past industrial use. The question whether that was a cause of imitatio and created an equality felt hard to acknowledge since the result meant that existing elements had to be removed in favor of the transformation.

This can however be seen as an *aemulatio* since the transformation became intertwined with the existing, something that could be seen as an immediate result no matter the transformation since the layers imposed upon the present state of the building were so different that they had to be incorporated into the existing.

In conclusion the transformation of M-verkstaden became a conversation of which layer to prioritize. Instead of finding a neutral way in which the strategies of *translatio*, *imitatio* and *aemulatio* could inform a transformation the question became a matter of hierarchy between the present and the past.

Therefore I would argue that the strategies could be seen as more of a description of intentions where the architect still will have to decide which layers that are most valuable to translate and to keep, and where a given answer is hard to find without putting any value onto the layers.

The question therefore on how to transform a building of cultural and industrial heritage remains an ongoing discussion, but what I consider worth acknowledging is the importance of the buildings context rather than the name of the transformation. As seen in my research regarding M-verkstaden, where the past layers and the present ones doesn't correspond, it will be important

to understand how the building has transformed and how that could be used if the intention is to keep the traces of the past, rather than what the transformation should result in.

Because if adaptive reuse is to remain an actual reuse of a building the context of the existing elements will have to be further taken into consideration since they are also part of informing how something could be reused in a way that also includes the identity of a building.

If adaptive reuse is to be seen as a mere label and its strategies as something that could be applied onto any building, the result will also reveal, as in M-verkstaden, a collision between the past and the previous and the thought of if it actually is reuse could come into question. Is it reuse if a building is completely changed? Is it reuse if the future program results in only selected traces of the previous state being kept? And is it then sustainable? Or is there a risk that adaptive reuse ends up being a kind of green washing? Where the important thing is the association to a sustainable approach and where the actual reuse is more about a selective translation of certain parts and a reuse of an identity, in order to give a proposal authenticity.

Furthermore, what happens to a places history if the less favorable and more dirtier parts of it are removed? Is it possible to still understand the heritage then or the development of a site, or will the removal of those traces also lead to an embellishment of a sites history?

This thesis aim has not been to give an exact answer to these questions or what adaptive reuse is or how it is best carried out. The intention has instead been to research three existing strategies within the field in order to explore what a possible transformation could look like and how a possible result of it could be seen in relation to its industrial and cultural heritage.

However, the discoveries within this project of how the different layers of time collide could be seen as a way of raising these questions and illustrate the hierarchy between different layers in adaptive reuse and how the process of

transformation needs to be further taken into account if the theory is to remain a sustainable approach rather than just a label.

References

- Bydén, Stefan, Hansson, Einar, Herklint, Ewamarie, Wallman, Kristina and Wrigglesworth, Trad. 2010. SKF-området, kvarteret Gösen Kulturmiljöunderlag. [https://www5.goteborg.se/prod/fastighetskontoret/etjanst/planbygg.nsf/vyFiler/Gamlestaden%20-%20Handel%2C%20bostäder%20%20m%20m%20i%20SKF-området.-Plan%20-%20utställning-Kulturmiljöunderlag/\\$File/09.%20Kulturmiljöunderlag,%20Melica,%202010.pdf?OpenElement](https://www5.goteborg.se/prod/fastighetskontoret/etjanst/planbygg.nsf/vyFiler/Gamlestaden%20-%20Handel%2C%20bostäder%20%20m%20m%20i%20SKF-området.-Plan%20-%20utställning-Kulturmiljöunderlag/$File/09.%20Kulturmiljöunderlag,%20Melica,%202010.pdf?OpenElement)
- Göteborgs Stad. n.d. . Gamlestaden. <https://goteborg.se/wps/portal/start/goteborg-vaxer/hitta-stadsutvecklingsprojekt/stadsomrade-nordost/hela%20gamlestaden/gamlestaden> (Retrieved May 9 2023)
- Göteborgs Stads Stadsbyggnadskontoret. 2017. Planbeskrivning. Detaljplan för handel, bostäder mm inom kv Gösen inom stadsdelen Gamlestaden i Göteborg. [https://www5.goteborg.se/prod/fastighetskontoret/etjanst/planbygg.nsf/vyFiler/Gamlestaden%20-%20Handel%2C%20bostäder%20%20m%20m%20i%20SKF-området.-Plan%20-%20utställning-Planbeskrivning/\\$File/02.%20Planbeskrivning.pdf?OpenElement](https://www5.goteborg.se/prod/fastighetskontoret/etjanst/planbygg.nsf/vyFiler/Gamlestaden%20-%20Handel%2C%20bostäder%20%20m%20m%20i%20SKF-området.-Plan%20-%20utställning-Planbeskrivning/$File/02.%20Planbeskrivning.pdf?OpenElement)
- Lange, Johanna, Lindholm, Martin and Rodin, Anna. 2011. Antikvarisk varsamhetsplan. SKF Svenska kullagerfabriken i Gamlestaden. [https://www5.goteborg.se/prod/fastighetskontoret/etjanst/planbygg.nsf/vyFiler/Gamlestaden%20-%20Handel%2C%20bostäder%20%20m%20m%20i%20SKF-området.-Plan%20-%20utställning-Antikvarisk%20varsamhetsplan/\\$File/10.%20Antikvarisk%20varsamhetsplan,%20Lindholm%20restaurering,%202011.pdf?OpenElement](https://www5.goteborg.se/prod/fastighetskontoret/etjanst/planbygg.nsf/vyFiler/Gamlestaden%20-%20Handel%2C%20bostäder%20%20m%20m%20i%20SKF-området.-Plan%20-%20utställning-Antikvarisk%20varsamhetsplan/$File/10.%20Antikvarisk%20varsamhetsplan,%20Lindholm%20restaurering,%202011.pdf?OpenElement)
- Merriam-Webster. n.d. Adaptive. In merriam-webster.com dictionary. <https://www.merriam-webster.com/dictionary/adaptive> (Retrieved May 9 2023)
- Merriam-Webster. n.d. Heritage. In merriam-webster.com dictionary. <https://www.merriam-webster.com/dictionary/heritage> (Retrieved May 9 2023)
- Merriam-Webster. n.d. Palimpsest. In merriam-webster.com dictionary. <https://www.merriam-webster.com/dictionary/palimpsest> (Retrieved May 9 2023)
- Merriam-Webster. n.d. Reuse. In merriam-webster.com dictionary. <https://www.merriam-webster.com/dictionary/reuse> (Retrieved May 9 2023)

Bibliography

- Van Cleempoel, Koenraad and Plevoets, Bie. 2019. Adaptive reuse of the built heritage: concepts and cases of an emerging discipline. Routledge.
- Wong, Liliane. 2017. Adaptive Reuse: Extending the lives of Buildings. Birkhäuser.

Thank you,

Naima Callenberg, for all the support and encouragement, and for believing in me throughout this process.

Alex, for always cheering me on and being my greatest supporter.

Friends and family, for all the love and for always being there for me.

