CONTINUOUS ADAPTION

Exploring how a revival of Artilleristallarna can add adaptability and cultural value to its context

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THANK YOU

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ABSTRACT

"Architecture should speak of its time and place,
but yearn for timelessness."

Frank Gehry

Gothenburg is an exceedingly changing city. By 2021, the coastal city will celebrate its 400th anniversary since its founding. This will implicate the realization of big plans to expand the cultural spectrum within the urban context.

The times of constant change indicate the ever shifting and increasing needs of people, stretching the capacity of cities and buildings to their static maximum.

The lack of space in the urban city core is a contemporary issue. Yet the presence of spacious current venues is a fact. These structures often stand empty or not used to their full potential, holding functions which are not suitable for their specific context.

One of these structures is Artilleristallarna, a former stable of the Swedish Regiment. It was constructed in 1835 and is located in the centre of Gothenburg.

With Artilleristallarna as the key subject and point of departure, the aim of this thesis is to create a design proposal for the transformation of Artilleristallarna through research, and conclude found strategies within the field.

The history of Artilleristallarna is laced with versatility as the building has morphed through time and adjusted its meaning for multiple needs and functions. All until its evolution stopped in the 1940's, as it froze in time to serve as a garage.

The method has consisted of a constant exploration of Artilleristallarna, which paralleled with theory and research by design with constantly adapting iterations.

The method created the base for the design project and transformation proposal for a public urban space, which involves an addition to the current structure - with an emphasis on reflecting the historical variability of Artilleristallarna.

The goal of this thesis is to present a universal knowledge within the field of transformation which could be applied to similar structures in various contexts.

Adaptability is a significant component in our time of changing needs. The rich history of Artilleristallarna is reflecting the intentions with this thesis - to showcase the immense transformational potential of current structures, but most importantly, to enhance and translate its remarkable divergence into a new and contemporary meaning.

Key words: transformation, public space, urban context, revival, adaptability.

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AUTHORS BACKGROUND

I was only 12 years old when I first encountered the building which my thesis revolves around. I saw a glimpse of the spacious interior through the only door in the facade, which was instantly shutting after it was opened. Since then Artilleristallarna sparked my interest - and I have been questioning why such a valuable building is only used as a garage - hidden from the public.

The proposed function of Artilleristallarna as a marketplace for crafts derives in my own experience from creating, curating and selling my leather items. I have been designing and producing leather bags and accessories as a hobby for almost six years, and hopefully, the knowledge obtained will be implemented in this thesis.

This thesis will attempt to combine my long interest for Artilleristallarna, my craftsmanship and my obtained skills during my education in architecture school.
I hope to investigate the building, context and potential of the site. Hopefully, the finished work will generate knowledge, which I can apply to niched projects in my future career, but also highlight and showcase the possible and advantageous future of buildings which are hidden to the eye.

Image 1. Hand made leather bag.

TABLE OF CONTENT

READING INSTRUCTIONS

This thesis consists of the chapters Prelude, Artilleristallarna, Theory, Concept, The Proposal, The Process and Postlude.

PRELUDE
Explains the background of this thesis, introduces the thesis question and explains the methods.

ARTILLERISTALLARNA
Gives an overview of the context, submerges into the history of the site and highlights the evolution of Artilleristallarna over time.

THEORY
Includes the theoretical foundation, explains the theory of the layers of change and explains found strategies for adaptable design.

CONCEPT
Highlights the vision of the design proposal, and explains programme and case studies.

THE PROPOSAL
Showcases the design and functions of the proposal through drawings, diagrams and text.

THE PROCESS
This chapter shows the iterations behind the design proposal, as well as physical models.

POSTLUDE
Covers the reflective and conclusive texts, explaining how the design proposal incorporates the adaptability strategies and how it relates to the theory and thesis questions.

Image 2. Artilleristallarna, part of roof seen from the ground level.

CHAPTER 1

PRELUDE

BACKGROUND

By 2021, the 400-year jubilee of Gothenburg marks the start for many projects around the city - such as the development of Älvstaden, which will provide housing for 150 000 new residents by the year of 2035 (City of Gothenburg, 2019).

Cities are currently growing outwards, with emphasis on new buildings, which results in a fragmented urban fabric and often quite homogeneous building typology.

With a constantly expanding city, planned densification of the city core and constantly increasing flow of people, the city of Gothenburg is facing big changes ahead. This will have an immense impact on the urban identity and followed by an increased need of a broader cultural spectrum.

Growing up in Gothenburg, I have been fascinated with structures which are not used to their full potential, and for a long time, Artilleristallarna was a subject of interest for me. I have also observed how buildings are mostly created to fit a very specific function, and later seen as challenging to transform and maintain, unlike building a new structure.

Despite this, the excess of current structures is a fact. Current historical buildings, located within the urban parts of the city are not used, or hold functions of low social, cultural and sustainable values.

Artilleristallarna was constructed in 1835 for the Swedish Regiment to be used as a stable and warehouse. Located in the centre of Gothenburg, Artilleristallarna is intricately placed within a historical block which currently consists of retail, cafés and restaurants.

The building is a brick base structure with yellow plaster facade. Its characteristics lay in the cast iron roof trusses at the base of the round ceiling, some older commercial signs and the single gate towards the street. Thus, the building is very enclosed and not very inviting from the pedestrian street.

Artilleristallarnas intriguing past involves many functions. Since the 1960's, the building has unluckily been used as a parking lot.

Today, the venue is owned by the property development company Wallenstam, who has started to transform Artilleristallarna into a restaurant and meeting spot.

This masters thesis is focused on giving an additional proposition to the current transformation of Artilleristallarna, rather than opposing the current plans, with the aim to continue and strengthen the buildings legacy as a cultural and public structure - morphing and adapting through time.

PURPOSE AND AIM

The purpose of this thesis is to examine Artilleristallarna as a base for a transformation project, and present theoretical findings and strategies which could be applied in the design proposal, as well as in similar contexts.

The aim with the design proposal is to create a physical addition to Artilleristallarna which communicates with the historical aspects of the building. The aim is also to address the present day needs by activating the current structure with a cultural public function and enhance its ability to continuously adapt through time.

My aspiration is to use the history of the building as a reflection for its future use - with the aim to activate the building and unveil the beautiful characteristics of Artilleristallarna.

From a wider perspective, my ambition with this thesis is to accentuate the possibilities of transforming historical buildings with a vast interior spatiality, as well as to emphasize on the significance of activating, preserving and sustaining the cultural heritage sites of our cities.

THESIS QUESTIONS

The main research question is the base for the research throughout the design project:

1) How can the qualities and historical evolution of Artilleristallarna be consolidated with an architectural addition from within - to enhance adaptability over time?

The more specific research questions for this thesis are:

2) Which strategies can be applied when activating Artilleristallarna as a space, with the aim of meeting the users cultural, historical and social needs over time?

3) Which minimal structural amendments of the current structure can add functional and cultural value to the specific urban context?

Image 3. The venue has many characteristic aspects: one of them are the aged neon lights.

Image 4. Artilleristallarna 1901. (Wallenstam, 2019). Adapted with permission.

METHOD

The method of this thesis consists of a combination between a theoretical investigation, an iterative design process, site visits, analysis of reference projects, sketching and an exploration through physical modelling.

The theoretical research is concentrating on existing literature which examines adaptability in architecture, with the aim of defining strategies for adaptable building transformation.

It is in my interest to conduct research around potential users, which could have a valuable input regarding the future function of Artilleristallarna, including stakeholders. This to understand and meet the issues and needs in the city.

The iterative design process includes research by design, in the context of the current structure. When adapting iterations throughout the process, this method revolves around a parallel exploration of Artilleristallarna, as it is a constant reference point.

As Wallenstam is currently transforming the building, it has been rewarding to follow their process in order to understand the different historical layers of Artilleristallarna.

A continuous dialogue with Johan Wuollet, the Wallenstam project manager for the current transformation project, has lead to a deeper understanding of the context and site.

THEORY AND APPROACH

This thesis will take departure in the history of Artilleristallarna and the complex urban city fabric, where the building is situated. It will relate to the change of the building, from its fist days until today, but also reflect upon the contemporary issues of society and the future plans and ambitions of Gothenburg City.

The previous research and documented facts about Artilleristallarna will lay base for the evaluation of the historical values of the site. Existing documents and research my own observations and impressions will be essential for this thesis, in order to understand the condition of the building and characteristics, cultural value and historical evolution.

The reference projects for this thesis are chosen based on their relevance to the planned future function of Artilleristallarna - a public cultural space with emphasis on craftsmanship, as well as the relevance of their functions, context and their urban spatial properties.

FOCUS AND DELIMITATIONS

The main focus of this thesis is to architecturally link a current historical structure with the future needs and goals of Gothenburg City.

This thesis will not be able to fully investigate the buildings current state, and will rather focus on the overall impression, visual indicators and support from existing documents and literature. This thesis will not emphasize on other buildings with similar structural properties or values as Artilleristallarna.

This thesis will not generate a detailed universal solution for the use of similar structures, but rather focus on Artilleristallarna and found general strategies to transform existing buildings and create historical and functional value.

This thesis will focus on the transformation of Artilleristallarna with the emphasis on limited adaptability over time, rather than complete flexibility and change of the addition multiple times.

CHAPTER 2

ARTILLERISTALLARNA

THE CONTEXT

CONTEXT

Artilleristallarna is a building located in the centre of Gothenburg, within the borders of the former canal. The building in focus is a part of the historical quarter located on the crossing between Södra Larmgatan and Magasinsgatan.

As the location reveals, Artilleristallarna and the area in which it is built played a great part in the history of the City of Gothenburg during the 1800's.

The neighbourhood is currently an active area, as are all central parts of Gothenburg. Here, the often historical buildings hold offices, retail, and sometimes homes.

THE QUARTER

In the last decades, the historical quarter has truly undergone a change, from being threatened by demolition in the 80's, to a quite appreciated urban environment.

The block, currently consisting of 5 buildings, holds mostly offices, commercial facilities, as well as a café and the garage, located in Artilleristallarna since the 1960's.

The area, in which the quarter is located, has been listed in the national interest description for the inner city of Gothenburg, as well as the conservation program. A detail plan with a focus on conservation was also developed in the late 1980s. Thus, the area is highly regulated by the law since 1987, and clear guidelines exist regarding the development. It clearly states that no (or minimal) physical alterations is to be made in the façades of these buildings. The interior qualities, characteristics and materials should also be preserved as much as possible.

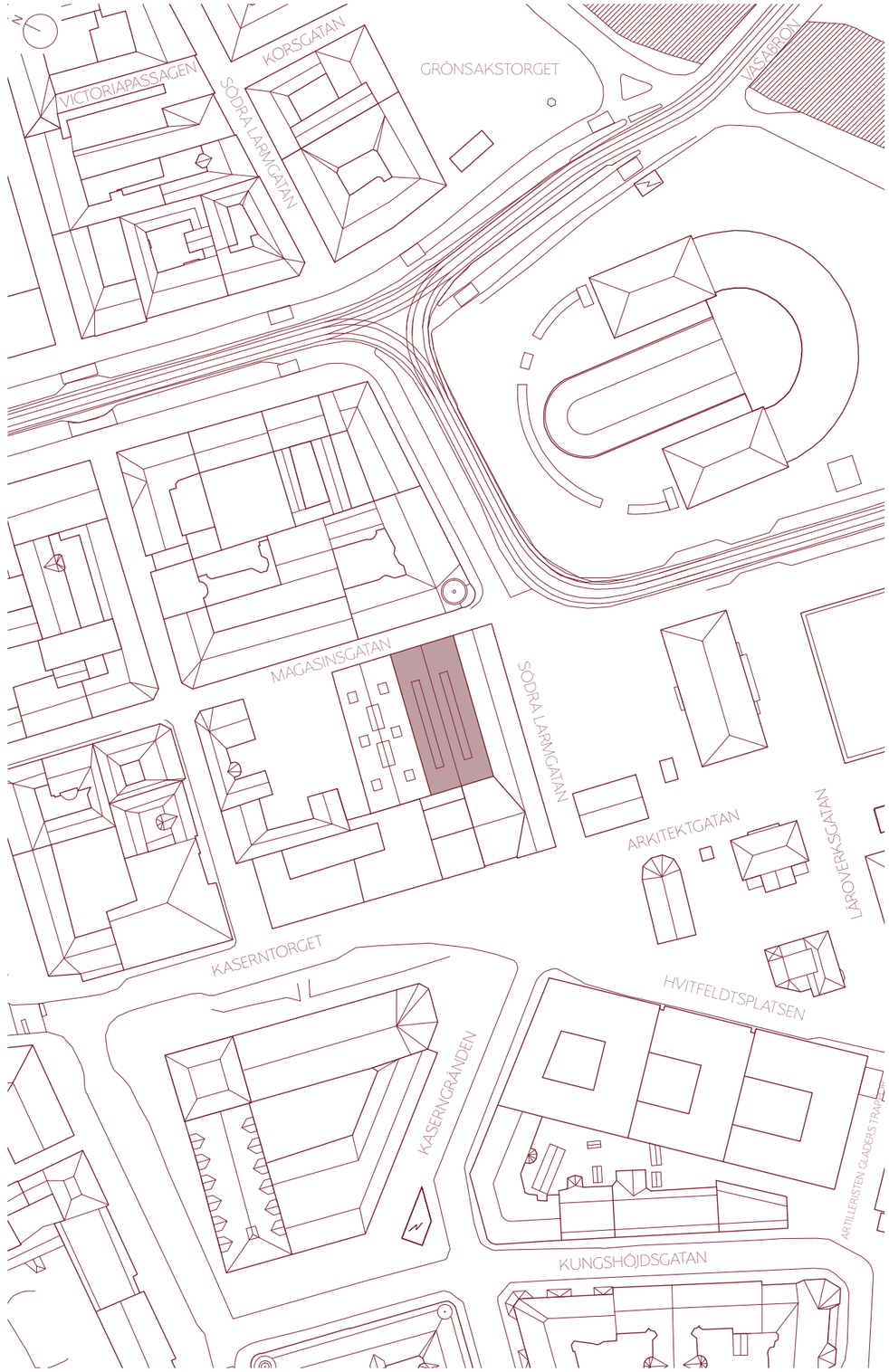
PROPERTY

The quarter, in which Artilleristallarna is located, is currently owned by the property company Wallenstam. The property was obtained by the company in 2013. Since then, the block has been classified as a type commercial property (Wallenstam, 2020).

The quarter has a total area of 3.273 m^2, and currently contains 17 businesses, excluding the garage which is located in Artilleristallarna.

Image 5. Artilleristallarna, seen from Magasinsgatan.

POSITION OF ARTILLERISTALLARNA IN GOTHENBURG. Scale 1:10 000.



OVERVIEW OF CURRENT AREA. Scale 1:1 500

Image 6. Current Artilleristallarna. Here, the foundation was being laid.

Image 7. The venue has some characteristic aspects: one of them are the aged neon signs.

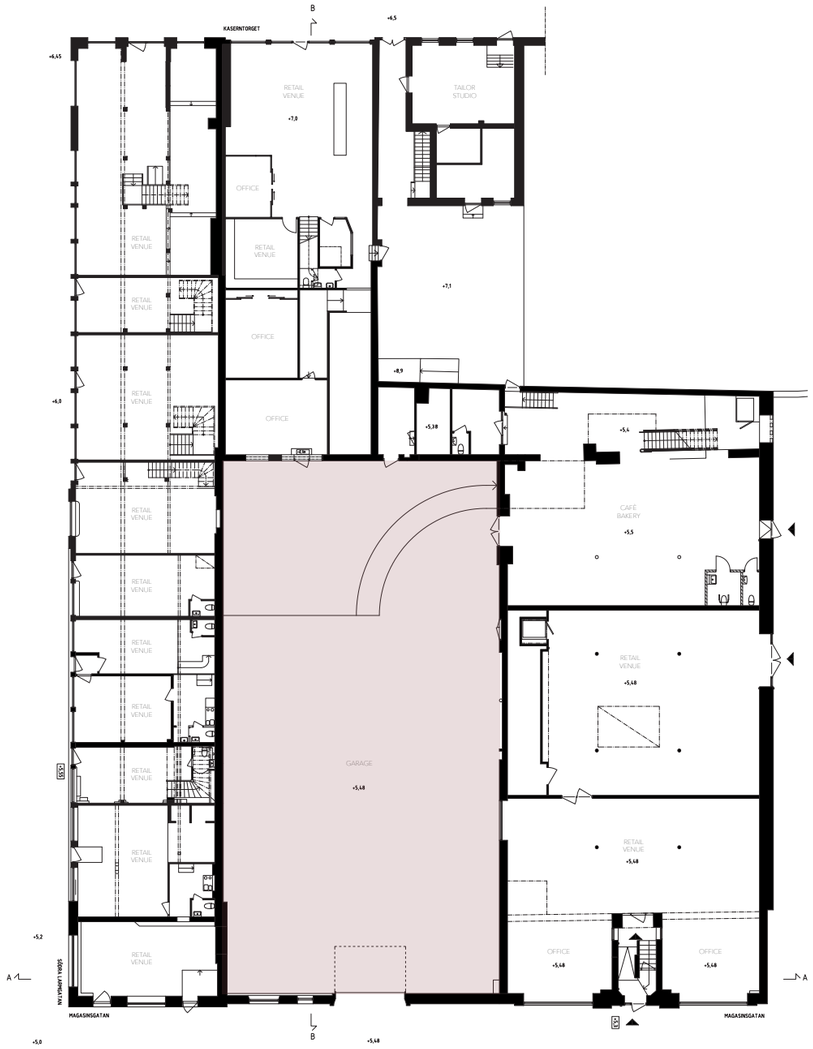
Image 8. Another characteristic feature are the slender cast iron roof trusses.

Image 9. Artilleristallarna today. Tactile materials where the wall meets the stone masonry foundation.

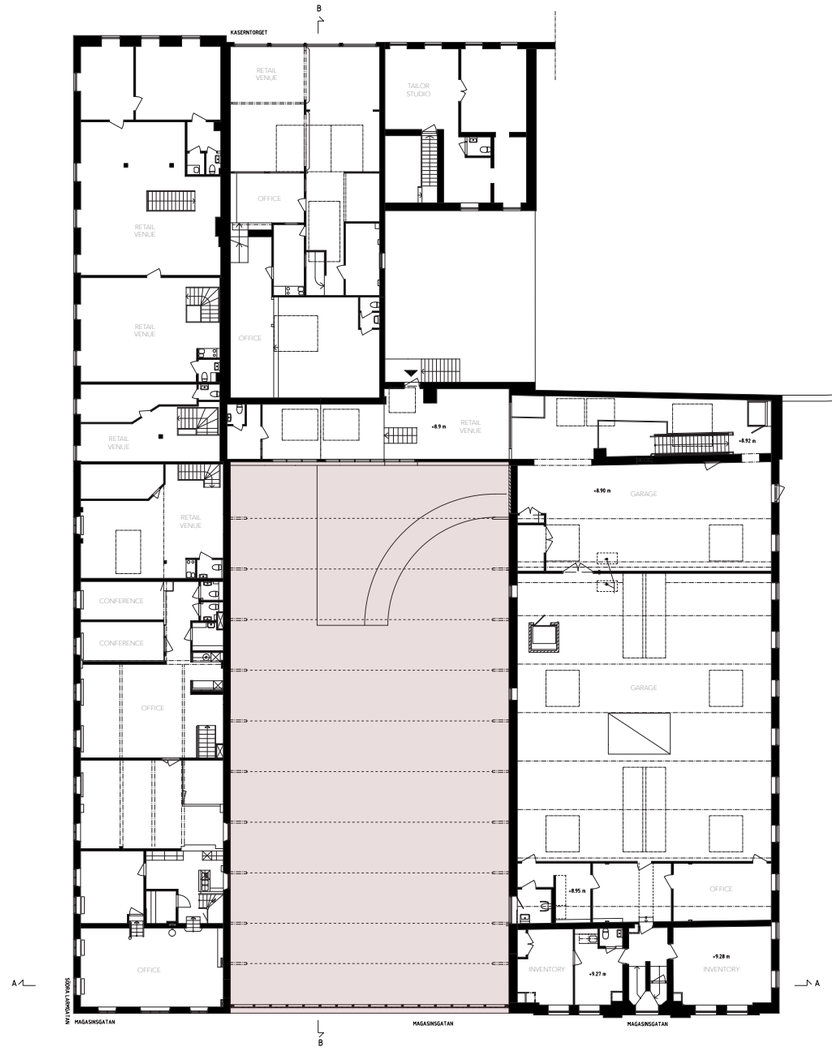
Image 10. Artilleristallarna, exterior. Seen from Magasinsgatan.

Image 11. The facade consists of a light yellow plastered brick wall, with moderate ornamentation.

CURRENT FLOORPLANS

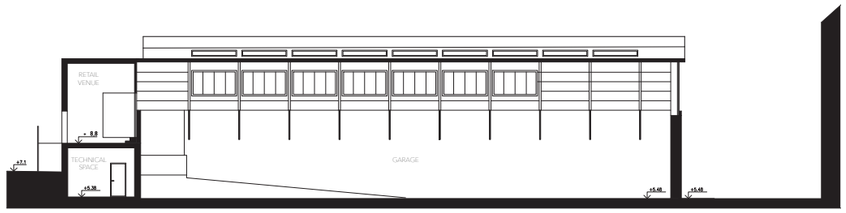


GROUND LEVEL. Scale 1:400.



GROUND LEVEL. Scale 1:400.

CURRENT FACADES AND SECTIONS



SECTION B-B. Scale 1:400.

0 2 4 6 8 10 M

SECTION A-A. Scale 1:400.

0 2 4 6 8 10 M

EASTERN FACADE. Scale 1:400.

0 2 4 6 8 10 M

SOUTHERN FACADE. Scale 1:400.

0 2 4 6 8 10 M

HISTORICAL DRAWINGS

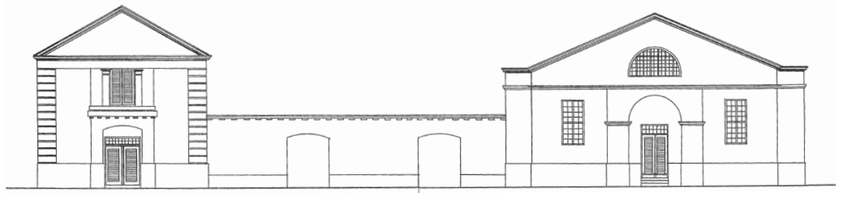


Figure 12. Initial execution from 1835. (Wallenstam, 2017. Retrieved with permission.)

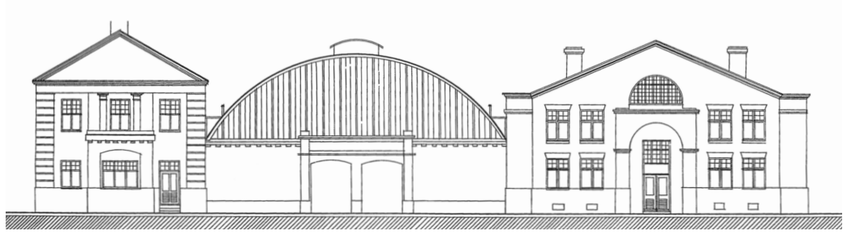


Figure 13. Building permit drawing from 1898. (Wallenstam, 2017. Retrieved with permission.)

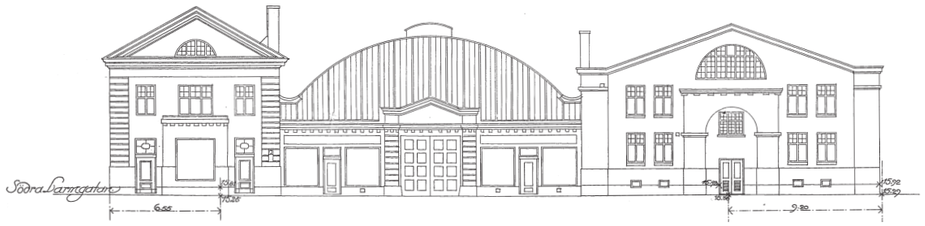


Figure 14. Building permit drawing from 1931. (Wallenstam, 2017. Retrieved with permission.)

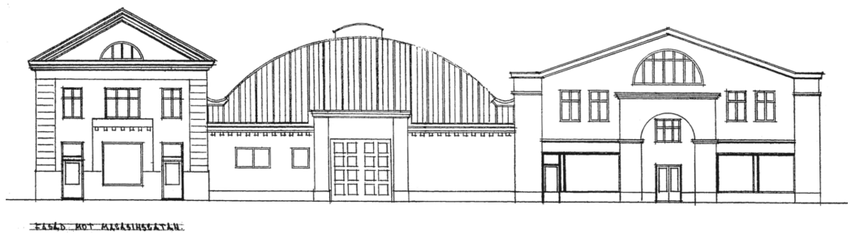


Figure 15. Building permit drawing from 1959. (Wallenstam, 2017. Retrieved with permission.)

THE HISTORY

GOTHENBURG

During 18th century, the defence policy in Sweden gradually changed, and by the early 1800s, fortifications had lost their purpose. The fortification walls were to be demolished to street level and a new city plan was drawn by the city architect Carl W. Carlberg.

In the middle of the 19th century, the area of Kungshöjd was withdrawn by the Crown for military purposes. Kungshöjd was then characterized by the operations of the artillery regiment - on the top, a castle-like fabric house was placed, and below stood the barrack building of the artillery. The artillery stables and the riding house along Magasinsgatan were placed in close proximity. (Wallenstam. Lindholm, M. Lange, J. Rodin, A. (2017).

THE STABLES

Initially, the regiment aimed to build a stable on Hästbacken, now Ekelundsgatan. Thus, it was agreed to build a stable for 68 stalls on a plot within the bastion Carolus Dux on Södra Larmgatan. This first stable was handed over to the city in 1898 and demolished the following year.
Today, the Grönsakstorget tram stop is located where this first artillery stable was built. The stable was constructed with bricks on stone, covered with a light yellow plaster.
Later, the regiment was reorganized, and in the 1830's the need of horses increased. This lead to a need for another stable building, and the state purchased one plot at Magasinsgatan and one at Kaserntorget. The new stables were to be similar in appearance and interior to the older ones. (Ljungberg, Valdemar 1924. s. 550)

The complementary stable and riding house for the Göta Artillery Regiment were erected by the drawings by the architect J F Weinberg and were completed in 1835. Towards Larmgatan, a stable was built in two floors with 63 stalls in the ground floor and fodder storage upstairs. Further into the block, a riding house was built. The space between the buildings served as a stable courtyard and was complemented by a massive stone wall towards Magasinsgatan.

In 1898, the stables and the riding hall were sold to Göteborgs Hyrverks AB, who began rebuilding the premises for its operations. The stable courtyard was added a vaulted steel roof which was supported by slender iron roof trusses. (Wallenstam. Lindholm, M. Lange, J. Rodin, A. .2017)

From 1929 to 1931 the facades towards Larmgatan and Kaserntorget were rebuilt into store fronts to become shops, warehouses and offices. At that time buildings were largely given the appearance they have today.

ONE COURTYARD - MANY FUNCTIONS

The block on Magasinsgatan and Södra Larmgatan was constructed in 1835 to hold the regiments stables and carriage storage. From that point, up until the last half of the 20th century, Artilleristallarna has been altered to serve many functions: stable, carriage warehouse, a car trade venue, workshops, exhibition space, and finally a garage.

Up until the 1980's, the building served as a garage for cars before the authorities planned to demolish it. Before this could happen, in 1987 the City of Gothenburg enlisted the area in the conservation programme, as Artilleristallarna still remained a parking space. Since then, Magasinsgatan has changed from a rough backstreet to a hip and active part of the city core.

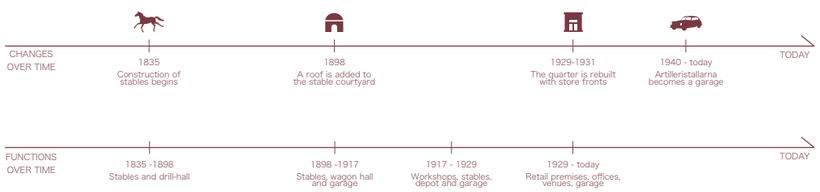


Image 16. Magasinsgatan 1890. To the left, the stone wall is seen before the roof was added. (Wallenstam, 2017)

Image 17. Artilleristallarna, the interior 1901. The venue was then used as a storage for carriages. (Wallenstam, 2017.) Adapted with permission.

Image 18. Artilleristallarna, the interior 1917. Here, the venue holds an automobile trading business. (Wallenstam, 2017.) Adapted with permission.

SITE ANALYSIS

SWOT ANALYSIS

This SWOT analysis is conducted through site visits, as well as off-site research. It highlights Artilleristallarna as a part of its context - the block.

1. STRENGTHS
When visiting the site, it was apparent it has quite evident historical layers and is therefore enlisted in the preservation programme. The location is very central, with easy access to public transportation. This is beneficial, since the site is of interest to the public as attraction is increasing. The atmosphere on site is various; Magasinsgatan, as a back street, is contrasting to the hectic settings nearby, as Södra Larm gatan is busy during rush hours as it is located between offices and the tram stop.
Artilleristallarna is a venue where the industrial character is enhanced by the genuine materiality. As it is located in the middle of the block, it has unique physical inter-connections with the venues around.

2. WEAKNESSES
Even though the area is busy during daytime, the businesses on site are only active during a limited time of the day. Towards the street, Artilleristallarna is quite enclosed and has a rigid facade structure. Even with one big mullioned window running along the whole second floor, the narrow street and tall neighbouring building limit the intake of sunlight through the facade.

As for the interior, some physical parts are in bad condition and original details, which contribute to the industrial character, are in a rough shape.

3. OPPORTUNITIES
Even though restrictions exist, the future plans and regulations include the possibility of increased activity and public functions in the area.At the same time there is an increased need for public cultural environments and a growing interest in reviving historical buildings.
The block mostly consists of traditional retail venues, yet there is an increased public interest in supporting small-scale local trades and businesses, as well as need for a sustainable alternative to retail.

4. THREATS
The block has previously gone through changes towards gentrification. If this continues, there is a risk of a weakened historical identity of the site as traditional retail businesses will occupy all the space in the quarter and adapt the spaces without knowledge or emphasis on historical character and values. A frequent change of property owners may lead to lack of consistent approach, as well as priority of economical aspects transcend over cultural and historical ones.
Today, the interior is in decay, mostly in spaces which are not used or prioritised. In the past and future, physical disturbance have and may occur due to poor care and unsuitable spatial functions.

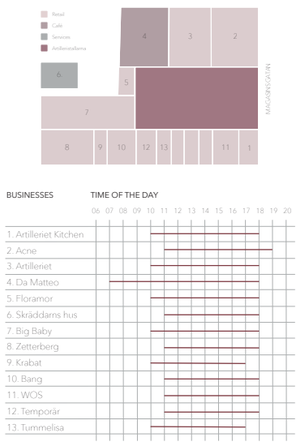


Figure 19. Current activity in the block throughout the day.

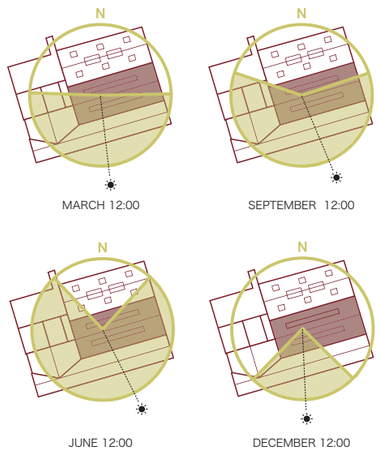


Figure 20. Sun study for the whole quarter.

A SPACE IN BETWEEN

FIRST ENCOUNTER WITH ARTILLERISTALLARNA

My experience of Artilleristallarna stretches way back to my early years. As I walked from Grönsakstorget onto Magasinsgatan, I found myself admiring the historical lower scale buildings with a yellow plastered facade, and frankly, not noticing the middle part with a rounded roof. This scenario occurred several times.

Until the day when a pure coincidence took place. I was walking on my regular path, as the only gate in a facade opened for a car to pass through. As the gate was closing, I saw a glimpse of a vast space with beautiful cast iron consoles. This experience, which took place for only several seconds, was very intriguing.
As the weeks went, I kept returning to the block on Magasinsgatan, hoping to get another glimpse of the building. I soon understood the fact that Artilleristallarna was an enclosed space, and not very accessible.

My next encounter with Artilleristallarna was also special. I was visiting a flower shop, located in a small venue, on the opposite side of the block. It was my first time in that particular shop, and as I walked up the steep stairs to the entrance door, my expectations were scarce. As I opened the front door, I saw a small space, but with quite an oversized window.

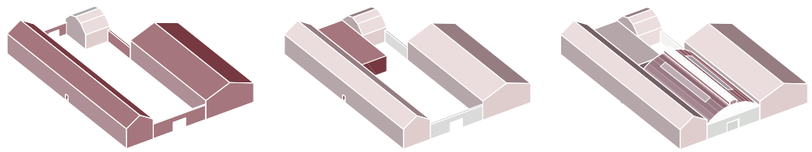
And through that window, I glimpsed the same details as I had seen weeks ago: a rounded roof and the beautiful cast iron consoles. And through this flower shop, I experienced Artilleristallarna for the second time.

As a summary of my experiences: I witnessed Artilleristallarna through the context, without being physically present in the venue. I saw the space from the outside and through the window of a neighbouring structure.

Artilleristallarna has many values. My experience highlights the quality of an incredibly close-knit environment with many structural connections, which made exploring and observing possible. On the long term, it also results in the creation of a relationship which between the visitor and the space.

Apart from the physical qualities, the fact that it once was a space between two stables - shaped by the two definite structures - re-defines a visitors perception of the space as it has interior and exterior qualities.

Artilleristallarna is a space which has risen from its context, and was originally experienced only through the surrounding buildings. Therefore its strength, identity and value lies in the interconnectedness with its neighbouring structures, and can continue to be explored, experienced and observed from these structures. As it has always been, Artilleristallarna still remains a space in-between.



1835
Two stables are built and shape the yard.

1875
The stables are extended to the south west to further define the courtyard.

1898-1899
Refurbishment of the yard, the vaulted framework roof is added.

Figure 21. The major steps in the physical evolution of Artilleristallarna.

CHARACTER

THE ARCHITECT

As stated earlier, the two stable buildings on Magasinsgatan were finished in 1835 and built after the drawings of Jusus Fredrik Weinberg. In his time, J. F. Weinberg was a well known architect and artist in Gothenburg. He also had a connection to the Göta Artillery Regiment, as he advanced within the military to become major in the Regiment in 1821.
In the beginning of the 19th century, J. F Weinberg was a practicing architect and colleague with his teacher Carl Wilhelm Carlberg, who at the time was the the first head architect in Gothenburg. Carlberg, who practiced neoclassicism, influenced J. F. Weinberg who became connected to the style in his works. (Svenskt konstnärslexikon. 1964. p. 605.)

NEOCLASSICISM IN GOTHENBURG

Neoclassicism was practiced in the western world from the middle of 18th century until the 1830's (Svedberg, 2001).

In Gothenburg, many new buildings were constructed during middle of 18th century until the 1830's, due to the fires of 1802 and 1804. (Svenskt konstnärslexikon. 1964. p. 605.) Therefore, the neoclassical movement is present amongst many characteristic buildings - Artilleristallarna being one of them.

Below, Artilleristallarnas character is shown, as well as Domkyrkan and Korsgatan 12, since they showcase examples of such buildings.

Image 22. The block, seen from Magasinsgatan. (Wallenstam, 2018) Adapted with permission.

Image 23. Domkyrkan in Gothenburg. Drawn by C. W. Carlberg and conducted by J. F. Weinberg.

Image 24. The stable, inspired by the antique temple gable. (Wallenstam, 2018) Adapted with permission.

Image 25. Korsgatan 12, near Domkyrkan. Drawn by C. W. Carlberg.

SHAPES

ARTILLERISTALLARNA

Even though Artilleristallarna has undergone quite some changes since it was built, the neoclassical tendencies of the building are quite evident.
When visiting the site and the building, one shape was personally noticeable - the rounded vaulted windows on some façades. This shape is also appearing in the interior. Below, a picture is shown of the opening which connects the northern building to Artilleristallarna.
On the second level of the current garage, there is a former rounded window, which has been converted to a door.
This contextual and sculptural characteristic shape became valuable as a shape and icon for re-use and transformation.

SHAPES IN THE CONTEXT

When approaching the site, the most noticeable characteristic is the temple inspired gable of the south building. It is accompanied by visual pillars which runs on the edge of the buildings silhouette.

The diagram below showcases the shapes found in Artilleristallarna and the nearest context. They clearly communicate a connection to the 1830's and are a big part of the architectonic cultural value on site.

Image 26. The upper part, which once lead from Artilleristallarna to the stables. (Wallenstam, 2018) Adapted with permission.

Image 27. A former window, converted to a door in the former northern stable. (Wallenstam, 2018) Adapted with permission.

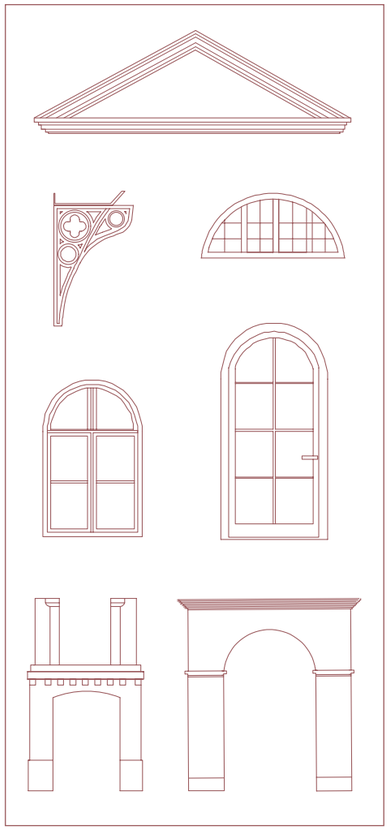


Figure 28. Characteristic details and shapes of Artilleristallarna and its context. The cast iron roof trusses are ornamental in their functionality.

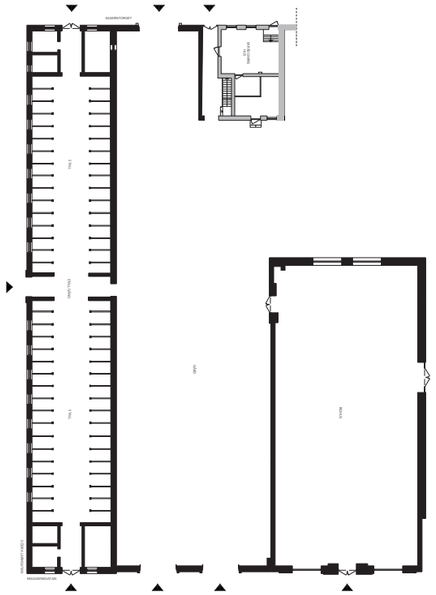


Figure 29. 1835, original state of Artilleristallarna. Two stables were built to complement the housing building in the west.

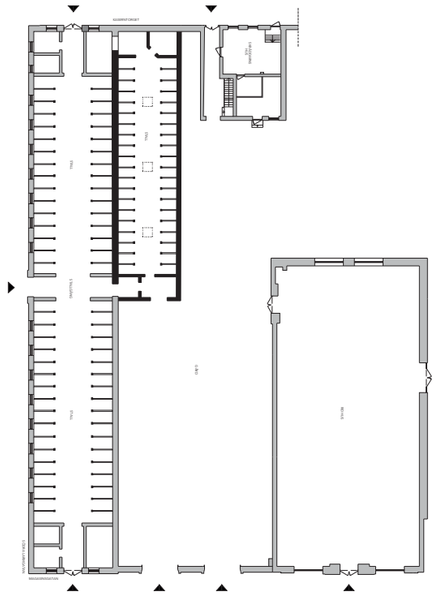


Figure 30. 1875. Another stable was added. It had only one level.

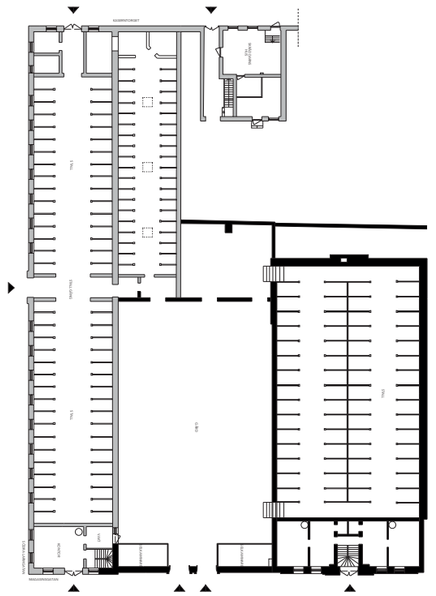


Figure 31. 1898-1899.Artilleristallarna was remodelled for Göteborgs Hyrverks AB and a roof was added to the yard.

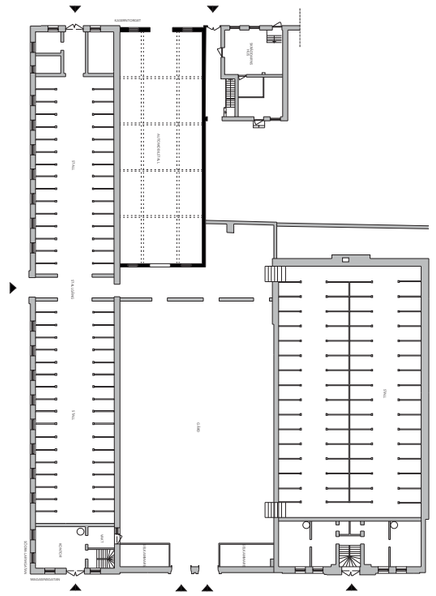


Figure 32. 1909. A new entrance towards Kaserntorget was built.

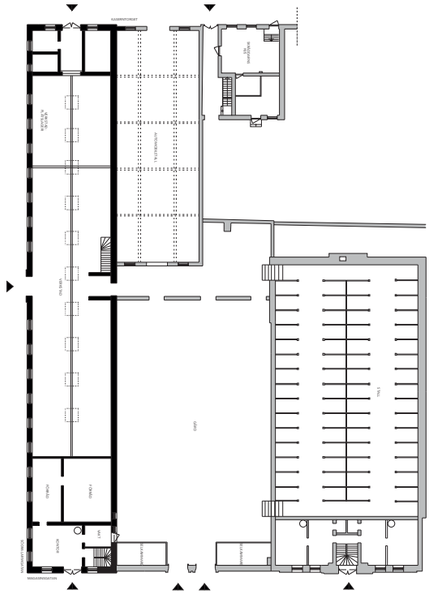


Figure 33. 1917. The windows became bigger when the stables towards Södra Larmgatan were turned into a workshop.

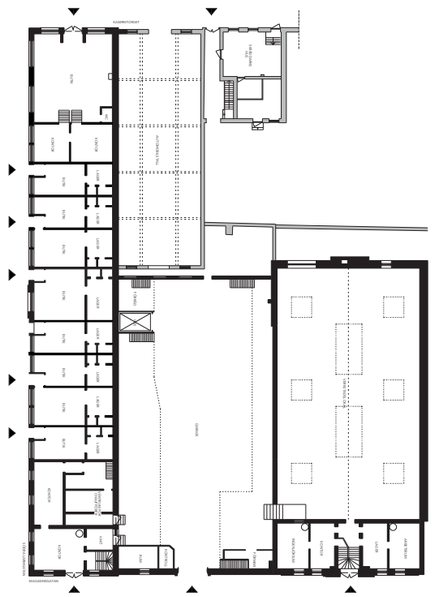


Figure 34. 1929-1931. The southern building towards Larmgatan is re-made into retail venues, inventory and offices.

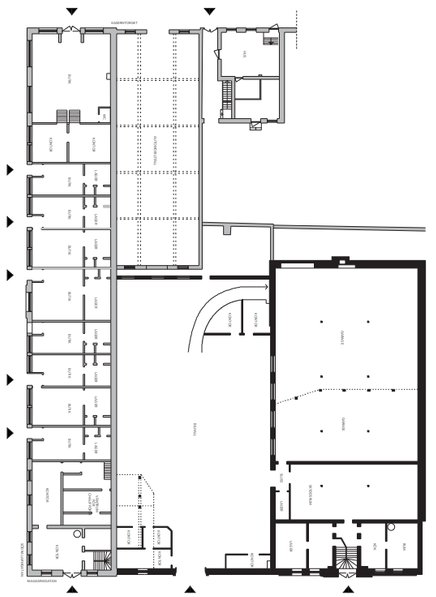


Figure 35. 1941. A ramp is built in the yard, which is becoming a garage. The right building turns into a garage and bomb shelter.

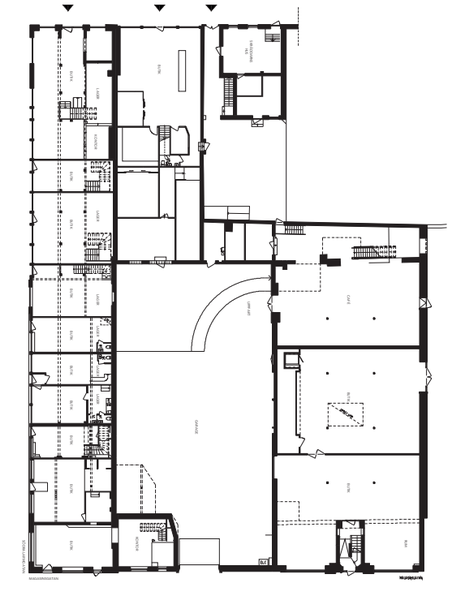


Figure 36. 2020. The current state of Artilleristallarna.

CHAPTER 3

THEORY

THEORETICAL FOUNDATION

PROBLEM STATEMENT

Harrouk (2020) is in her article for Archdaily formulating a relevant point on current structures:

> "When reflecting on climate-related issues, measures to take, and innovative technological solutions, one cannot help but think that there are also familiar approaches that should be taken into consideration.
>
> In fact, when examining the impact of the built environment on the climate, one notes that in many countries, 80% of the buildings that will exist in 2050 have already been built. The most effective form of sustainability may, therefore, be saving energy by eliminating or minimizing new constructions, and by avoiding the demolition of existing structures.
>
> That is what adaptive reuse stands for: instilling a new purpose on an existing "leftover building." Nowadays, the refashioning process is becoming essential because of numerous issues related to the climate emergency, plot and construction costs, a saturation of land and a change in living trends."
> (C. Harrouk. 2020. Paragraph 1-2).

Conferring to the current data, the average lifespan of newly constructed buildings has descended from 90 years to as few as 20-30 years. (Kincaid, 2002) In a time of ever changing needs, the long lifespan of a building compared to the short span of its functions is vital.

Generally, the rigidity of a building design results in tenants having to leave the venue, once their needs has changed. (Thomas, 2013, p. 3)
A problem in the development sector today is the vacancy of structures, which fail to meet the current requirements and the fast change in demands.

DEFINING ADAPTABILITY

There are coexistent meanings when it comes to the definition of the divergence of a building. When defining architectural variability in this thesis, adaptability is compared with flexibility in order to limit and distinguish the theoretical framework, as to create the needed tools for this specific urban context.

Flexibility characterizes spaces which must not be specified or programmed (Rabanek, Sheppard, Town. 1973, p. 698-727). Flexibility is defined to act against polyvalence and highly designed solutions, where a space is being used for its determined function. Flexibility in buildings means no pre-set functions.

Adaptability, on the other hand, relates to space or units, which can easily be altered to fit the changing circumstances. Adaptability includes, according to Schneider & Till, to create rooms which can be used for different functions (2005).

Based on this, an adaptable space has a defined original function, which can change into, or be in symbiosis with other functions. Adaptability embraces polyvalence where the spaces can be used in different ways, without the need for any physical alterations. Herzberger, in his book, states that a big part of adaptability circulates around the layout of a space, as well as its relation to other spaces (2000).

In conclusion, the difference between flexibility and adaptability in buildings is regarding the degree of variability: a buildings capacity of accommodating to changed needs.

In S. Thomas work, she explains that while flexibility describes a drastic change, adaptability addresses the ability to adjust and modify to the changing circumstances efficiently. (2013, p. 3)

PRESENT RELEVANCE

Is adaptability relevant today?
An increased need for adaptability in buildings is a result of growing consumer expectations and escalating competitiveness (Slaughter, 2001).

Thereof, an emphasis on adaptability in the design process can maintain a buildings relevancy over an extended period of time. By being aware of changes, the need for flexibility and renovation are decreased, and also, the functional life of a building is prolonged.

Kronenburg states that "Flexible architecture consists of buildings that are designed to respond easily to change throughout their lifetime" (2007, p. 7).
The author further explains that the benefits of adaptable buildings are the following:
the buildings remain longer in use, they fit their purpose better, accommodates users experience and needs, and is ecologically and economically more advantageous.

I will work on the definition of adaptability in this thesis, to create an urban environment which learns from its users, and reflects the diversity of the historical uses of Artilleristallarna.

LAYERS OF CHANGE

NEW BUILDINGS

As for new buildings, they can be divided into distinct layers: each can have various characteristics and functionalities of the building, such as structure, facade, services etc. Each of these layers, together, form the order of a building, and its specific spatial configurations.

Brand explains in his work (1994) that "a building properly conceived is several layers of longevity of built components" (p. 12). This theory was the base for the authors six layers of change: site, structure, skin, services, space plan and stuff (1994, Brand. p. 13).

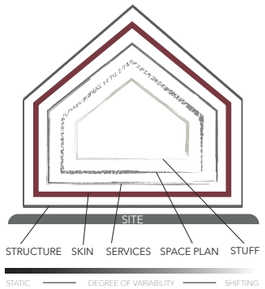


Figure 37.(Based on Brand. 1994). The layers Site, Skin, Services, Space plan and Stuff are defined as the following:

Site:
This is the geographical site, the urban location and the legally defined lot, whose boundaries and context outlast generations of buildings.

Skin:
Exterior surface, which tend to change to keep up with fashion and technology, or for wholesome repair to achieve lower energy costs or improved insulation.

Structure:
The foundation and load bearing elements, which are expensive and perilous to change, and as a result, static. The lifespan of structural elements can vary between 30 - 300 years.

Services:
These are the working parts of a building: communication wiring, electrical wiring, plumbing, sprinkler system, and moving parts like elevators or escalators. They usually wear out every 7 -15 years.

Space plan:
The interior layout, including walls, ceilings, floors and doors. Turbulent commercial space can change usually every 3 years.

Stuff:
This category includes furniture, which is very mobile and changeable. Brand states in his book (1994) that "furniture is called mobilia in Italian for a good reason" (p. 12-13).

IN THE CURRENT CONTEXT

When a current structure is subject for an adaptable transformation, the condition of the shearing layers of change are different. Artilleristallarna is a structure of cultural and historical value. This makes the skin (facade) and the primary structure (walls and roof) of the building a lot more unalterable, than those of a newly built property. But contrary to other buildings, the spatial properties of Artilleristallarna creates an opportunity for the services, space plan and stuff to act as the adaptable variables, and at the same time exist in a symbiotic relationship with the current structure.

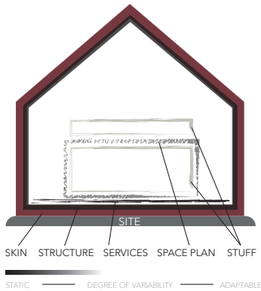


Figure 38. The layers Site, Skin, Services, Space plan and Stuff for Artilleristallarna are defined as the following:

Site:
The site is located in a historical close-knit environment, where Artilleristallarna originally was shaped by the surrounding structures, until a vaulted roof was added in the end of 19th century.

Skin:
The skin or facade consists of two parts. The lower wall, built in 1835, and the steel truss arched roof, which was added in 1898-99. The facade is included in the protective provision in the detailed development plan.

Primary structure:
The structure is part of the skin, and consists of a stone clad foundation, and the cast iron details which are fastened to the outer walls of the neighbouring structures to carry the roof.

Services:
The working parts of a building like communication wiring, electrical wiring, plumbing, sprinkler system are placed in the floor, as well as in some back spaces in the neighbouring building. Moving parts like elevators will be placed in the structural addition.

Space plan/secondary structure:
The space plan focuses on respecting the spatial properties of the skin and structure by only structurally connecting to the floor. The space plan is a part of the secondary structure, enabling the functions to change over time.

Stuff:
This category includes furniture, which is very mobile and changeable.

STRATEGIES FOR ADAPTION

ADAPTABILITY IN PRACTICE

In the article "Flexible housing: The means to the end" by Schneider and Till (2005), the authors claim that the general definition of a buildings adaptability is "deliberately broad. It includes the possibility of choosing different layouts prior to occupation as well as the ability to adjust one's housing over time. It also includes the potential to incorporate new technologies over time, to adjust to changing demographics" (p. 287). The authors are writing about variability in the housing sector, where selected knowledge and insights can be applied to buildings in general.

The usefulness of a space is often compromised due to its inability to accommodate to change. In a research conducted by E. Slaughter in 2001, the author states that it is not beneficial to create buildings which will last for a short period of time from an economical perspective.

When a building is prematurely at the end of its functional life, benefits which could be created are lost, and the cost of demolition is decreasing the profit on the original investment. By considering easy and relevant construction and design methods, the life and profit of a building can be easily increased. (Slaughter, 2001)

The research for this thesis lead to a conclusion of 3 strategies and formulation of one, which, if incorporated in the design process, could lead to a more efficient use of pubic buildings over time.

The found strategies are perceived to be most suited for the distinct context where a transformation of Artilleristallarna is in focus.

1. SPACE

Adaptability and space are connected. Limited space leads to limited possible variability. The possibility of dividing space and create overlapping functions supports a buildings capacity to respond to users needs over a long time. (Schneider and Till, 2005)

2. SYMBIOSIS

Creating a programme with functions which can co-exist as well as stand on their own strengthens the building as a functional system and creates possibilities for adjustments in the future, if the demand changes. (Authors own conclusion)

3. CONSTRUCTION

A space without any restricting load bearing elements enhances its potential to host various functions and fulfil different needs. The space can be used effectively with interior components which can be moved, assembled and disassembled in various layouts.
(Schneider and Till, 2005)

4. SEPARATE SYSTEMS

If technical systems are intended for adaptable design, planning to separate them at an early stage improves the future possible modification. Designing for independent spatial and technical systems simplifies the accommodation of one system, without interfering with the others. (Slaughter, 2001)

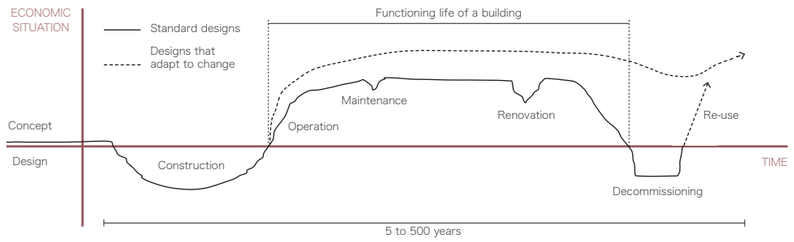


Figure 39. Life expectancy of facilities and the potential relation to design when accommodating to changing needs over time. (Based on Slaughter, 2001)

CHAPTER 4

CONCEPT

VISION

CONTINUOUS ADAPTION

The multiple roles which Artilleristallarna has played in society through time has left several traces on the building and the development of the entire quarter. The space has been used for several functions simultaneously or changed from one purpose to another. However, the evolution of this space was put on hold since the 40's, and since then, it was hidden to the public. A vast space, with uncounted layers of history, unique characteristics and great potential has been sleeping for 80 years.

The objective is to enhance the current qualities and mirror the historical variability of Artilleristallarna, into a public cultural destination with the ability to adapt according to the changing needs.

ROOM FOR CRAFTS

The value of Artilleristallarna lies in its potential variability, history, spatial properties, and in presenting its intriguing context to the public.

The vision for this thesis is to create an adaptable urban capsule with emphasis on small businesses within crafts, to contrast the current traditional retail in the quarter.
This creates a possibility people to connect to new social and cultural contexts, as well as being introduced to artisans and understand the origin of the purchased item.

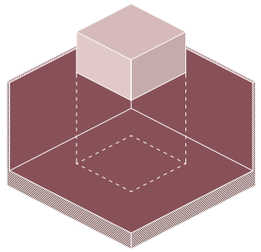
An additional aspiration is to extend the hours of activity in the area for safety and variation, as well as to add cultural and social value to the area.

Image 40. Hand made learher cordholder.

Image 41. Hand made leather bag.

Image 42. The exterior of the block on Magasinsgatan.

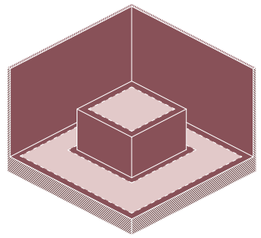
DESIGN CONCEPT



CREATE AN ADDITION TO DEFINE THE SPACE

Thesis question:
How can the qualities of a Artilleristallarna be consolidated with a structural addition from within - to enhance adaptability over time?

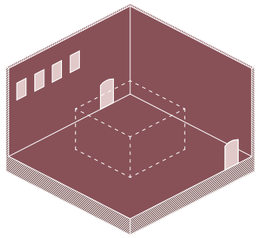
Concept:
- Design a structural addition to become shared rentable hubs, providing an opportunity for small scale businesses within locally produced crafts/public functions to rent them and showcase their products and applied arts.



DESIGN NEGATIVE SPACES TO SUPPORT ADAPTABILITY

Thesis question:
Which strategies can be applied when activating Artilleristallarna as a space, in order to meet the users cultural, historical and social needs over time?

Concept:
- Programme the negative spaces, both horizontal and vertical, to become adaptable areas with overlapping functions.



REVIVING THE HISTORICAL INTERCONNECTIONS

Thesis question:
Which minimal structural amendments of Artilleristallarna can add functional and cultural value to the specific urban context?

Concept:
- Creating visual connection between the neighbouring buildings and Artilleristallarna
- Creating multiple entrances to enhance the flows of people and connecting two streets.

PROGRAMME

PUBLIC URBAN SPACE

The programme consists partly of public functions, such as a square, seating, cafe/bar, auditorium and an outlook spot. It also includes different sized rentable venues where local crafts makers can rent a space to produce, sell or exhibit their art. These venues have a direct connection to the public streets and are designed to be welcoming to the public.
There are also three studios for ceramics, silver smithery and upholstery. Visitors may also access these spaces, for a pedagogical aim or for supporting their local small scale businesses.

SHARED FACILITIES

The programme includes a set of shared facilities, fitted into the back spaces of Artilleristallarna.
They consist of a universal storage for furniture, one waste room, two staff bathrooms, a staff kitchen and a technical space for heating and ventilation.

A third entrance by the shared facilities is activated towards Kaserntorget, to simplify waste management and create a separate entrance for staff.

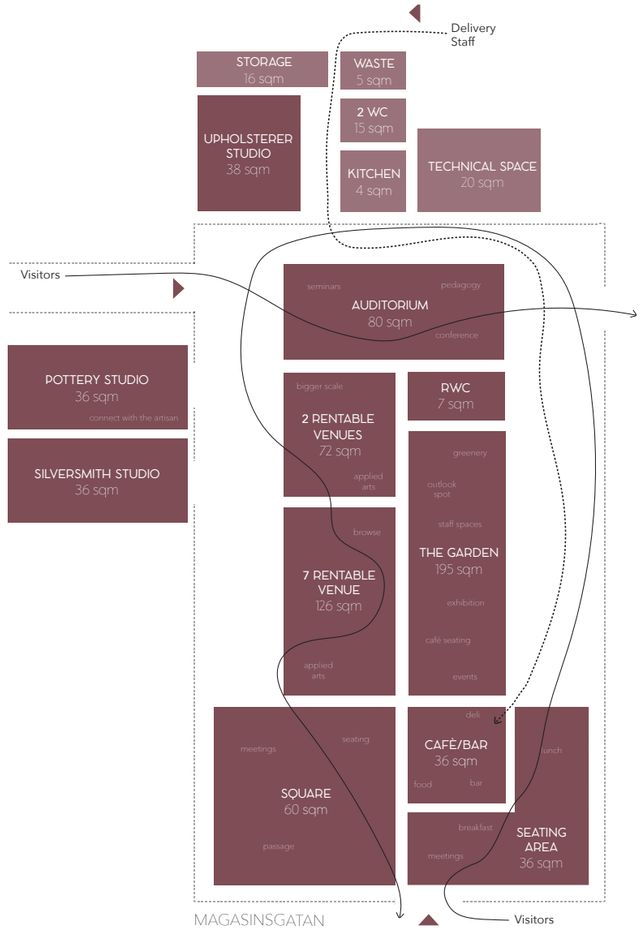


Figure 43. Planned programme and flow chart for Artilleristallarna.

REFERENCE - URBAN TYPOLOGIES

VICTORIAPASSAGEN

Victoriapassagen is a sheltered street, running through the courtyard of a housing building between Vallgatan and Södra Larmgatan.
It is centrally situated in Gothenburg, and is used by the public daily as a passage or a nice stroll and browse amongst the venues.
There are several venues and two cafés on this street. They all have entrances and store fronts towards Victoriapassagen, and sometimes also seating. This urban street is referenced because of its 1:1 human scale, and for the fact that one street has many different uses at the same time. The hybrid street is calmer compared to the two streets which it intersects, and the sight line between the two streets is preserved, making it easy for visitors to operate.

VICTORIAGÅRDEN

Victoriagården can be reached directly from Victoriapassagen, and is also an urban typology which has risen from its surrounding structures. The former courtyard has also been transformed into a small scale square and communication space. It is also located between Vallgatan and Södra Larmgatan, with a passage right through the square. Venues and the cafe has entrances towards the yard. This square is referenced because it is defined by the venues, which cut into the space and shape it. It also includes public spaces on several levels, creating a way to experience the historical building from different perspectives, as well as creating a dynamic and efficient urban typology.

Image 44. Victoriapassagen towards S. Larmgatan.

Image 45. Victoriagården towards Vallgatan.

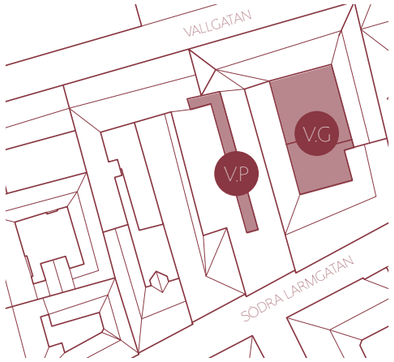


Figure 46. Location of Victoriagården and Victoriapassagen

Image 47. Victoriagården towards Södra Larmagatan.

REFERENCE - PROGRAMME

KRONHUSBODARNA

The larger scale Kronhuset and smaller scale Kronhusbodarna is an iconic sightseeing destination of historical Gothenburg.
Kronhuset is a red brick building which was built between 1643–1654, and was used as an armoury (a storage for weapons, cannons and food). Kronhuset is surrounded by the lower scale Kronhusbodarna, which were constructed out of stone in 1746, and functioned as a forge and workshop for the militia. ('History', Kronhuset, 2020). The small stone houses shape a squared yard in the middle.

Today, Kronhuset is used as a concert and gathering hall, where occasional markets and seminars take place. It is a historic, yet adaptable venue, which invites the public to experience the building. The venue is much appreciated by the Gothenburg citizens, and myself personally since I am well acquainted with the area.
Kronhusbodarnas' programme is the main reference point for the design proposal of this thesis. The small houses currently include small venues for shops, workshops and studios for crafts makers. There is a glass-blowing studio, a watch workshop, galleries, soap maker, chocolate maker and a café. It is open to the public and sometimes, seminars and workshops are held. This reference has brought an insight of how artisans and the public can meet through urban typologies and architecture, and showcased that it is a valuable addition to the urban city core.

Image 48. The inner central courtyard. Kronhuset is to the right, while the Kronhusbodarna are in the centre.

Figure 49. Location of Kronhusbodarna in Gothenburg.

Image 50. Kronhusbodarna, the entrance to the workshops and studios

CHAPTER 5

THE PROPOSAL

THE URBAN CAPSULE

A PUBLIC URBAN SPACE

The transformed Artilleristallarna is a space where local smaller businesses within crafts and artisans can rent a venue to exhibit, sell and teach about their applied art. Visitors can browse, be inspired, educated about materials and support their locals.

When walking through the main entrance at Magasinsgatan, the vast space of Artilleri-stallarna unfolds as the visitor moves through the entrance portal. There, the visitor is met by the addition, surrounded by the café/bar, square and seating area.

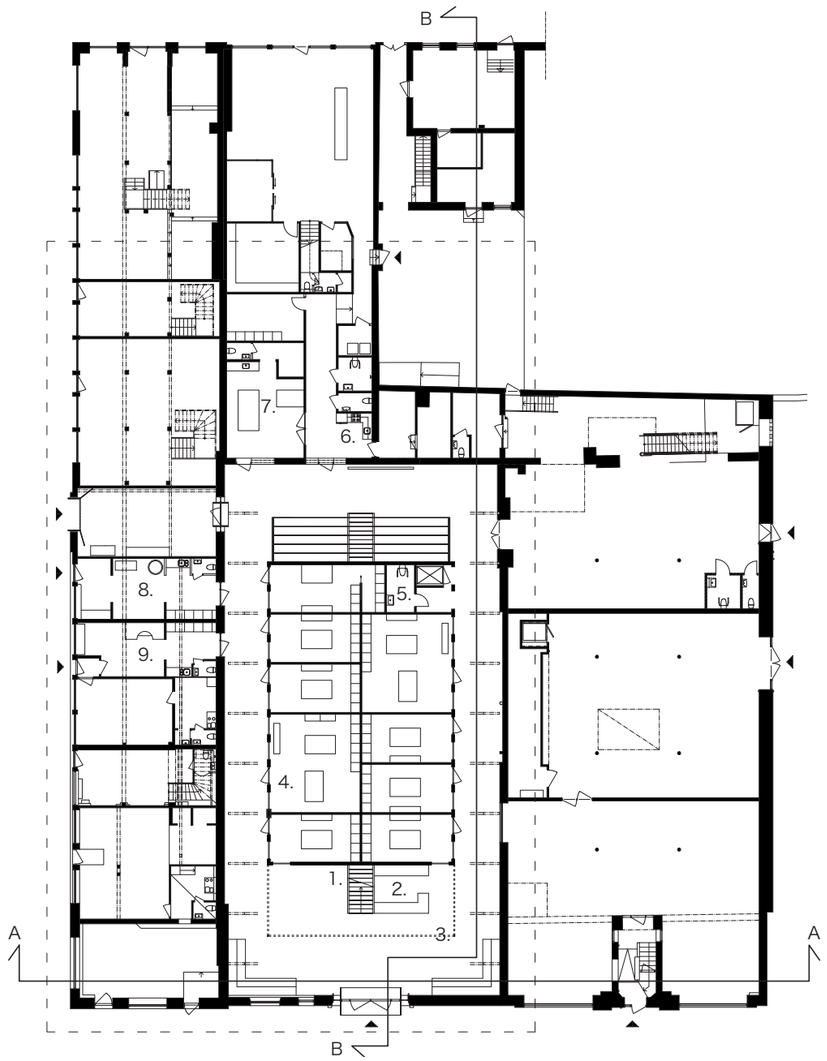
The spatial properties of a square guides the visitor through the square and through the streets, there the entrances to the venues and studios are placed.

MEET HISTORY AND CULTURE

When taking a walk around the addition, the visitor may join the seminar about leather in the auditorium, or take the stairs up to the second floor of the addition - a lookout spot and a rooftop space.
From this perspective, the visitor can admire Artilleristallarna as a space and get a very detailed view of the cast iron roof trusses, as well as the roof construction.

The transformation of Artilleristallarna enables a movement of people throughout the entire block.
This makes it possible to physically understand and experience the intricate connections between the buildings, which has developed during many years of evolution.

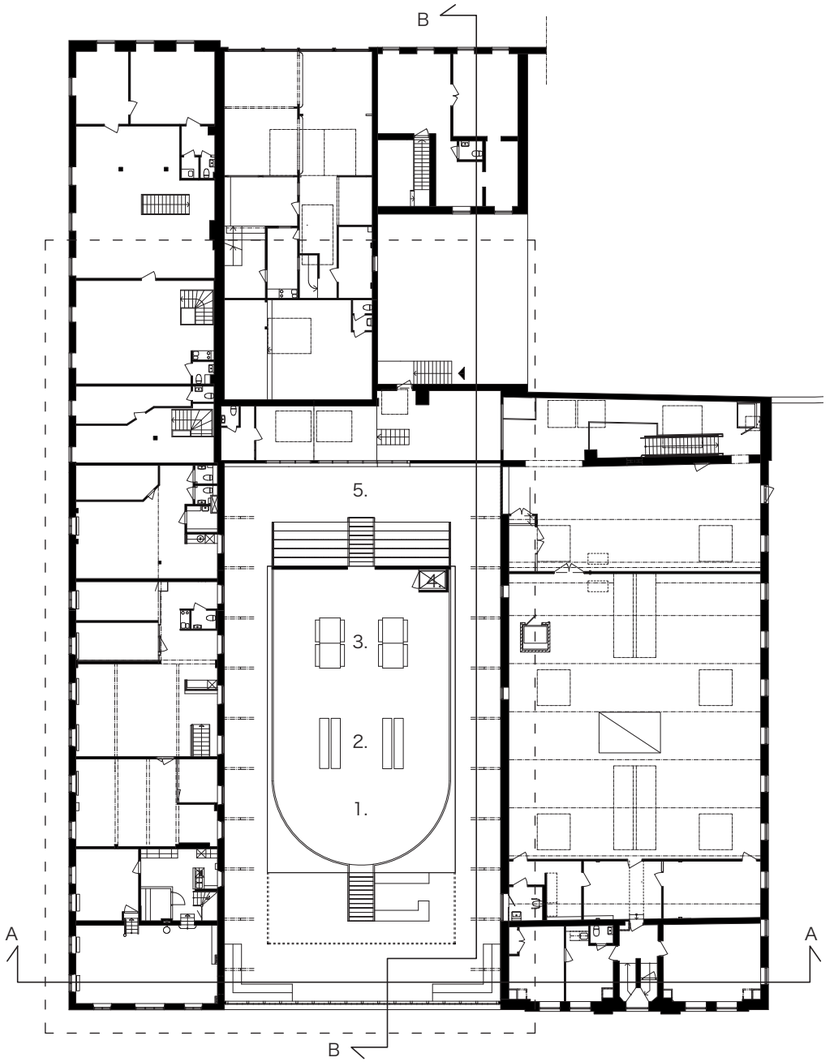
Image 51. Perspective Magasinsgatan. Entrance to Artilleristallarna.



GROUND LEVEL. Scale 1:400.

0 2 4 6 8 10 M

1. Addition
2. Bar/café
3. Seating
4. Venues
5. WC
6. Staff kitchen
7. Studio Upholstery
8. Studio Ceramics
9. Studio Silversmith

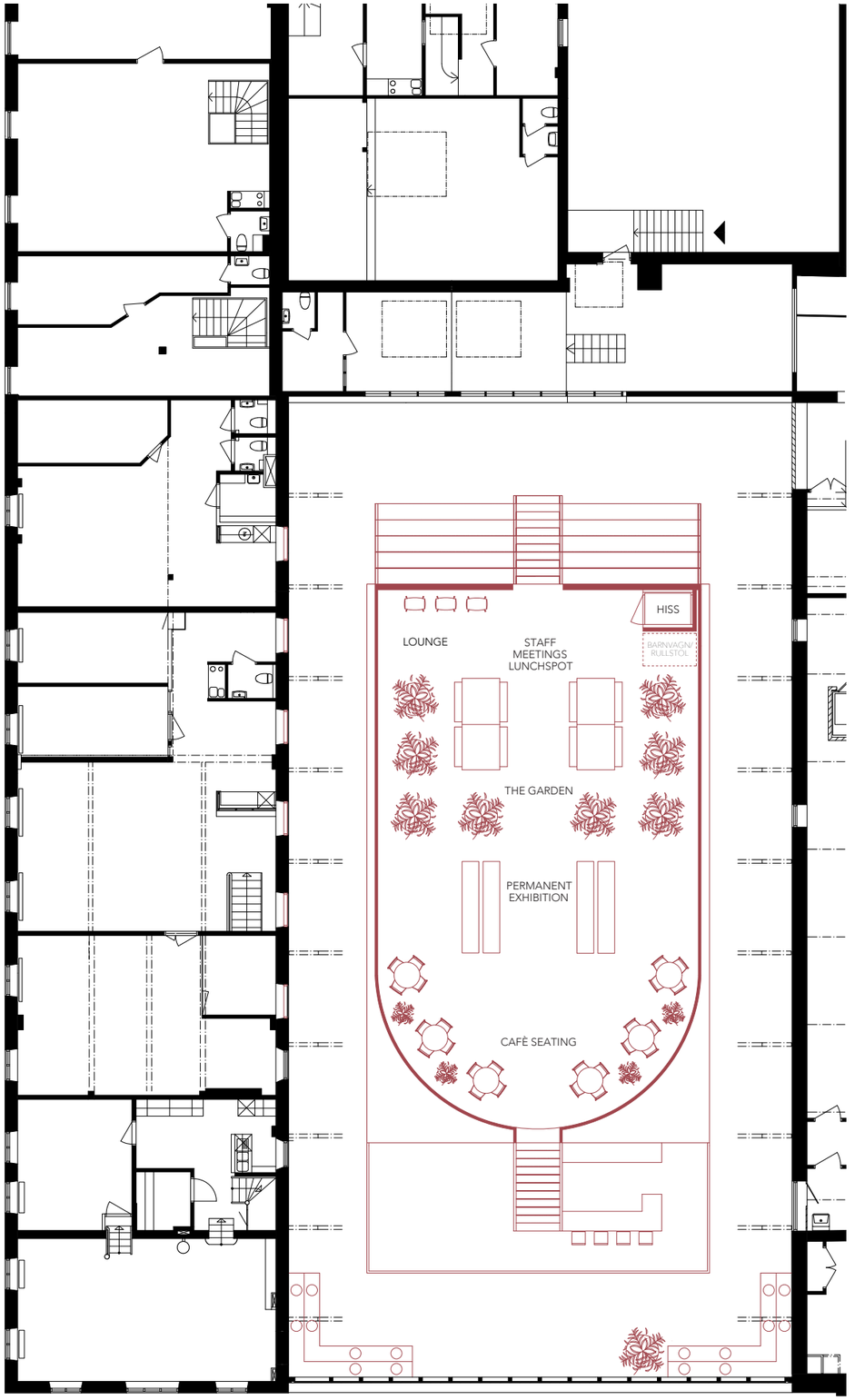


SECOND LEVEL. Scale 1:400.

0 2 4 6 8 10 M

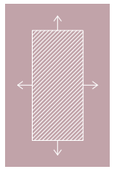
1. Café seating
2. Permanent exhibition
3. Staff seating
4. Elevator
5. Auditorium

GROUND LEVEL. Scale 1:200 0 2 4 6 M — Added — Current

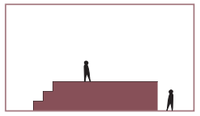


FIRST LEVEL. Scale 1:200 0 2 4 6 M — Added — Current

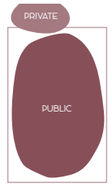
THE ADDITION



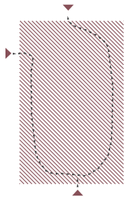
1. The addition makes a statement in the vast volume of Artilleristallarna, defining it and creating multiple spaces of different properties and functions.



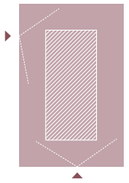
2. The addition creates another dimension to the space, making it possible to experience Artilleristallarna from different levels and perspectives.



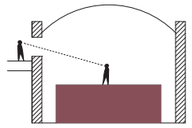
3. Public zones are placed around on top of the addition, while staff spaces and facilities are placed in the more private back spaces of Artilleristallarna.



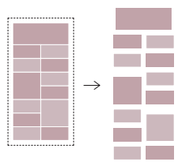
4. The former stable gate towards Södra Larmgatan is rekindled to create a flow of people through and around Artilleristallarna. An additional entrance from Kaserntorget is activated, making it possible for staff and logistics to operate in the venue.



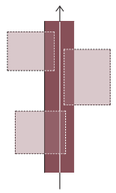
5. Both public entrances are connected to the interior pedestrian streets, which results in a good overlook for visitors to orientate.



6. The original windows of one of the stables are opened up in order to create a connection between Artilleristallarna the surrounding structures. This also results in the possibility visually to experience Artilleristallarna from the outside, creating another quality for visitors.



7. The addition and its functions is designed to operate as one system, as well as separately. This results in an increased capacity for the venue to adapt and be active throughout the day.



8. The intersecting negative spaces - streets, squares and the Garden - all have different functions, which overlap. This results in an efficiently utilised space, with many possible destinations for the public.

9. The Garden can be used for different functions, and is accessible from east and west side, creating an opportunity to use it separately, or as a part of a bigger event.

Image 52. Perspective: the addition, café, and street seen from the seating area by the entrance.

FACADES

EASTERN FACADE. Scale 1:300

0 2 4 6 8 M

SOUTHERN FACADE. Scale 1:300.

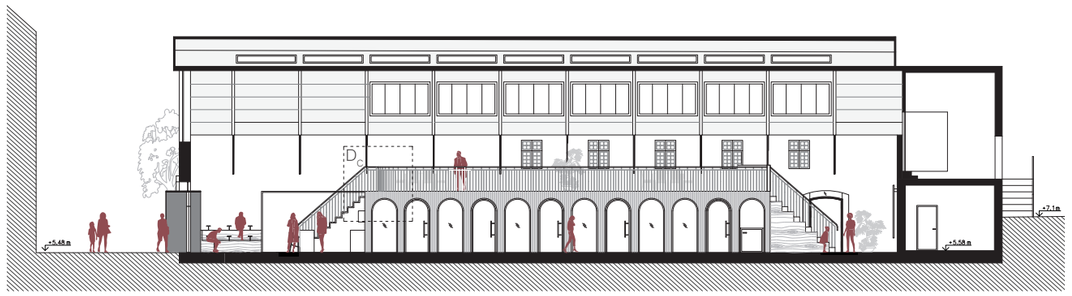
0 2 4 6 8 M

SECTIONS

SECTION A-A. Scale 1:300

0 2 4 6 8 M

RETAIL VENUE | STREET | SQUARE | BAR/CAFÈ | STREET | RETAIL VENUE



SECTION B-B. Scale 1:300

0 2 4 6 8 M

MAGASINSGATAN | SQUARE | CAFÈ | RENTABLE VENUES | AUDITORIUM | TECHNICAL

THE RENTABLE VENUES

HUBS AND COMMON SPACES

The hubs for rent vary in size, between 18 sqm - 36 sqm. These hubs are to be rented by smaller businesses who wish to branch out into the urban city core, or simply want to have centrally located venues. These businesses are to be working within the artisan or art and design sphere.

The studios are rented separately. The rent for the common spaces are divided between the tenants.

The hubs rentable area consist of the more framed venue (located in the addition), as well as the space on the street in connection to the respective hub.

The tenant rents both the street space and the venue, leading to an active street with multiple functions, enhanced occupancy rate, as well as a more adaptable lease position for the tenants.

OCCUPANCY RATE

- Total area (Artilleristallarna): 615 kvm
Occupancy rate/area: 433 sqm (including street spaces) - 70 %

- Total area (back spaces): 100 sqm
Occupancy rate/area: 97 sqm - 97 %

- Total area (Studios): 110 sqm
Occupancy rate/area: 110 sqm - 100 %

ESTIMATED PRICING

Estimated price range for commercial rent within Vallgraven in Gothenburg is 2.600 - 3.400 SEK . (Verksamhetslokaler, 2020), (Yta, 2017).

Rentable venue 18 sqm:
Price per year minimum 2.600 x 18 = 46.800:-
Rent/month: 3.900:-
Price per year maximum 3.400 x 18 = 61.200:-
Rent /month: 5.100:-

Rentable venue 36 sqm:
Price per year minimum 2.600 x 36 = 93.600:-
Rent /month: 7.800:-
Price per year maximum 3.400 x 36 = 122.400:-
Rent per month: 10.200:-

Studios/workshops: 36-38 sqm:
Price per year minimum 1.500 x 36 = 54.000:-
Rent /month: 4.500:-

Price per year maximum 1.500 x 38 = 57.000:-
Rent /month: 4.750:-.

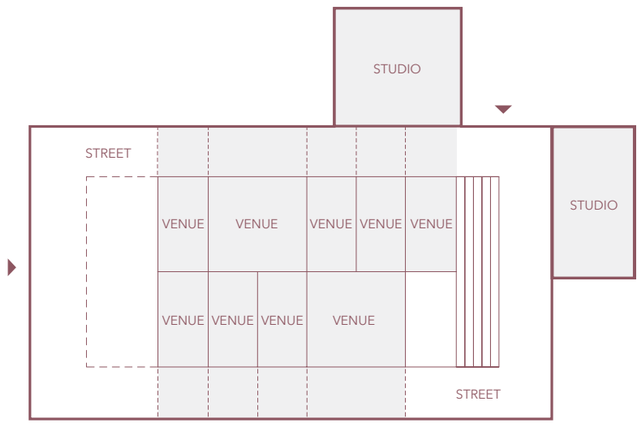


Figure 53. The diagram shows the logic behind the rentable venues.

Image 54. Perspective: the interior of a 18 sqm venue.

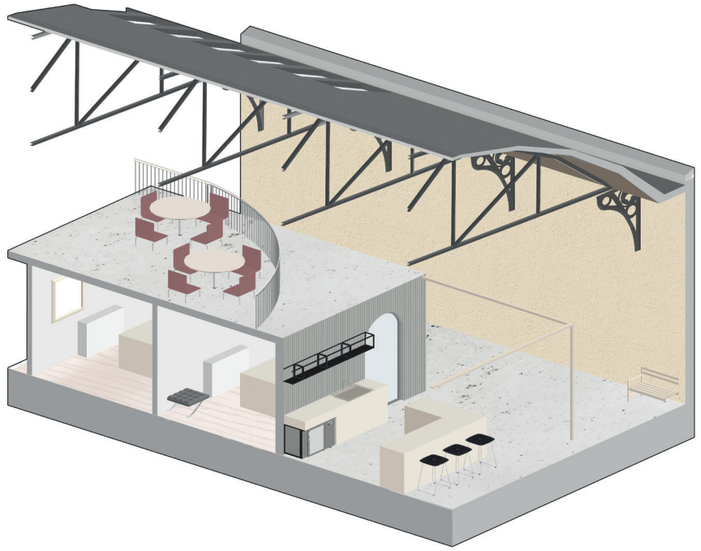


Figure 55. An axonometric diagram showing the café, bar, second floor and the venues.

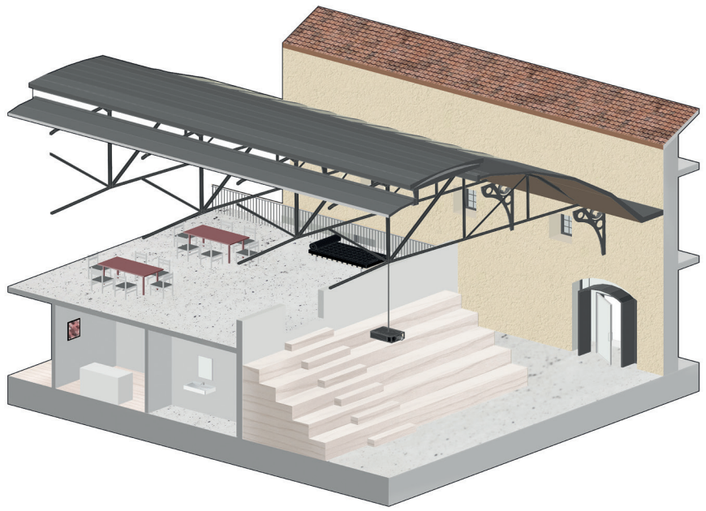
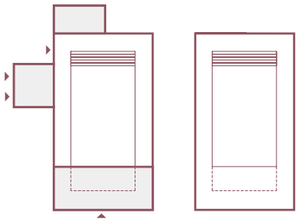


Figure 56. An axonometric diagram showing the Auditorium and the southern entrance.

A DAY IN ARTILLERISTALLARNA

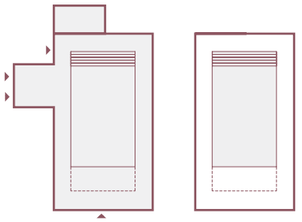
MORNING - 07:00
The working day starts and the studios are slowly occupied by the artisans.

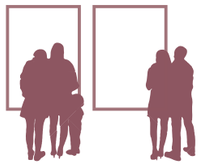
MORNING - 07:30
The café opens to serve customers breakfast. Early morning meetings take place.



DAY - 13:00
People are walking through the courtyard, browsing and exploring crafts and design. The cafe is running.

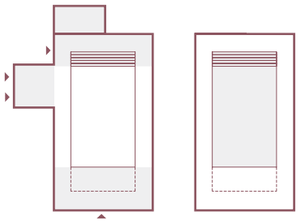
DAY - 15:30
A private lecture about re-use begins. A company specialised in carpets booked the space for team-building.



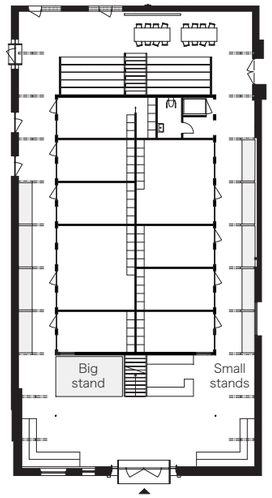


EVENING - 17:00
The rooftop exhibition opens. The catering firm is preparing the finger food in the back kitchen.

EVENING - 16:00
The café converts to a bar, where the after work is reached from the entrance on Magasinsgatan.

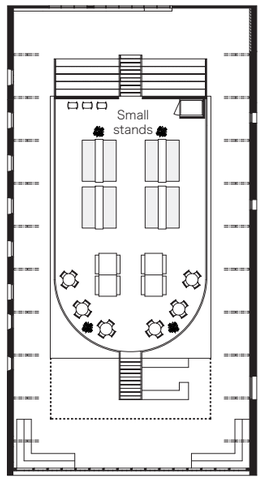


THE ADAPTABLE URBAN SPACE

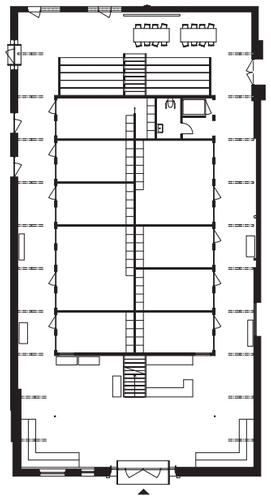


YEARLY FAIR

The spaces in Artilleristallarna are able to adapt to bigger events which require the whole venue to work in symbiosis. Here, a fair is taking place. The venue hubs rent out their street

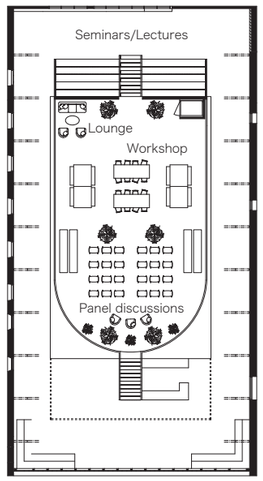


space to the exhibitors. The cafe provides food and beverages, and the auditorium plays its part in the lectures. In the garden, a lounge space is arranged with the staff tables, and the permanent exhibition is framing the space for the stands.



MONTHLY CONFERENCE

When a monthly conference is booked, the Garden is re-furnished to create a panel discussion space, a lunch/dinner seating area and a



a lounge.

The cafe, venues and studios are open as usual, and the auditorium can be used for seminars and lectures.

Image 57. Perspective: the Garden - the staff lunch and meeting area seen from the back of Artilleristallarna.

THE MATERIALS

Image 58. Reinforced concrete outer walls.

TACTILE CONCRETE

For the outer walls of the addition, solid reinforced concrete is chosen to mould a tactile and sculptural indoor facade. The walls are moulded on site, with a sheet metal mould to create a periodic pattern which gives depth and favours the visitors feeling the surface. The pattern of the facade connects to stone masonry as an applied art which has been practiced for many generations. The colour of the concrete is light, to highlight the surrounding characteristics of Artilleri-stallarna. The material gives the addition a substantial and mellow expression.

Image 59. Glazed ash wood. ('Materialguide: Trä, Ollson Gerthel, 2020)

LIGHT ASH WOOD

The wood is applied in the public zones to create a warm and inviting feeling for the visitors.

The seating area by the main entrance and the auditorium steps are constructed out of glulam beams and covered with a smooth white glazed ash wood.

Image 60. Stainless steel with a dark grey finish.

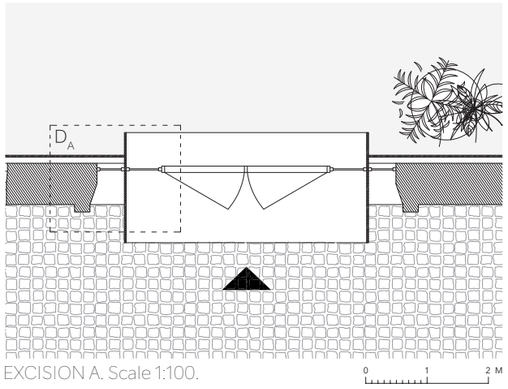
ANTHRACITE GREY STEEL

The metal elements which exists in the current facade are framing the entrance gate are grey.
Thus, for the new entrances from Magasinsgatan and Södra Larmgatan, the portal boxes will consist of a matte stainless steel with anthracite grey coating, to relate to the existing materials and to accentuate the entrance.

The dark grey colour reappears in the entrance staircase and the handrail and balusters on the second floor. The thin dark steel will relate to the dark iron roof details.

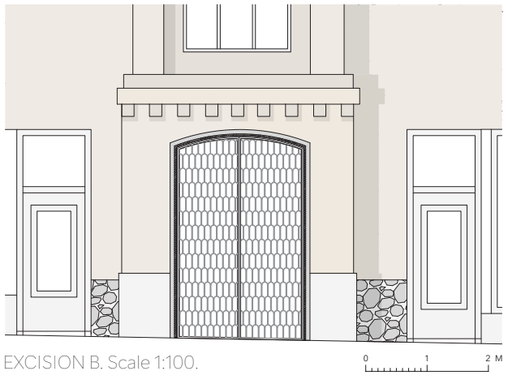
Image 61. Perspective: The auditorium and entrance towards Södra Larmgatan.

THE ENTRANCES



EXCISION A. Scale 1:100.

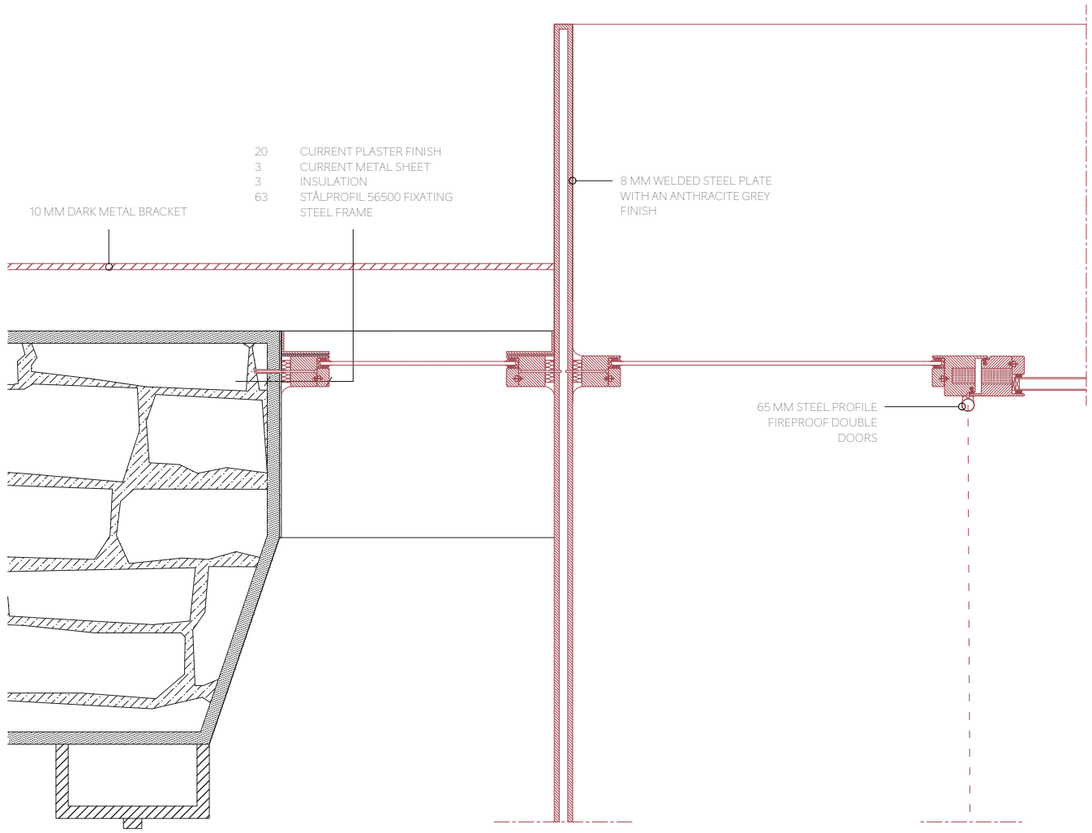
Above, the drawing shows the entrance towards Magasinsgatan. It it characterized by its dark grey, welded metal sheet portal. It offsets from the original opening to counterbalance the shape of the original gate. It is complemented with glazed double doors and windows. This approach is implemented for the southern entrance as well. When walking through the entrance portal, the angle of vision is narrowed down to increase the unveiling and experience of the great hall.



EXCISION B. Scale 1:100.

The elevation above shows the southern facade from Södra Larmgatan. This entrance has two layers, one gate and one entrance to Artilleristallarna. The gate (above) is open during the day, and closed during night. The gates consists of iron work and are created by a local blacksmith. The pattern relates the arched shape which occurs inside.

DETAIL: ENTRANCE

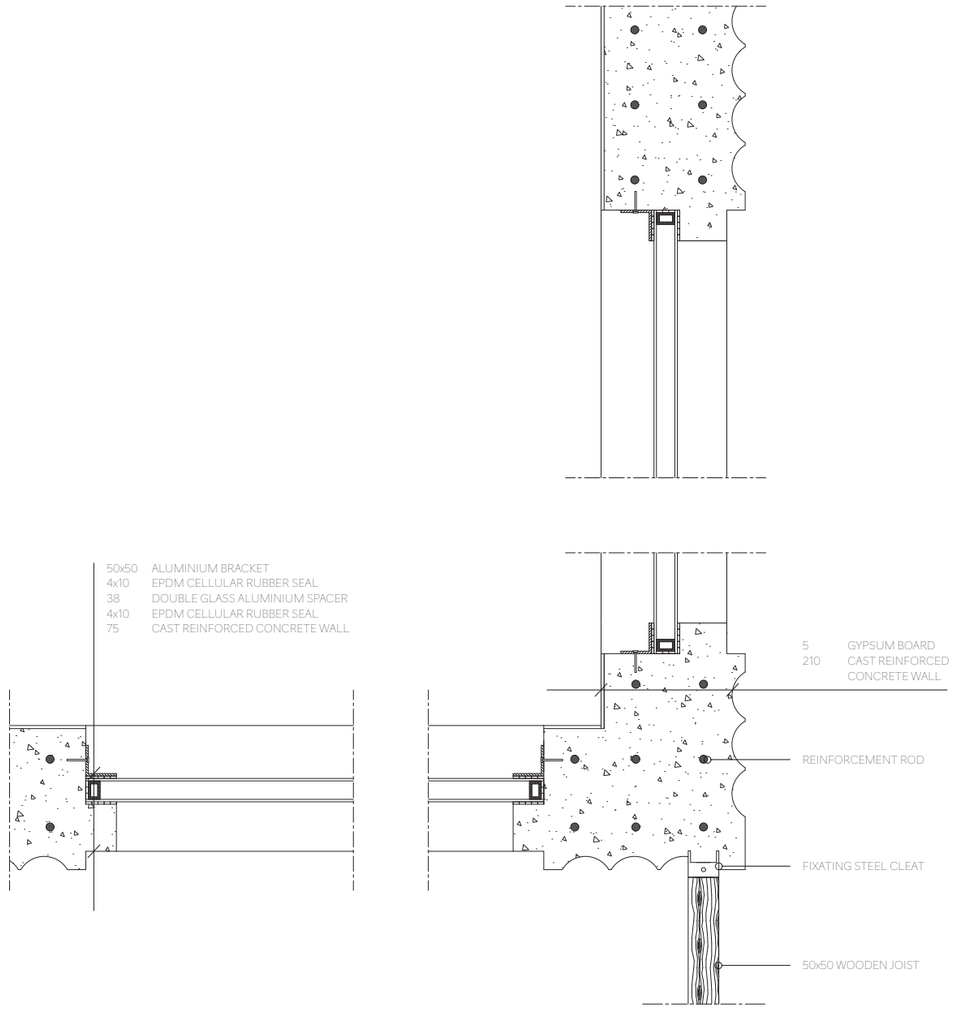


DETAIL A. Scale 1:10

CONSTRUCTION

The construction of the addition consists of site cast concrete walls and a hollow core slab which rests on the walls. The concrete walls are reinforced and moulded with a metal sheet mould, to result in the tactile texture of the walls.

The hollow core slab is placed on the load-bearing walls and installed in modules on the short side of the addition, where one module has a span of 12 meters. This results in the possibility of having regular 120 mm dividing walls between the venues, where the configuration of the interior walls can be easily changed into different constellations over time.



DETAIL B. Scale 1:10. 0 10 20 30 40 CM

THE ADDITION

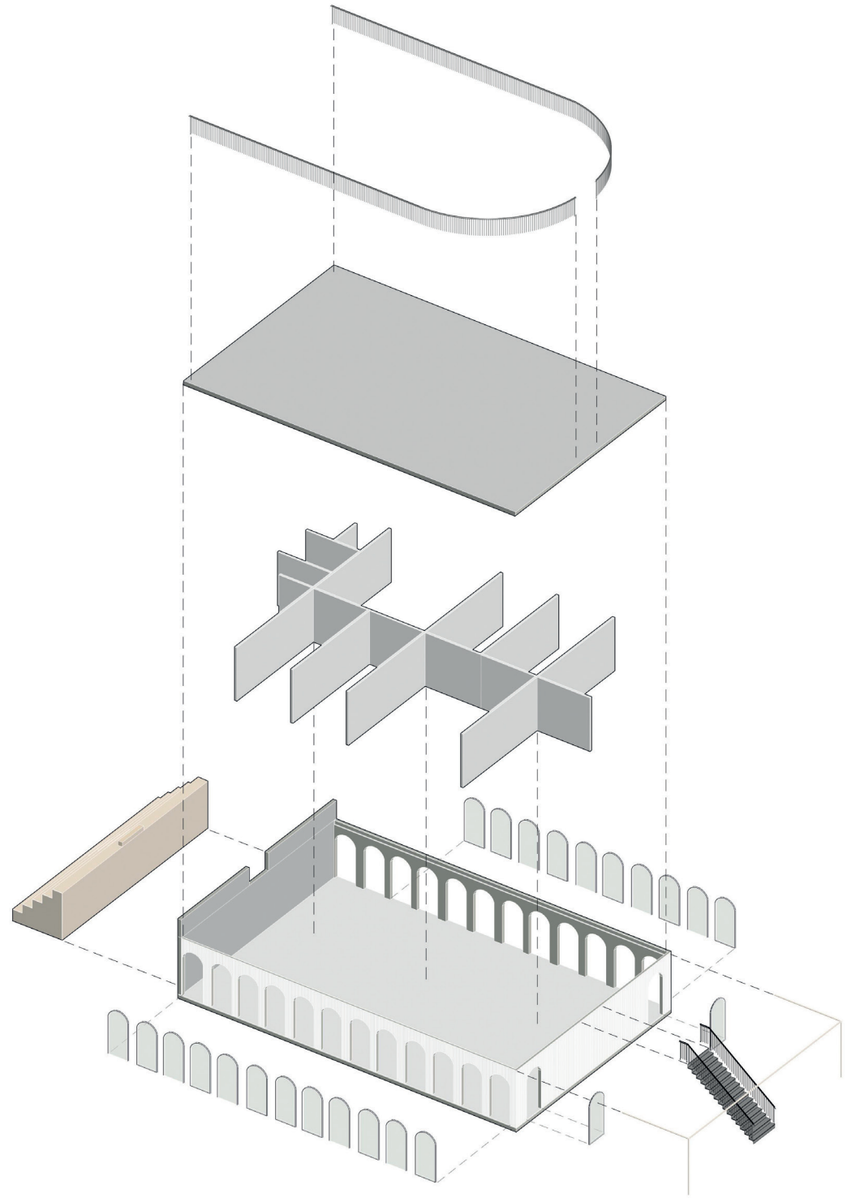
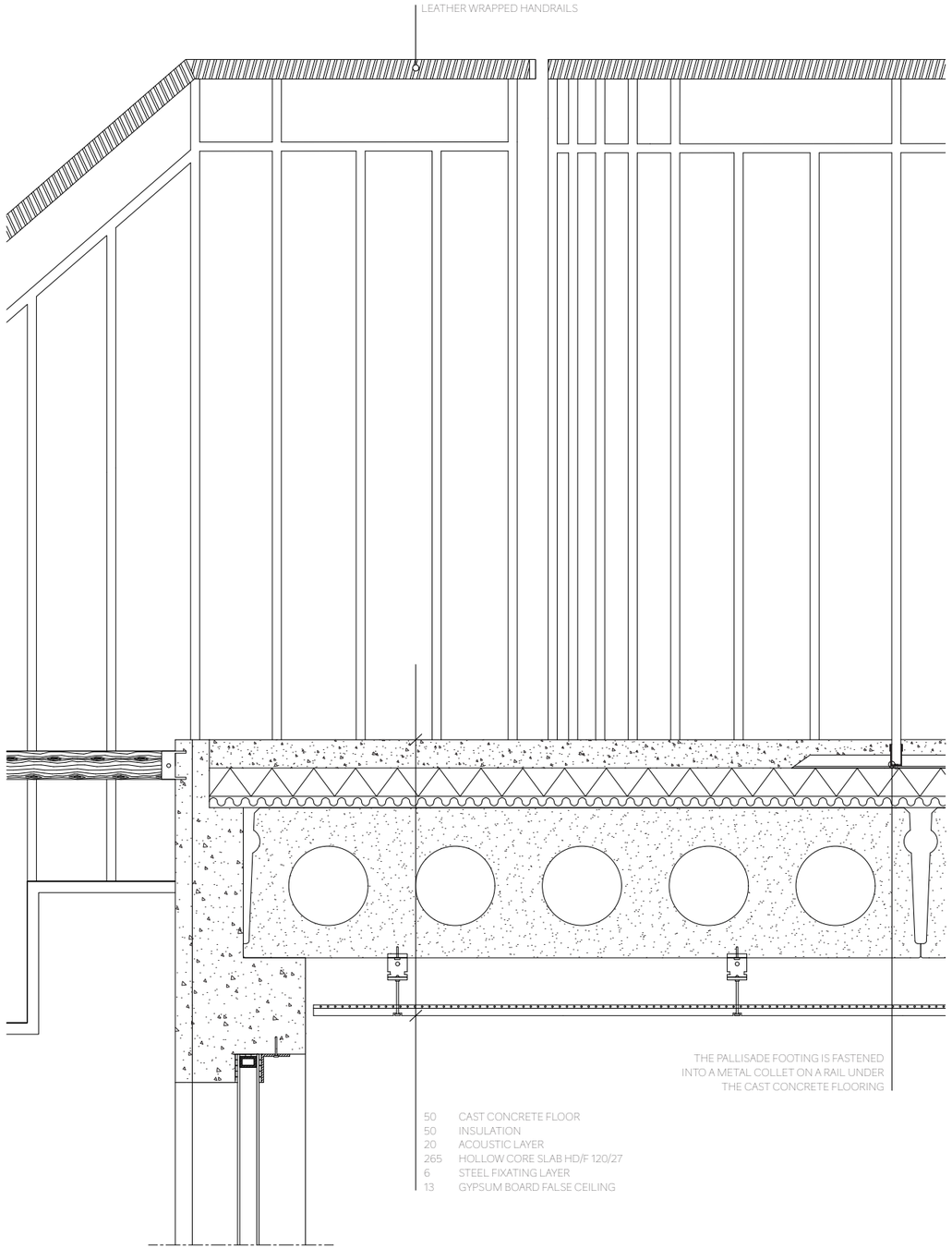


Figure 62. Axonometric diagram which shows the different parts of the addition.

DETAIL: ADDITION



DETAIL B. Scale 1:10.

HANDRAIL MODEL: LEATHER

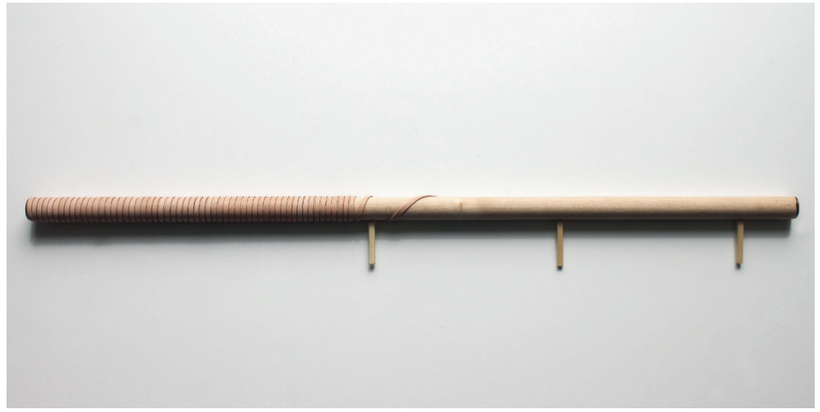


Image 63. Hand rail model, wood and tanned leather.

Image 64. Hand rail model, wood and tanned leather.

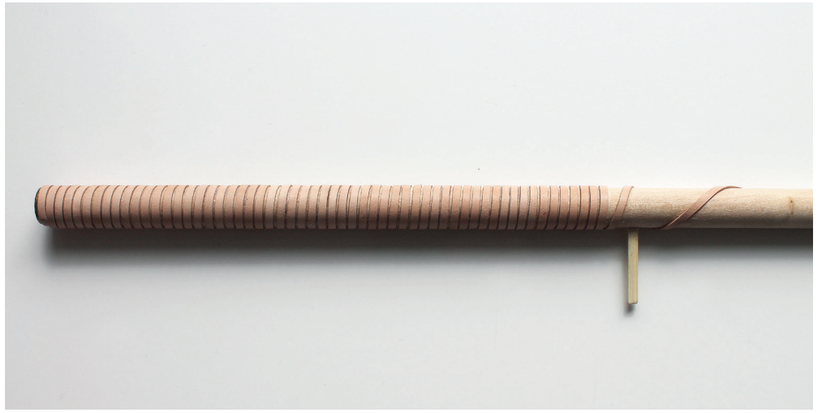


Image 65. Hand rail model, wood and tanned leather.

CHAPTER 6

PROCESS

EVOLUTION OF THE ADDITION

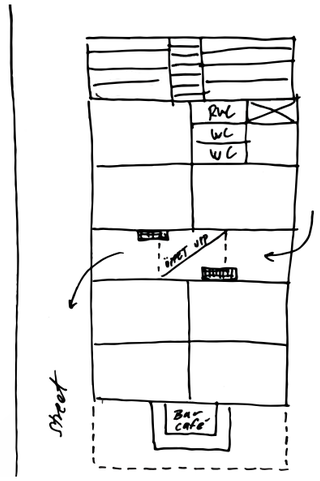


Figure 66. An early sketch from the beginning of the design process, showing the ground floor of the addition. It was parted in the middle to create an additional street with benches, however, it was not very space efficient.

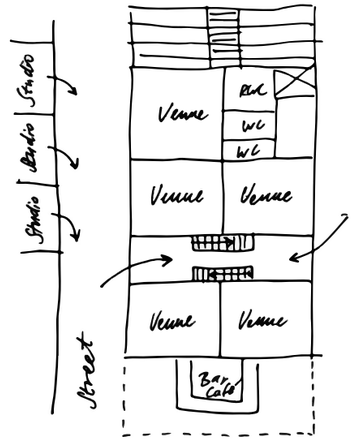


Figure 67. The early sketch shows the addition, still with a street in the middle with stairs to the second floor. This, since I realised an additional way of accessing the second floor is necessary. The idea with the studios started shaping here.

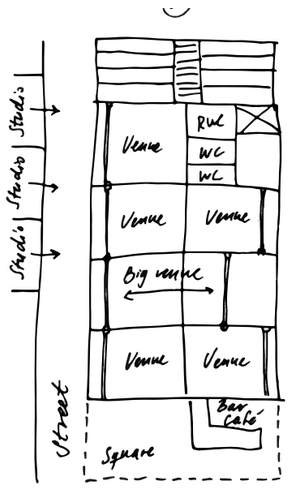


Figure 68. Here, another iteration of the addition is shown. The middle street is gone, and replaced with a bigger venue. Here, I had an idea about the facade being double layered for adaptability, however, it seemed too incoherent.

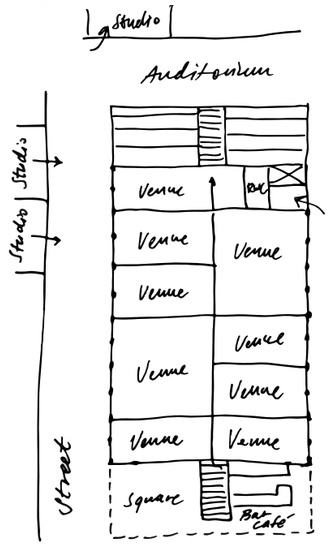


Figure 69. The sketch above is from the final stages of the design process, where the addition developed into the design it has today. Another staircase is added, and the back space is more efficiently used and holds one studio.

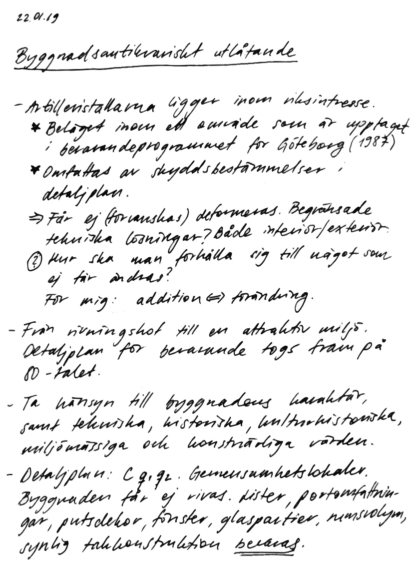


Figure 70. The notes above are describing the regulations. They are from the initial phase of this thesis, where an important question was how to deal with the transformation of Artilleristallarna, and relate to the existing regulations.

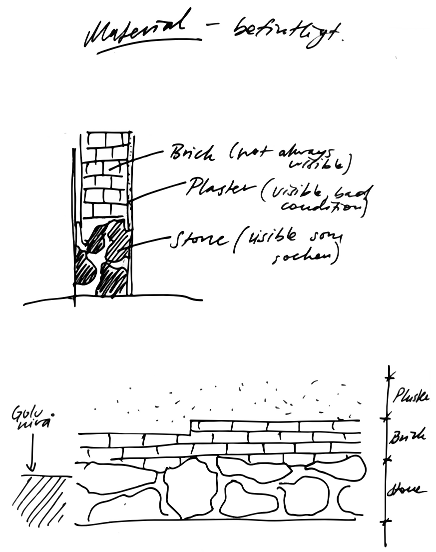


Figure 71. When visiting the site, the current materials and the meeting between them were sketched down as I was trying to understand the current context.

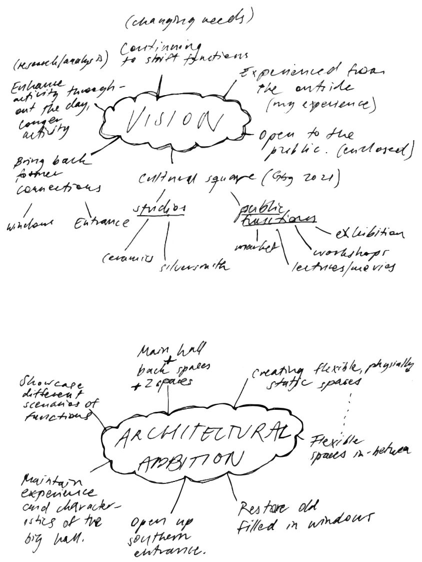


Figure 72. When initiating the iterative process, a vision and an architectural ambition was defined in order to create some guidelines. It derives from the site analysis and is based on the findings on site.

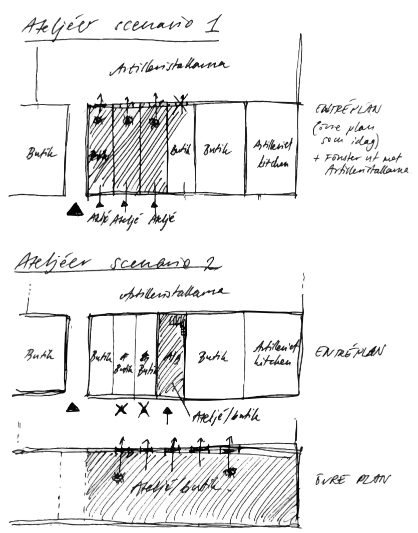


Figure 73. The sketch above shows two scenarios of where to place the studios. Either they could be placed into the small current empty venues or take up the spacious upper floor. Minimal impact on site was aspired.

Figure 74. A sketch showing the analysis of functions of a reference and implementation for this project.

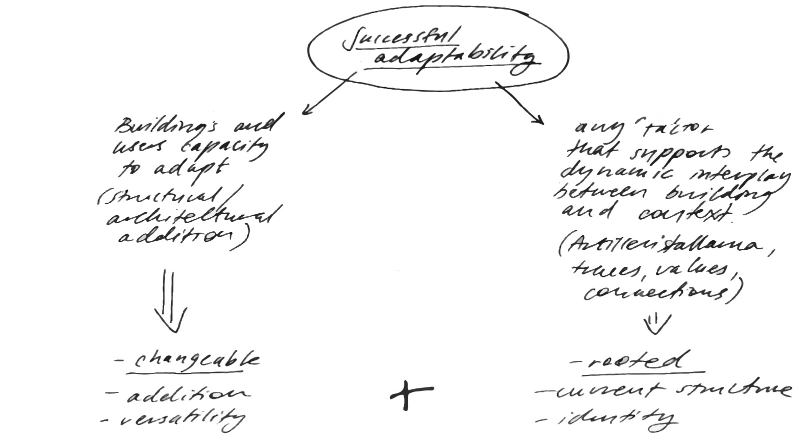


Figure 74. Discovering approaches to adaptability, and how it can be applied to Artilleristallarna.

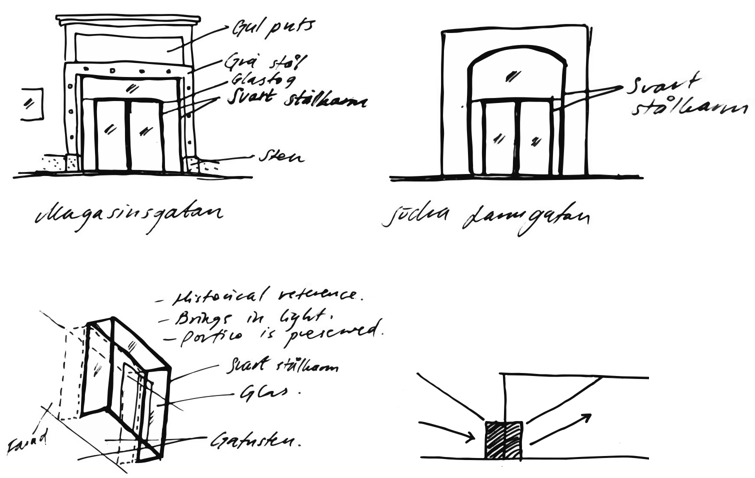


Figure 75. The sketch shows iterations for exploring different entrance situations.

VOLUME STUDIES

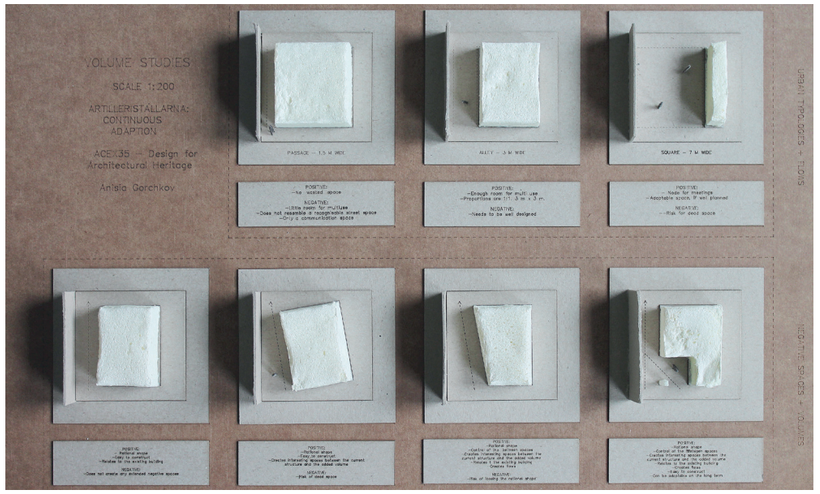


Image 76. Volume study of an added structure. Seen from above, exploring different urban typologies.

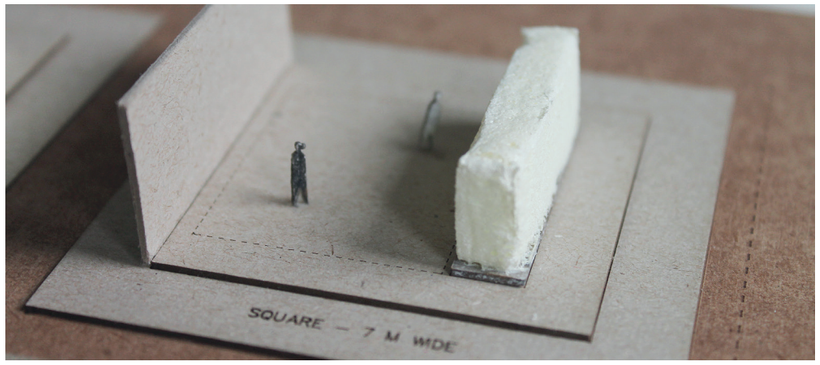


Image 77. Volume study of negative spaces which an added structure creates in relation to the current.

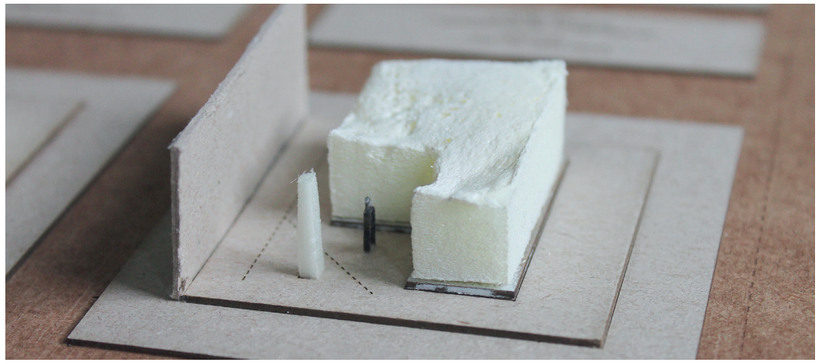


Image 78. Volume study of negative spaces and the flows it can create in relation to the current.

PROPORTION STUDIES

Image 79. Gypsum model of the added structure, to understand the height and length proportions.

Image 80. Gypsum model of the added structure. Seen from side, towards Kaserntorget.

Image 81. Gypsum model of the added structure and ghosted frame. Seen from the side.

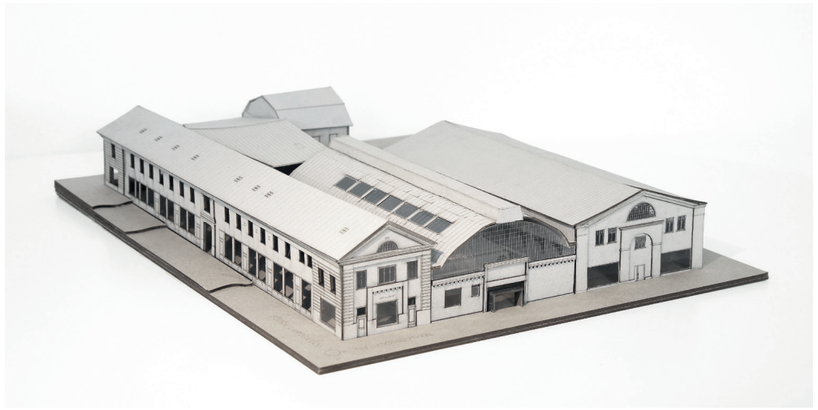


Image 82. Cardboard model, scale 1:150. Seen from the side.

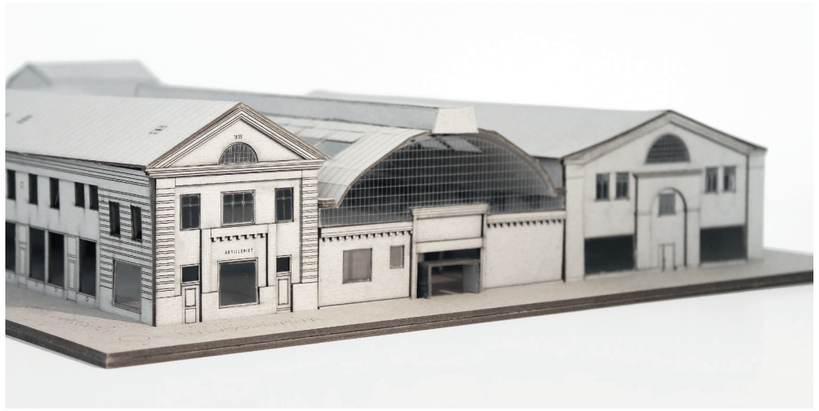


Image 83. Cardboard model, scale 1:150. Seen from Magasinsgatan.

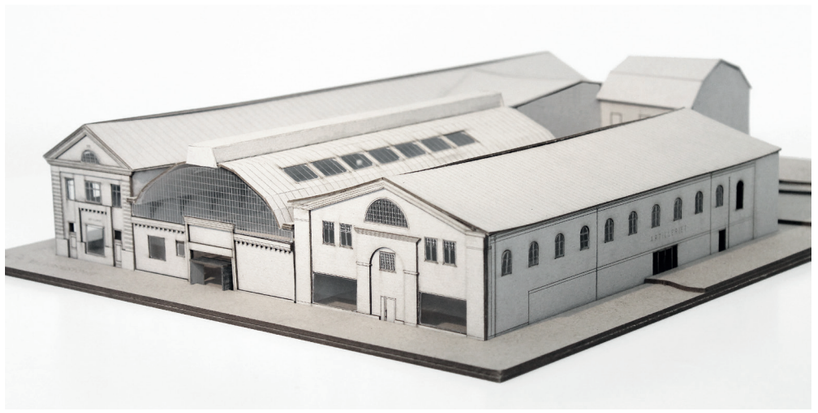


Image 84. Cardboard model, scale 1:150. Seen from Magasinsgatan.

Image 85. Cardboard model, scale 1:150. Interior perspective - the street.

Image 86. Cardboard model, scale 1:150. Interior perspective - café, bar and seating area.

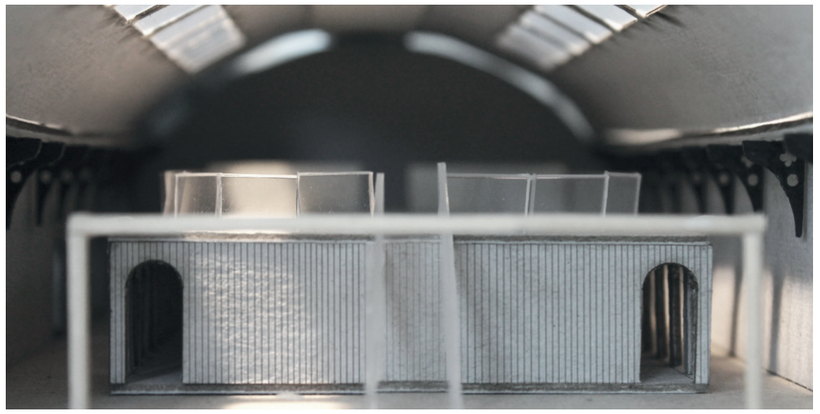


Image 87. Cardboard model, scale 1:150. Interior perspective - square, café and bar.

CHAPTER 7

POSTLUDE

CONCLUSION

SUMMARY

The property market is currently facing problems connected to the rigidity of buildings, which are only built to last a short while.
The urban core of Gothenburg has several current buildings which are not used to their full potential, or not being used at all. At the same time, the City of Gothenburg is planning an extensive densification in the nearest future, and demands for a broader cultural and public spectrum will grow.

By proposing Artilleristallarna to transform into a public cultural venue, the space is not only activated - it makes Artilleristallarna accessible and including to people of Gothenburg as well as tourists. Everyone can enter to experience the historical layers of the current building, connect with artisans, learn about crafts and see the cultural side of Gothenburg.

The final proposition consists of a physical addition within Artilleristallarna. The addition activates the space to become a public urban hub, where artisans and smaller local companies rent venues of different sizes to curate their crafts and interact with the public.
The space also includes a bar/café, a square with seating, an auditorium and a an adaptable lookout spot called The Garden. The addition enables Artilleristallarna to function over an extended period of the day, as well as adapt to several scenarios by operating a selection of functions or all areas at once.

The addition is addressing the idea of Artilleristallarna as a space in between - which it once was - by adding an urban hybrid environment to the spatial context.
Originally an outdoor space covered with a roof, the current structure once existed only as a negative space between the two stables. The proposal promotes an idea of creating an interior outdoor space by integrating urban typologies of a square, streets and rooftop garden into the programme. This results in an advantageous meeting spot for visitors in a weather proof environment.

The building as a whole complements its context by including new functions to the current block. Some functions, like the auditorium and the bar/café, which are a part of Artilleristallarna and can still operate in symbiosis with the offices, cafés and venues in the area.

This creates an opportunity for the businesses on site to collaborate and create both substantial and meaningful interconnections.

STRATEGIES

In this thesis, the research found strategies were meant to be implemented into the design proposal. Below follows a description which explains how they were applied in the proposal.

1. Space. In the proposal the possibility of dividing spaces exists, as well as the streets which have overlapping functions. This has resulted in an urban setting which takes maximum advantage of the building area.

2. Symbiosis. The functions can operate together and separately in different scenarios, which enhances the aspect of adaptability over time and accommodate to different or changing needs.

3. Construction. The structural design of Artilleristallarna inspired the construction design of the addition - the outer reinforced concrete walls hold the hollow core beams. This enables the venues to be divided by regular interior walls (120 mm), where the definition of the rooms can be changed easily over the course of time.

4. Separate systems. To enhance and preserve the qualities of Artilleristallarna and keep systems separate, the technical spaces are placed in the back rooms, and ventilation is placed operating from the floor and out to the venues and the big hall. This enables easy access to the technical systems.

CONCLUSION

ARE THE STRATEGIES APPLICABLE?

The found strategies may be used in other, similar contexts. When creating the design proposal for this thesis the general adaptability strategies were used with a specific project concept, which was based entirely on the site analysis and adjusted to Artilleristallarna. Since every structure (as an object for transformation) is unique in its context, one can conclude that the found general strategies could be used with an additional analysis of the specific context and needs.

The main and original question of this thesis was "How can the qualities and historical evolution of Artilleristallarna be consolidated with an architectural addition from within - to enhance adaptability over time?".

The research based strategies and the concept extracted from the building specific research was joined in a design proposal for an adaptable urban space. The historical evolution of Artilleristallarna is therefore reflected and prolonged, to serve different needs and stay relevant in the future.

With this thesis I hope to contribute with ideas and encouragement regarding the great transformational potential of current architectural structures and how much they can enrich the cities with cultural and historical values.

I also hope my thesis will add thoughts to the discussion within the field of adaptability, regarding how architecture can develop over time and how important it is in our time of short lived buildings and urban densification.

In this thesis, Artilleristallarna woke up from its 60 years long snooze to transform from being hidden to the public and occupied by vehicles to finally unveil its immense historical value, to be used, adapted and experienced by people.

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Figure 37. Based on Brand, S. 'The shearing layers of change'.

Figure 39. Based on Slaughter, E.

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