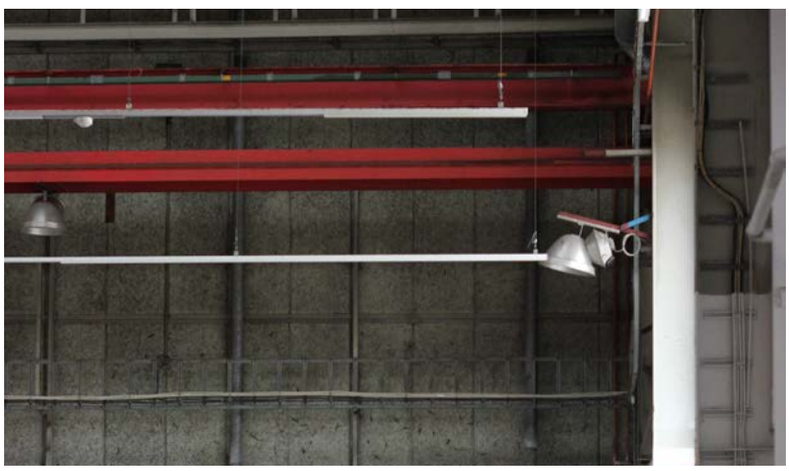
CHALMERS SCHOOL OF ARCHITECTURE
DEPARTMENT OF ARCHITECTURE AND CIVIL ENGINEERING

WAREHOUSE IN TRANSITION



COMBINING IMMERSIVE NATURE EXPERIENCES WITH REUSED MATERIALS FROM SITE TO REVITALIZE AN INDUSTRIAL WAREHOUSE IN LINDHOLMEN

MASTER'S THESIS

JULIA DRAZIC

DIRECTION: MATTER SPACE STRUCTURE
YEAR: 2023

SUPERVISOR: SARA OLSSON
EXAMINER: DANIEL NORELL

Warehouse in Transition

Combining immersive nature experiences with reused materials from site to revitalize an industrial warehouse in Lindholmen.

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To Mama & Tata, I hope you would be proud.

I would like to take the opportunity to thank all the people who have helped me throughout this process:

Daniel for spot-on references, knowledge and architectural guidance.

Naima & Peter for all the artistic support, inspiring references and creative insights throughout the MSS courses.

Sara for helpful tutoring sessions.

My dear studio buddies, for endless laughs, much needed coffee breaks and advice.

Family and friends for always being close by with love, wisdom and support.

Lastly, to Luka. For being by my side through all the adventures life gives us. Volim te.

“Come forth into the light of things, let Nature be your teacher.”

- William Wordsworth*

*Extract from the poem *The Tables Turned* in *Lyrical Ballads*, published 1798.

ABSTRACT

Have you ever entered a space that takes your breath away? Your senses, fully occupied, trying to categorize objects as you experience them - shapes, textures, light, and shadow. The immersive experience, in the shape of architecture, enables the feeling of something more than the physical. Time is still.

I believe we all possess memories of these types of experiences. For me, it happened while taking a walk in my neighbourhood, stumbling upon an abandoned warehouse. The scale, skylight, and industrial traces left me intrigued.

Since 1974, this large warehouse can be found in Lindholmen, part of the Götaverken shipyard facilities in Gothenburg. The building is today temporarily used for ground-level parking, with an occupancy of barely 30%. Its inefficient current program is due to the toxic industrial traces of Tributyltin found on-site, making the sanitation cost a legal feud.

Simultaneously, the Karla Tower is being constructed close by, with an astonishing price tag of 4.5 billion SEK. The current urban expansion is aggressively reshaping Lindholmen, ignoring vital qualities for local communities and biodiversity systems to thrive. Resulting in longer distances to recreation areas.

How does one homage to the history of the site, yet still revitalize it to attend to current needs? Where does the line cross between neglecting history or being too preserving?

Through a speculative transformational approach, this master's thesis investigates how the industrial warehouse can be revitalized. Firstly, departing from the local and historical context. Secondly, continuing with theoretic research, exploring spacious nature qualities and extensive photographic mapping techniques, which together position the core of the thesis. Thirdly, with an emphasis on circularity, reusing the existing material stock of the warehouse. A majority of the construction material for the new program will be provided by de-constructing parts of the warehouse. Simultaneously, extracted silhouettes emerge on the facades, creating newly framed views to explore. Internally, the design proposal is a recreational public space, consisting of a directed path and 6 destination stops. Together, they revitalize the warehouse into a physical space of transitions, enabling further immersive experiences to blossom.

Keywords: immersive experience, industrial heritage, reuse, nature, transition, götaverken, photography

PREFACE

A photo from my first encounter with the warehouse, May 2020. The soft, warm skylight and the large scale of the industrial ruin was captivating.

It all started with a walk in my local neighbourhood. It was a sunny evening in May 2020. I was studying from home and needed a break. We opted for a walk, wandering around by the old industrial buildings in Lindholmen. Green spaces are scarce here but the fascinating industrial structures still caught our attention.

We walked around a big anonymous facade. The structure was gigantic and covered in a bleached, burgundy tone. It was like a big sleeping ruin, existing but quietly, without attention. We entered the building which was empty inside. A large hall emerged, with steel details hanging from the sides, stretching from north to south. We looked up and saw warm skylight entering the translucent windows, spreading golden light softly to the space, joking that this building would be perfect to host techno parties in.

Even though it was a couple of years ago, the experience of the first visit has lingered in my memory. The architectural experience, the juxtaposition between the boring, incognito, repetitive facade, and the exciting interior space was like discovering an Easter egg full of treasures.

The building has poetic qualities, not the least industrial details that give it a certain ambiance. It feels like a ruin. Something to treasure. Time is moving, yet inside, it is still. It creates a tranquil state within you that almost resembles visiting religious buildings such as a big cathedral. Drawing analogies from St Peter's Basilica in the Vatican; you feel small, you walk slower. You leave yourself and start wandering and exploring your surroundings instead. Step by step, you become immersed.

My interest in architecture started through photography. Since childhood, I have loved photography and could often daydream, visualizing inspiring architectural elements such as a facade, loggia, or door as locations for photoshoots. I frequently asked my friends and sisters to pose as models for my creative photo ideas. The combination of photographing people in different architectural environments was something I found very inspiring and a way for me to express my creativity. I eventually figured out that it was the architecture part that was the core of my fascination. After years of sketching, drawing, typing, and researching in Chalmers, the time has come to put all the knowledge to fruition and embark on the journey of this master's thesis. Welcome.

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REFLECTION

ABOUT THE AUTHOR

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ARCHITECT & PHOTOGRAPHER

EDUCATION

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ARK132 Matter Space Structure 2
ARK258 Matter Space Structure 3

COURSES

ARK650 Sustainable development and the design professions
ARK630 Managing design projects
ARK605 History, theory and method 4: Colour and Light

OTHER COURSES

University of Gothenburg
HRF010 Beginners Course in Law | 2016
FOG163 Digital Photography - Introduction | 2022

Umeå University
1FR018 French, Beginners Course | 2016
1FR001 French, Qualifying Course | 2017

WORK

LIMUNAL | 2018 -

Freelance architecture consultant. Clients include Swedish fashion brand BITE Studios, designing their office space and adjacent showroom. In addition, a showroom for Vanbruun was designed in close collaboration with the company's CEO Victor Halvarsson. The new expansion in Oslo, Norway included floor plan design, product displays and efficiency strategies, enabling a smoother experience for both customers and staff.

LE STUDIO DE COULEUR | 2016 -

Founder of art brand, emphasis on abstract paintings and signature t-shirts. Hosted an art exhibition at Frilagret, Gothenburg in 2017.

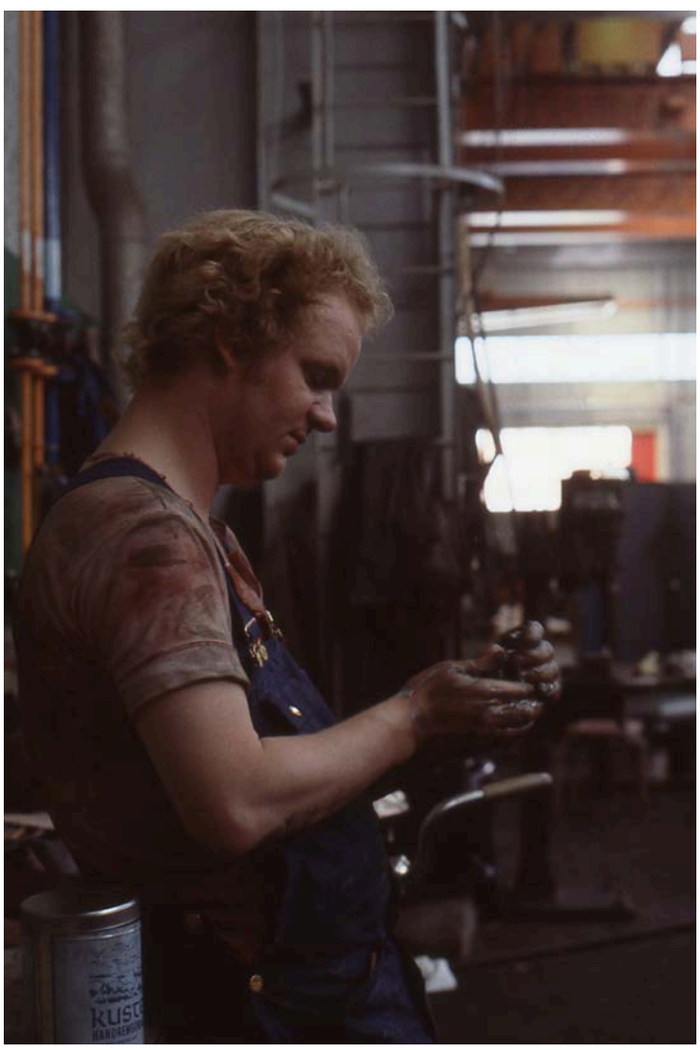
LUNCHBYME UF | 2014 - 2015

Started the UF-company Lunchbyme with fellow classmates during the final year of high school, launching a re-washable lunch bag which was manufactured locally. The efforts of the team resulted in winning the prestigious award "best company of the year" in Gothenburg and 9th place in the national Swedish championship.

PHOTOGRAPHER | 2013 -

Clients: BITE Studios, Pelote, Vanbruun.com, Vogue Italia, Whip Appeal of Sweden, Elle Croatia, Journal.hr, Mockberg, Klädoteket, Textile University of Borås.

BACKGROUND & CONTEXT



Sven, a mechanic working in the building, 1978. © Varvshistoriska Föreningen.

In the north-central part of Gothenburg one finds Lindholmen, a small area with a rich harbour and shipyard history. During the 1960s Götaverken Shipyard was even partly world-leading in terms of shipbuilding with the other shipyards in close vicinity (Lindholmen, Eriksberg, Arendal), along the quay. In 1975 a reparation warehouse was built with smaller office space adjacent. However, due to various circumstances, the shipyard industry in Gothenburg slowly closed down throughout the years. As the shipyards shrunk in activity, so did these buildings lose their intended purpose. Since 2015, the warehouse has not been used as intended, instead functioning temporarily as a parking garage during the last few years. The building is only accessible during weekdays. Tech offices, educational centres and housing have appeared as programs for the plots on site.

A problem emerges in how to navigate these - now more or less - hollow buildings in large scales of Götaverken. There are a lot of theoretical references and discussions about the preservation of historical industrial heritage, but not for more recent, anonymous buildings such as this one. This leads to a broader freedom of transformation.

The surrounding area is large in scale, windy and the dock facing the building is closed with fences towards the quay and river. Something that is missing today in Lindholmen is green spaces for recreation. As the built area continues to grow, a strategy could be to reuse the space partly for greenery rather than maximizing square meters. Since the warehouse is not insulated but open, it would be costly to transform it into a fully insulated building with liveable indoor climate, since it was never intended to be so.

TOXIC TRACES

Lindholmen still today has a strong industrial identity due to the Götaverken shipyard buildings and cranes by the Göta River. One reason for this is not that the area is being preserved. Instead, the cost of sanitation is what is stopping the development of the shipyard along the river. During the years of shipyard industry, a large amount of TBT (Tributyltin) was released. Due to its algae-repellent properties, TBT was used in paint to protect the ships against faster deterioration. Since the shipyard both manufactured and repaired vessels, a large amount of the toxic paint was used throughout the years.

Today, an enormous amount of the sediment on the bottom of the Göta river is polluted and toxic due to TBT, which was leaked from the Götaverken shipyard industry. The compound is extremely poisonous for ocean-bound organisms and even humans, with respiratory difficulties and disruptions to the body's immune and hormone systems being reported.

THE MUNICIPALITY

According to an announcement report published by Älvstaden Utveckling (2018), there seems to be a legal issue regarding who is to be held accountable for funding the sanitation of the toxic sediment on the bottom of the river along the former Götaverken shipyard area. Since the Götaverken shipyard company bankrupt in 2015, the actual company doesn't exist today. The organization states that the cost is only getting higher by each year, with the risk of the toxins spreading due to ships and motors making the sediment spread further when passing the contaminated dock and river area. The cost is estimated to be around 200 million to 1 billion SEK. This could be put into perspective since the estimated cost for the construction of the single Karla Tower is 4.5 billion SEK according to local Göteborgs-Posten journalist Kennedy (2017).

Lindholmen as a whole has been of utmost interest to the Gothenburg Municipality, founding Älvstranden Utveckling in the 1980s for the development of the site. Transitioning from industrial, closed properties to public functions, "Vision Älvstaden" is the collected ambition of combining municipal means and market industries to collaborate on developing the area into an attractive site, from being known for its poor living conditions and heavy, polluted industries, to penthouse apartments and restaurants.

Älvstranden Utveckling is a municipally owned property company and organization, part of Gothenburg City (Göteborgs Stad). Their core business, in their own words, is *"sustainable land- and property development with an emphasis on implementing the Vision Älvstaden on the areas they are developing, together with the Gothenburg City and collaborating with the business industry, towards a sustainable city, open for everyone."* They have since the 1990s developed large parts of the quay along the Göta River, transforming former shipyard industry areas to new businesses, housing, and meeting points. Owning a large amount of the attractive sites along the city river quays, on both sides of the river, furthermore, actual properties on site that they develop and manage.

The area of the former Götaverken shipyard, where the warehouse is, could today be described as a *Brownfield* land area since it is not in use or even allowed to be used properly. The term includes former industrial sites and buildings that

have been left and ignored due to the high pollution or other negative aspects, making it easier to simply leave them as they are, slowly deteriorating, since the cost of sanitation is higher than the market value revenues would be. The area is thus in urgent need of care. Instead of a dense urban expansion, there should be actions for helping it transition to a more liveable environment for people, animals, and living organisms on land and in water.

One could thus question the actual ambitions of Älvstranden Utveckling, since the area is heavily gentrified, with market values increasing exponentially. The show-off project with the Karla Tower is heavily debated in Gothenburg. It seems problematic when an interesting location near the city centre, with such potential and important industrial heritage, is being erased for glitzy skyscrapers, expensive apartments, and inaccessible tech hubs. Since the vision from Älvstranden Utveckling is to create a "lively city open for everyone", there have to be activities and functions that attract people from all of the social groups of society and throughout the day, not only the upper classes or during workdays. The area as a whole is very empty and sleepy during the weekdays, when the office workers and students are not present, making it feel unsafe, specifically close to the quay where very few public activities are taking place, which could have attracted visitors to the area.

It seems that the interest of the business sector is being prioritized before the needs and wishes of the actual citizens of Gothenburg. For people to want to visit Lindholmen, there needs to be attractive activities from various social groups and places in the city and accessible public transportation. Constructing a single skyscraper is not a strong enough reason.

FROM INDUSTRY TO LEISURE

Other industrial cities such as Malmö (Västra Hamnen), and Copenhagen (Refshaleøen) have transformed in different ways - the former completely developed while the latter still has signs of its roughness. I would like to position the building and site somewhere in between these references. One way of doing this with the building is to keep the exterior while changing the content of the interior with additions. Wong (2017) discusses various ways adaptive reuse can occur, depending on the category of the building. The warehouse can be seen as a shell host structure, where one is keeping the structure yet transitioning the building as a whole into new usage and time.

The High Line in New York's Meatpacking District is also a relevant reference project. The railway that previously transported meat is changed into a green oasis filled with plants, bees, and accessible walkways. It has become a favourite among New Yorkers, not the least tourists eager to visit and photograph the urban park.

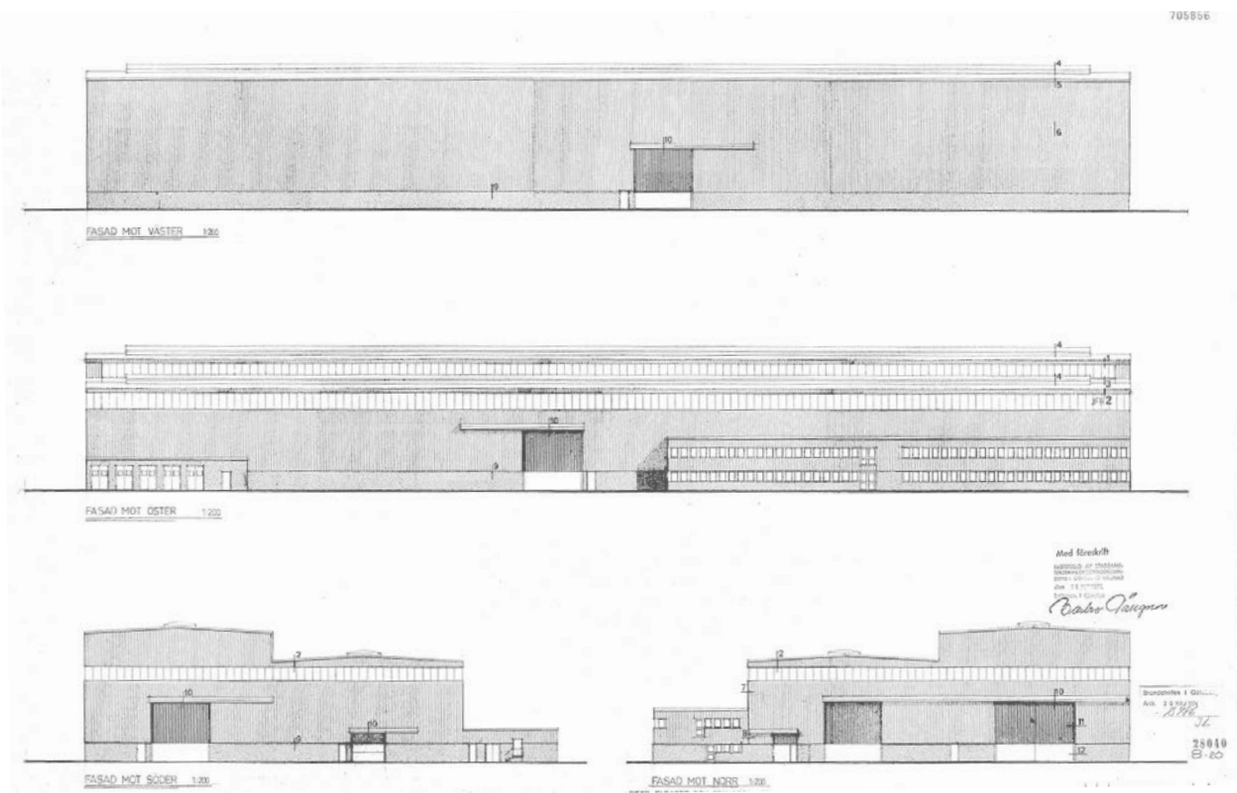
There is a need for something tailored specifically for the site of the warehouse. A place welcoming different visitors, hosting a variety of activities, free of charge. Where one can visit whatever time one would like, welcome older people, playing children, couples on a date, or friends on their lunch break. Public functions such as libraries, parks, and cultural centres attract people and are vital programs for a thriving community. I believe this is needed for Lindholmen to not lose its connection to the human perspective altogether.

DECONSTRUCT TO RECONSTRUCT

It would be easy to simply call the demolition workers to do their job and replace the current building with a contemporary one with modern green-washing standards and CO2-compensated construction techniques. However, all the history of this site would be erased. The old, retired workers and their memories of sweaty shifts would no longer have their physical place.

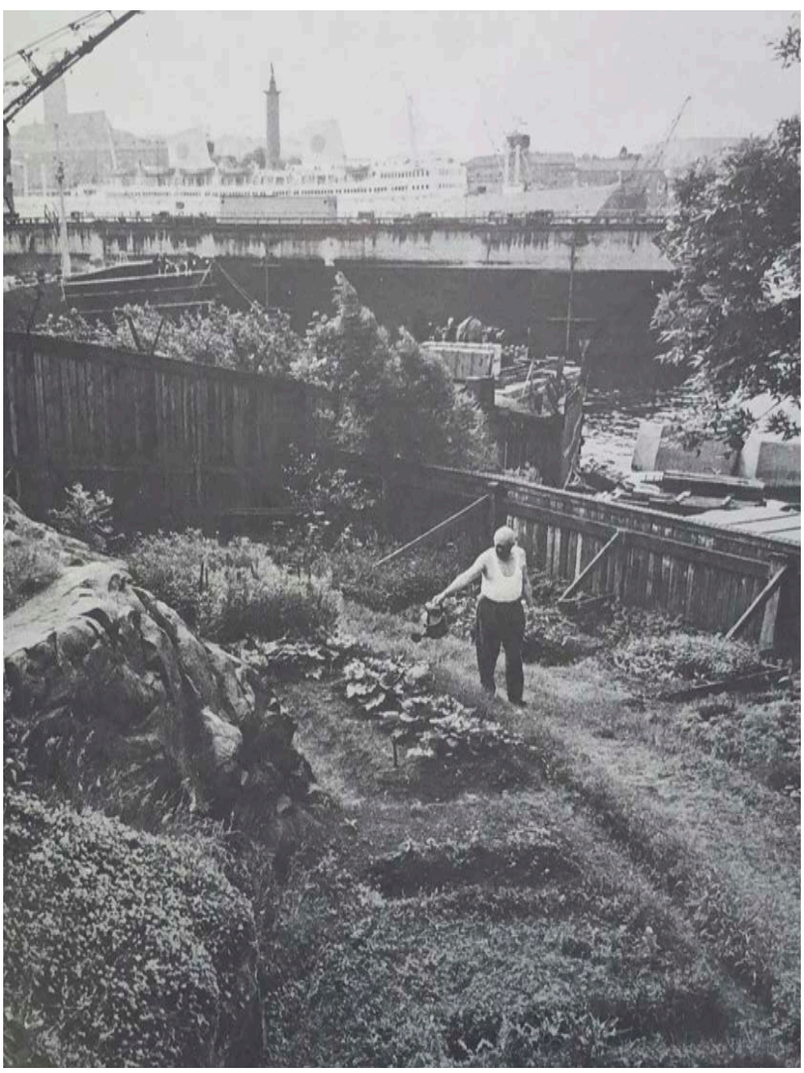
The cost of this would be enormous. To choose to demolish functioning structures and build new ones solely due to its profitable, lucrative business model, directed by powerful property investors. Other voices need to be put into consideration as well. According to a recent piece in Sydsvenskan (2023) written by a group of architects advocating for a more sustainable approach, where data from Boverket states how the building sector is responsible for 21 percent of the total greenhouse gas emissions, 34 percent of the energy usage and 40 percent of waste management in Sweden as a whole. As part of one of the most polluting industries in Sweden, consequently making the role of the architect quite vital, to push towards a more efficient, resourceful, and empathetic built environment. Where creativity, maintenance, and craftsmanship are a priority, no matter the budget of a project.

Today, the warehouse halls only welcome visitors in need of a parking spot for their cars. However, only less than a third of the parking spaces were utilized during my multiple visits. The space of the warehouse is only used on the ground level, thus making it extremely inefficient, with less than 7% of the total areal square meter of the warehouse utilized. The building is thus a shelter for sleeping cars. In one of the most central exciting locations of the city, failing to be something for the local context and neighbourhood to enjoy.



Original facade drawings of the Reparation Warehouse in Lindholmen, ca 1974. © Stadsbyggnadskontoret, Göteborg.

HISTORY



Local citizen watering his crops in Slottsberget, Lindholmen. Image from (1973). Lindholmen - En stadsdel i Göteborg . © Chalmers Tekniska Högskola, Sektionen för Arkitektur, Göteborg.

Lindholmen has been mentioned in historical books, stretching back to the 13th century. According to a research report by a group from *The Architecture Section of Chalmers University of Technology (1973),* there are traces back to The Middle Ages, with a castle on Slottsberget around the 1200s. The actual name of Lindholmen is translated to *linden islet*, referring to its previous state.

Between 1500-1840 the islet and surrounding area were mostly used for agriculture. Lindholmen was of importance for Gothenburg to accommodate the citizens with vegetables and other crops. According to Berggren (2012), Lindholmen was previously an island surrounded by the Göta River. During the 17th century, Dutch farmers leased the land for agricultural purposes. Slowly transforming from farming land to harbours and workers' homes, Lindholmen eventually became a part of the island of Hisingen, with the wetland area decreasing around 1850.

As the shipyard on Lindholmen expanded its business area, so did the number of workers increase, creating an urge for adjacent accommodation. The agricultural land was sold and enabled room for further expansion of the shipyard industry and adjacent residential area for the workers.

The area changed drastically between 1840-1973 during the Industrialisation era, a journey which started in Gothenburg by the year 1840 according to *The Architecture Section of Chalmers University of Technology* (1973). This resulted in the development of the dredging of the Göta River where large shipyard activities were taking place, transforming the wetlands and river into land.

According to Eriksson (1994), Alexander Keiller bought parts of the Lundby wetlands in 1855 to accommodate the expansion of his company, consisting of various machines and tools being manufactured, later including shipyards with reparation facilities. Due to the plot mostly consisting of marshland, the reed area needed to be dried out using fill from the city. This lay the foundation for *Göteborgs Mekaniska Verkstad* which later became *Götaverken*, the area where the warehouse is situated today. The site of the warehouse is thus artificial.

According to Eriksson (1994), the reed area was dried around 1880. The ferry connections worked already during the 1900s. During the 20th century, the area has mainly been known for the shipyard industry. Götaverken, the shipyard on site, had its business running until 2015.

Lindholmen has a cultural heritage, due to the expansion of the area developing in symbiosis with the shipyard industry and not a city plan. This is however mostly mentioned for the older parts of the area, Slottsberget, where small-scale housing on the western side of the former islet can be found.

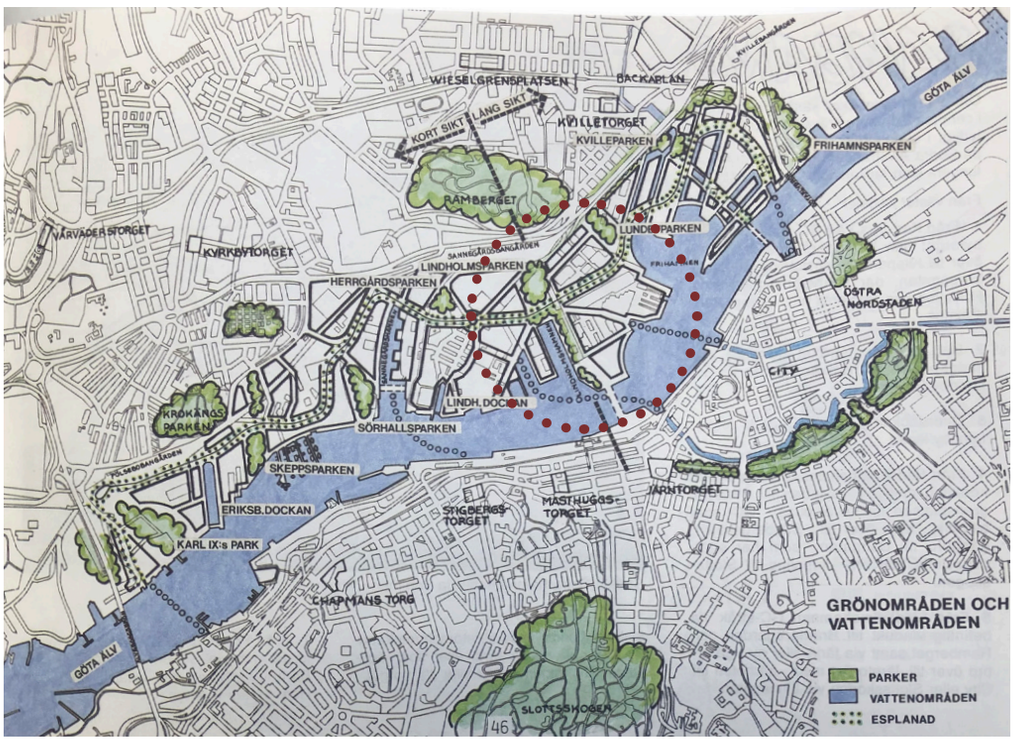


Illustration from the Gothenburg City Planning Office 1987. As marked in the red circle, there were plans for greener, recreational areas for the current site which have not been followed. Instead, an aggressive vertical urban expansion is occurring.
© Stadsbyggnadskontoret (1987).

The City Planning Office released a report (1987) stating the future plans for the area. One of the points was to have good access to recreational areas such as parks, quays, and water areas, moreover how the access to green areas has to strengthen profoundly.

In 1987, the City Planning Office already shared plans of developing the industrial area to become a centre of high-tech, innovation, and office spaces. There was a plan to include park areas in close vicinity to the site but today the areas are occupied by construction sites with new residential and office buildings.

As the market value of the plot keeps rising, green spaces have fallen out of the priority list due to not making any revenues financially. However, recreational places are of utter importance, not only for individuals in close proximity but also for biodiversity, storm-water management, and ecosystem services.

THESIS QUESTIONS

MAIN:

- How can an industrial warehouse be revitalized to contribute to the surrounding area?

SECONDARY:

- How can immersive experiences be designed by reusing materials already present on site?

- How can photography and its tools be used as a design method in architecture?

THE SITE

The chosen site is a large warehouse with a facade made of corrugated sheet metal, on Anders Carlssons gata 17 in Lindholmen, Gothenburg. Built in 1975, with a total area of 7570 square meters, the space has previously been used for repairing ships. Today it hosts a parking garage for cars. It is also connected by two smaller units on the east side, consisting of a small museum *(Varvshistoriska Föreningen i Göteborg)* and a bike garage.

The current property owner, Älvstranden Utveckling, has future plans to transform the building, including others close by, as office space for start-ups and other innovative IT companies. Called "The Yard", they want to offer office and event spaces through memberships. Due to the expansion of the area and market value rising with projects such as Karla Tower, the landlord wants to maximize the revenue potential, leaving no interest in green spaces or recreational purposes.

The site has good connections with the city centre with buses and ferries close by. However, it feels anonymous and the scale is very large and monotone, making it unwelcoming. There is great potential in the southern facade, which also faces the canal and an empty plot. To the right is a coffee roastery. During summer, a popular ice cream manufacturer has a pop-up shop on the northern side of the plot and there are plenty of people waking by at lunch hour and during weekends. Kooperativet, a food court and concert venue, draws lots of visitors to the nearby area. Otherwise, the promenade is mostly used by local dwellers and office workers.

Map of the surrounding area, from Lantmäteriet with annotations by the author.

METHOD

The ways of working during this master thesis can be stated as a combination of inventory and design. As the subject is an existing building with a history, it gives clues to the reader; what it has been, how it stands, what it consists of, and how it affects the visitor. It has limitations and possibilities, a certain character yet anonymous. The collected and evolved inventory will serve both as a means of information and development. This in relation to the added design implementations will together establish a transition for the building into a new state.

The scale will be explored for adding new structures to the existing warehouse. Since the current scale of the building is colossal due to being built for lifting and repairing parts of ships, there is a need and possibility to add structures of smaller scales to inhabit the space. The existing building can work as an enclosing structure, a host, to the new program. Different scales will be tested to find proportions that fit both a specific program and also co-respond to create either a dynamic or cohesive environment inside. The facade and roof of the existing structure could be altered to better fit the new additions, and reusing the current material to new forms.

The additions are smaller structures that either depart from surrounding inventory or juxtapose to show that they are recent additions. The program for the additions are of different content however with the common thread to be spaces of contemplation, exploration and calmness. The current warehouse will be structured into different zones to be able to offer visitors micro spaces that feel inviting, and temporarily, ones own.

The process will depart from the existing by drawings, material, and colour collecting, analysis of the site and historical context. The new additions will be explored with physical modeling tools, sketches and collages to test different scales and content.

Photography can be seen as an analogy to architecture. There are similar methods. A camera works through ISO speed, shutter speed, and aperture. ISO is the way for the camera to handle light and darkness, which architecture also does. This is by windows, doors, and artificial light. Shutter speed determines how fast or slow the camera will take the photo. This could be translated as the time aspect of a site and context (its history, current state, and future) production, reuse, or how materials age. Lastly, the aperture is how the camera will focus - photographing everything clearly or asserting focus on a specific part and blurring the other. In architecture, this could be interpreted as which parts get the most focus, is it overall or more in certain details?

Literature research, collecting insight from books by Gehl, Jacobs, Wong, Ottosson, and historical books will enrich the foundation of the project and give it further depths of departure.

METHOD MAPS

Literature

Buildings Must Die vs Adaptive Reuse

Cities for People

Närmare Naturen

Historical books

Photography

Duane Michals

Photography as an architectural method

MT by Anna Kristinsdóttir

References

MFO Park - Burckhardt+Partner, Raderschall Landschaftsarchitekten

One Two Three Swing - Superflex

Caritas psychiatric centre - de Vylder Vinck Taillieu

Frihamnen Sauna - Raumlabor Berlin

Gallery of Reflection Space TEC - Taller de Arquitectura X

Sala Beckett - Flores & Prats

Tavolo - Okidoki Arkitekter

Park Chairs - Paris

Design Strategies

Juxtaposing instead of blending

Departing from existing material stock

Activating senses to create calmness

Carefully selected scales

Tailored spaces

Making use of naturally occurring phenomenas (sunshine, shadows, rain, snow, wind, movement) to direct calming experiences through architecture.

Methods

Drawings

Physical Model

Reuse existing material stock

Senses

Creating a narrative

Form finding from archive

Research psychology & nature

Ageing properties of materials (patina)

Dismantle capabilities

Analysis of current context (potential & problems)

Relevant Topics

Transition & Reuse

Speculation

Psychology

Senses: atmospheric architecture

Biodiversity & Stormwater Management

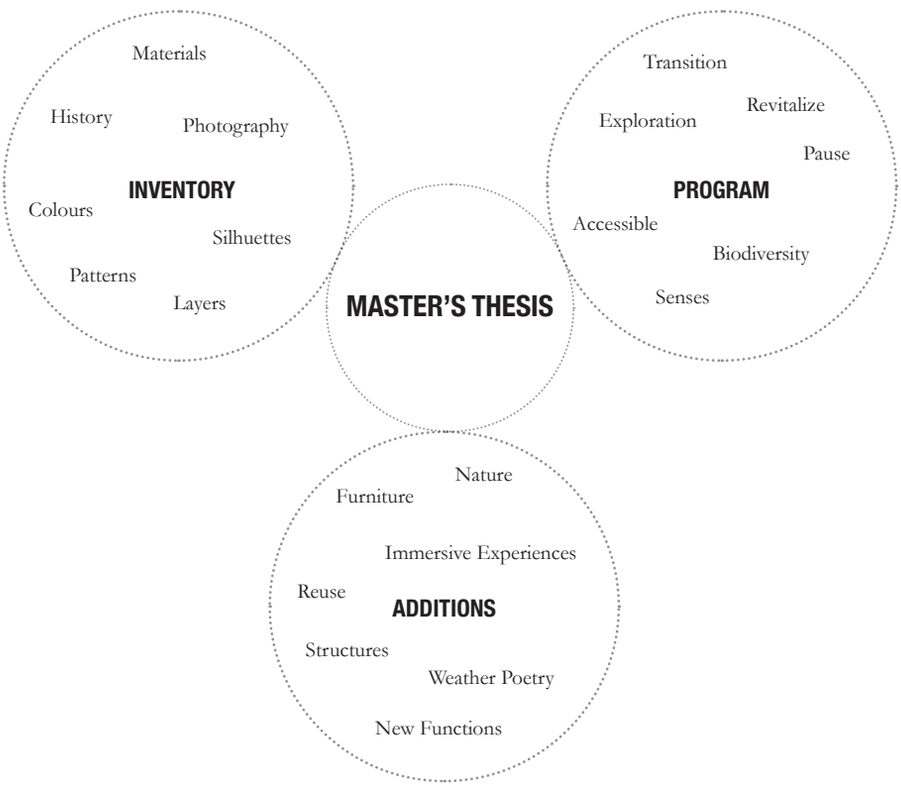
Enhancing the existing qualities

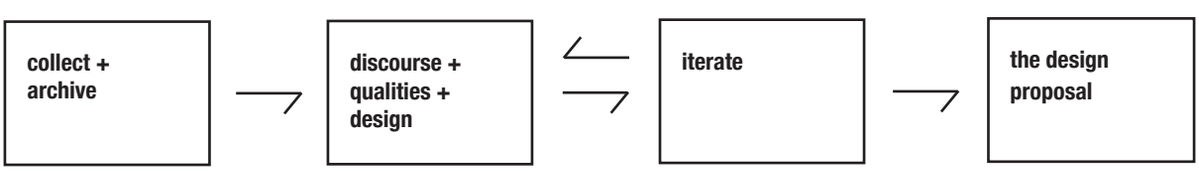
Recreation in an area that lacks green spaces

Loop of nature - industry - nature

History of Lindholmen

Future:	The Yard, co-working space (Älvstranden Utveckling)
2020 -	Parking garage
1973 - 2015	Shipyard in decline
1840 - 1973	Industrialism: Shipyard & Housing
1880	Reed area completely dried
1500 - 1840	Agriculture
1200	Castle


Materials
History
Photography
INVENTORY
Colours
Silhuettes
Patterns
Layers
Transition
Revitalize
Exploration
Pause
PROGRAM
Accessible
Biodiversity
Senses
MASTER'S THESIS
Nature
Furniture
Immersive Experiences
Reuse
ADDITIONS
Structures
Weather Poetry
New Functions


collect + archive
discourse + qualities + design
iterate
the design proposal

DELIMITATIONS

Due to the limited time of the master thesis, and to follow a common thread through the process, certain delimitations were vital to stay on track with the aim and thesis questions.

Adjacent to the warehouse one finds a little shed and a enclosed building that previously housed the locker rooms and office space for the managers during the time of the industrial era during the 70s. These structures have not been taken into consideration within the scoop of the master thesis, instead are kept as they are for further investigation by other architects. The latter houses today the Varvshistoriska Föreningen i Göteborg, with an astonishing archive of documents, models and photos from the shipyard industry in Gothenburg. The historical value is tremendous and the society is worthy of better facilities to accommodate visitors and display their material in a more communicative way. The structure also houses an artisan workshop for weaving and also a shelter for homeless people. There is also a smaller structure that is a bicycle garage currently. Since the inspiration and project focus on the large warehouse as a canvas for deconstruction and reconstruction, these smaller structures have been kept as they are currently.

Another aspect that has not found its focus in this master thesis is thorough construction details. Since the project has a speculative and metaphorical focus, construction details would stop the exploration and creative process of potential users of the space to where technology is today. Instead, the focus lies on potential improvements and a broader change for the area to one of a more human scale.

Since the master thesis has an architectural aim, thorough research into TBT, biodiversity and stormwater management was decided to be kept at an informative yet shallow level of analysis, due to the architecture being the core of the project. Similarly was the reuse of previous buildings from the site. The archive material was difficult to match with the current site due to the change of the name of the streets and naming the same building with multiple different titles. Due to this, the archive chosen is the one that is definitely originating from the site, thus to not risk using wrong historical documents. The inventory has mostly been performed by collecting material from the building in its current state, with photographs, materials named, categorized and quantified, and potentiality scouting during various times of the seasons and day.

The hopes of this thesis are to discuss the current topic of how architecture can be a tool to discuss vital topics of gentrification, a sustainability vision beyond simple green-washing theories and to show that demolitions should not be the default method for handling unfashionable and dated buildings. Moreover, to give value, care and inspiration to a site that sadly becomes more forgotten by the day. Instead of using the building and site for the community, it is in danger of becoming another expensive, gated community only accessible to a certain group of people. Heavy shipyard industry cannot continue in Lindholmen if the municipality wishes to create a lively city, as their ambition is with Älvstranden Utveckling. There are other spots in Gothenburg that are better suited for these types of activities, such as Ringön or Arendal. Furthermore, the cost for sanitation of the area is estimated to be around 1 billion SEK, which in relation to the Karla Tower price tag - reaching beyond 4.5 billion SEK - is not that high. Instead of sanitizing the polluted sediment from the shipyard industry, the municipality is going after Volvo Group, which acquired the bankrupted shipyard company around ten years ago. This is odd since the properties are in the ownership of Älvstranden Utveckling, which is a municipality-owned company. According to an article from Göteborgs-Posten (2022) there is a legal issue between the municipality and Volvo Group, where the former is accusing the latter of financing an investigation on how to handle the poisonous TBT in the sediment and ground around the site of the warehouse. The levels are around 200.000 in relation to 50 which is considered high. The TBT is causing hormonal disruption in aquatic organisms such as shells, where females develop male reproducing organisms. TBT is also more toxic than humans are in connection to it, leading to breathing difficulties and skin irritation. Since it is enough for a strong storm or ship with strong propellers to pass through, the TBT is put into motion, moving up from the sediment to the local shores, winds and ground levels.

The ambition is to show how the warehouse can become something else, a place one wants to visit and that changes throughout the seasons, an open place welcoming all citizens of Gothenburg.

GLOSSARY

The following terms can often be found throughout this master thesis. Descriptions have therefore been added to avoid potential misunderstandings, offering a smoother reading experience.

Immersive Experience: Being captivated by objects or phenomena, and fully present in the moment. Example: Admiring a beautiful sunset, entering a large cathedral or listening to a summer thunder. Your senses should be activated and time feels still.

Transition: Evolving from one state to another, organically and in a certain system. Example: The transition from spring to summer.

Transformation: Evolving to something new with more freedom than in a transition. Example: Changing a building from a school to a residential building with new materials.

Revitalize: Evoke new life into something. With care, reawaken something forgotten and give it new strength.

Deconstruct: Instead of demolishing a structure and throwing the materials away, take it down step by step and rebuild it somewhere else or in a new shape. In this thesis, deconstruct is used as an overall, theoretic term for describing how the facade materials and windows are being removed, to be used as material for new, smaller structures inside the warehouse.

Recreation: Ways to relax and re-charge. Could be spending time outside, walking, listening to music or other calming activities.

Nature: All aspects which are not directly man-made. Examples: Forest, the ocean, plants, water, insects.

Warehouse: An industrial building, which in this case, previously worked as a reparation warehouse. A space to repair various ship parts during the time it was a shipyard on site. Also, a metaphor since the building can be seen as a warehouse with storages of its consisting materials.

Shipyard: An industrial site where ships or parts of ships were manufactured. A heavy industry with polluting materials.

Reuse: Using an object, in its current state, for another purpose than intended. Example: Using a purchased glass bottle, which originally contained lemonade, as a vase.

Sequence: A path or experience that moves along various constructed destinations. Here the term is used for describing the directed journey from start to finish inside the warehouse.

Narrative: Storytelling, describing and writing in a certain, way. Trying to captivate the reader and describe thoroughly.

Analogy: A similarity between two terms or objects. Here, the term is often used as the personal interpretation that there is a similarity to the core of architecture and how photography works.

ARCHITECTURE & PHOTOGRAPHY

Case Study House No. 22 by Pierre Koenig. Los Angeles, 1960.
© Julius Shulman

HISTORY

Noted documentary photographer, Hendrik Zeitler, assistant professor in photography at HDK Valand, the artistic faculty of the University of Gothenburg, discusses the relationship between architecture and photography in one of his photography courses. In an extensive informative document (2022) part of a photography course, Zeitler discusses the history of this fruitful merge of two creative industries, dating back to the 19th century with Parisian street photography.

During the start of the 20th century, architecture was often photographed in soft weather conditions. *Pictorialism*, the movement from the late 19th and early 20th century, is characterized by softness, sepia colours and natural romanticism, with emotional and poetic silhouettes. Haze, fog, snow, rain, dusk or dawn were favourable light conditions, giving the photos a certain softness while erasing the details of the buildings. After production work was common already in this period of time. One did not solely document reality, it was rather a way for the photographer to manifest their imagination through visual representation. With the emergence of accessible and cheap Kodak cameras, photography grew exceptionally and became more common as a tool for documentation. Photography makes it easy to document a vast amount of details in just one photo, something that would take a lot more time by sketching, drawing or painting.

LUCIEN HERVÉ

According to his official website (2023) Lucien Hervé, born in 1910 in Hungary, worked with Le Corbusier, Alvar Aalto and Richard Neutra to name a few, capturing the essence of their architectural endeavours. Having worked with Le Corbusier already in 1949, capturing the *Unité d'Habitation* project in Marseilles, Hervé became Le Corbusier's photographer préféré, documenting soon-to-be influential projects such as Chandigarh in India in 1955. His photographic works still today inspire architects around the world, demonstrating that the two professions influence each other in continuous loops.

JULIUS SHULMAN

It is difficult to imagine mid-century *Case Study* houses in California without mentioning photographer Julius Shulman. Zeitler (2022) describes Shulman's clever methods of working. By adding various light sources which he turned on and off during a long exposure time, moreover including people to model in the frame, gave a certain inhabited ambiance to the architecture. The architecture documented through these photographic methods resulted in convincing images to market the Case Study houses. The image has left a strong mark in the design world, and few collaborators have been this iconic ever since. The image, selling the attractive leisure lifestyle of lounging with a spectacular view, has left its traces in pop culture, with new emerging architectural styles and a certain way we choose to market products, from fashion and cars, to actual movie sets.

Architects and photographers have worked in symbiosis, influencing each other throughout centuries. As architects wish to document or visualize their design, photographers seek intriguing motives to photograph, thus benefiting from each other. Together, they become a fruitful collaboration, enriching their work to levels of artistry and aesthetic delight.

PHOTOGRAPHY - AN ARCHITECTURAL TOOL KIT

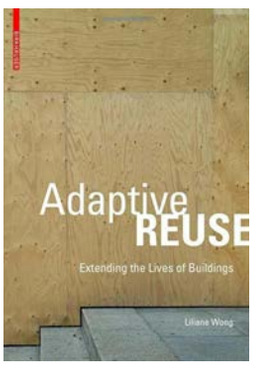
Artificial Intelligence generators such as Stable Diffusion will be utilized. These open-sourced image generators produce images by writing a descriptive text, called a prompt. Through the text, the AI generator produces an image matching the description. The current AI-generating programs available vary in their visual style, where Midjourney has a more dramatic image style, whereas Stable Diffusion or Dall-E are more realistic in their styles.

Photography will thus be used throughout this thesis, both as a tool for documenting the warehouse and in the actual design process. Using photos taken of the inside of the warehouse as a blueprint for design investigations through collages. This can be a strong process tool since it elaborates the design in an iterative way, furthermore if handled with precision, creates visualizations that communicate the design.

© Duane Michals - The Spirit Leaves The Body 1968

Photograph series with double exposure. Inspiration to become a method to map human scale, movement and the architectural environment simultaneously.

DISCOURSE



Wong, L. (2017). Adaptive Reuse: Extending the Lives of Buildings. Birkhäuser.

(p.6) "With a global focus on the conservation of resources, there are now, more than ever, concerted efforts to evaluate the potential of existing and outdated structures for reuse rather than to demolish and build anew".

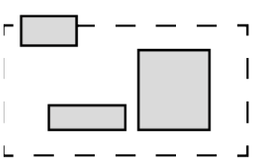
Wong (2017) discusses different transformation theories, comparing a building with the shell that hermit crabs change - they host something new. One can interpret buildings that are subject to adaptive reuse as hosts that guest a new function, program and people.

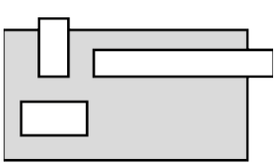
The notion of adaptive reuse is not something new. Changing structures and content has been developed and broadened throughout the years. References such as Carlo Scarpa's Castelvecchio project in Italy have been regarded as artistic endeavours. There is a broad variety of buildings and with this also the ways they can be adapted. Aspects such as time, condition, location and usage all play a role in assessing the current and navigating the transformation. Wong (2017) describes the following categories as an aid to position a building: entity, shell, semi-ruin, fragmented, relic and group. The building can be transformed in its wholeness, in its interior, partly or combined. One could state that the type of host category in combination with a type of transformation theory (conservation, addition, conversion, restoration, to name a few) results in adaptive reuse.

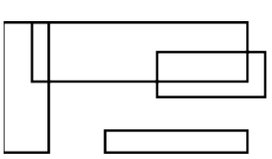

entity

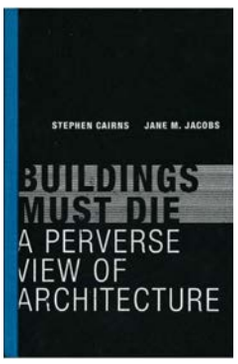

shell


semi-ruin


fragmented


relic


group

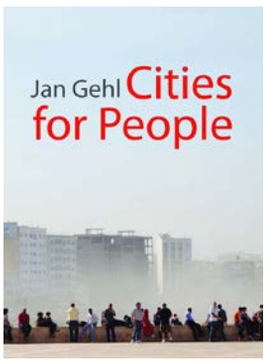


Cairns, Stephen, and Jane M. Jacobs. (2014). Buildings Must Die: A Perverse View of Architecture. Cambridge: MIT Press.

(p.103) "The market, technology, taste and fashion all play their part in the making of obsolescence. They do so through architecture's shadow identity as real estate."

Cairns and Jacobs (2014) reason that there are various ways for buildings to deteriorate, either by usage, time, or other factors. These states can be romanticized as ruins or unwelcome and are quick to be seen as ways to make a profit by demolishing the existing and creating something new.

Emphasizing a transition of the warehouse, where certain parts are left intact. Viewing the alterations as temporary additions rather than fitting and reconstructing the whole building to a state where it is no longer identifiable. The existing building can use methods of de-construction through the subtraction of fragments, yet still keep its overall atmospheric presence as an industrial setting.



Gehl, J. (2010). Cities for People. Island Press.

(p 167) "Efforts must be made to establish small intimate and approachable space where people will want to be... Sometimes simple elements can make a decisive difference. A bench in the corner under a tree. A place."

One of the most prominent and comprehensive theoretic works is without a doubt *Cities for People* by Jan Gehl (2010). There is an extensive toolbox of measurements, scales, functions and situations that need to be assessed to create a public space that is accessible, attracts a variety of visitors and can stand the test of time. The following examples are sourced from Gehl (2010) and have helped as a guiding hand through the decision on how to transition the large halls of the warehouse with smaller structures, paths and stops with a cohesiveness yet broad variety.

According to Gehl (2010) is the ground-level part of a facade that meets the pedestrian at first sight, demonstrating a categorization of various kinds, from A (active) to E (inactive) where the former consists of smaller, more dynamic buildings with lots of doors and facade variation, while the latter is a closed facade with few doors or variation. The warehouse would be positioned as E (inactive) due to its large, monotone appearance. (p. 240-241). Since the purpose of the warehouse was to manufacture and repair large vessel parts, form had to follow function.

Gehl (2010) discusses scale and how many older European squares are around 100 meters in length. At this distance, you can observe both an overview and details of other people. At a 25-meter distance, one can observe faces better. Streets make us psychologically walk, whereas squares make us stop and observe. (p.38) The warehouse is 135 meters, respectively 50 meters, in width and length, making it larger in size than the mentioned squares. There is thus a lot of space for creative design endeavours.

According to Gehl (2010), there is also an importance in distance between people on the street level. Spanning from intimate (0-45cm), to social (1,2-3,7m) to public distance (above 3,7m) these are tools to assess while designing the experience of the structure.

Gehl (2010) continues by discussing senses and how large distances give us many impressions, while short distances strong impressions. Smell and touch are the senses that are most strong emotionally, and also the ones that we perceive at short distances (p. 47). Gehl (2010) describes how cars occupy a lot of space. Around 23 cars parked is the equivalence to the space occupancy of a smaller city square. Cars and traffic have been an urban challenge for decades. Gothenburg has made investments in public transport and the introduction of congestion charges. With car pools emerging, better pedestrian and cycling routes, nonetheless, public transportation investments, offering single parking spots is an excess that should not have the benefit of occupying the public domain (p. 55).

Vertical facades make the walk seem shorter than horizontal facades. Variations, details, and the possibility of interact ion evokes the curiosity of the walker. (p.78). The monotone facades of the warehouse, therefore, need to be adjusted with irregularities and other design methods to create a more intriguing and diverse walking experience. "Tiring length perspective" is a monotone path with little variation, where one can see the full path ahead. Adding new paths and turns can change this into something more exciting.

Living in Lindholmen unfortunately evokes a longing for nature. The urban, industrial environment is rough, raw and rigid. With the large scale of the buildings and the direction connection to the sea, leaves the area in a delicate state where the slightest wind feels even stronger. As Gehl (2010 mentions in the book *"high-rise after high-rise is being built in cool, windy regions, increasing wind speed and cooling around the buildings and making outside stays virtually impossible"*. Low-density buildings are thus better at repelling the cold wind and keeping the heat of the sun, whereas isolated, tall buildings create ground space which is far more windy and cold.

While walking along the pier by the water, which abruptly stops right by the warehouse, is close to water yet still the traffic noise and disruptive scales make the overall experience unwelcoming, leaving the experience of the promenade dissatisfying. The whole industrial setting is uncanny during evenings and weekends, resembling a ghost town with the absence of people due to few public activities available. With its central location, there is great potential to revitalize the area and make use of all its fascinating qualities.

Ottosson, M. & Ottosson Å. (2020). Närmare Naturen: Vetenskap Och Vetskap Om Varför Vi Mår Bra Därute. Bonnier Fakta.

NATURE'S RESTORATIVE BENEFITS

Nature can be interpreted as an untouched landscape but in one sense or another, all places on Earth are arranged and changed by human interference. Nature does not have to be a forest. It could be the sea, a city park, mountains or rivers. Water or greenery are aspects that are often included in "untouched" recreation spaces. The spaces that make our pulse drop, calm and recharged. In ancient times, even Hippocrates understood the benefits of greenery, adding a garden in conjunction with his hospital on the island of Cos due to its healing properties. A good connection with nature decreases the risk for both physical and mental health issues, and increases lifetime expectancy and overall feelings of well-being. Spending time in nature lowers our level of stress hormones and increases concentration and creativity levels. This occurs for humans of all ages. Exposure to daylight and sunshine is also important for overall well-being and protection against various diseases. As with everything, the effects vary in different individuals depending on heritage and genes but there is overall improvements in different degrees.

FOREST BATHING

The authors Ottosson and Ottosson (2020) mention the notion of unconditional existence as the core of why nature is of such beneficial qualities for us. The more you explore and absorb through your senses, the more you are present in the moment. This state can be called mindfulness, or in Japanese *shinrin-yoku* meaning forest bathing, taking in the atmosphere of the forest by awakening all the senses. The term was introduced in 1982 by Tomohide Akiyama from the Japanese Ministry of Agriculture, Forestry, and Fisheries. Akiyama saw potential in the hilly and difficultly reached Japanese forests for recreational purposes, which could benefit the tourism and rural industries as well. The forest is of sacred importance in Japan and is treated with the utmost respect. They have certified forests for forest baths in Japan, with criteria such as green-leafed winter plants, rich biodiversity, easily accessible paths and views of the water. Stress-reducing activities should preferably be incorporated proactively, and a way to make this even more accessible is to offer public spaces that have beneficial qualities that mimic time spent out in nature. In sound, shape, textures or scale, together they all help in creating a space of relaxation, contemplation and peace. Ottosson and Ottosson (2020) mention Qing Li, who states that a high level of stress obstructs the immune system which consequently enables the risk of serious illnesses. Spending time in a forest both activated and increases the amount of white blood cells (NK cells), helping us fight cancerous diseases, viruses and bacteria. According to scientific research, it is the scent of the trees, called phytoncides - which also prevents plants from rotting or being infested by insects - that benefit the NK cells in our body. The study was tested on participants who spent at least 4 hours in a forest in Japan, walking a distance of around 5 kilometres (p. 49). Overall it seems to be the bare feeling of being in a forest that instantly creates calming and beneficial properties, according to Ottosson (2020). A good place and an attentive mindset are needed to benefit the advantages of spending time in nature. A 15-minute break outdoors is enough to activate calming effects.

WATER

According to Ottosson and Ottosson (2020), a 2019 study with 26 000 participants stated that adults living in cities and within a kilometre distance from the coast had better mental health than those living further away from water. The combination of nature and water seems to be most popular, with city landscapes with water in the second place, together with nature environments are what makes us calm; waves, streams, ocean glitter and dripping soundscape. Repetitiveness yet randomness is what makes it interesting yet calming to watch wave after wave by the beach or follow a narrow stream of water in a forest. Another aspect is our ancestors choosing places by water sources to camp due to access to water and edible plants, which is still positively associated with our evolutionary journey.

Wild swimming is mentioned as a way to boost mood and well-being, swimming in nature being mentioned as a method for reaching a meditative state of calm. If the temperature is on the colder spectrum of 15 degrees Celsius, there is an awakening effect due to the temperature difference between the water and the human body, which is around 37 degrees Celsius. Ottosson (2020) mentions the beneficial studies made on patients with a decline in mental health, experiencing an immediate mood improvement after taking cold swims in nature. Onsen baths in Japan have been a long tradition, same as hot springs in Greek and Roman traditions for centuries.

URBAN RECREATION

Parks in cities have existed for centuries, such as Central Park in New York and Hyde Park, dating back to 1637. These recreational spaces are important for city dwellers. Urban gardening and beekeeping has grown in popularity and can be found in many cities, including Gothenburg. A positive aftermath of the pandemic is the high interest for allotment gardens, often resulting in waiting lists of up to 5 years, as is the situation with *Lindholmen Odlarförening,* the allotment society of Lindholmen. Creating a community for mutual interest such as gardening has multiple beneficial properties. Connecting with others, watching something grow and sharing responsibility for something else but oneself can evoke feelings of meaning and well-being. According to studies mentioned by Ottosson (2020) people with gardens are in general less stressed than people without them. Spending 30 minutes gardening is better at reducing stress levels than reading inside for 30 minutes. Another aspect for making it positive is that people often find themselves in a state of not thinking but doing, as in a calm meditative state without even thinking about it.

The famous Jardin des Tulieries in Paris with its iconic green steel chairs, enabling the visitors to occupy space and make it their own temporarily.
© Edmond & Fils

CREATIVE GREEN SOLUTIONS

In areas such as Venice, where gardening plots are scarce due to the many water canals, makes the inhabitants find creative solutions. Overgrown balconies, courtyards and private gardens tended with the utmost of care, is a regularity rather than a rarity. In Monty Don's documentary (2022) showcasing Adriatic gardens, the viewer is guided through lush examples of greenery. Filling balconies with flowers and transforming courtyards full of waste to a vegetable-growing community are some of the many examples presented, nonetheless native Carlo Scarpa's elegant sculpture garden. With the shortage of plots to grow flowers, trees or edible crops, evokes a strong desire within the Venetians to tend for what they have in terms of green spaced. Public parks are therefore extra popular leisure spots during leisure hours.

The sun is of utmost importance and in the Northern hemisphere extra dear to us, who do not get that much sun or daylight throughout the colder months of the year. Besides D-vitamin production, sun exposure also contributes to better blood circulation, which lowers blood pressure and stress levels, furthermore the warmth helps release endorphins which boosts feelings of well-being. It also helps regulate sleep and alertness. It is important for the circadian rhythm and sleep and alertness to be exposed to daylight.

© Paul Clemence - MFO Park in Zürich, Switzerland.

(p 169) "The park takes on the nature of a theatre set. The resonating metallic sound of footsteps on suspended walkways, the gentle diffused echo of voices and laughter, and the vibrations of the steel cables all work together to create an engaging dimension where visitors are simultaneously spectators and actors." (Lambertini, A. 2007)

Similar to the warehouse in Lindholmen, the MFO Park was originally an industrial site which was unused in a northern part of Zurich, Switzerland. The surrounding area was under development with various public functions taking place. Burckhardt+Partner, together with landscape architects from Laderschall Landschaftsarchitekten transformed the former machine shop area to a vertical garden, with visible structures in steel and wires to support the greenery to grow, stretch up to the sky. 18m high, with various vegetation climbing on metal frames and wires, the projects offers greenery in a urban way. The structure occupies various levels and pathways, making it possible to find a secluded place of your own.

The structure changes its appearance depending on the season, from naked branches in winter to lush bloom in spring. The landscape architects chose plants depending on the local climate and other aspects such as colour, texture and growth. Ivy, clematis, wisteria and roses are some of around 100 various species available on the site. The park is lit at night and serves as a contrast, juxtaposing against the post-industrial environment.

REFERENCES

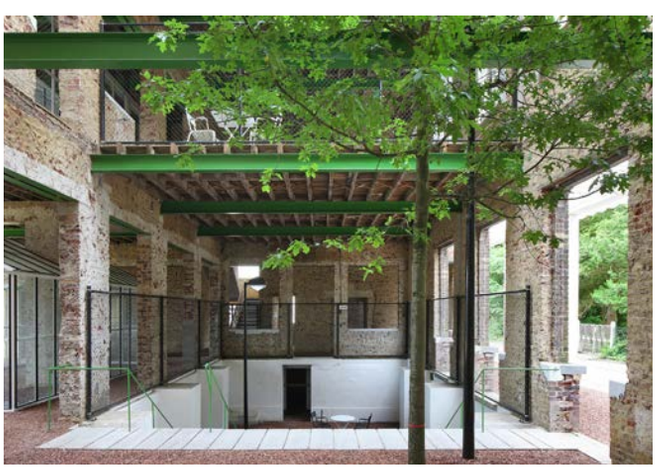
PLACE-MAKING

© Frihamnen Sauna by Raumlabor Berlin

© Tavolo by Okidoki arkitekter

The sauna and restaurant are interesting references in the sense of being place-making, enabling access to a site or building that previously was quite unidentified.

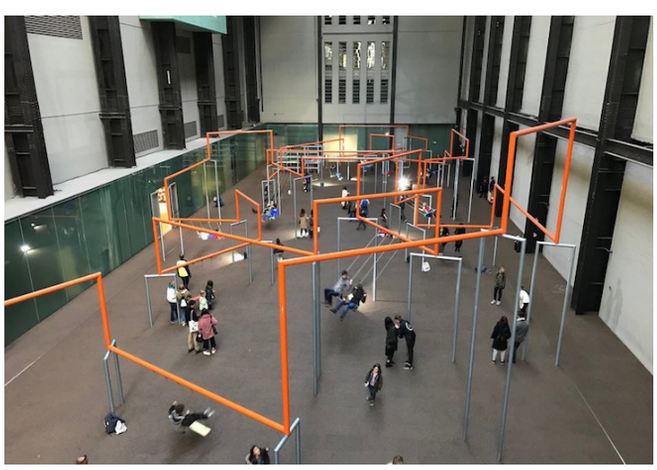
VALUING THE UNSEEN



© Caritas psychiatric centre by de Vylder Vinck Taillieu

Instead of demolition reusing the building for flexible usage not predetermined. Same cost as demolition, value to the centre. Buildings inside of buildings, various rooms and spaces. Pebbles and trees inside, open windows.

INTERACTION-FRIENDLY

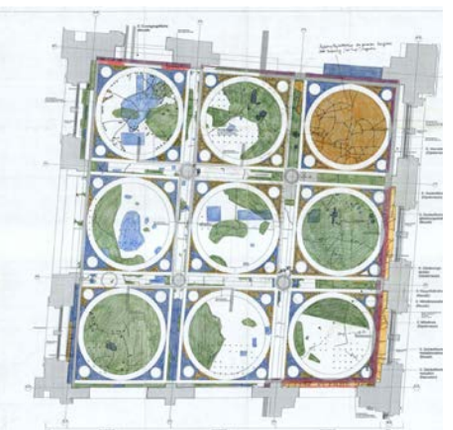


© One Two Three Swing by Superflex

Installation in Tate Modern in London, UK. The shape and colour of the tubes resemble the ones present in the site in Lindholmen. Fun way of interaction of visitors with a broader meaning = together we make a greater impact than alone. A positive snowball effect.

THE GHOST AND THE TRACES OF TIME

© Sala Beckett - Flores & Prats



© Neues Museum process drawing by David Chipperfield Architects

The two references above are included due to their methods of working with the existing, creating an inventory of the building. Flores & Prats mix and match, creating a new narrative to the existing. The new staircase in Neues Museum in white is however both a nudge to the previous, but also a new edition in its appearance.

IMMERSIVE WATER

© Leandro Erlich

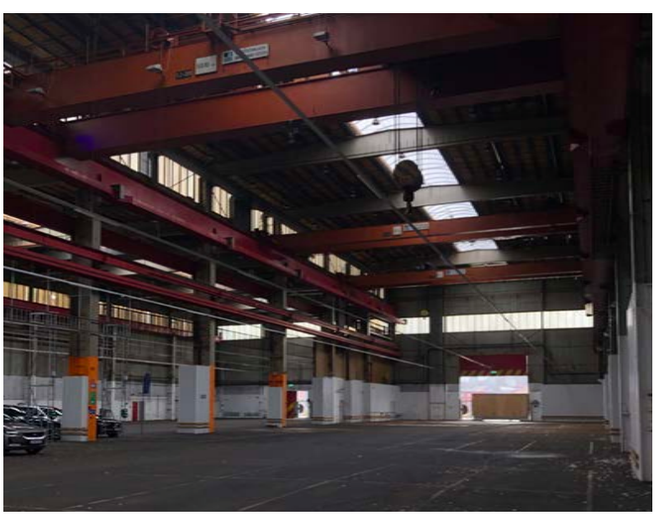
© Gallery of Reflection Space TEC by Taller de Arquitectura

Since it in average rains every third day in Gothenburg, why not make us of it. Inspired by Argentinian artist Leandro Erlich, who designed "Swimming Pool" in 1999, an illusion pool with shallow water and a room under the pool. Thus creating an interesting phenomena of being under water both for the people under the pool and the people above, looking down. This with only a small amount of water and simple techniques.

THE ARCHIVE

Temporal objects such as stairs, walls and curtains.

A worker making holes.



Comparison of approximately the same view from when the building was used versus its empty state today.

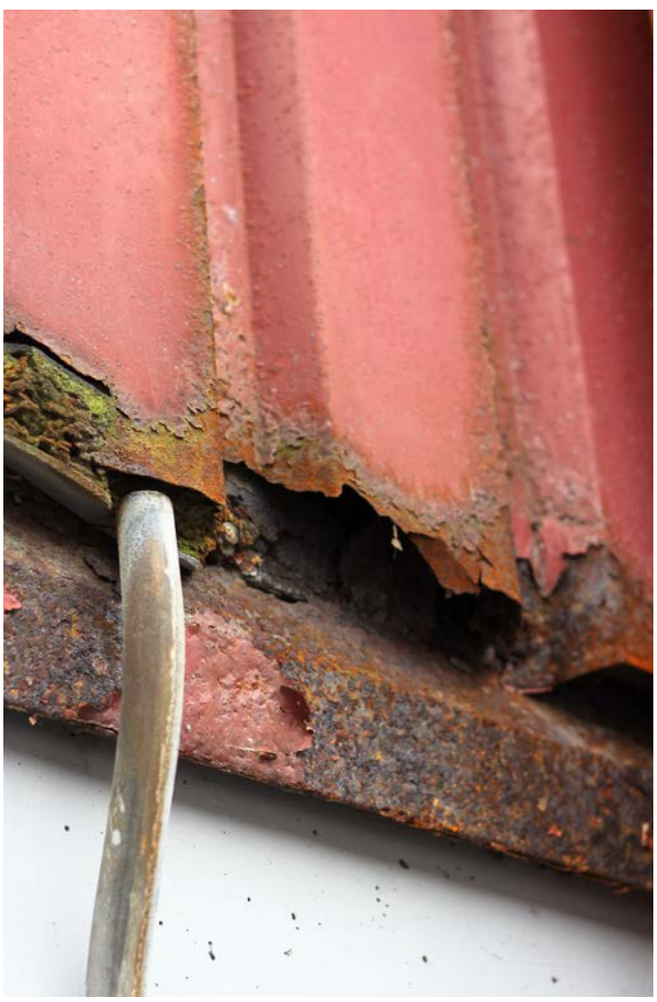
Repairing a vehicle.

SITE EXPLORATION, JANUARY 2023

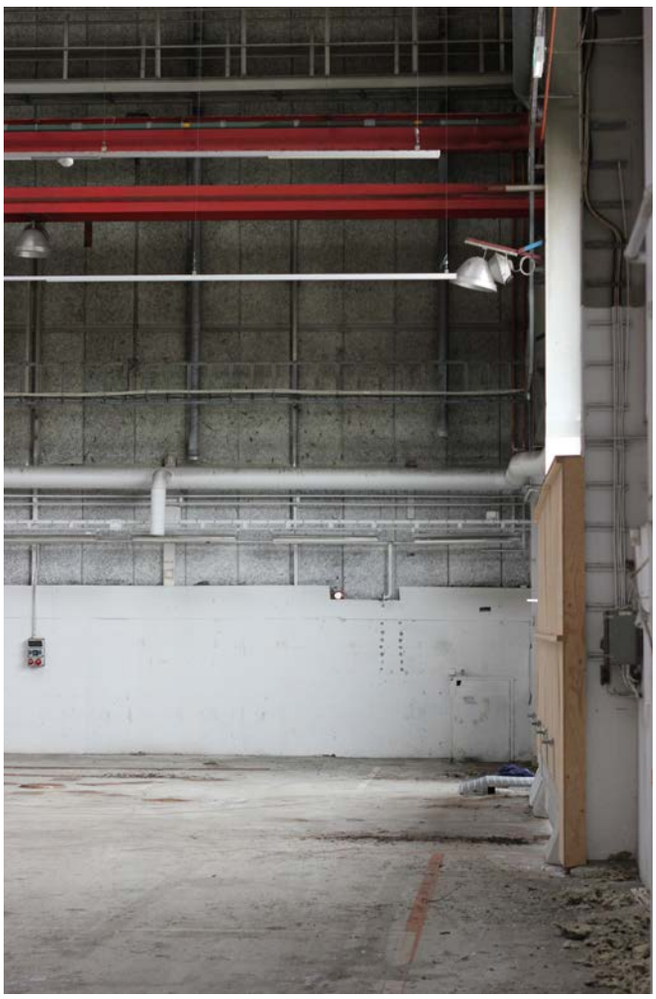
An encapsulated tree growing along the facade.

A site visit mapping the building through photographic methods. Capturing textures, light, geometry. The feeling of the place, the ghost as Flores & Prats would say. Trying to see beyond the first glance. I also followed Duane Michals' method of photographing with double exposure with a longer shutter speed of around 10-20 seconds. This to capture the scale of the building in relation to the human body and its movement.

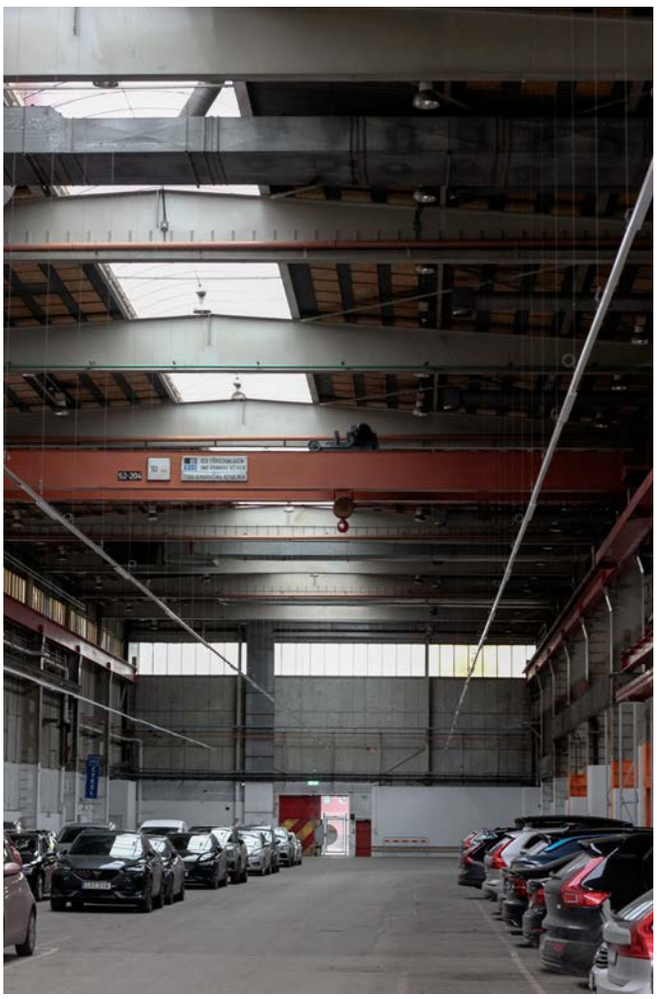
Monotone, anonymous facade in a red tone.



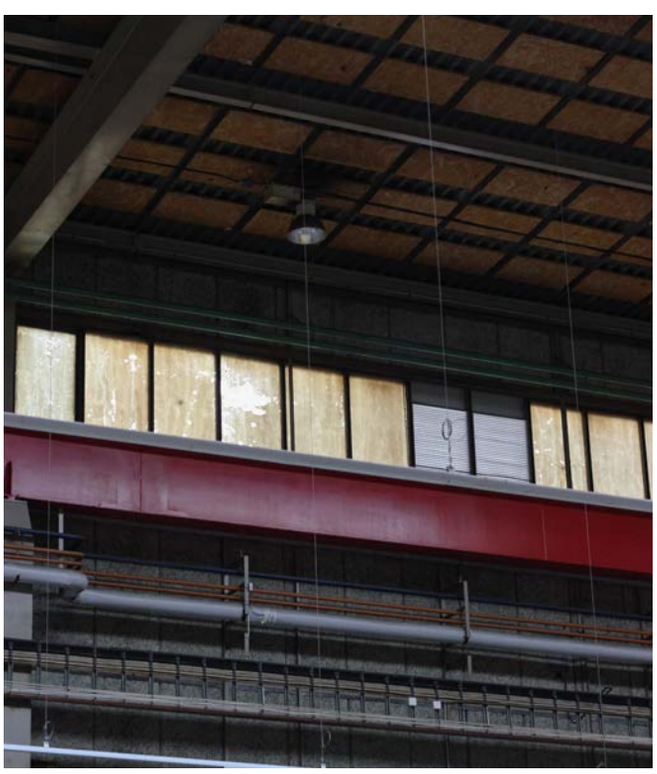
The sheet metal facade is rusty and in a rather bad condition.



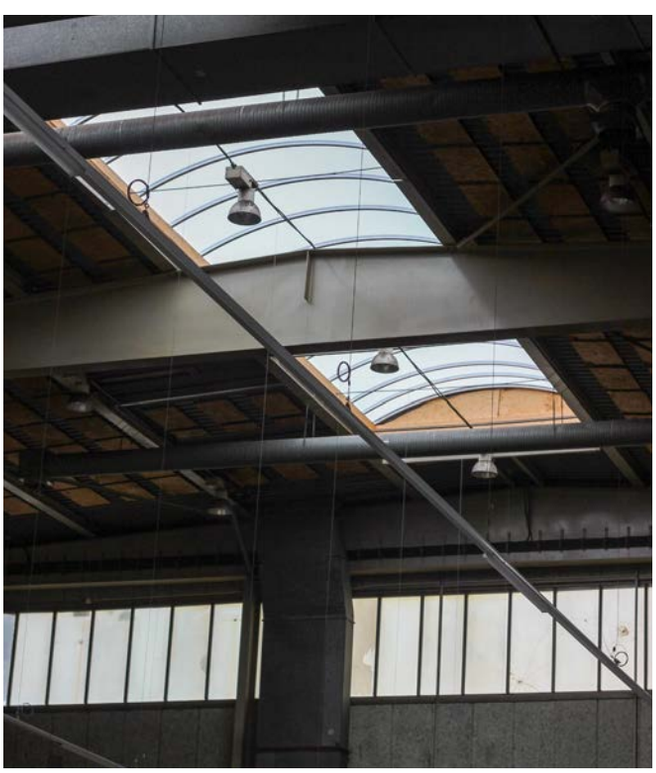
Poetic, northern light entering in a corner of the building.



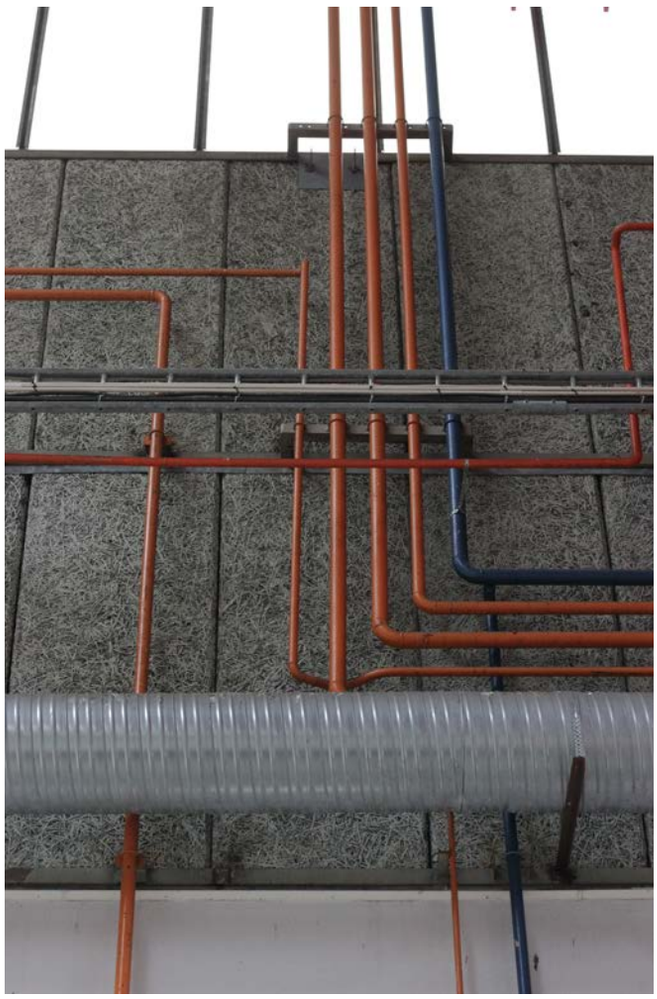
The left part of the building, carried by in a structure of pillars and beams.



Stained, filtered windows, along with industrial instruments of beams, cables and pipes characterize the walls.



Soft light from windows and skylight give a calming feeling to the building, almost as in a church.



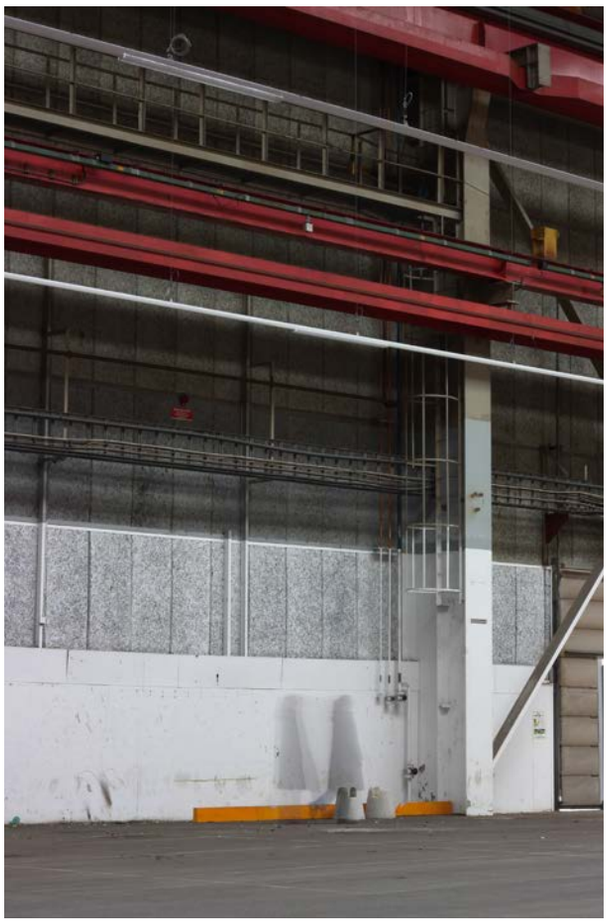
Parts are positioned on top or next to each other, and not merged to one entity. Cables and pipes are on display.

Characteristic pillars stretching up to 1.2 meters in width.

Old concrete floor full of charming patina. Windows reflecting in the puddle of water.

Massive space being utilized solely for cars. Only 33% of the spots were occupied.

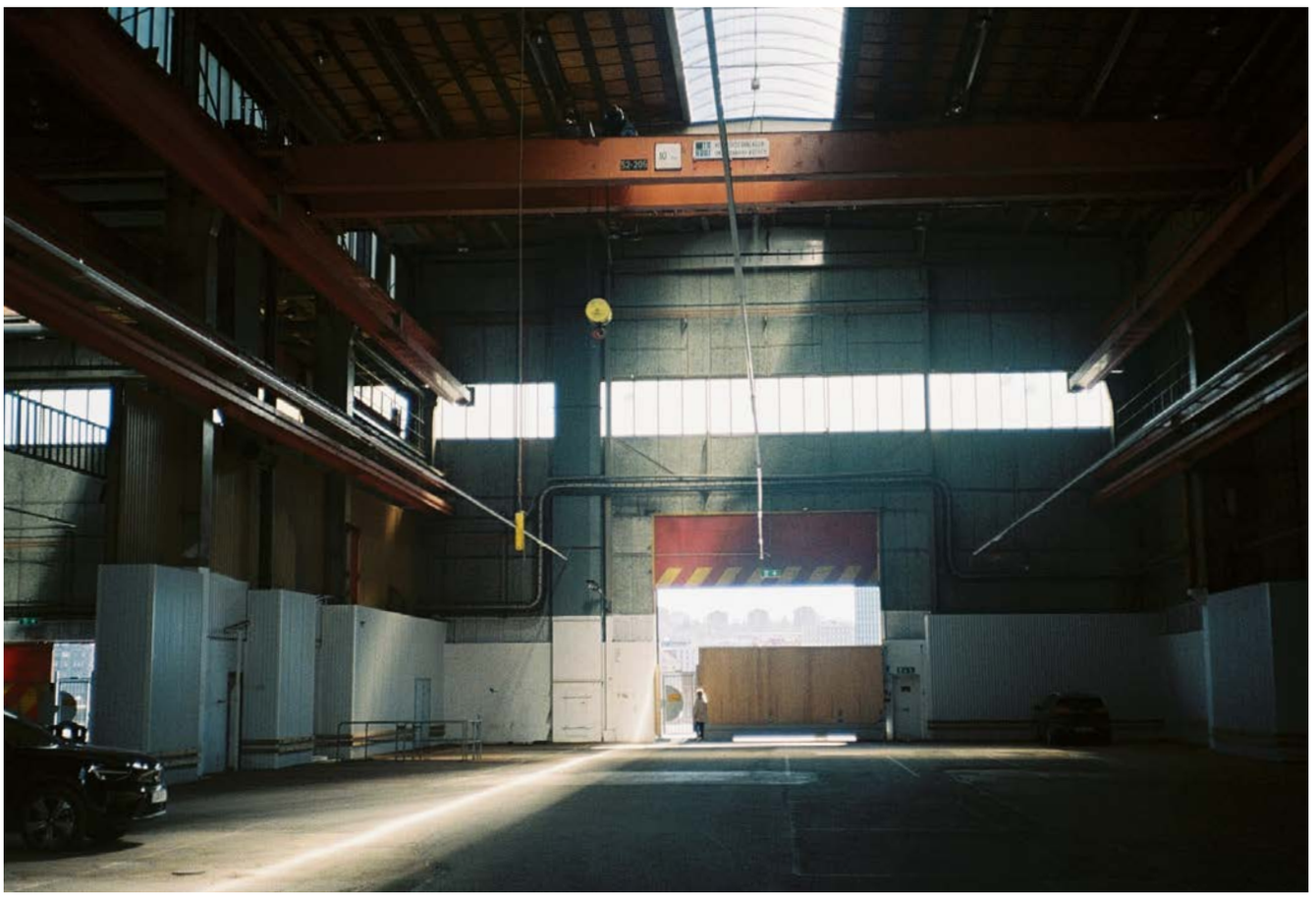


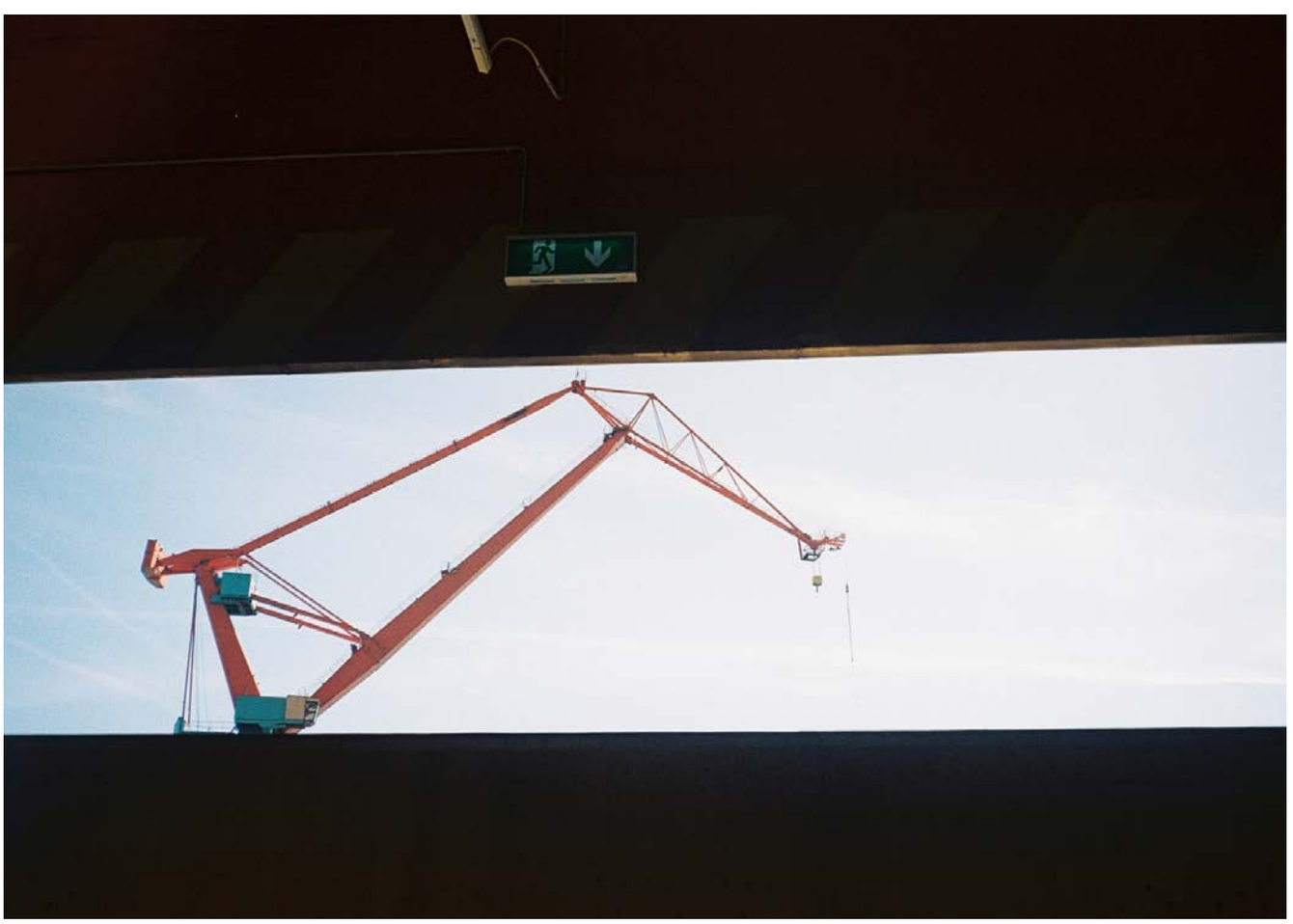



Exploration in scale between the warehouse and the human body, influenced by Duane Michals.

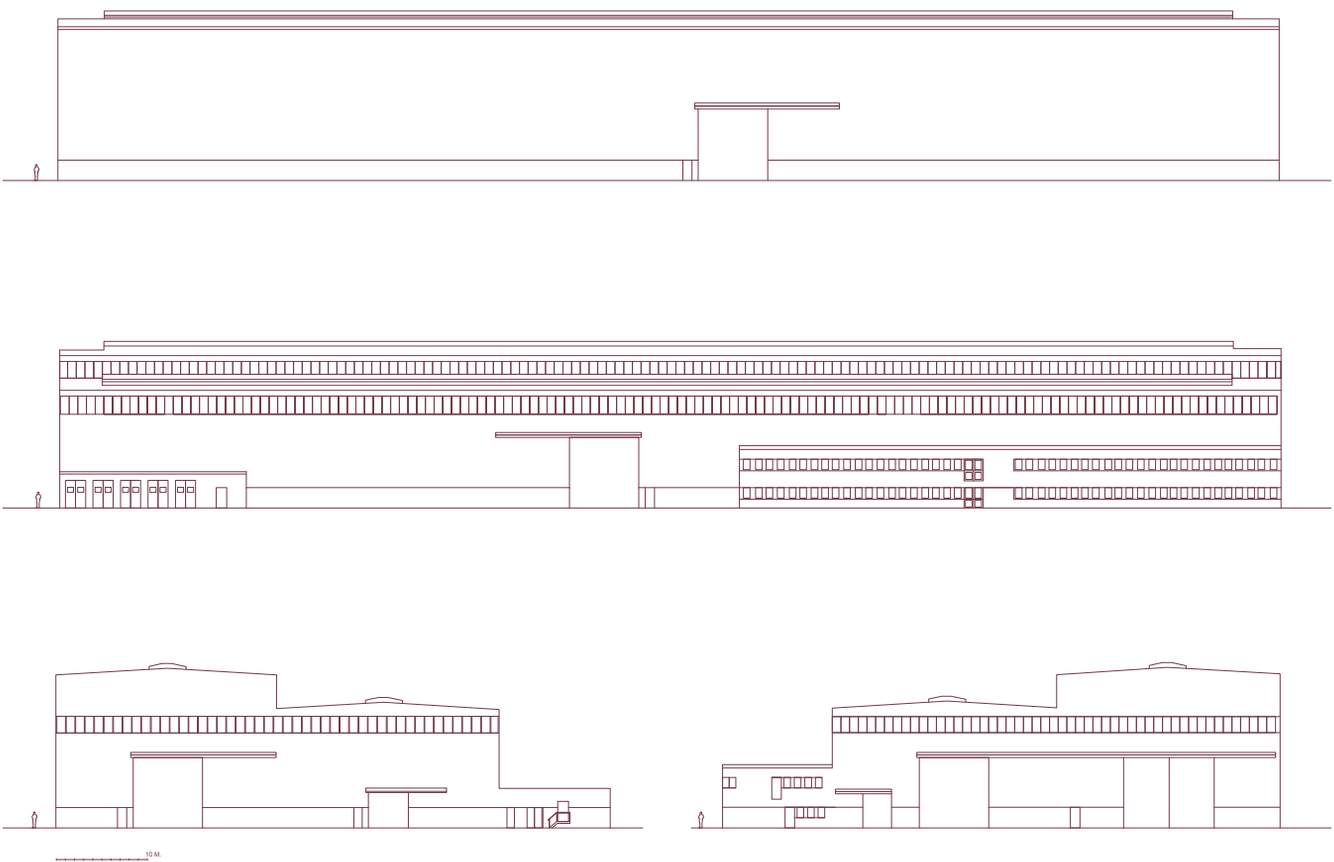
ANALOGUE DOCUMENTATION OF THE WAREHOUSE

DATE: 2023-04-19
TIME: 10:45 AM - 13:20 PM
CAMERA: YASHICA ELECTRO 35 MC
FILM: LOMOGRAPHY COLOR NEGATIVE 135
ISO: 400



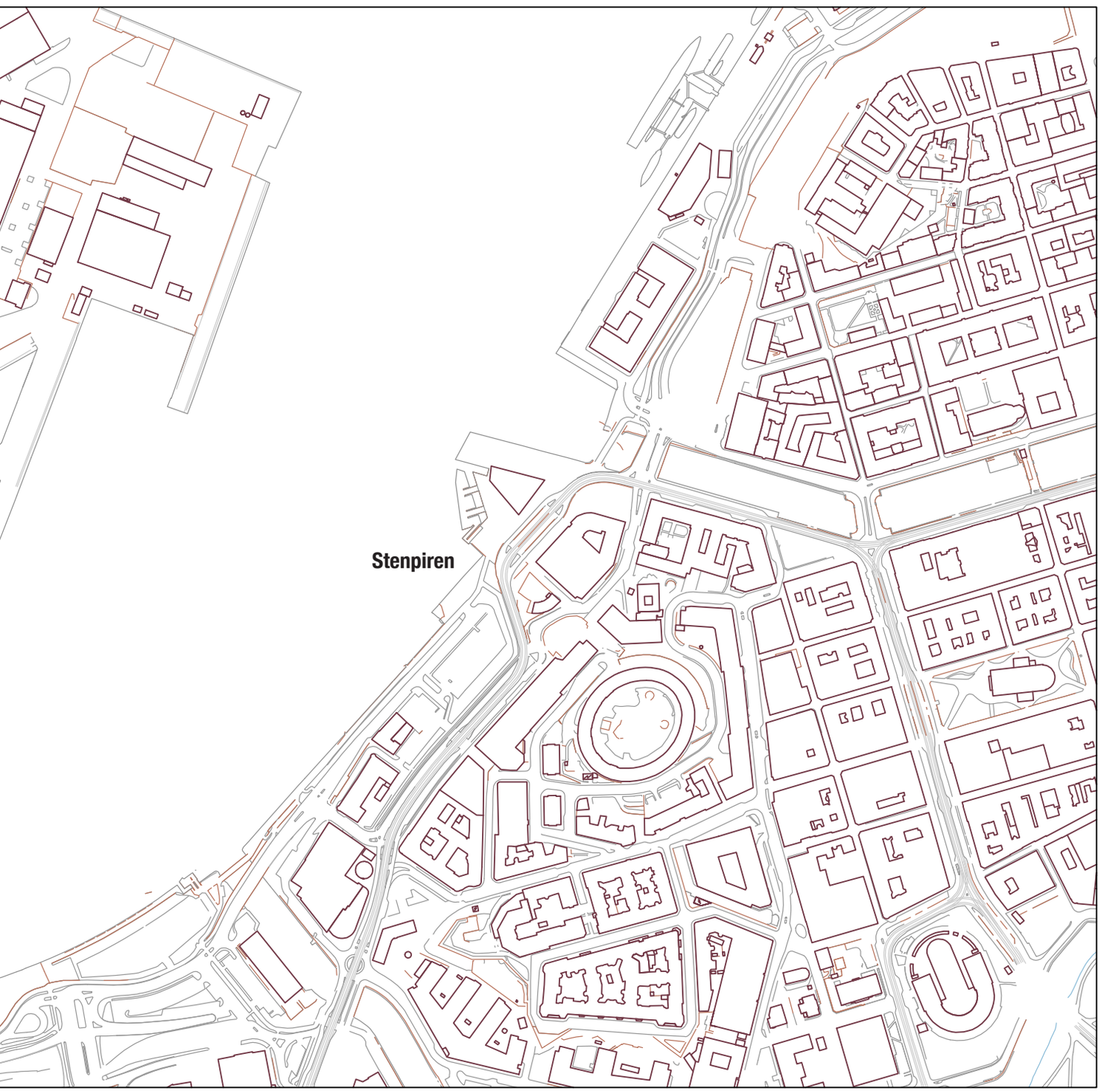


DRAWINGS



Facades - scale 1:800

Site plan - scale 1:5000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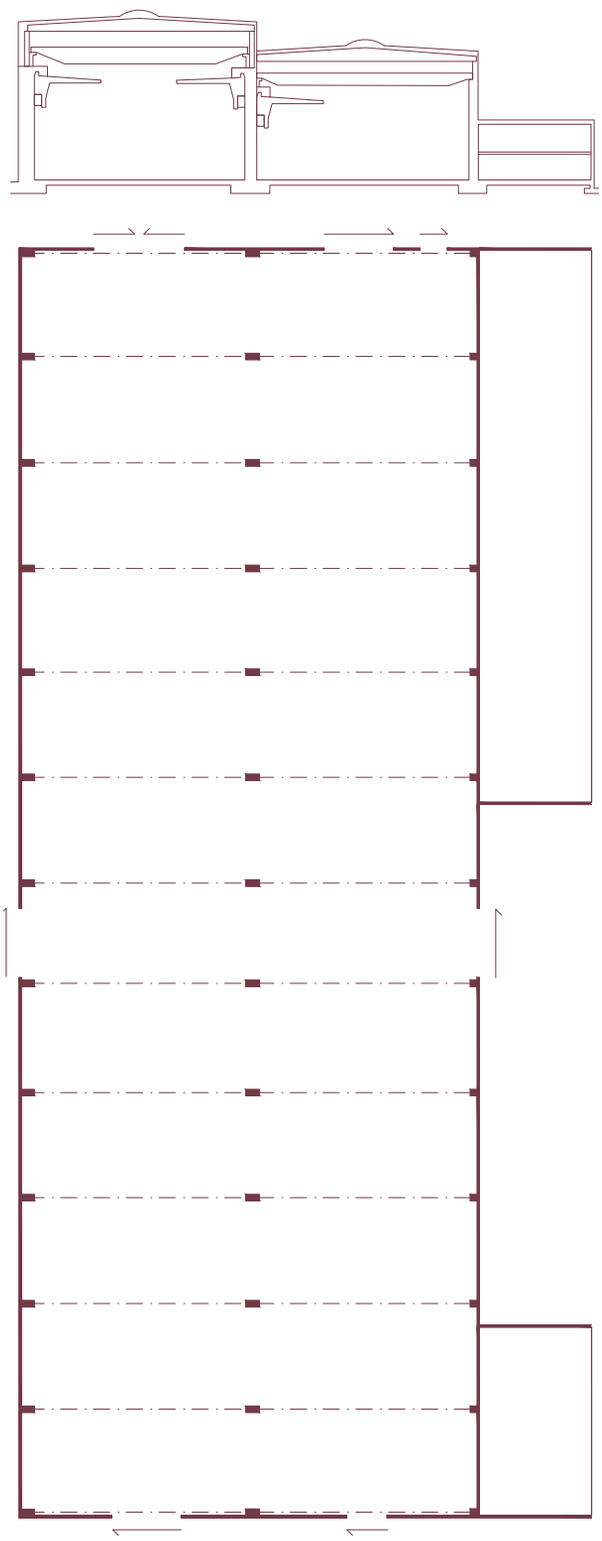
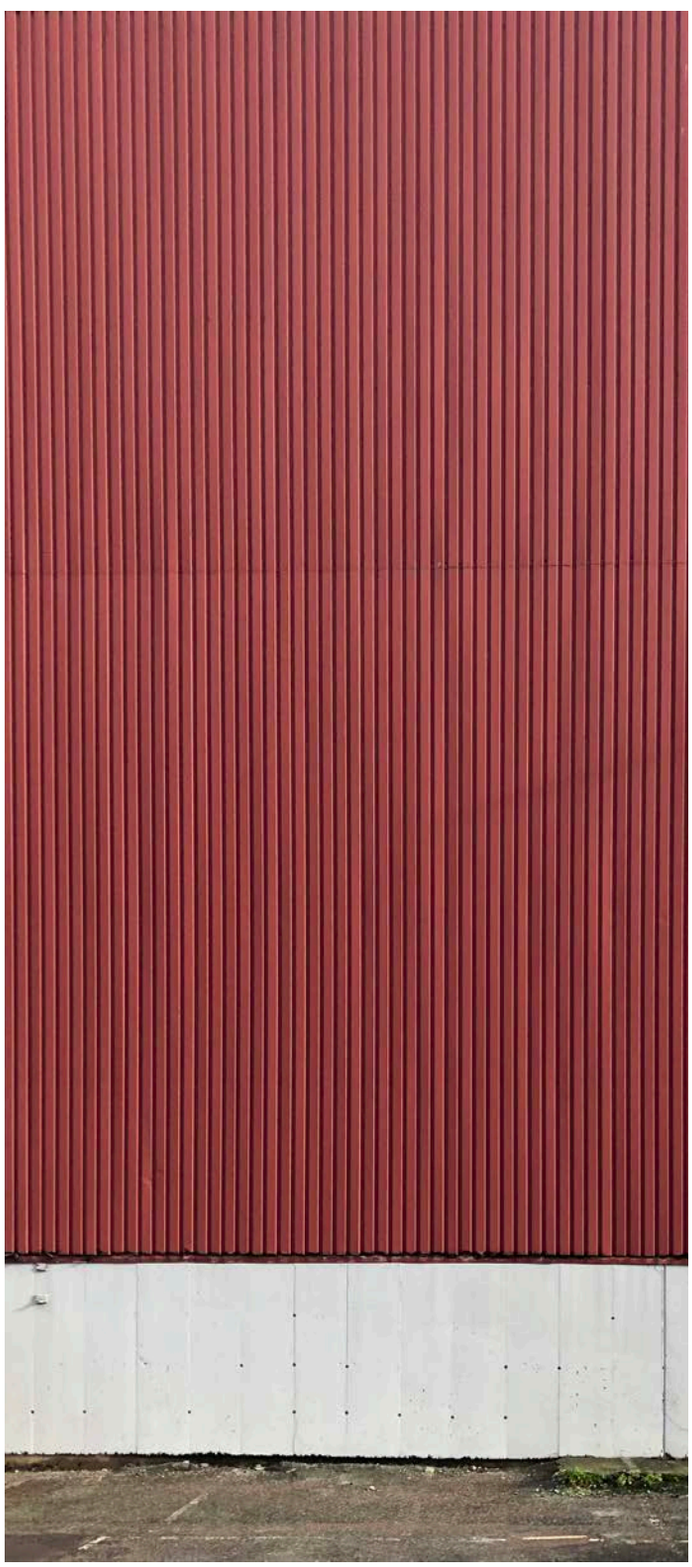


Section & plan drawing - scale 1:800

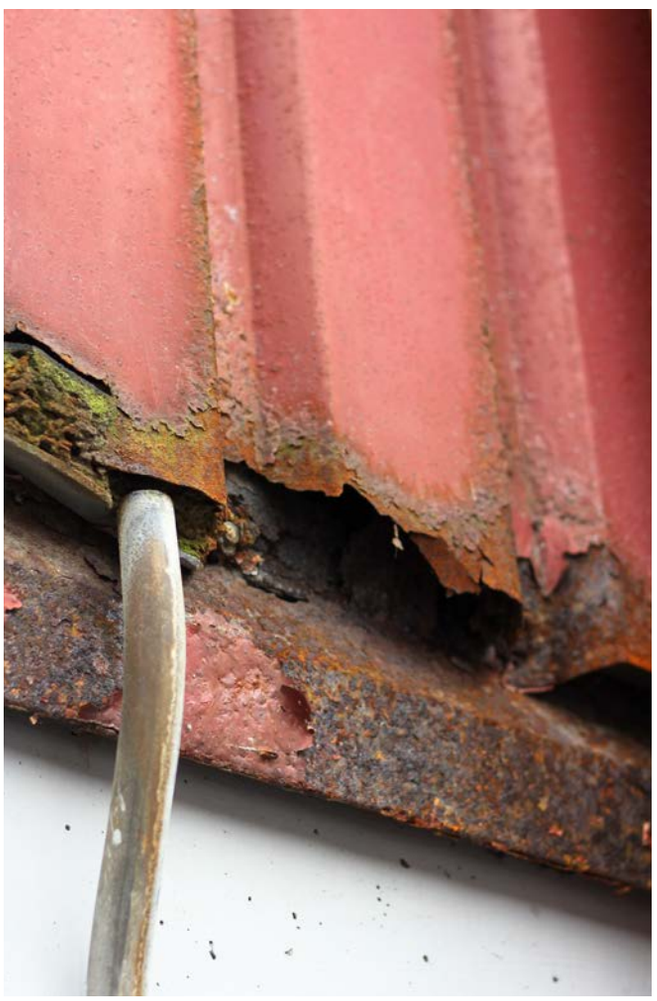


Facade sample

MATERIAL INVENTORY

After site visits, an inventory was made to calculate how much material there is to work with for the transition of the building. The idea is to reuse the sheet metal and windows to build smaller follies and structures to inhabit the space of the warehouse. It is both an interesting design limitation but also a creative framework to work with, not the least a more sustainable option in comparison to virgin materials.

FACADE



CORRUGATED STEEL SHEETS

DATA

MEASUREMENTS: WIDTH 500MM CC

QUANTITY: 4 FACADES

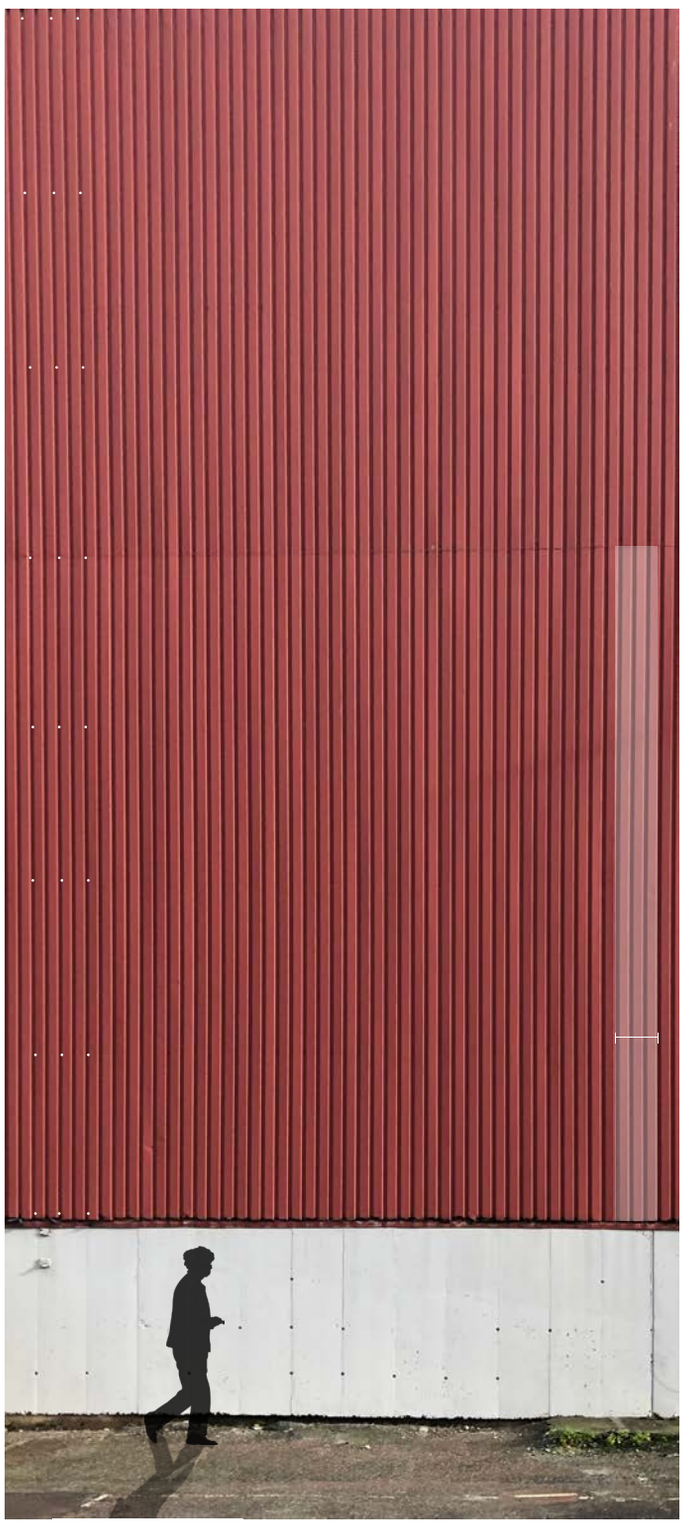
TOTAL AREA: 3897 SQUARE METERS

QUALITIES: *Corrugated steel sheets, patina, rust, moss, large chunks, minimal, bleached ruby red, reusable, recyclable.*

CORRUGATED STEEL SHEETS

row of screws →
row of screws →
row of screws →
row of screws →
row of screws →
row of screws →
row of screws →
row of screws →

one screw in every second profile base



← new layer

← armature height

side overlap cc 500mm
self-drilling screws or blind rivets

rust

concrete

ground meeting

asphalt

Facade sample

WINDOWS

ROUGH CAST GLASS

DATA

MEASUREMENTS: 1670 X 800MM

QUANTITY: 358 WINDOWS

TOTAL AREA: 478 SQUARE METERS

QUALITIES: *Patina, fluted glass, stained, filtered light, two-sided reinforced windows in rough cast glass, band of windows, modernistic detail, possible to open through screws.*

ARCHED SKYLIGHT GLASS

DATA

MEASUREMENTS: 130 X 5 METERS

QUANTITY: 2 ROWS

TOTAL AREA: 1300 SQUARE METERS

QUALITIES: *Arched skylight, fluted glass, filtered light, creates a sharp ray of light during warmer, sunnier seasons of the year while creating a more diffuse skylight during cloudy, rainy and snowy seasons.*

OBJECTS

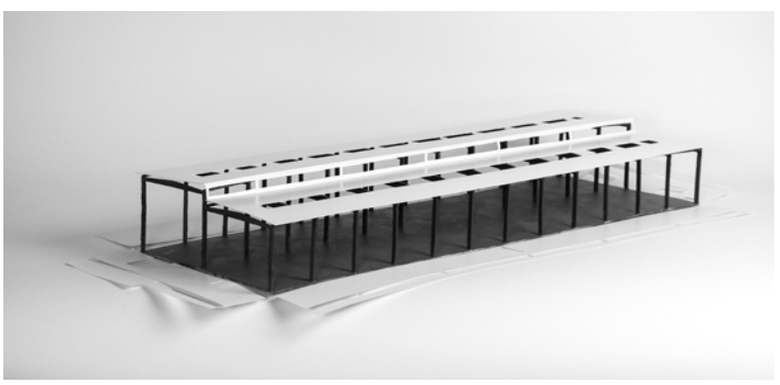
HEX CODES

7c2d2d	b25a17	57503f	f2f2e6
facade	*pillars*	*beams*	*walls*

Above showcases a selection of parts of the warehouse, used as focus points. The tectonic system of pillars and beams, the large scale of the entrances and the signature orange colour are respectively departures for the design process, assessed throughout the multiple iteration loops of the thesis.

OPERATIVE TOOLS

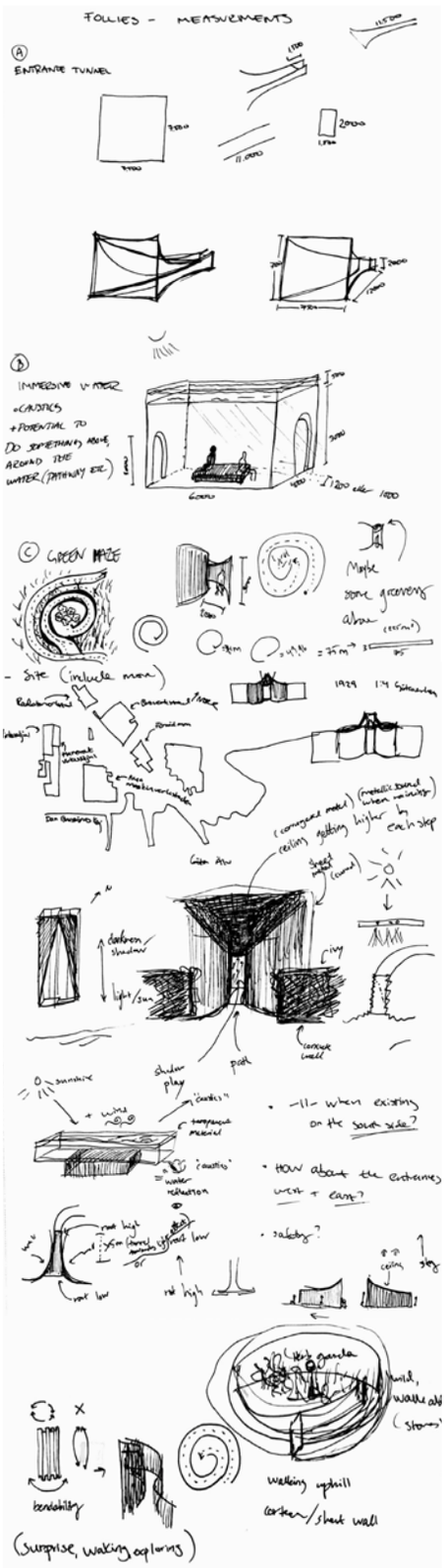
The building with its current facades, roofs and openings, abstracted.



Subtracted of its facades.

The bare structure.

Working with a physical model in an abstracted shape, scale 1:200. The core structure with pillars and beams is being kept, while the facade and roof are being abstracted as white to focus on the core of the building and elaborately remove and add parts. Spatiality and perspectives were examined. The model is used as an operative tool by subtracting the walls and roof and later continued to add, working with a positive work process where parts are added along the design interventions. Sketching by hand has also been a fruitful tool to visualise ideas. The connection between the hand and the pen is a personal preference over digital tools, enabling a better control over the drawing process.



Sketches by hand.

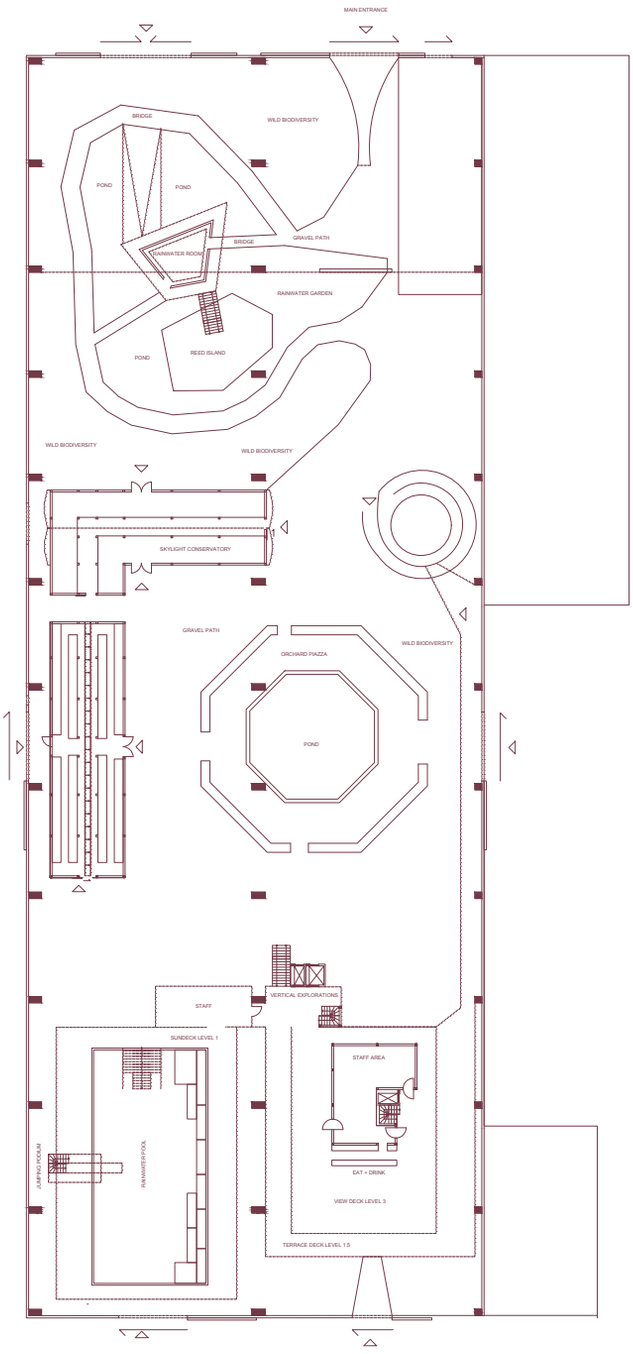
AI WORKSHOP

Garden with plants inspired by the style of Piet Oudolf. Created in Stable Diffusion.

Artificial Intelligence generating programs were utilized for the exploration of design opportunities, de-constructing parts of the warehouse such as its corrugated, red steel sheets, how an addition of greenery could challenge the rigidity of the industrial setting, softening the overall atmosphere. Midjourney, Dalle-E and Stable Diffusion were utilized, with the last one working the best for more realistic visuals. Depicting a deconstruction warehouse, juxtaposing it with greenery added to the current structure and testing various programs to fit into the current context.

The following prompt was utilized:
An interior perspective of a dark red warehouse close to harbour with steel structure, a wild landscape by piet oudolf style, people drinking on rooftop overlooking the city in golden sunset light, reed area and ponds, an organically shaped walking path inside and smaller green houses, a pool in the air with reflective light, ivy growing upwards on steel beams and pillars.

THE DESIGN PROPOSAL



Plan drawing - scale 1:800

THE JOURNEY

The path, also called the journey here, goes from start to finish, sometimes leaving you with a cross roads where you can decide which way to go. One will be a dead end or a "destination" while the other one will let you keep exploring the warehouse.

Entrances: The current multiple entrances are kept as they are, expect for a main entrance and exit, which have received extra care. The entrances from the western and eastern facade are open and enable a easy access to the warehouse.

Unspecified Area: Various low maintenance plants inspired by landscape architect Piet Oudolf, meaning meadows in various height, such as English gardens, which are more wild and free in their forms. The plants should have interesting qualities such as scent, colour or sound, throughout the seasons, from buds to bloom to decay. Ability to absorb storm-water and attract pollinator insects are other vital qualities. Sage, aquatic mint and lavender are some of the selected plants due to their calming scent.

THE DESTINATIONS

Entrance Tunnel: Moving from openness to a structure that becomes darker and lower, until it opens up upwards and later on the sides. The ground material changes from asphalt to a gravel stoned path, leaving a crisp sound from each step you take.

Rainwater Room & Landscape: Caustics, sound of rainwater on sheet metal, waterfall when it rains. Specific immersive experiences connected to water, occurring if the weather conditions are in a significant way.

Blooming Maze: Disorientated, walking in circles slightly upwards, high sheet walls around you, eventually reaching an oasis of scented flowers and herbs.

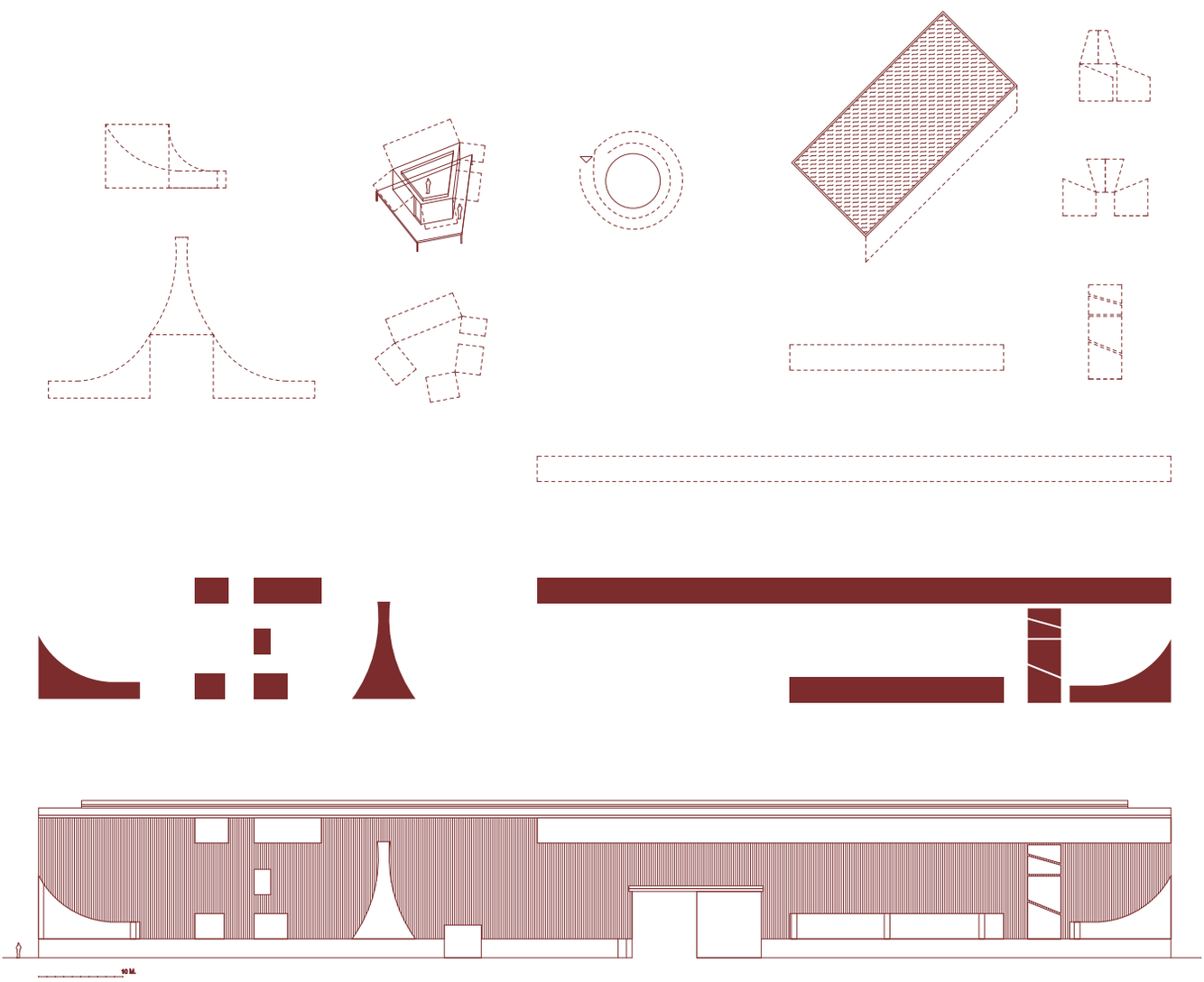
Glass House & Skylight Conservatory: Made of reused windows from the site, with spaces to grow vegetables and herbs. Movable café chairs and tables. Relax, drink a coffee or read a book. In connection to the orchard piazza, this is the core and the main meeting point of the warehouse. The shallow pond is inspired by the shape of a bolt and can be used for various playful and calming activities.

Vertical Explorations: Possibility to explore the full scale in height of the warehouse, exciting view points and good exercise as well. Possibility for various events in multiple levels, accessible through the sculptural staircase or elevator. Business events, yoga class, or outdoor cinema, the possibilities are endless.

Leisure Deck: Using collected rainwater to fill a pool. Open and free of charge, including sun-decks. Similar to the Frihamnen pool, which gathered people from various parts of Gothenburg. Made of reused materials from the site, with pool stones locally sourced.

THE CONCEPT

DECONSTRUCT TO RECONSTRUCT

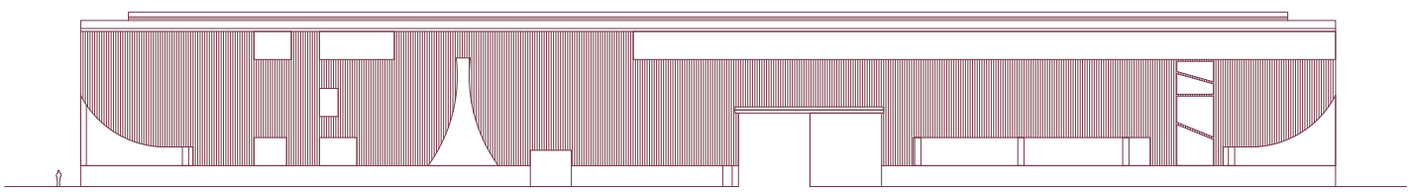


From the western facade, with multiple extractions. Providing construction material to the Entrance Tunnel, Rainwater Room, Blooming Maze, eastern exterior wall of the pool and Exit Tunnel. Scale 1:800

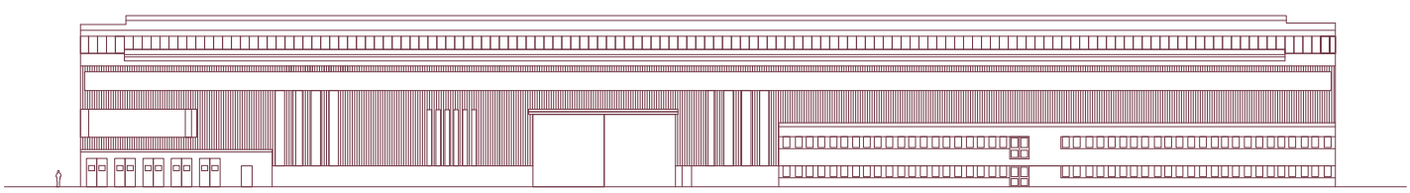
De-constructing parts of the facade to be reconstructed inside the warehouse as material for the destination structures inside. Simultaneously, enabling openings, leaving silhouettes as framed views enjoyed both from inside or outside of the warehouse. Furthermore, leaving large pieces creates a narrative, whispering to the visitor where different pieces have been reused. The positions of the openings are chosen to follow the program inside, thus selected where a framed view or better connection to daylight is preferred.

FACADES

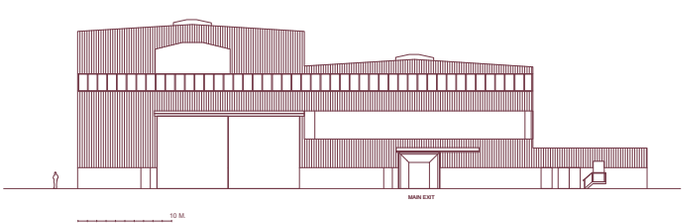
Facade drawings - scale 1:800



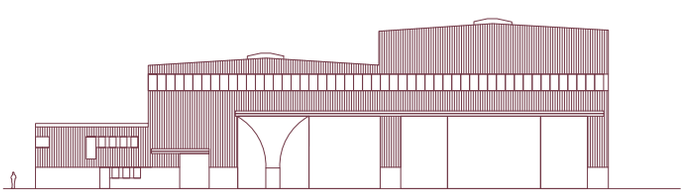
West



East

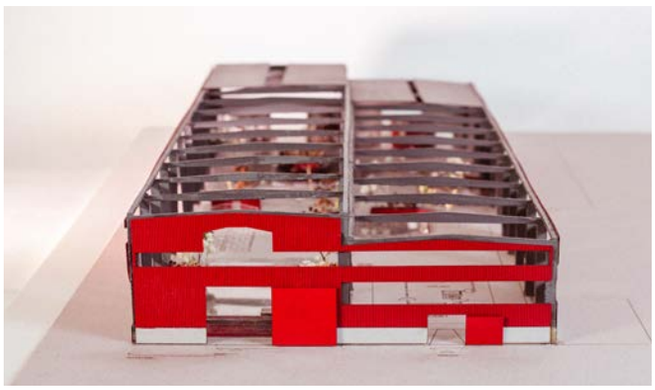


South

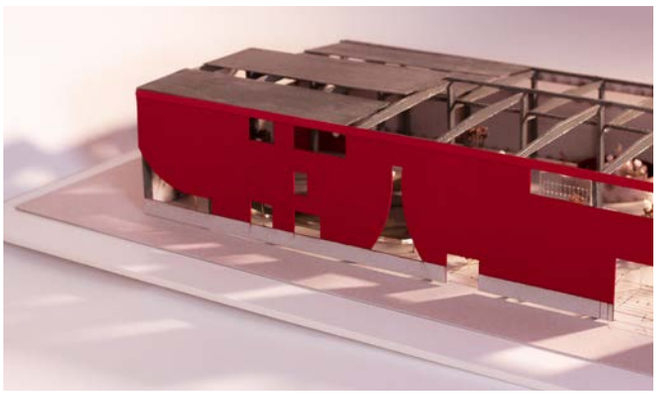


North

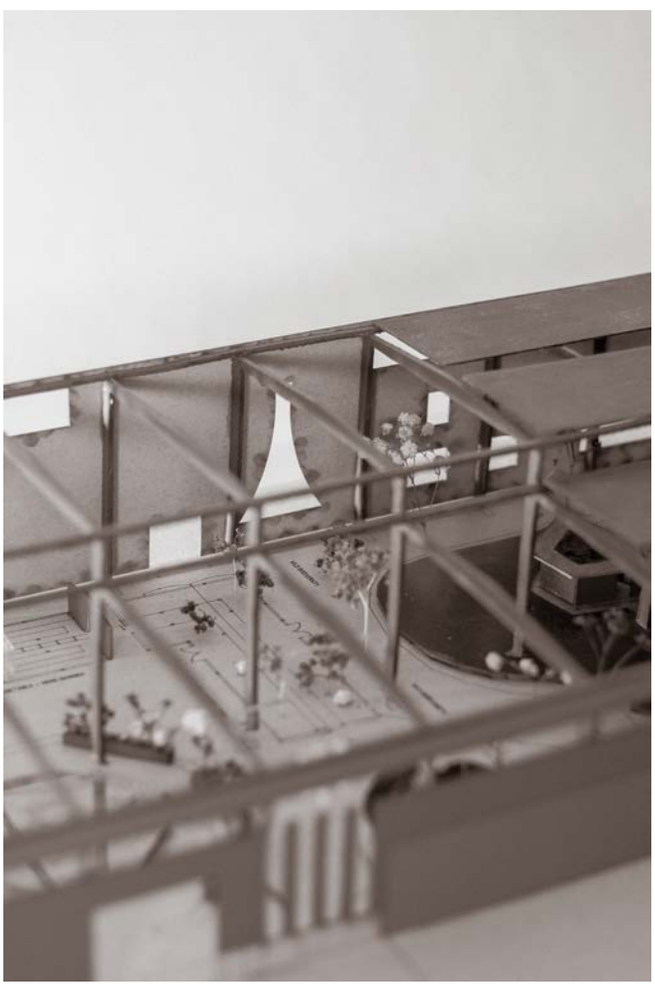
Multi drawing of plan, section and facade - scale 1:600



The south-facing facade, with the leisure area to the left and vertical explorations to the right.



The transitioned facade offers new ways for light to enter.



SELECTED GREENERY

Image Source: Wikipedia

MENTHA AQUATICA

DESCRIPTION

Mentha Aquatica is, as the name describes, a type of mint plant that flourishes in water, often in wet meadows, marshes, rivers and canals. The plant can grow to around 90 cm tall and has purple blooms with an aromatic and pleasant scent. It grows very well in waters or soils that are slightly acidic and can be found throughout Europe, from Sweden down to the Mediterranean.

QUALITIES

AROMATIC
EDIBLE
SWAYS BEAUTIFULLY IN WATER
ATTRACTS POLLINATORS
SUITABLE IN WATER

Image Source: Wikipedia

FEATHER REED GRASS

DESCRIPTION

Feather reed grass is selected since the site previously consisted of wetlands with this actual plant. It can still today be found in Frihamnen, Sannegården and even Lindholmen. This aquatic plant thrives in wetlands and sways in a calming way. It is also the perfect habitat for insects and smaller water organisms.

QUALITIES

ATTRACTS INSECTS
CALMING SOUNDSCAPE
FLOURISHES IN WET ENVIRONMENTS
AESTHETIC PROPERTIES
SWAYS IN A POETIC WAY

Image Source: Wikipedia

SAGE

DESCRIPTION

Sage is a herb originating from the Mediterranean and has been popular since ancient times for its therapeutic and medical benefits, often growing in monasteries. In Medieval times in Britain, one can find it mentioned in the famous song "Scarborough Fair". Sage grows in bushes and is often used in culinary purposes, with its aromatic taste.

QUALITIES

THERAPEUTIC
AROMATIC
EDIBLE
PALE BLUISH LEAFS
ATTRACTS POLLINATORS

Image Source: Wikipedia

HEATHER

DESCRIPTION

Heather is one of the most commonly naturally occurring plants in Västra Götaland and also the official flower of the county. It commonly grows on rocky terrains in close proximity to pine trees. The plant has purple blooms and attracts bees and other pollinating insects.

QUALITIES

ATTRACTS POLLINATORS
FLOURISHES IN BARREN ENVIRONMENTS
AESTHETIC SIMILARITIES TO LAVENDER
WITHSTANDS HARSH CLIMATE
BLOOMS THROUGHOUT AUTUMN

Image Source: Wikipedia

LAVENDER

DESCRIPTION

Lavender is often associated with Provence and France but is actually a plant one finds all across the globe. With its purple blooms and therapeutic, calming aromas, lavender is often used in oils, scented candles and other domestic products. The flower grows in bushes and flourishes in dry, sandy soil in full sun exposure.

QUALITIES

ATTRACTS POLLINATORS
THERAPEUTIC
AROMATIC
EDIBLE
BLOOMS THROUGHOUT SUMMER

Image Source: Wikipedia

LINGONBERRY

DESCRIPTION

Lingonberry is a common plant in Swedish pine forests. It keeps its leafs throughout the year and can withstand extreme-low temperatures. Preferably avoids direct sunlight, one finds them growing under the shade of trees, in moist soil with acidic properties. The plant grows in bushes with white flowers in spring, later producing delicious red berries full of nutritious antioxidants.

QUALITIES

LOCAL ORIGIN
EDIBLE, NUTRITIOUS BERRIES
WITHSTANDS COLD TEMPERATURES
WHITE FLOWERS IN SPRING
FLOURISHES IN BARREN ENVIRONMENTS

Following is a description of the carefully selected plants that will enable the warehouse to become the green lung Lindholmen needs. The taxonomy is mostly of Nordic origin, with some additions from the Mediterranean. They all have a wide range of qualities and are selected through a list of criteria. Room-shaping trees such as birch and sea buckthorn, as well as smaller bushes of lavender, heather and lingonberry together create a mix of senses. Scent, vision, sound, touch and taste can all the activated throughout the seasons in various ways. In addition, they not only clean the air, furthermore contain qualities that attract pollinators, insects and birds, enabling a liveable environments for these vital living beings to thrive.

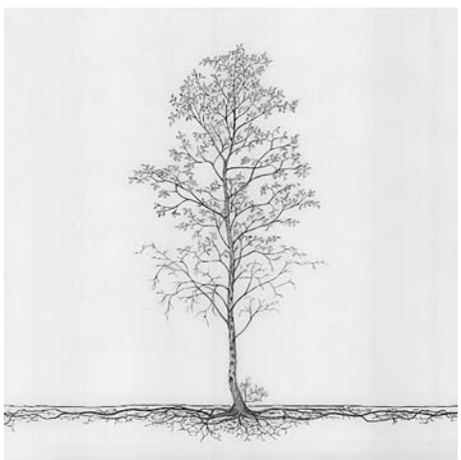


Image Source: Kutschera, L.; Lichtenegger, E

BIRCH

DESCRIPTION

This Scandinavian tree is one of the most beloved in Sweden, and its branches are often used as celebratory decor for high school graduates, furthermore a symbol of midsummer festivities. Its shallow root system and fast growing-qualities makes them a great choice for the warehouse.

QUALITIES

- BIODIVERSITY PROPERTIES
- WHITE STEMS THAT REFLECTS LIGHT
- SHALLOW ROOT SYSTEM
- CALMING SOUNDSCAPE
- ROOM CREATING

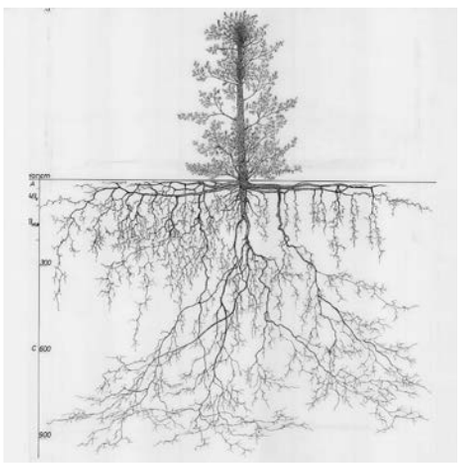


Image Source: Kutschera, L.; Lichtenegger, E

PINE TREE

DESCRIPTION

Pine tree is often found in rocky soil. Having one of the most deep root system properties, makes it extremely durable, surviving the strongest of winds. It has greenery throughout the year and calm, swaying soundscape, making them a suitable choice for the warehouse. They are also often home to birds such as doves, which were found inside the warehouse during site visits.

QUALITIES

- BIODIVERSITY PROPERTIES
- SCANDINAVIAN ORIGIN
- CALMING SOUNDSCAPE
- GREEN THROUGHOUT THE YEAR
- DEEP ROOT SYSTEM

Image Source: Wikipedia

SEA BUCKTHORN

DESCRIPTION

Sea Buckthorn is noted for being the olive tree of Scandinavia. The shrubs flourish in salty, coastal environments and can reach a height of 6 meters, producing vital berries for fieldfare birds. The plant is hardy, withstanding extreme winter climate. With its extensive root system, it is often planted due to its land reclamation properties, redeeming the nitrogen levels in the soil, consequently boosting wildlife diversity.

QUALITIES

- FLOURISHES IN SALTY, COASTAL AREAS
- SOIL RECLAIMING PROPERTIES
- EDIBLE, NUTRITIOUS BERRIES
- WINTER FOOD FOR BIRDS
- AESTHETIC

Image Source: Wikipedia

VIRGIN IVY

DESCRIPTION

Virgin Ivy is found on a facade opposite the warehouse, with characteristic red leafs in autumn. The plant grown independently on facades without the need of support. It is chosen due to this quality, also as a way to disguise the structure in some places, leaving a feeling of a romanticized ruin-like state.

QUALITIES

- GROWS CLIMBING UPWARDS
- RED IN AUTUMN
- CALMING SOUNDSCAPE
- OVERGROWN AESTHETIC
- STICKS TO THE FACADE ON ITS OWN

CONSTRUCTED DESTINATIONS

ENTRANCE TUNNEL

DATA

MATERIAL: CORRUGATED STEEL SHEETS
SOURCED: FACADE, WEST
USED AS: WALLS AND CEILING, SLIGHTLY CURVED
MATERIAL MEASURMENTS: 88 + 88 + 92 M2
QUANTITY: 268 M2

Perspective view of the entrance tunnel, physical sketch model.

ENTRANCE EXPERIENCE

You walk past the old warehouse, the sleeping structure of steel and forgotten memories, which you have seen before but never really paid attention to in your stressful work schedule. You see an entrance but not what is on the other side of the tunnel. You decide to explore, just a quick look.

The first immersive experience begins. This of moving from an open, outdoor space to a tunnel that somehow seems to draw you inwards, where the roof height gets lower and the space feels darker by each step. The walls and roof meet yet leave a little opening between them, letting a vague glimpse of light into the tunnel structure. Inspired by the Castelvecchio Museum by Carlo Scarpa, where the meeting between surfaces have a space between them, as the floor never meets the wall directly, having a small lowered gap between them.

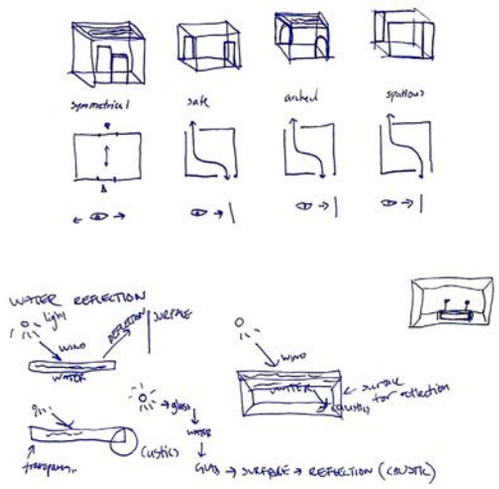
In the middle of the tunnel, the floor material starts to transition from asphalt to a gravel path of small stones, creating a crisp sound for each step, echoing further in the enclosed space as you body moves forward. You continue towards the light, the end of the tunnel. The roof eventually ends and you try to take in the wholeness of the structure, your vision focusing upward and forward, while the tunnel walls are still stretching forward a couple of steps further. At last, you have entered the Warehouse.

RAINWATER ROOM

DATA

MATERIAL: CORRUGATED STEEL SHEETS
SOURCED: FACADE, WEST
USED AS: WALLS TO THE RAINWATER ROOM
MATERIAL MEASURMENTS: 21,5 X 3 M
QUANTITY: 64,5 M2

Caustics reflecting on a surface, physical sketch model.



Sketches of rainwater usage.

IMMERSIVE RAINWATER

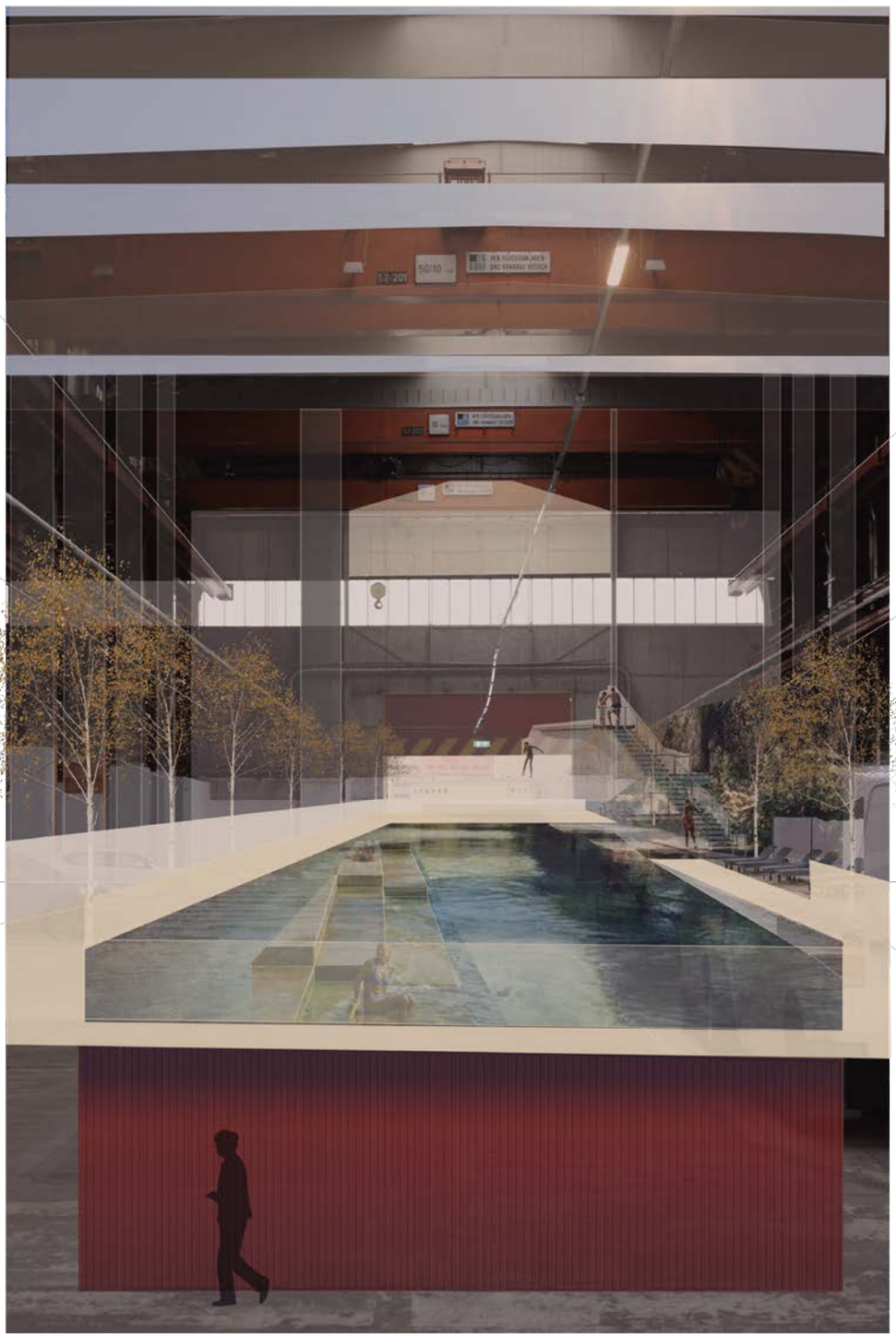
Rainwater can become a problem when there are not strategies to absorb stormwater. In this master's thesis, rain is seen for its advantages. As it, according to the Municipality (2022) rains every third day in Gothenburg, there is plenty of opportunities to seize in terms of rain. The sound of raindrops landing on sheet metal creates a certain soundscape that some people find cosy and calming. There are today mobile applications with soft murmur sounds such as fire cracking, soft waves or birds singling. There even exists applications with different kinds or rain, from a gentle precipitation to a heavier, thunderstorm kind of rain.

Water is vital for humans, animals and plants. It connects us to our biological ancestry. Listening, touching or seeing water can create tranquil, immersive sensations. This is of course individual and also according what type of associations one has with water. Ottosson (2021) name several benefits with spending time close to water. Here water and its immersive properties are being explored, figuring out ways to create intriguing spaces and experiences. The idea is to make use of the rainwater in various forms. The pond, pool and calming soundscape are all connected to water, creating immersive bodily experiences. In addition, to tend for the greenery in the warehouse.

Inspired by Argentinian artist Leandro Erlich, who designed "Swimming Pool" in 1999, an illusion pool with shallow water and a room under the pool. Erlich designed for the phenomena of being under water both for the people under the pool and the people above, looking down. This with only a small amount of water and simple construction techniques.

BLOOMING MAZE

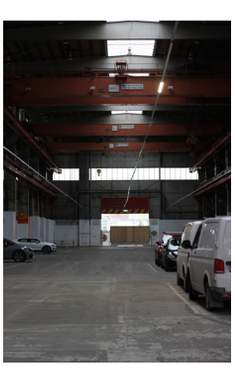
DATA
MATERIAL: CORRUGATED STEEL SHEETS
SOURCED: FACADE, WEST
USED AS: CURVED WALLS
MATERIAL MEASUREMENTS: 3 X 25 M
QUANTITY: 75 M2

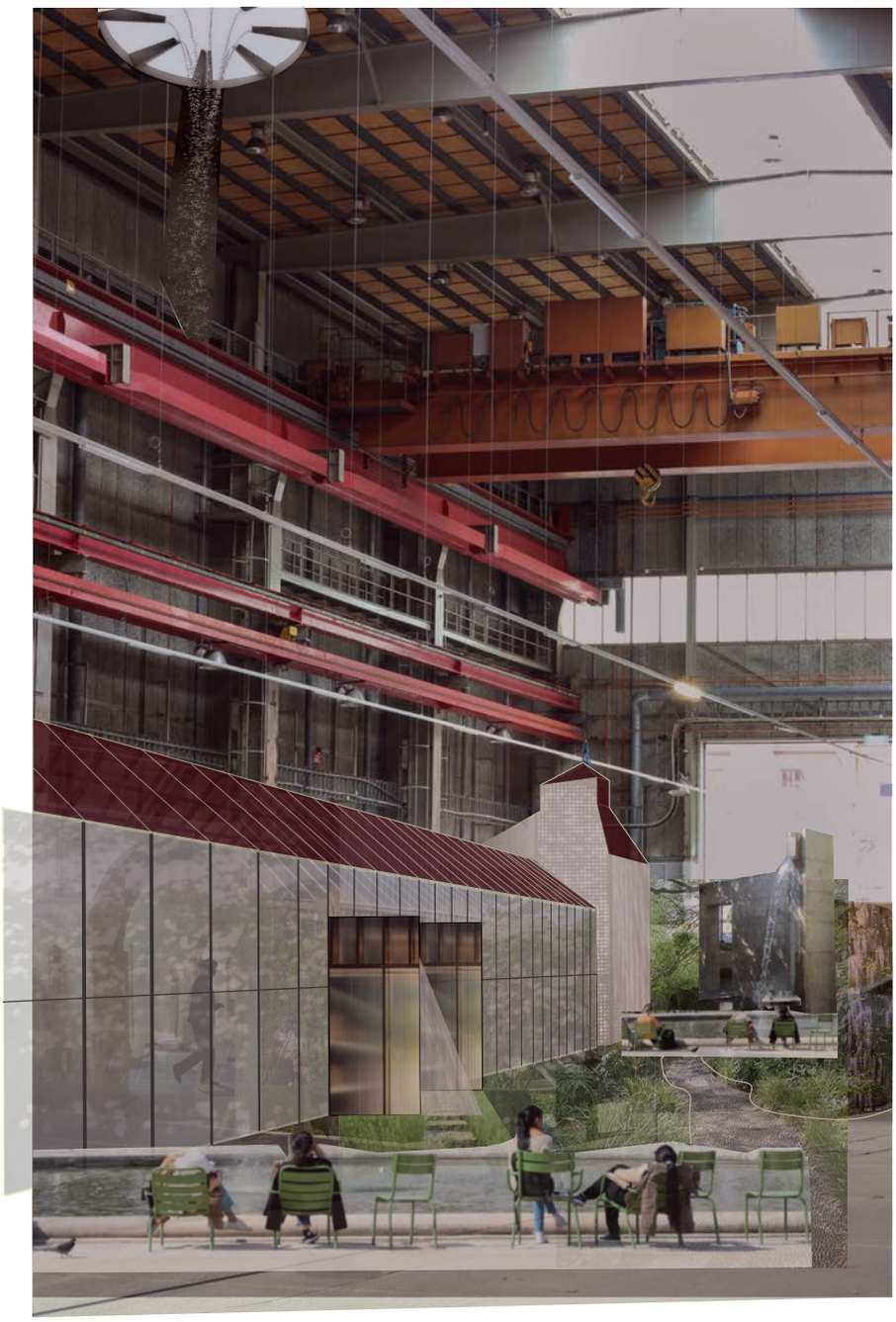


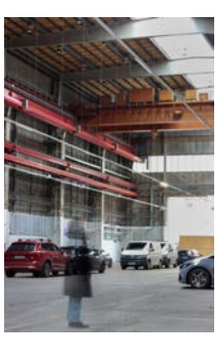
LEISURE DECK

DATA

MATERIAL: CORRUGATED STEEL SHEETS
SOURCED: FACADE, SOUTH + EAST
USED AS: FACADE CAMOUFLAGING THE POOL
MATERIAL MEASUREMENTS: 3 X 12,5 + 3 X 25 + 3 X 25 M
QUANTITY: 187,5 M2







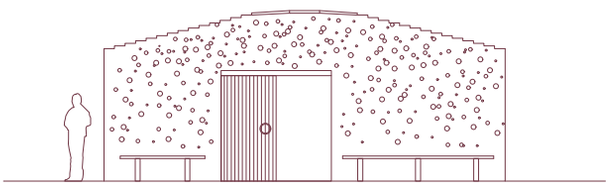
GLASS HOUSE & SKYLIGHT OBSERVATORY

DATA

MATERIAL: CORRUGATED STEEL SHEETS
SOURCED: FACADE EAST
USED AS: GABLE, ONE PIECE
QUANTITY: 73 M2

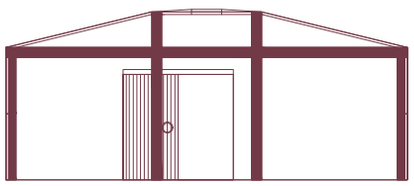
MATERIAL: WINDOWS
SOURCED: FACADE, WEST AND SOUTH
USED AS: FACADE AND ROOF
QUANTITY: 68 + 52 WINDOWS

MATERIAL: SKYLIGHT WINDOWS
SOURCED: SOUTH PART
USED AS: SKYLIGHT ROOFING
QUANTITY: 230M2



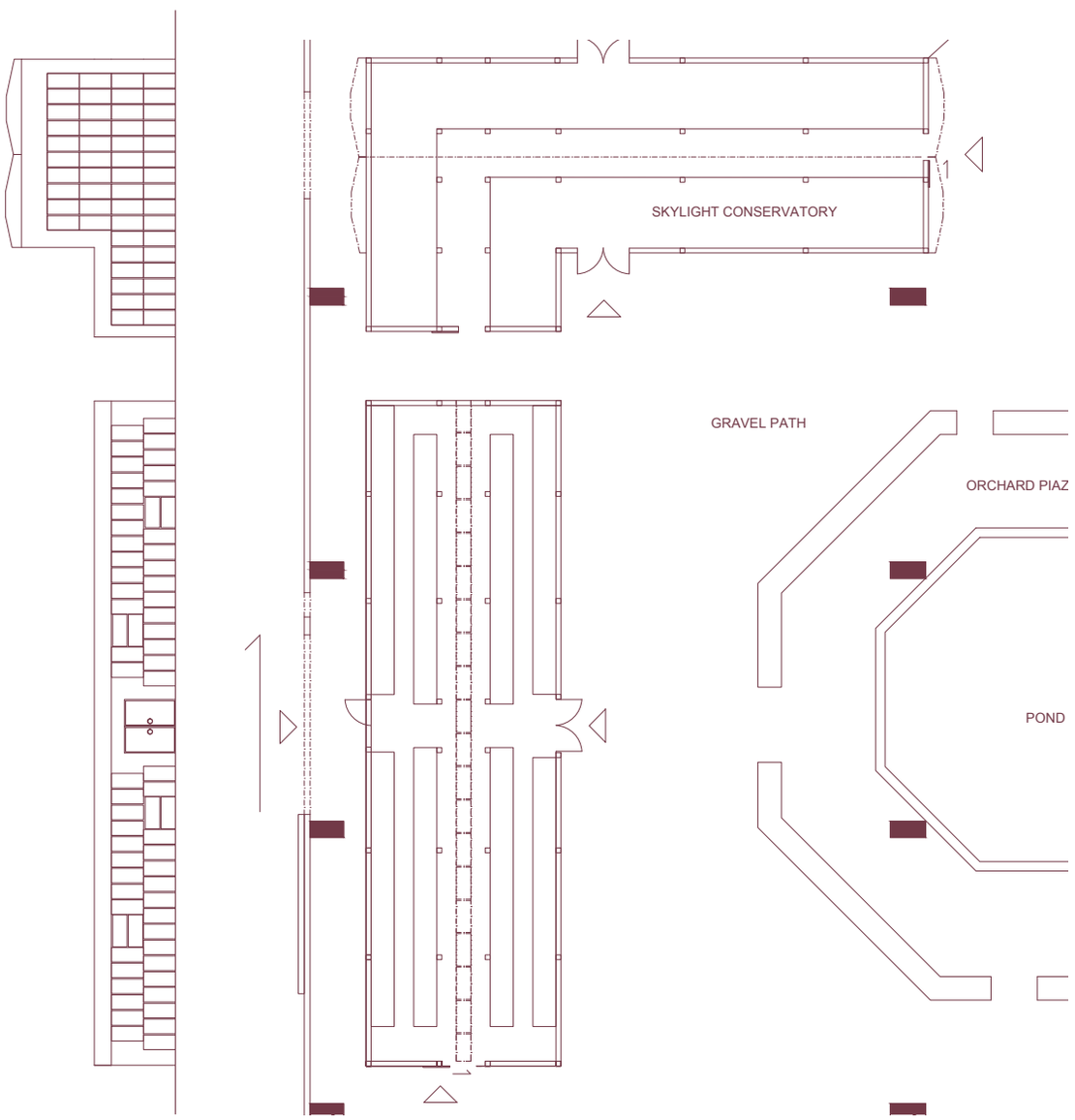
South facade - scale 1:150

The gable is extracted from the eastern facade, with holes influenced by the archive images found. Welcoming soft, delicate light during sunny days.



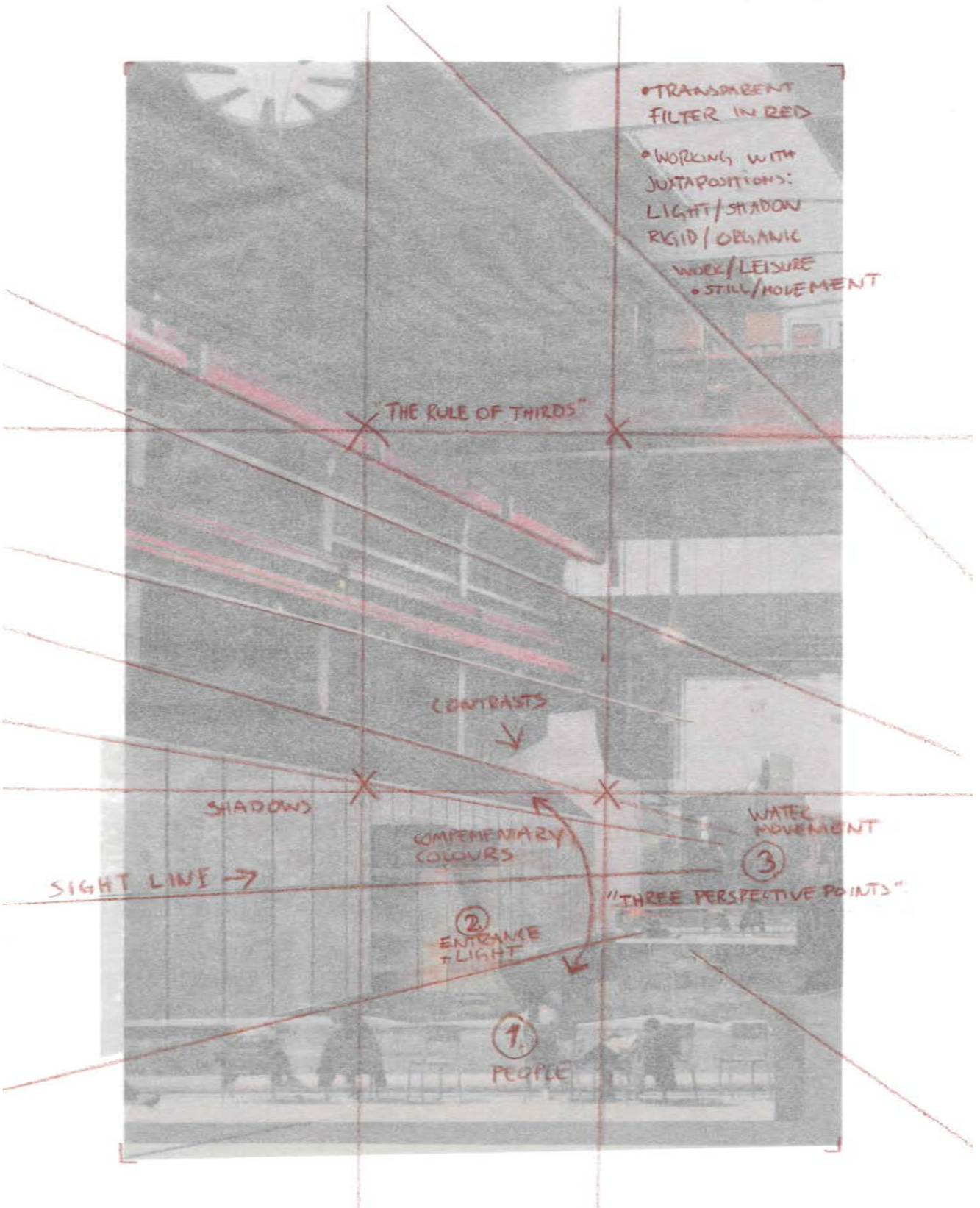
Section - scale 1:150

As a homage to the tectonic system of the warehouse, with pillars and beams, including the skylight in the centre.

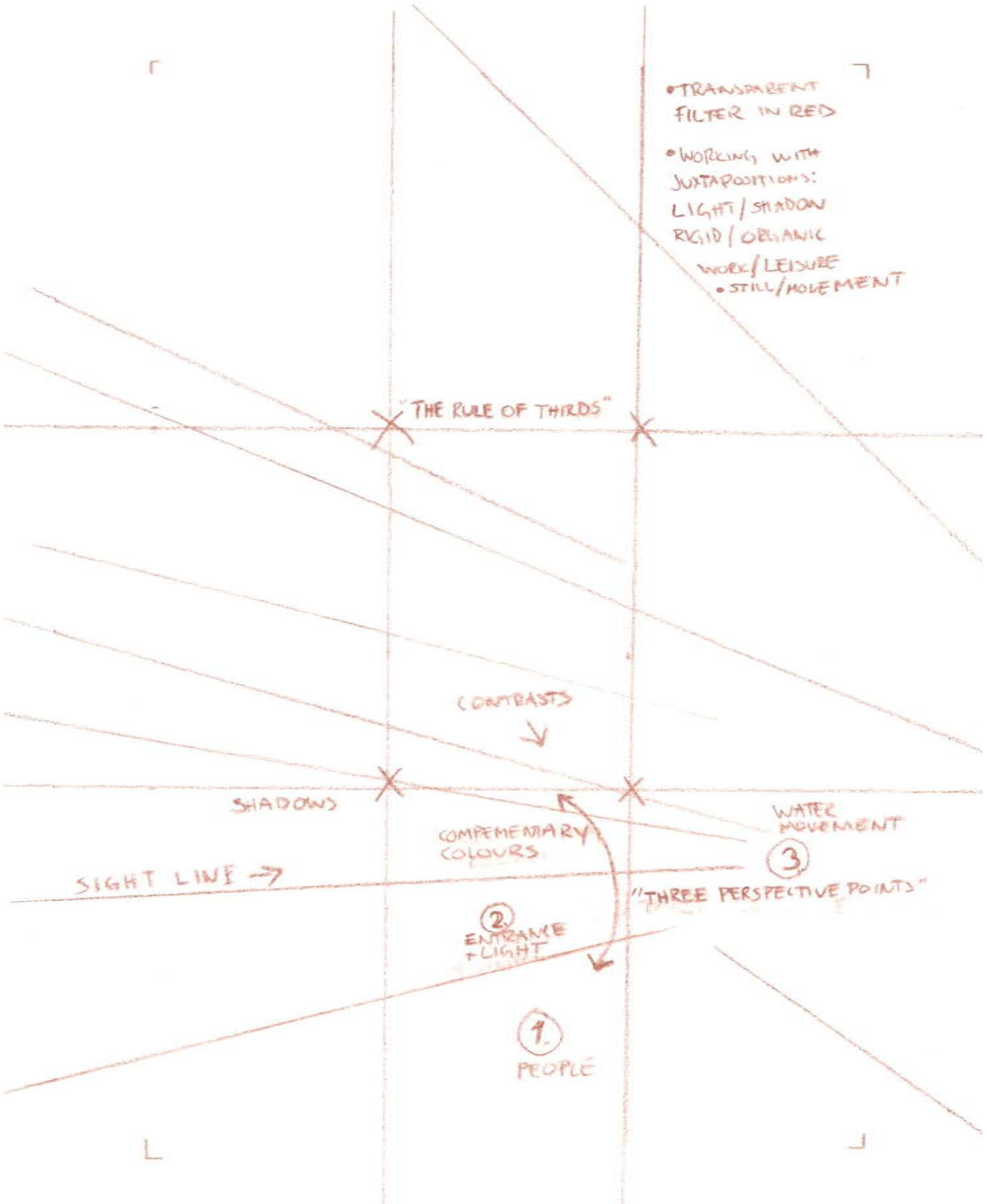


Reused windows used for the two glass structures. Facade facing the piazza - scale 1:300

COLLAGES - PHOTOGRAPHIC ANALYSIS



An extensive background as a practising photographer enables one to learn photographic methods, developing a certain feeling for directing a frame. The following analysis has been made to better describe tricks and methods within photography that aid in communicating a project, moreover in a way where the focus points are directed by the photographer.


•TRANSPARENT FILTER IN RED
• WORKING WITH JUXTAPOSITIONS:
LIGHT / SHADOW
RIGID / ORGANIC
WORK / LEISURE
• STILL / MOVEMENT
"THE RULE OF THIRDS"
CONTRASTS
SHADOWS
WATER MOVEMENT
COMPLEMENTARY COLOURS
SIGHT LINE →
3
"THREE PERSPECTIVE POINTS"
2
ENTRANCE + LIGHT
1
PEOPLE

DISCUSSION

As the thesis questions touch upon subjects of the revitalization of a rather forgotten, industrial warehouse, through implementation of immersive nature experiences in juxtaposition with raw, rusty industrial materials existing on site. There are ways of merging contrasting influences together and throughout the process of the thesis, the notion of why, what, for whom and when have constantly resurfaced. The meaning of architectural endeavours should address the needs of today in relation to a compassionate respect for history, and a flexible and free approach to change.

Change is inevitable. Through an unwillingness to accept change, we as architects create a certain distance to the physical fragment, leaving the users with a sense of do not touch or interact to disrupt its conservation. Since the warehouse is soon to be 50 years old, it still doesn't bear the advantages to be classified as an industrial heritage of a certain significance. In its current state as uninsulated, dated and inefficiently used as a garage for cars, there is a need to revitalize it. There are tremendous fascinating qualities if one chooses to study its traces of production, workforce memories echoing or the massive scale that leaves one feeling a rather uncanny, forgotten ambiance.

Taking care of our buildings, objects and surrounding has unfortunately, through the rise of cheap building materials and faster pace of trends, made us transition and prioritize buying new instead of mending if something gets broken. We are slowly losing our knowledge in honourable craftsmanship, whether it be construction, attention to detail or spacious qualities, in favour of cheaper and faster options. An anti-movement to this is the more slow-paced, community-based perspective where softer values are prioritized. Mending what is broken and reusing in the most creative and resource-saving ways is what we should strive for in numerous aspects of our built environment, urban situations and everyday life as well.

The warehouse is, in my opinion, a great example of what happens when a production machine becomes dated due to competitive new technologies emerging, consequently shifting the focus from heavy industrial production to high-tech and artificial intelligence.

Lindholmen has been a vital part of the industrialism of Gothenburg. The rusty shipyard industry, with its mechanics, welders and painters is being erased to leave room for corporate activities with suits, grey open offices and curtain wall facades. The cluster of office spaces produces dull ghost town atmospheres during after-hours. There is, except for the food court hall Kooperativet and a handful of restaurants, not really anything exciting to do in Lindholmen. The closeness to the Gothenburg city centre is astonishing and with the future plans of adding another ferry stop on the eastern side of the former Götaverken shipyard, even stronger communication and infrastructural system to create even more possible visitors to the other side of the riverbank.

I guess there is also a personal interest in why the area of the glory days as a shipyard industry should still obtain some of its industrial traces. My father came to Gothenburg and worked as a welder at the Eriksberg shipyard during the labour immigration in the 1970. People from all around the world started their journey in Sweden at the shipyards in Gothenburg, Malmö or other cities, enabling them to create a better future for themselves and their families. These shipyards were vital in the development of Sweden, transitioning to one of the most socio-economically strong countries in the world. With this context, simply erasing the shipyard areas would be to erase the memories of the workers, the physical traces of all the hard labour, with memories that should be cherished and honoured for future generations.

Furthermore, the industrial production facilities, unfortunately, left toxic traces that are present to this day. Tributyltin (TBT) was a chemical compound used in painting ships, preventing algae growth on the bottom of large vessels. When the chemical was used in the maintenance of these large ships, they spread to the ground and sediment of the river bank. TBT is still present to this day and in the highest concentrated level, making Gothenburg one of the most toxic environments in Europe. TBT is mostly found in the close vicinity of the warehouse, both in the ground and along the quay. This is the reason for quay being blocked from pedestrians and the warehouse not being altered, since the cost of sanitation and who is to be held accountable to finance it is still a legal feud. The levels of TBT are continuing to spread through winds and boat activity on the river, where strong motors create a movement, spreading the sediment to

move further in the area. TBT is not only toxic for micro-organisms of the sea, resulting in hormonal disruptive symptoms on shells, where female creatures develop male genitals. It is also toxic to humans, leading to respiratory difficulties and hormonal disruption as well. As the whole area of the river bank is being developed and marketed by Älvstranden Utveckling as a vibrant and attractive residential and working area with multi-billion property development projects surfacing, the need for sanitation at first should be prioritized. With the risk of various living organisms absorbing the toxins, effort should be put into revitalizing the condition of the environment. Instead, the opposite is occurring, where the toxic compound is left to exist on standby, further spreading and leaving the alarming problem to future generations to attend to.

With this context in consideration, simply erasing the warehouse would be a rather disrespectful and ignorant way of developing the area. Instead, why not use the building and its structure, materials and atmospheric qualities to help in its transitional process? Inhabiting the interior with materials already present, that have aged through harsh weather conditions and industrial usage. These materials should be cherished since they have transitioned beautifully, withstanding the test of time. The master thesis can be seen as a deconstruction project in one sense since parts of the facades and roof are being extracted. However, they are being reused to house smaller structures within the warehouse, enabling in my opinion, a more efficient and versatile way of material usage.

Steel as a material contains the beneficial qualities of multiple shapes through reuse and recycling. The metal sheets can be reused as they are or remoulded by melting and adding new steel to the mix. It could be moulded to new shapes, the same as the screws. The windows could be reused as well in various ways. Concrete parts can be used as filling or material for floor patterns in the style of terrazzo. Materials, objects and details can thus be reused in multiple interpretations.

The warehouse is transformed into a state where the interior can be used for multiple functions. To attract a variety of groups, it is vital to create programs and functions that are accessible, attracting people, no matter their age, socio-economical background or personal interests. To do so, it is crucial to revitalize the warehouse with the visitors in mind, without micromanaging the area. The warehouse will change throughout the seasons, and time of day, moreover depending on which people and how many are visiting simultaneously. The current infrastructure of pedestrian, bus and ferry routes enables a variety of ways to reach the building and offers a great potential to use the area in a more welcoming and inclusive way than today.

With the limited scope of a master's thesis, there are parts that could be developed further. The scale of the warehouse is massive, making it a challenge to absorb the wholeness of the building. Exterior, interior and a comparison between the original drawings and the current state made the full scope of the warehouse difficult to assess. Due to this, there have been parts that could not be prioritized, even though they were fascinating. Furthermore, with the emphasis on a speculative approach, design ideas were more vital than construction techniques and their current limits. This is to not hinder the creative process and scope of the masters' thesis. In addition, the adjacent smaller structures on the east side of the warehouse have not been assessed in detail. The focus has instead been on the overall warehouse, transitioning both the facades and adding the new implementations inside the building. The adjacent structures inhabit different community programs such as an artisan textile workshop facility, temporary housing and the museum of the shipyards (Varvshistoriska Föreningen). They are functioning programs that could be improved to enable better working facilities with daylight access. However, they function as they are currently and are therefore left untouched.

CONCLUSION

A crucial part of this master's thesis has been a compassionate, thoughtful, and careful approach to design. Of honouring the history, memories and beauty of the warehouse - in juxtaposition with new functions, additions and ideas - which together transition the warehouse to a revitalized state. A transition that honours the old without erasing it. A transition that welcomes change, but in a rather slow pace. A transition that hopefully, will continue its process by people who visit it and make this place their own.

Photography is a fantastic tool for architects to use since it in its core has the same purpose as architecture - to communicate ideas visually. By combining digital photos and iterating them in programs such as Illustrator, we can enable a design process that is specifically tailored for the chosen context. Through intuitive, iterative loops, photography can offer an exciting material bank for architects to utilize. As photographers mindfully direct their composition with objects, light and contrasts, similar to architects with their toolbox of materials, functions, and views. Intertwining the two professions enables new design possibilities.

Fundamentally, the task of an architect should be to create spaces for people to enjoy, a scene with functions, walls and views. This is through the tools of matter, space and structure. Directing the amount of light and darkness. What we must not forget is why we are designing, and for whom. The users are the ones who inhabit the space, the physical context, making the architecture come alive.

With this thesis, the hopes are to manifest how it is possible to combine old with new, juxtaposing industrial traces with tranquil greenery. Revitalizing materials, memories and moments of the warehouse to offer something of interest for the everyday user. By enriching the current immersive experiences present, we can design spaces, places and situations that offer positive outcomes and a deeper connection to the local context. Enabling new memories and experiences to occur through architecture, creating physical room for further immersive experiences to commence. The tales of transition over time and space are thus, revitalized.

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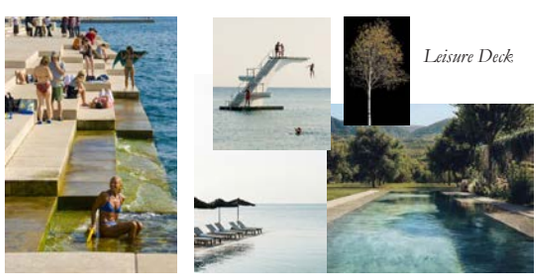
COLLAGE MATERIAL

Below are images that were utilized for the collages, which were made in Illustrator. The author's photos of the warehouse were used as the blueprint, thereafter adding the design proposal by combining the sourced images below with new graphics in multiple iteration loops. The images below are thus not by the author of this thesis.

Entrance Tunnel +
Rainwater Room

Blooming Maze



Leisure Deck

Glass House +
Orchard Piazza

WAREHOUSE IN TRANSITION

COMBINING IMMERSIVE NATURE EXPERIENCES WITH REUSED MATERIALS FROM SITE TO REVITALIZE AN INDUSTRIAL WAREHOUSE IN LINDHOLMEN

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2023