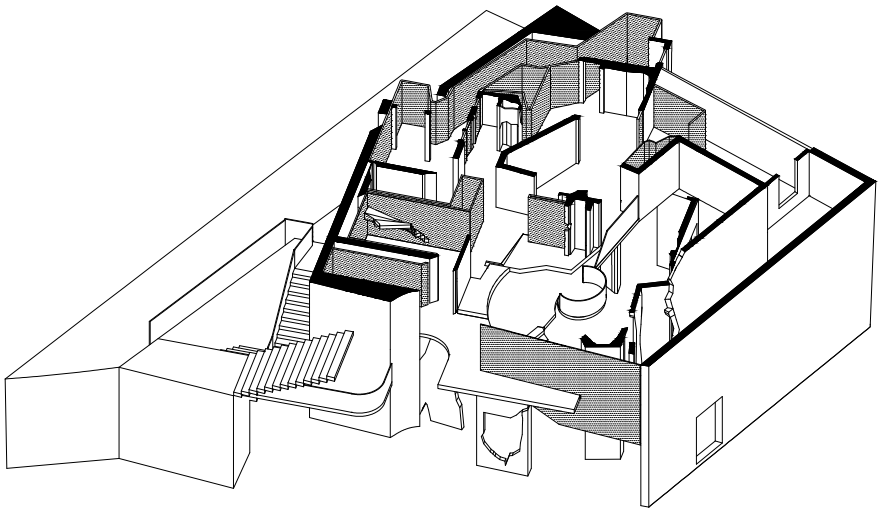
SARISA ADAMI

SPACED DOTS

- An open preservation technique, that offers new spatial experiences.

MATERIAL TURN

Supervisor: Kengo Skorick
Examiner: Junas Lundberg
MT'23



Axonometric view from north west corner, Illustrates supporting regenerated walls from Strand building and printed latex sheets in between.

Today we know a building can reveal much about the society that produced it, and the memories in connection to the history of that society is what creates a common ground between people in one sense. I believe the subject of memory is a softer substance of the histories inner core, which bridge the gap between untouchables and tangible expressions. Some memories are forgotten but some other are sharing similar interests among various generations, in term of historical events and maybe numerable personal curiosities. All in all, those memories play a crucial role in shaping our identity, they are essential for learning and development.

Memories can be used as a source of inspiration for architectural design, creating buildings that evoke emotions and connect people to the past experiences. There are many ways to use memories for preservation and design inspiration. In this project, Materiality and spatial configuration techniques has been used to create a public building that is preserving parts of forgotten memories and connecting people to the past experiences and cultural heritage.

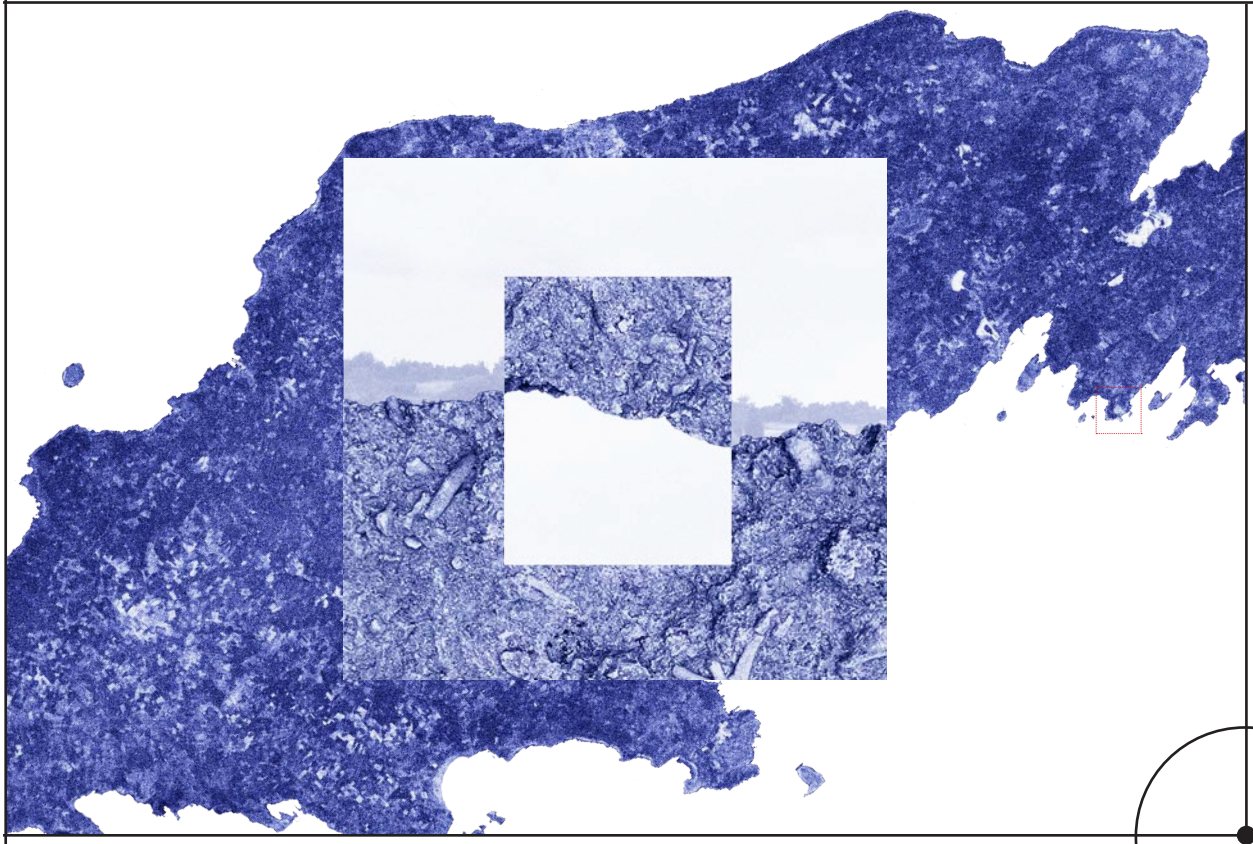
Materiality: Using latex for casting and demolished parts of building as mold are the choice of material in use. The building in use is no longer exist, with the archive drawings and studies we first fabricate portion of the building as a guiding tool throughout design procedure and use those fragments as mold for latex casting to mummify missing characters of the story. The combination of two different material in fact, aimed to emphasize the contrast of solidness and softness that connects various timing (past. present and future) and broke into spontaneous opposition.
Spatial configuration: The arrangement of spaces and circulation can create a sense of journey or progression through the building, evoking memories of past experiences. The concept of contrast has been implemented in space circulation(vertically and horizontally) that are intertwined to create a sense of adventure and exploration, Thus, the combination of material and space configuration is not only designed to reflect particular meanings and curiosities but also generate different relationship between space and public.

Keywords : Artistic sensibility, Curiosities, Time translations

SYS AHLKLO

POST-EXTRACTION MATTERS

- RE-PROGRAMMING SMÖJEN LIMESTONE QUARRY THROUGH LANDSCAPE-BASED DESIGN



RURBAN TRANSFORMATION

Supervisor: Nils Björling
Examiner: Marco Adelfio
MT'23

With the disused quarry at Smöjen, Gotland as a context, this thesis asks the question *How can architects take responsibility for the use of materials when re-programming post-industrial landscapes?* The thesis aims at highlighting the necessity of conscious use of materials by utilizing the landscape. The argument is being made that the physical limitations that come with a landscape-based design could be formulated as a creative framework that opens up for interesting solutions while avoiding depletion of recourses.

As a result of mining natural resources on an ever-increasing scale, the amount of extraction sites have multiplied. Today, there are rules and guidelines for the rehabilitation of quarries, but quarries from before the 1970s have not been subject to rehabilitation in the same way. The harsh landscape alterations of dis-used quarries make the landscape-rehabilitation process slow, but the same barren landscape with its traces from past lives have proven to attract an increasing number of visitors. Smöjen is subject to this increasing tourism meanwhile in need of rehabilitation to prevent potential safety hazards. Regionally, Smöjen is defined as an area of development in the larger context of the Gotland archipelago.

The thesis proposes an intervention of Smöjen, focusing on three support structures for information, visits and accommodation, using the existing landscape and material remains as a design framework. Literature research, archive visits and extensive site explorations have informed the design proposal. In addition, an extension of the hiking trail S:t Olofsleden is proposed, adding context to Smöjen and other already established visitor destinations along the north-east coast.

The thesis focuses on the understanding of the material in the early phases of the design process. The proposal preserves and strengthens the identity of Smöjen, demonstrating concept development in relation to material use and circularity and contributes to the discussion of the architect as consumer of building materials.

Keywords :
Post-industrial, Non-extractive architecture, Landscaped-based design, Gotland, Limestone, Local resources, Tourism development, Waste hierarchy

SOPHIA ANDERSSON

VITREUM

- GLASSWORK AND EXHIBITION CENTER

BUILDING & TECTONICS

Supervisor: Björn Gross
Examiner: Mikael Ekegren
MT´23

What makes a place, and what contributes to its identity? Gothenburg has a long history as a port city, with industries along Göta älv. However, in recent years these places are no longer used in the same way, which has contributed to empty premises and run-down areas. But if we were to remove these buildings, the city would have a different character and identity. By observing the existing character that gives Ringön its identity, a new building can emerge with inspiration from the history of the site. In this way, the area's unique character can be preserved, and at the same time, developed and enriched with new architecture.

Ringön is a centrally located place, but still on the edge of the inner city of Gothenburg. During the latter part of the 19th century, the land was bought up by the city of Gothenburg, where they began to build the harbor facility Ringön. In 1939, the Göta älv bridge was built, a new town plan was established, and the area was transformed into an industrial area.

Today, everything from music to concrete is produced on Ringön, and there is a sense of settler spirit that permeates the area. After a site analysis and a review of the development project *Saltet*, the idea of a glasswork with an associated exhibition center arose. Letting the old meet the new is the keyword, where traditional craftsmanship and artistry are combined with new design ideas. Through analyzing theoretical and built references, the thesis aims to investigate Ringön's identity and develop a modern glasswork with an associated exhibition center, with inspiration from the area's industrial character. Additionally, explore how the movement and flow of a glasswork can be designed, as well as to investigate the architectural experience of an exhibition hall. The design proposal aims to answer, *How can a modern glasswork and exhibition center be constructed with inspiration from the industrial character at Ringön?*, with the sub-question, *In what way can different room compositions vary the architectural experience of an exhibition space?*

Keywords : Exhibition, glasswork, historical context, identity, industrial character

EDVIN ARNHOLM

HOME ANEW

- RECLAIMING AN EMOTIONALLY SENSITIVE SPACE

BUILDING & TECTONICS

Supervisor: Mikael Ekegren
Examiner: Björn Gross
MT´23

This thesis aims to explore the process of building a house in a personal and emotionally sensitive space while respecting the heritage of the family and the site. The primary objective is to provide spaces to gather family and friends, while respecting the memory of what once was. This is done by creating a comfortable and functional space where the family can create new memories together. The outcome is a design proposal for a vacation home, next to the existing building.

The starting point for the thesis is to trace the family heritage on the site, in the village of Mölltorp in Västra Götaland. To provide contextualization about the site and the house, the early stages of the process were spent sketching different aspects of the existing building, in research by design methodology. A phase focusing on research for design followed, conducted through literature studies. This was followed by the design phase, where the research question is explored through architectural design.

The design process intended to provide an answer to the research question, where the memories of how the site has been used in the past has been elemental in shaping the new design proposal.

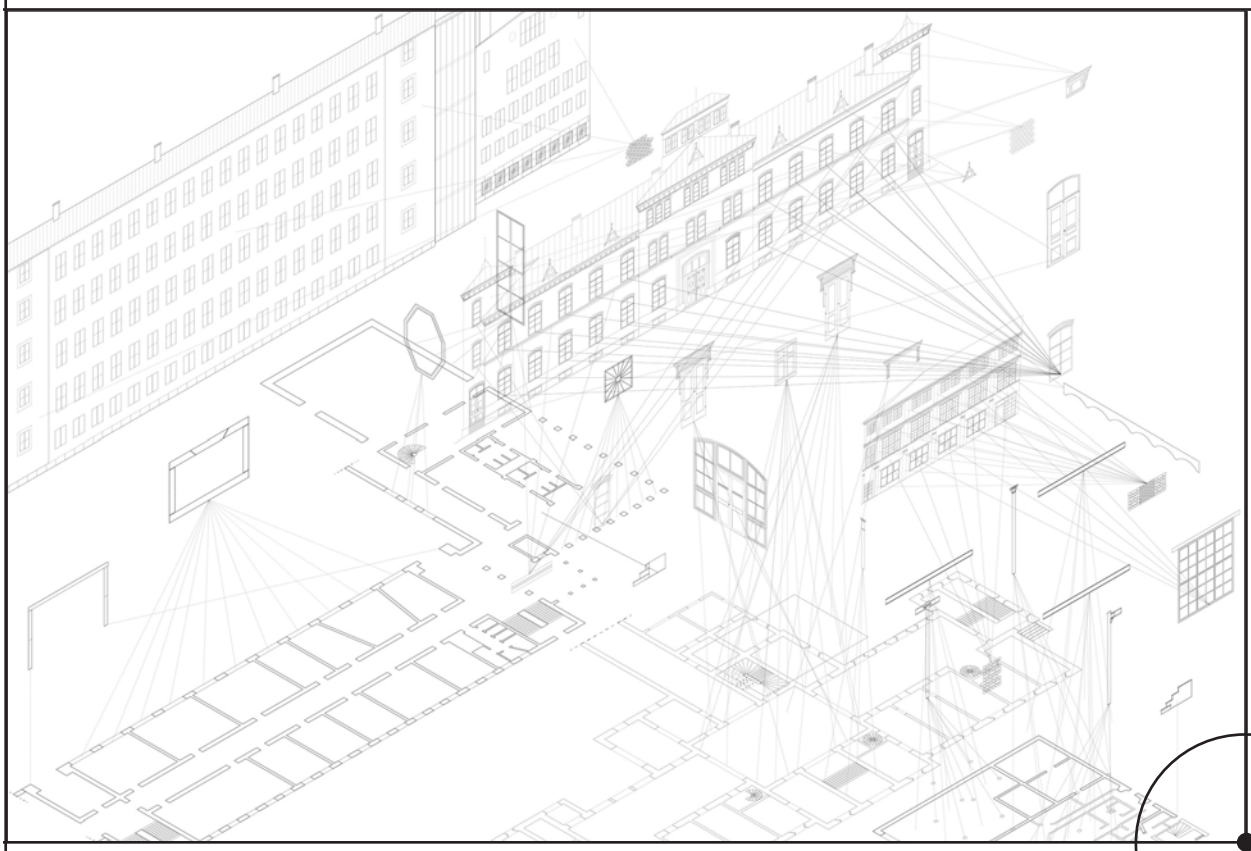
In conclusion this thesis aims to provide a framework for designing a new building in a personal and emotionally sensitive space without feeling intrusive to the memories, or worse, like a poorly executed replica that could potentially harm the delicate emotional bonds that exist on the site.

Keywords : Emotionally sensitive space, nostalgia, residential

NELLY AXELSSON

VALUE, FRAGMENT, NARRATIVE

- EXPLORING SPOLIATION IN THE PRESERVATION OF BUILT HERITAGE



MATTER SPACE STRUCTURE
Supervisor: Daniel Norell
Examiner: Daniel Norell
MT´23

Demolition is inevitable.
The search for immortality is as present in architecture as in the rest of human history. We try, in various ways, to negotiate the death sentence for buildings through acts of preservation. However, in our fast-paced society, the challenge is building between preservation of cultural heritage and future development (Plevoets & Van Cleempoel,). The global environmental challenges are working against our most common strategy which is to “emphasize conservation of the original appearance to a great length of the building chosen as monuments and leave other buildings to be demolished when it faces structural instability or simply goes out of style” (Plevoets, 2022). Social instability and environmental crisis are a call to rethink how we perceive management of cultural heritage as well as to reduce the climate impact of the building industry.

In this context, the ancient method of spoliation can acquire new significance. Spoliation became common during the economic downturn in the late Roman Empire. It entailed removing a part, or fragment, of an antique building on one site and assembling it with other parts on a new site to form a new building. Today, Architects can avail themselves of a wide selection of authentic building materials through the practice of spoliation, which can enhance storytelling, promote awareness, and help address global environmental challenges.

As a response to this call, this thesis explores the role of the fragment in relation to architectural design and the management of built heritage through the lens of spolia. For the sourcing of materials, as well as for building anew, the thesis investigates the contemporary landscape of Gothenburg, Sweden. The method relies on three phases: Inventory, design investigations, and project design.

The project design recognize spoliation as a method of managing the loss of cultural value in addition to the potential for design. The spolia depository serves as a vessel for the practice of reusing architectural fragments. Within the walls, remnants from demolished buildings accumulate and find new purpose in contemporary designs and constructions.

Keywords :
Heritage, Spolia, narrative, Reuse

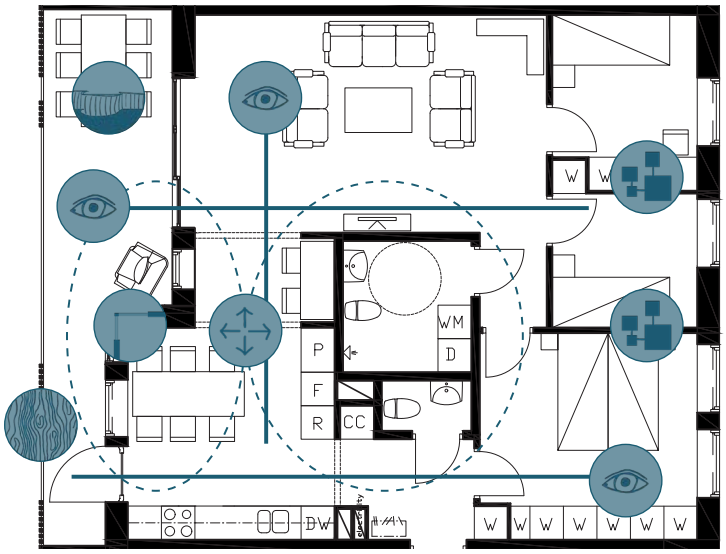
ELLEN BENSKÖLD

RAISE YOUR STANDARDS

- AN INVESTIGATION OF HOW DESIGN ATTRIBUTES IMPROVE THE QUALITY IN APARTMENTS

HOUSING

Supervisor: Anna Braide
Examiner: Kaj Granath
MT'23



The housing construction industry in Sweden faces several challenges, such as a housing shortage, slow building pace, high prices, and low-quality residences. To maximize profits, construction companies prioritize quick and cheap building projects, resulting in smaller apartments with a concerning lack of qualitative features such as axiality and circular movement.

The purpose of this thesis is to draw attention to design attributes as an important part of housing architecture, and its contribution to the advancement of architectural quality. The thesis explores several design attributes in contemporary housing architecture and investigates how they can be incorporated through floor plans in an existing, newly developed, housing proposal.

The aim is to redesign the apartments in an existing proposal incorporating design attributes without compromising the building's program. The final proposal illustrates how design attributes are incorporated in different types of apartments and investigates the impact of the changes on the existing building volume. Eventually demonstrating area efficient apartments that through design attributes have achieved high architectural quality.

The research questions focus on how design attributes improve the quality in different types of apartments and explore their impact on the building itself compared to the existing proposal.

Q1. How can design attributes improve the quality in different types of apartments?

Q2. What impact do design attributes in apartments have on the overall building?

The thesis investigation has been conducted as a collaboration between five main methods: research for/on/by design, literature studies and case studies. Literature and case studies have gathered information on the topic, built a foundation for further investigation and defined the design strategies that are being used. Lastly the thesis practices research by design carried out by using several design attributes as strategies in the design proposal.

Keywords : design attributes, quality, floor plans, area efficiency

KLARA BERGSTRÖM

BÖLEBADET

BUILDING & TECTONICS

Supervisor: Filip Rem
Examiner: Mikael Ekegren
MT´23

This thesis explores how a public river bath in Umeå, Sweden, can be designed to accommodate the traditional Nordic bathing rituals, and how architecture that encourages sensory experience can create a stronger connection to the natural surroundings.

Located close to the city centre of Umeå, about 2 kilometres upstream, lies a small set of islets called Bölesholmarna. These islets are part of a recreational walking trail connecting the north and the south side of the river. The cold bathing facility will float just outside of the western point of the islets and can be viewed as an extension of this trail, thereby connecting the bath to the busy city centre through another outdoor activity. The design of the building creates a connection with the surrounding environment, directing the attention to the river and encouraging visitors to slow down and appreciate the natural beauty of the area. The history of log driving on the site will be explored and used as reference in the building's façade.

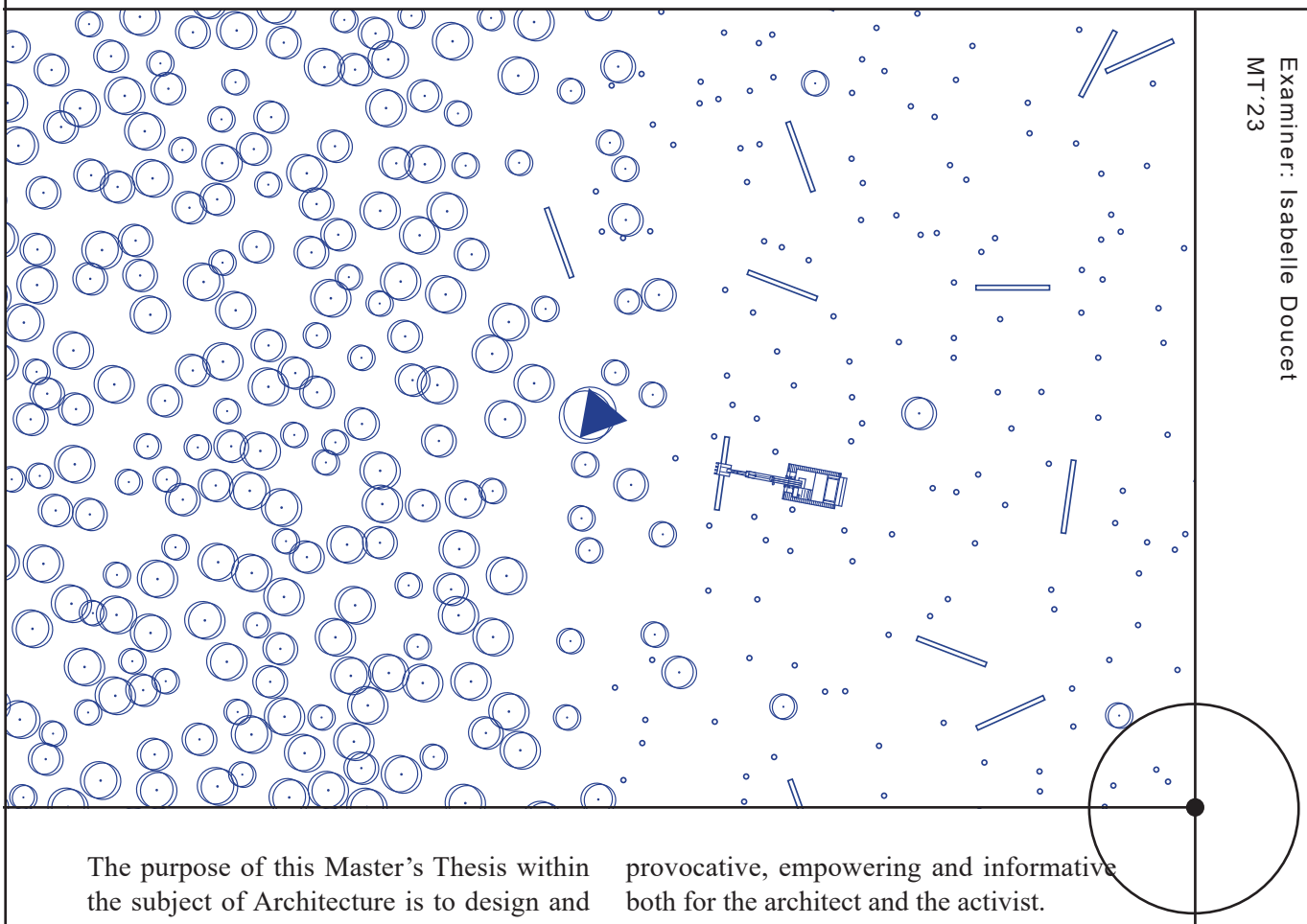
The design of the building is based on the notion that partaking in a ritual can strengthen the connection to place through repetition and sensory experiences. By designing for the traditional act of sauna bathing, a deeper connection between people and their environment can be evoked. The thesis will therefore cover the background and history of the Swedish sauna bathing, as well as aim to describe why it has become such an important and integral part of our culture. By mapping out its historical and cultural importance, the goal of the thesis is to use it as a design tool, and through research by design propose a space meant for the experience of the ritual. And by doing so further enhancing our presence in nature, in order to take better care of our planet and ourselves.

Keywords : sauna, cold bathing, ritual, culture, sensory experience,nature

ELLEN BOMAN

THE ACTIVISTS' SHELTER

- ENABLING ACTIVISM THROUGH ARCHITECTURE



CRITICAL SPATIAL PERSPECTIVES

Supervisor: Bri Gauger
Examiner: Isabelle Doucet
MT'23

The purpose of this Master's Thesis within the subject of Architecture is to design and build a treehouse for climbing climate activists who wish to stay in them when carrying out blockades in forests as an action to protest against deforestation.

The main finding from this thesis is that designers can - by being intentional with their actions, aware of design decisions and by be being conscious about what they produce – angle what impact they have. I have chosen to enable activism through architecture because activists are at the frontline in the war between society as we know it, and a liveable planet in the future.

There are three objectives to this thesis:

1. The act of designing this treehouse is a way to showcase how the designer can choose which impact her design will have. In the case of this thesis, designing a tool for activists to use.

2. Explore and challenge in writing the role of the architect in the aspect of climate action and activism. The thesis itself should be: provocative, empowering and informative both for the architect and the activist.

3. The impact the design will have for the environmental movement. The treehouse should be: reproduceable, materials should have minimal environmental impact, shelter two people from weather, wind and water cannons, be easy to set up for two people, be able to move to new locations (reusable), the design needs to fit a variety of types and size of tree. The design should enable smoother and longer forest blockades.

The research methods used were a combination of participatory observation by, informal interviews and immersion with climbing climate activist, and literature research about the fields of knowledge surrounding architecture and activism, politics and climate.

Presented in the form of a how-to-handbook is the final design proposal.

Keywords: Activism, Architecture, Forestry, Treehouse, Treesit

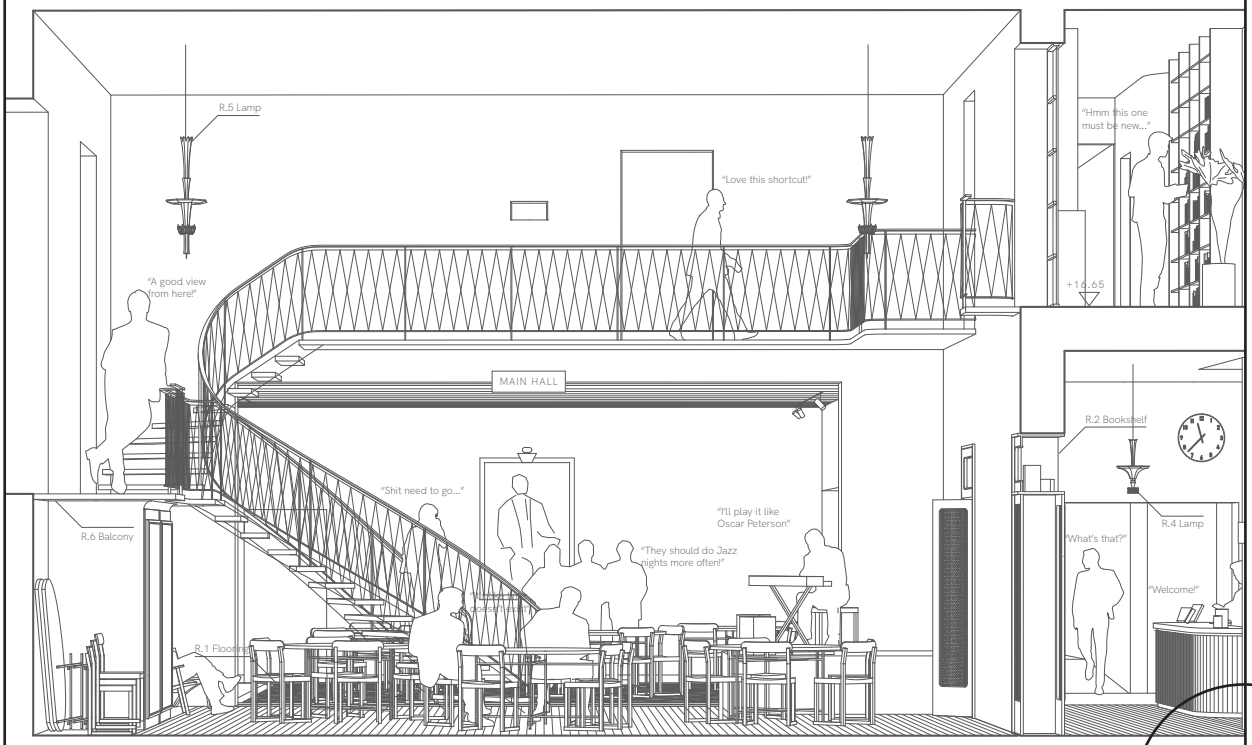
MARTIN SKARBY, SIMON BROBÄCK

RELATIONSHIPS REIMAGINED

- EXPANDING ON THE BEHAVIOUR OF OSCAR PARISH HOME

MATTER SPACE STRUCTURE

Supervisor: Sara Olsson
Examiner:Daniel Norell
MT´23



In the world of architecture, buildings are sometimes thought of in terms of permanence: What is on the drawing is the perfect solution for all eternity. However, that is an ideal not coinciding with reality. The occupants and a building form a complex relationship to each other and are inherently interlinked. Buildings inevitably change because the predictions of the occupants' behaviours fall short. This reality testifies the need for better understanding of such relationships.

Departing from the texts by Stewart Brand in How Buildings Learn, stating the evolution of buildings trough time as: "First we shape our buildings, then they shape us, then we shape them again – ad infinitum. Function reforms form, perpetually" (Brand, 1994, p.3) On this insight, this project set out to employ behaviorology as a tool for understanding the relationship between occupants and building, and, by extension, informing design. By making observations at a very detailed scale through drawing, text and photos, traces of behaviour are picked up that would otherwise have gone unnoticed, integral to the understanding of how architecture has acted and will act over time: its behaviour.

Acting as a breeding ground for intervention is a 1930s parish home on Östermalm in Stockholm, resulting in the study of what it currently is and the reimagination of what it could be. Not only following an uncompromising approach of minimal structural impact in updating the circulation of the building, the project is also based on a philosophy by Sam Jacobs (2012), seeing architecture as a continuum of enactment and re-enactment, repetition and details are the key to forming a whole (p.7). Hence, the interventions become of human scale and are actualized as building components: Objects of interaction, the link between the building and its occupants.

Brand, S. (1994). How Buildings Learn: What Happens After They're Built. Penguin Books

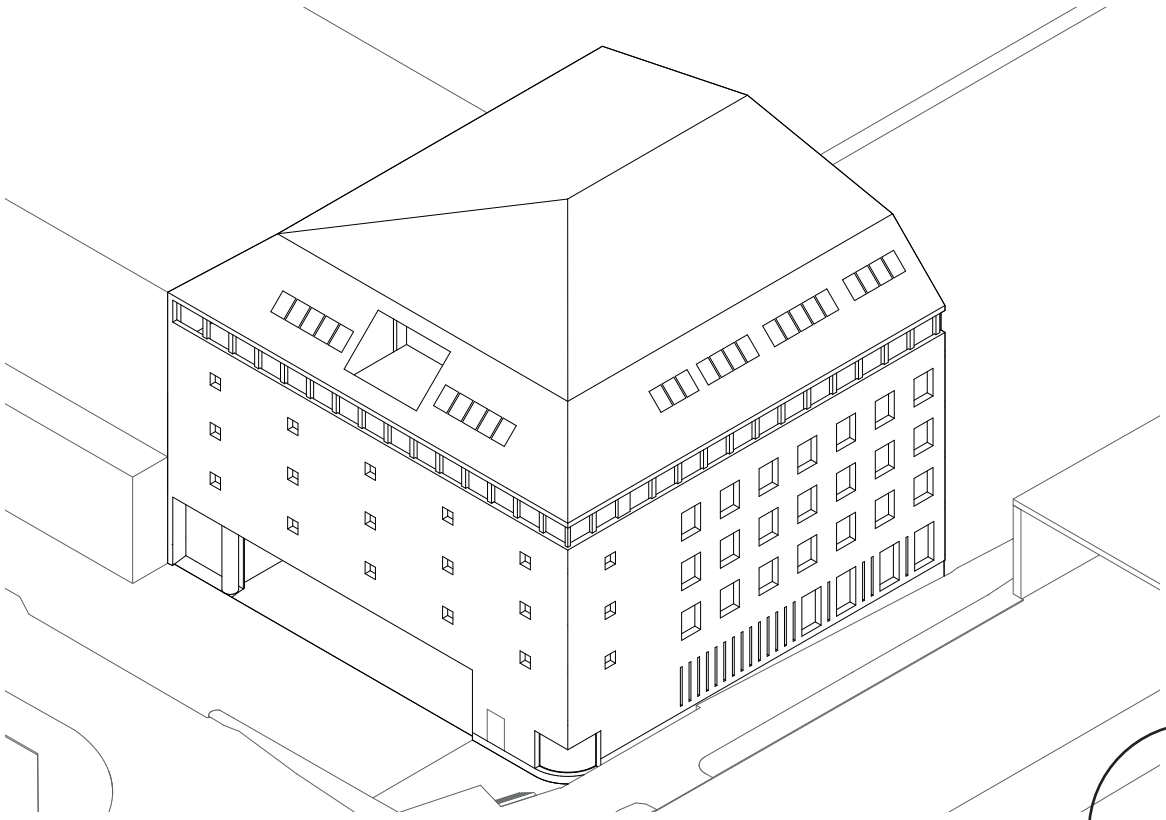
Jacobs, S. (2012). Make it Real: Architecture as enactment. Strelka Press

Keywords : Behaviour, Relationships, Evolution, Reimagination, Occupancy

PAULA SOPHIA BRUNS

KÄMPEGATAN 16

- TRANSFORMING A BUILDING IN A STATE OF UNCERTAINTY



BUILDING DESIGN FOR SUSTAINABILITY

Supervisor: Oscar Carlsson
Examiner: Walter Unterrainer
MT'23

The population living in cities is estimated to rise significantly in the coming years, which makes the need for developing sustainable and resilient cities more and more urgent. Consequently, the transformation and adaptive reuse of existing buldings becomes increasingly important with regard to sustainable urban development.

Buildings make up a significant amount of the built environment. Making use of existing, empty or inefficiently used buildings can provide a strategy to avoid further urban sprawl and the related claiming of more land. It simoultaneously contributes to circularity and saving resources. Buildings have been and are presently designed as mono-functional objects, not able to react to changes. Therefore, buildings are at risk of facing redundancy and possibly considerable repeated refurbishment and untimely demolition.
Existing buildings are even more so threatened by demolition when geographically located within city centers or otherwise strategically. In addition, these structures are also strongly affected by ongoing development in their surroundings, endangering their existence. Further, demolition in particular concerns buildings which are not protected through local policies and do not fall under specific protection regluations.

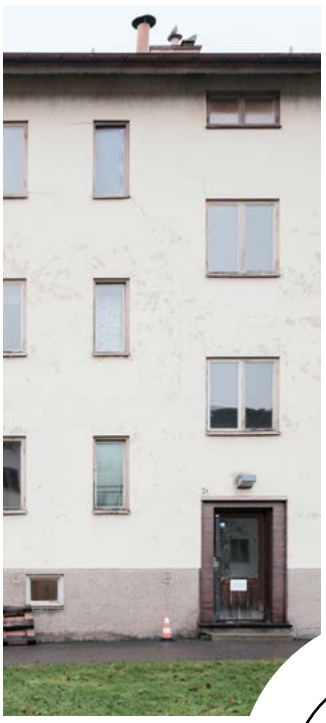
Through a site and context analysis as well as thorough literature research, appropriate transformation strategies and suitable solutions for the transformation and reuse of a former storage building were developed. The building finds itself in the dichotomy between significant future urban development as well as being located in a builiding block with several buildings bearing protection markings. However, the former storage building at Kämpegatan 16 does not fall under specific protection regulations.
The purpose of this thesis is to invesigate potential transformation strategies which contribute to the building's use in the future and prolonging its life cycle, taking into account the heritage surrounding the building and the impact of future development.
With that, the thesis aims at questioning current procedures within urban planning with regard to the existing built environment and its impact on it. The outcome of this thesis is a proposal for the implementation of a mixed-use program in the former storage building and its structural transformation.

Keywords : Transformation, Adaptive reuse

ADAM BÄCK THORÉN

TO KEEP OR NOT TO KEEP,
ARE THESE THE ONLY WAYS FORWARD?

BUILDING DESIGN FOR SUSTAINABILITY
Supervisor: Oscar Carlsson
Examiner: Paula Femenia
MT'23



Sustainability is today a big focus within construction and architecture. Simultaneously the preservation of older architecture is a great interest of the general public as well as an important topic in politics. These two subjects have been a main focus of many courses during my studies at Chalmers and I became interested in examining when sustainability and preservation work in symbiosis and when they don't. To study this topic I decided to conduct a case study of the renovation and innovation project of a group slatted houses located in the Bortre Änggården in Gothenburg. Familjebostäder is the owner of the houses and the apartments have been rented to different tenants since 1945. Since the houses have deteriorated over time they are in great need of renewal but the design options are however limited since the buildings are included in Gothenburg conservation program from 2000 and the area is protected under the National Interest for Cultural Heritage *"Slottsskogen - Botanical Garden - Änggården (O 2:7)"*. This case study will address the issue of conservation and design innovation of a building limited by the laws and regulations on preservation in PBL and BBR as well as the previous renovations conducted in the building.

In society today I can see that our built environment is treated in a dual manner with great contrast. There are buildings that have had the chance to stand for its entire projected life cycle where the goal is to preserve the built environment in more or less original condition against the passage of time. Or, the buildings are demolished halfway through their intended lifecycle to make way for a new, bigger, more efficient or a more "environmentally friendly" building.

In this work I will explore the possibility of combining these two ways of looking at our built environment. Is it possible to preserve while still developing our built environment? Is it possible to add new architecture to fulfil the needs of tomorrow's society while still honouring the original architecture and the cultural values of the area?

Keywords :
Cultural preservation, Conservation, Transformation, Kulturvård

ANGELIKA CARLSSON

FRAMING VARBERG

- REINTERPRETING URBAN DEVELOPMENT THROUGH PLACE IDENTITY

RURBAN TRANSFORMATIONS

Supervisor: Ida Röstlund
Examiner: Nils Björling
MT'23

This thesis investigates how urban development can be reinterpreted through place identity and genius loci, with a specific focus on the local context of Varberg and the transformation of the harbour.

Varberg municipality is growing because of its attractive geographical location along the Swedish west-coast and assets like closeness to the ocean, bath culture and the small-town feeling. To encounter the population growth the municipally initiated development project Västerport will extend the town to the water and make the private harbour an urban place. It is significant that the place identity of the site is protected, as a risk is that a place in transformation loses its connection to its past and memory to instead become a blank slate where a waterfront polished area can be built.

The aim of this thesis is to explore the local identity of the harbour and Varberg to form a suggestion for a transformation that includes the sense of place in its future vision. By bringing up the discourse on universalized architecture and place identity this thesis links the investigation of a local context to contemporary architecture, as well as the synergies between the architectural field and who we design buildings for.

Through a study of the past, present and future of Varberg genius loci perspectives guide the methodology of place analysis and the design exploration. By iterative processes the theory, design and place investigation has been ongoing simultaneously to let the research of all parts inform each other. Through the interpretation of the harbour and Varberg's identities, the process has merged the qualities found and used it for transmitting the sense of place, without copy-pasting and romanticising the past.

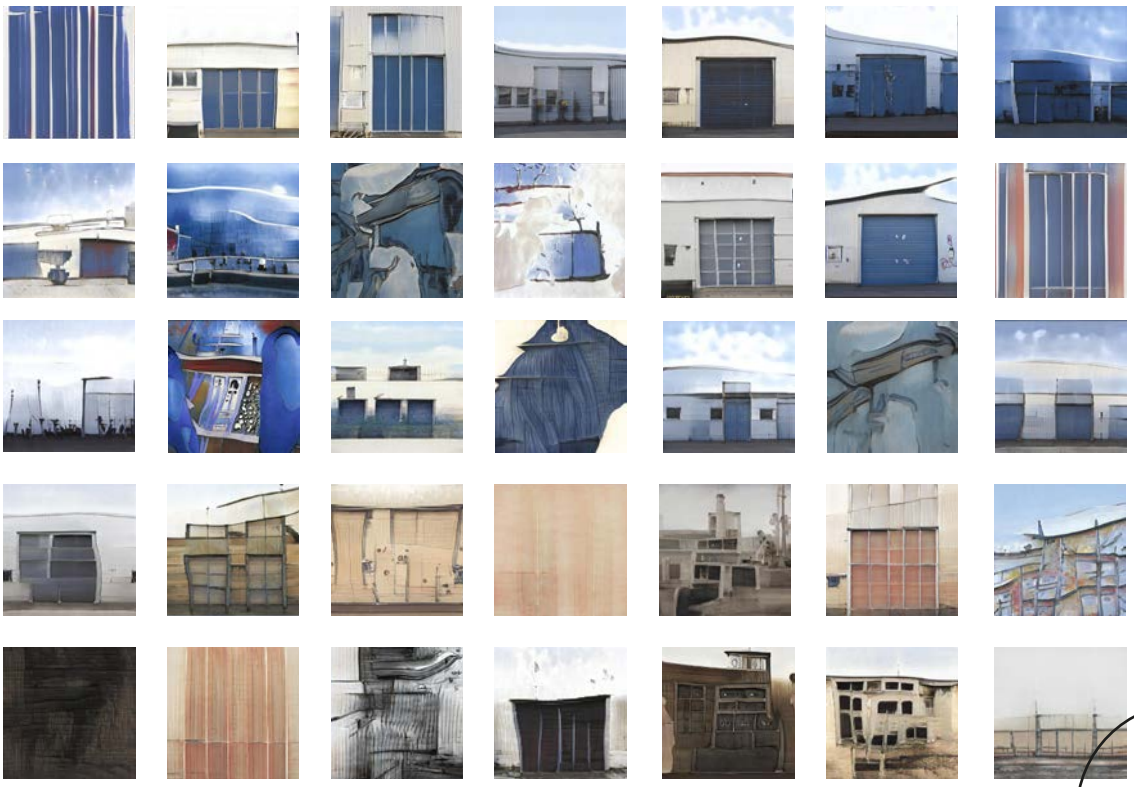
The thesis results in both a genius loci analysis of Varberg and a design proposal of an urban masterplan of Västerport phase 2. To give a depth in the different dimensions of place the design of the street, volumetric form, urban spaces and building's exterior have been explored and presented.

Keywords : place identity, genius loci, Varberg, urban transformation

NERMA CERIC

COLLECTION OF FAKES

- IDENTIFYING AND GENERATING CHARACTER IN RINGÖN BY EXPLORING THE USE OF GENERATIVE ADVERSARIAL NETWORKS



MATTER SPACE STRUCTURE

Supervisor: Karin Hedlund
Examiner: Daniel Norell
MT'23

In recent times, artificial intelligence has become a valuable and creative tool in the design processes to amplify our cognitive abilities and to design things that are out of our reach. However, it is essential to acknowledge that artificial intelligence is not inherently a positivistic tool, it does not come without negative consequences.

Bias is a challenge with AI currently being discussed and debated, and machine learning models are only as good as the data they are trained on. If the data that is fed into machine learning models are biased, that, in turn, shapes the machine learning models and data we consume to be biased.

This thesis explores how generative adversarial networks (GANs) can support and influence a design process and lead to an architectural proposal. This project uses these tools to explore how one can identify and generate character in relation to a site. The chosen site for these explorations has been Ringön, an island in Gothenburg, with the notable feature that it is a central industrial district that has managed to keep its character. Using GANs, images of specific characteristics from Ringön are generated based on limited data sets collected in the form of photographs from the site.

Data sets are collected by identifying and photographing idiosyncratic and a bit quirky elements that give the buildings' character on Ringön. The data sets are fed into a machine learning model that generates images that resemble the collected data set. Consequently, this project is a subjective perception of the character in Ringön and an exercise in translating images into a design proposal.

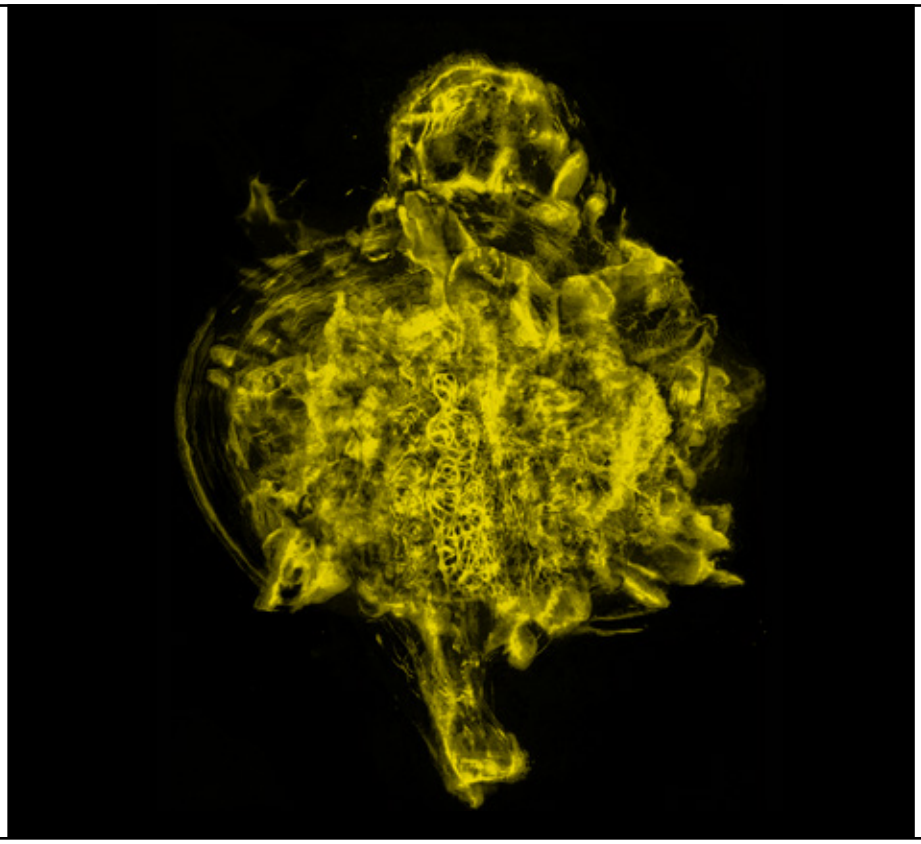
What is biased data, and why is it important to be critical when generating images? This thesis highlights the consequences of bias when collecting data sets and subjective selections through experimental methods, with the aim to explore new approaches to design to find a unique expression of a building. Through research through design method, this thesis can be viewed as a contribution to exploring how contemporary digital tools can be part of a design process and what consequences and results this can have.

Keywords: Artificial intelligence, character, bias, data set, fakes

TADHG CHARLES

SPECULATIVE HERITAGE

- Evaluating how emergent technology can be used to assess our understanding of heritage.



CRITICAL SPATIAL PERSPECTIVES

Supervisor: Isabelle Doucet
Examiner: Naima Callenberg
MT'23

In this thesis I explore what I perceive to be one of the main difficulties involved in architectural heritage practice. Our current approach towards preservation prioritises qualities in an inequitable manner and this results from a misconception about the singular correct interpretation of a building's essential character. In conventional historical procedure there is a prevalent concept that the best action is to preserve structures in stasis. This interpretation posits the idea that an architectural construct occupies a single state of correct intelligibility. I believe that a historical edifice is never one thing, it always embodies multiple readings simultaneously.

Using emergent technology, I highlight the subjective differences that proliferate in the individual comprehensions of a building's form. By contrasting subjective interpretations of the monuments against objective recordings I will highlight what lies at the centre of proclamations about their correct conservation. The reason faor this investigation is to critically consider how we understand and engage with the physical manifestations of our past. It is important to re-evaluate how we work with this information given the accelerated rate of change caused by both climatic and social conditions which are resulting in the irreparable loss of countless artifacts.

Acknowledging the delicate finite quality of historical edifices, we should contemplate and simulate potential scenarios for legacy structures whilst reflecting on our own phenomenological attachments. It is my conjecture that emergent technology allows for a new and exciting means of exploring and questioning our actions while hypothesizing possibilities which traditionally would be considered contentious. What qualities do we aim to preserve and how might this be done in the most suitable manner? If all understanding of heritage is a personalised filter can technology allow for the sharing of this perspective. I propose a speculative approach that asks what is embedded in built heritage and our interpretation of it.

I want to see how possible it is to manifest subjectivity through emergent technology to allow for a more representative and inclusive demonstration of our historical narrative and how it relates to heritage.

Key words: Speculative heritage, Heritage practice, Preservation, Emergent technology, Entanglement, Subjectivity, Authenticity, Identity, Objectivity

YUREN CHEN

INFILL

- Industrial building transformation with timber

BUILDING DESIGN AND TRANFORMATION FOR SUSTAINABLITY

Supervisor: Tina Wik
Examiner: Walter Unterrainer

Under the background of globalization and urbanization, Gothenburg grew into one of the largest Nordic cities, accompanied by a housing shortage. People wait for years in rental housing queues or move around frequently because of short-term contracts. The lack of housing makes it easier for people with stable work while disadvantages the mobile population like students and temporary workers. There is an objective need for a temporary-type accommodation model.
Meanwhile, the industrial section in Gothenburg has faced a recession and the need for urban transformation like in the Lindholmen area is being prioritized. Hence, transforming disused industrial buildings into new residential buildings to reduce new construction becomes an interesting topic for me. Plåtverkstaden near Lindholmen is chosen as the building to develop my thesis. When thinking about transformation inside buildings, the first material that came into my mind is timber. Timber has many advantages concerning construction. It can be locally sourced, extremely light, fast to assemble, and can be customized easily at the site. It's low-impact and visually appealing, which matches the sustainable concept of transformation with a second-life metaphorical message. When timber is infilled into an existing building envelope, thermal performance goals can be achieved much easier, which is one of the synergies triggered. Through this thesis, I hope to find out more synergies of transformation with timber. This thesis is about transforming Plåtverkstaden with timber to create a lively community where people can live, work and connect, with a goal of supporting the companies and university in the vicinity with short-term housing and working services, so as to promote Gothenburg's industry transformation for a sustainable future in the urban context. To meet indoor comfort goals for living and working, comfort analyzing software is used as a design tool. Apart from that, exploration also includes the design of housing units with higher heights, and the potential for indoor gardens, re-using existing building elements, in the industrial building setting. This thesis is aimed to be a reference to show the potential of industrial building transformation and provide solutions for more cases.

Key words: transformation, timber, disused industrial buildings, housing, workspace, comfort

AXEL CHRISTENSEN

ARCHIVED MONUMENTS

- A SPECULATIVE RECONSTRUCTION OF THE JUBILEE EXHIBITION 1923

MATTER SPACE STRUCTURE
Supervisor: Karin Hedlund
Examiner: Daniel Norell
MT´23

The point of departure for this thesis was a curiosity for architecture history and our built heritage. A site with few visible traces of what had been in the past proved to be the place of an important historical event in 1923 - The Jubilee Exhibition in Gothenburg. The subject of reconstruction came to be the area of interest in order to research the site and the jubilee architecture.

Studies and categorisation of archival material in the form of photographs, drawings and texts were perfomed in order to provide a basis for a reconstruction. This proved to be of vital importance since none of the temporary buildings built for the exhibition stand today. Reconstruction does not provide one simple solution applicable to all cases. Design strategies were developed during the process through case studies and a number of design explorations. The design approach within this thesis is to execute the reconstruction on its original site, where the jubilee architecture coexists with the current conditions.

Alois Riegl's theories on monuments became very helpful in order to analyse the archival material and the Jubilee Exhibition. Since the archival material is the only recollection of the Jubilee Exhibition's existence, they become the new monuments. Therefore is this thesis a reconstruction of representations rather than a reconstruction of the original buildings as such.

The result is a reconstruction of the Jubilee Exhibition 1923 that is coexisting with the current buildings and infrastructure at its original site. Some parts are possible to reconstruct relatively intact without causing damage on existing buildings or disturb for example bike lanes. As far as possible is the reconstruction programmed to contribute to encourage people to explore. In other cases are only material, colour or expression possible to reconstruct.

Keywords : monument, archive, reconstruction, exhibition

CHRISTINA DIMITRIADOU

CONCERN TO CONSERVE

- INVESTIGATING HOW THE TRANSFORMATION OF THE MANAGER'S HOUSE AT LYCKHOLMS BREWERY CAN PROVIDE ADAPTIVE REUSE AND CALTURAL VALUE TO ITS CONTEXT.

BUILDING DESIGN AND TRANSFORMATION FOR SUSTAINABILITY

Supervisor: Tina Wik
Examiner: Walter Unterrainer
MT'23

The city of Gothenburg is in a constant development and transformation mode. There is a plan by the City Planning Department of the Municipality of Gothenburg for the city to expand by approximately one third by 2035.

Most societies, including that of Sweden, have shown an interest in the preservation of historical buildings in order to maintain the value of their inherent history. However, as it is challenging for the appropriate function of a particular building to be found there is continual growth and present day society's needs are very different from those of the past.

On the contrary, what is of great value in postmodern times is the need for authenticity. In the age of digitization, urbanization and replication society needs this value more than ever before. Historical buildings have a history to share, an element worth preserving that extends well into the past and this is incomparable.

One of these buildings is the manager's residence at the Lyckholms brewery. It was constructed in 1891 and is located on the southeast quarter of Gothenburg, between Korsvägen and Mölndal.

The history of the Lyckholms brewery is associated with various activities such as trade and commercial operations but plans for a contemporary use have been halted to this day for reasons unknown. The manager's residence has been used as a conference venue, yet as for various reasons it is difficult to adapt it to this function no suitable application has been found so far.

The main focus of this process being the manager's residence, the aim of this thesis is to establish an independent foundation, a hub for conservators plus an additional workshop in the adjacent space.

The method is consolidated with an extensive theory and research into the building and the outdoor area and this is the driving force for the design.

The goal is to present a transformation project which preserves the history and design of the building though adding a new structure in the existing surrounding space with a focus on promoting adaptive reuse both as a strategy and a concept.

Keywords : adaptive reuse, transformation, historical building

NAÏNA DION-BARBIN

THE SPACE BETWEEN US

- A SELF-MANAGING APPROACH TO THE CREATION OF FLEXIBLE SPACES IN TSAKO THABO SECONDARY SCHOOL, SOUTH AFRICA

DESIGN ACTIVISM BEYOND BORDERS
Supervisor: Shea Hagy
Examiner: Liane Thuvander
MT'23

South Africa has made significant investments in education, with a portion of its GDP spent on education among the highest in Africa at 18.42% in 2021. However, the legacy of Apartheid is still felt, with a divided education system between Black and White students resulting in significant gaps in learning outcomes. For instance, only 5.3% of Black African students are enrolled in higher education compared to 24.6% for White students.

This thesis explores the potential of collaborative spaces managed by learners from disadvantaged backgrounds to foster ownership and responsibility for their education. This self-management approach is a way to allow flexibility in the spaces and encourage the act of commoning in a context where cultural differences are deeply ingrained. The methodology was developed in partnership with the Tsako Thabo Secondary School in Mamelodi, Pretoria, through a co-design approach primarily involving students between the age of 14 to 18 years old as the managers of the space. Through this approach, students can develop a sense of ownership and responsibility over time.

Based in Pretoria, South Africa, this research directly addresses real issues and engages with learners to provide a safe and inclusive environment where they can thrive. Since I believe architecture is beyond the physical space, the result of this study consists of three different components: a design proposal of the space, a new learner's body structure with an executive committee to enable a self-managing approach, and a plan for financing the space. The room reflect the values of the learners and provide them new opportunities to develop as young adults.

The study aims to create a safe space for learners from disadvantaged backgrounds, where they feel a sense of belonging and agency. The space between each one of us can be tremendous, or it can be as a simple centimetre depending on how we decide to look at the world. We are all unique, but I believe that by finding that space that unites us, we become stronger and achieve greater moments.

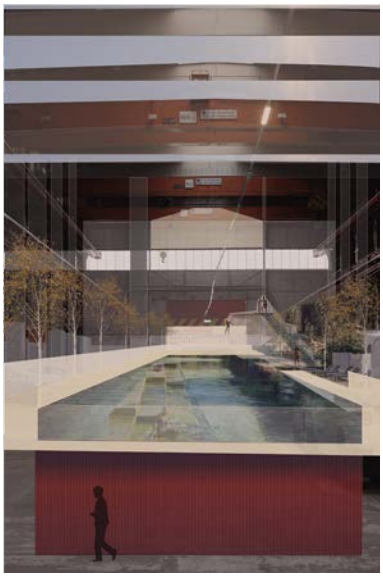
Collaboration, Decentralization, Lifelong learnings, Flexible space, Self-management

JULIA DRAZIC

WAREHOUSE IN TRANSITION

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

MATTER SPACE STRUCTURE
Supervisor: Sara Olsson
Examiner: Daniel Norell
MT´23



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 beyond the physical. Time is still.

I believe we all posses 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 the 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 the history of the site, yet still revitalize it to attend 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 positions 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 new framed views to explore.

The design proposal is a recreational public space inside the warehouse, consisting of 6 destination stops connected with a path. Together, they revitalize the warehouse into a physical space of transitions, enabling further immersive experiences to blossom.

Keywords: immersive experience, götaverken, reuse, revitalize, photography

SARA EKSTRÖM ALEXANDRA HANSTEN

RESTORATIVE ARCHITECTURE

- DESIGNING FOR MUTUALLY SUPPORTIVE SYSTEMS

RURBAN TRANSFORMATIONS

Supervisor: John Helmfridsson
Examiner:Nils Björling
MT´23

This thesis addresses the urgent need for a shift in how architecture relates to natural resource extraction in the face of the twin crises of climate breakdown and biodiversity loss. The aim of this thesis is to explore a system that responds to the twin crisis by sourcing biomass as rest products from ecologically restorative processes and implementing them as regenerative building materials. The purpose behind this is to highlight the architects' possibility of executing a holistic practice where our systemized approach to problem solving holds the potential to respond to complex societal issues.

The research focuses on coastal environments and covers three bioremediating marine species; blue mussels, reeds, and eelgrass, whose biological functions naturally help counteract eutrophication. The studies of these species result in a mapping of their biological function, occurrence, physical properties, and potential to perform as building materials. Traditional and modern case studies, interviews, and literature studies are used to support the research.

The thesis re-connects to the pressing issue of the twin crisis in the design phase where both program and building reflects and promotes a sustainable relationship between natural resources and human consumption in the rurban setting of Stora Dyrön. More specifically, the new addition contains a program that answers to an uneven seasonal activity by extending the tourism season through a sustainable experience-based restaurant that cultivates marine species through a local, small scale blue garden.

The outcome of this thesis provides insights in the possibilities and challenges with connecting material extraction to nature restoration. This has been done through the holistic approach of making visible systems and connections across different scales. It concludes that this practice would pose demands on the building sector in terms of attitudes, material sourcing and craftmanship. This would in contrast to todays linear resource use, depart from available supply rather than material demand where the environmental benefit of bio-based materials has to be elevated. By acknowledging that architects' systemized approach to problem solving could help tackle complex societal issues, and openess to cross-disciplinary collaboration and a curiosity towards new knowledge becomes important features of the modern architect.

Keywords: Regenerative design, Bioremedation, Eutrophication, Marine resources, Building materials

ALEXANDRA ELISSON

BIOCLIMATIC, SITE SPECIFIC ARCHITECTURE

- PASSIVE DESIGN STRATEGIES IN A LOCAL CONTEXT

BUILDING DESIGN FOR SUSTAINABILITY

Supervisor: John Helmfridsson
Examiner: Liane Thuvander
MT´23

This thesis investigates how to lower the energy demand of a residential building located in a temperate climate of Kungsbacka, south of Sweden.
To get an understanding of the relevance of passive design strategies and the possibilities, literature research is conducted. Relevant topics are explained such as thermal comfort, passive house and bioclimatic design. Furthermore, built examples that can relate to the climate of Kungsbacka are shown as references.

The design strategies will in addition to the literature research be evaluated through simulations in IDA ICE which is a simulation software that is used to simulate thermal comfort in a building. The simulations tempt to give an understanding on how to use the design strategies in a suitable way according to the local climate. This is important since the relevance of different design strategies differ depending on which climate the building will be built in.

The results of the simulations shows that due to the conditions of the chosen site Söderbro 10, all except one of the chosen passive design strategies is suitable. The excluded one was thermal inertia which was found to have little impact. This was resimulated and found to be more suitable on wooden floors than concrete. A dense and well insulated building envelope is important, and to use the sun as an energy source. This is possible at Söderbro 10 since the site does not have any buildings that block the solar radiation from the south. An angling of the design proposal towards the street allows for better conditions for solar radiation.

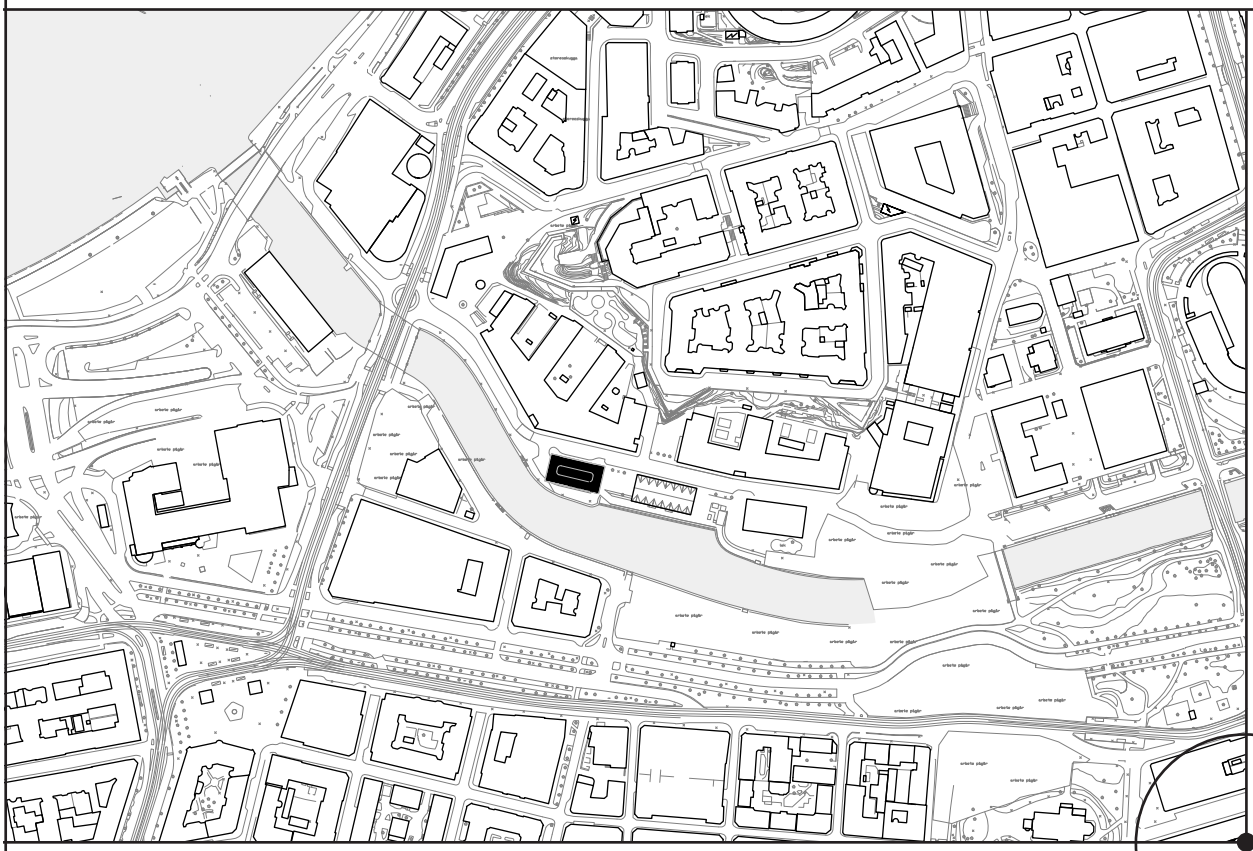
The conclusion shows how integrating passive design strategies can reduce energy consumption by 15%. The work provides a good basis for the understanding of how passive design strategies can be applied in a local context and highlights the importance of deeper study of aspects such as life cycle analysis, economy and values and settings for simulation.

Keywords: Bioclimatic, Passive design, passive house, thermal comfort

ZEMIR EMINI

A LIBRARY

- SERVING THE GOTHENBURG COMMUNITY



BUILDING TECTONICS

Supervisor: Björn Gross
Examiner: Mikael Ekegren
MT´23

This master thesis investigates wood, a material that in recent years is becoming relevant in contemporary architecture. For a long time in history wood was the main building material, but with the advent of reinforced concrete this material has been almost forgotten. In recent years, however, the characteristics and merits of this environmentally friendly construction material have been rediscovered.

My primary focus for this study is to utilize new wooden components as a central element in the design of a building. Through this process, I will conduct a comprehensive investigation of these innovative materials, assessing their viability and effectiveness in construction.

The outcome is to design a free standing public building, a library, which has wood as main material in its design. The project area is located on a parking lot next to the historic Feskekörka building, an icon of the city of Gothenburg. The site is located in a central area of the city, close to the historic center and the canal that surrounds the Inom Vallgraven area.

The goal of this thesis is to answer the research question by designing a building that harmoniously interacts with its environment, contents, and users. By utilizing new wooden components, I aim to create a sustainable and functional structure that enhances the user experience and effectively accommodates the building's intended purpose.

Research questions:

How can new timber elements influence architecture ?

In what ways can the use of modern timber elements create a more expressive and cohesive spatial experience?

Keywords : Public Building, Library, Feskekörka, Modern timber elements.

ELIN EMRETSSON & LINN ALLWOOD

THIS MUST BE THE PLACE

- BUILDING ON HERITAGE

BUILDING AND TECTONICS

Supervisor: Mikael Ekegren
Examiner: Björn Gross
MT'23

The ambition of this thesis is exploring heritage in the form of architecture, through designing a cabin on a lakeside plot in Lindstad, outside Värnamo. This is a place where the paths have already been trodden and the house next door is the family's old summer house since generations.

Dealing with heritage as architects is a challenge that we face in many different forms. Our future clients can be expected to come to us with situations similar to this. It is important to tread carefully but at the same time to look up. Making room for the new while respecting the old becomes one of our most delicate tasks.

The site lies next to the lake Hindsen. The land has been in the same family for three generations and the cabin situated on it is used as a summer house. The plan is to split the plot in two. One half contains the old main house built in the 1940's, a guest house and an old oak tree. The other half contains a lawn with a cherry tree, a boathouse, a beach and a fixed jetty.

After examining the second half of the plot we drew a new main house, a guest house and a workshop, to be built in the near future. Since the old main house from the 1940's will be right next door to the new house, drawing the new addition with the context of the old house in mind was vital.

In our design process we focused on the heritage of Bruno Mathsson, the cabinet maker and architect who was born and lived a few kilometers away. We investigated and iterated the new building through Bruno Mathssons architecture.

One of the big challenges with the project was to create a flexible building that can house many guests but also function as a summer house for the small family. In the project we have constantly balanced between caring for the heritage of the place, the legacy of the architect Mathsson, at the same time as looking ahead and creating something new, contemporary.

Keywords : Heritage, Holiday cabin, Self built, Värnamo, Bruno Mathsson

ISABELLA ENDRE & CHARLOTTA GATENBECK

VÄGLÖST LAND

- A MOUNTAIN STATION IN A ROADLESS LAND

BUILDING AND TECTONICS
Supervisor: Filip Rem
Examiner: Björn Gross
MT´23

The Swedish mountains of Jämtland have a strong historical value as a recreational area for outdoor life. The mountains offer a unique biological diversity, nature and cultural values that attract an increased number of people to the area for outdoor life and to spend their time off in a sustainable way. This is today also important as a source of business and employment in the area. An increased number of accommodation options are a prerequisite to enhance the accessibility to the area. At the same time, exploitation must be carried out in a cautious way to fully respect and consider the unique environment with sensitive nature and local traditions.

This thesis investigates the concept and design of a mountain station as a development of an existing cabin. Focus is on maintaining and developing the essence of the local cultural values while respecting the conditions of the site.

The cabins “Gåsenstugorna”, by the foot of the mountain “Gåsen”, is situated in a barren and secluded high mountain landscape and is one of Sweden’s highest located mountain cabins. It works as a hub between the three popular mountain stations of “Jämtlandstriangeln” in the west and mountain cabins in the nature reserve of Vålådalen. A development and expansion of “Gåsenstugorna” enables more people to experience the mountain environment, while at the same time it relieves the currently overloaded mountain stations and trails in the area.

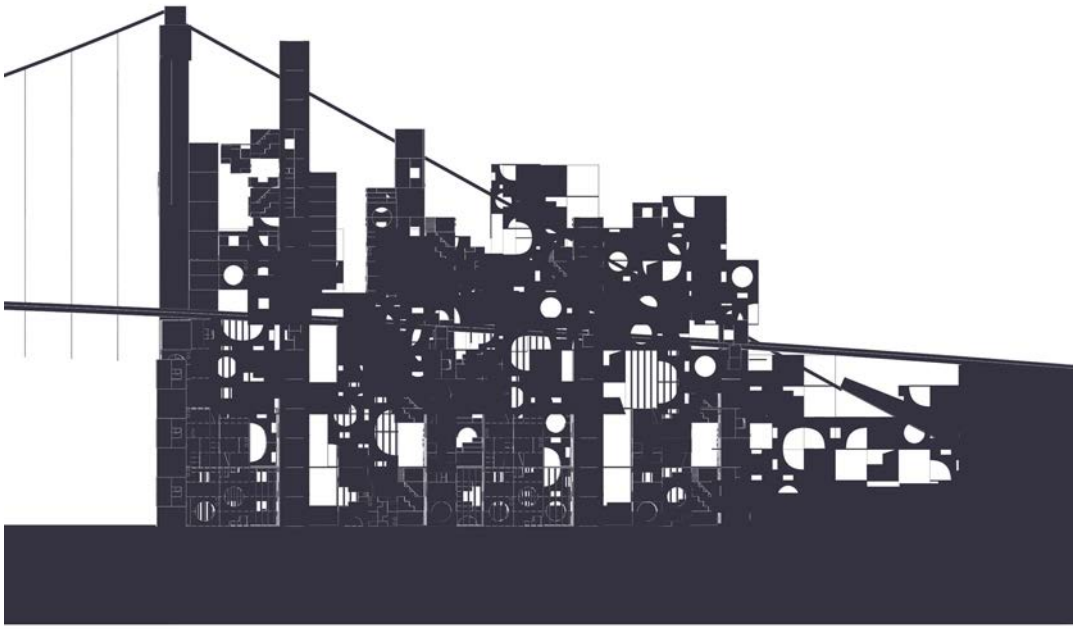
In order to understand how traditional techniques can be translated into a modern reinterpretation, traditional and contemporary references have been studied to form a framework for design. The identity and conditions of the place have been formulated to deepen the understanding of the site. As a result, a design proposal for the development of a mountain station in Jämtland has been formed. The results incorporate cultural values of the area and showcases how building traditions can be translated into contemporary and contextual architecture . The project has raised questions about which local traditions of architecture can contribute to present design concepts and how place identity can be further developed and strengthened by architecture, which are discussed in the study.

Key words: Mountain station, Building traditions, log timber construction, context

CAMILLA ERLANDSSON

ME(GA)

- AN EXPLORATION OF THE HUMAN EXPERIENCE IN THE ABNORMALLY LARGE



MATTER, SPACE, STRUCTURE

Supervisor: Karin Hedlund
Examiner: Daniel Norell
MT´23

During the experimental era of the 60s, the megastructure was not uncommon to see in architectural proposals of future cities. It can be explained as a speculative urban planning concept which imagines parts of or the whole urban fabric to be intertwined into one giant single structure. It was seen possible way to address challenges posed by urbanization and fast population growth and was, in other words, not purely fantasy, but believed to be critical to future cities.

However, critics of the megastructures argues that their abnormous size and complexity not only makes them economically insubstantial, but also environmentally and socially unsustainable with a risk of generating isolated and homogenous societies. Large projects always have a tendency toward monotony, and the need for variety in human experience is often forgotten.

This thesis positions itself around the hypothesis that looking at the world today, the human experience has become more valuable, and aims to investigate the concept of a megastructure through a human scale perspective. Is it possible for humans to connect to something that massive?

To do this, design explorations on different scales revolving around connections to matter, space and context have been curated. These explorations were then reworked through different means of representation, to investigate how they can be represented with a sense of texture, weight, and tactility, capable of conveying meaning and emotion in a way that is both subtle and powerful, but also tell a story and engage with their users in a deeper and more meaningful way.

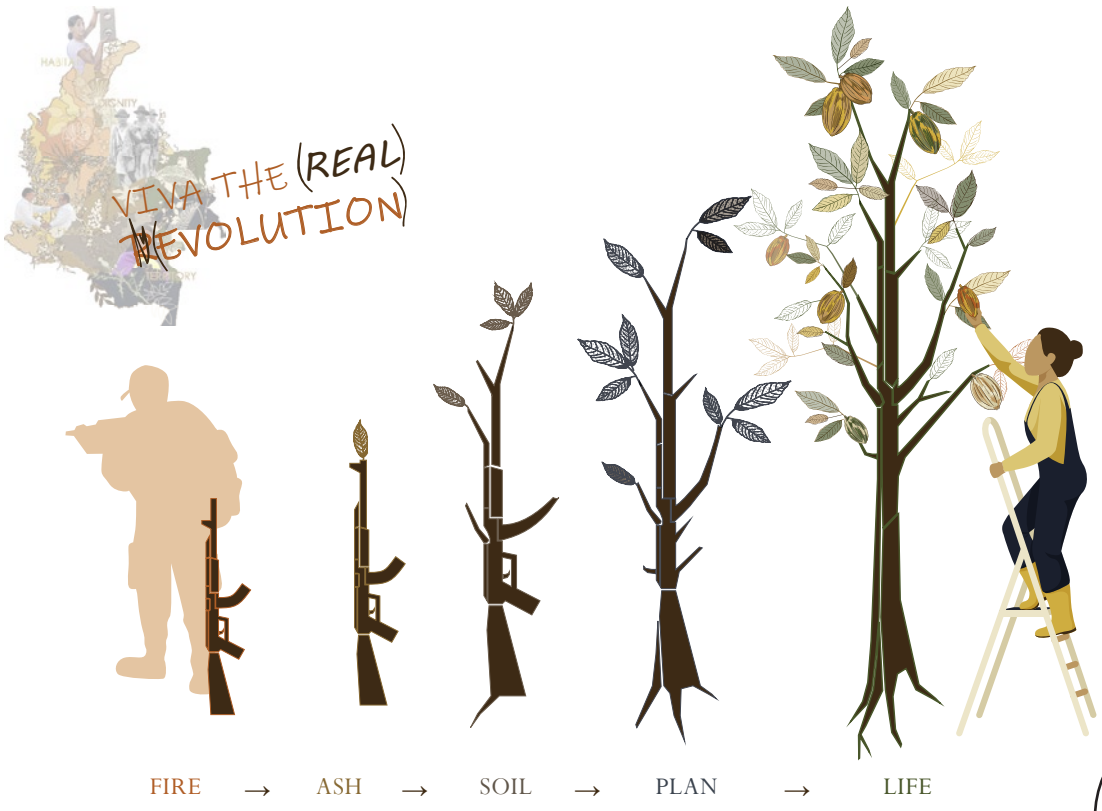
The design proposal is a product of its own design process and resulted in a megastructure in co-existence with an existing structure, the Älvsborgsbridge, in Gothenburg. The structure is called “The Connector” and emphasizes connections to the elements, materiality, to other human beings, and to mother earth herself.

KEYWORDS: Megastructure, materiality, connectivity, tactility, experience

LAURA ESTRADA

LIFE AFTER FIRE

COLLECTIVE AGRICULTURAL PRODUCTION FOR REINCORPORATION COMMUNITIES IN THE COLOMBIAN POST-CONFLICT.



DESIGN ACTIVISM BEYOND BORDERS

Supervisor: Shea Hagy
Examiner: Liane Thuvander
MT'23

For many decades, Colombia was only perceived by the international community as a dangerous country, facing a cold-blooded war between the state and insurgent groups. With the signature of the Peace Agreement in Havana this image started to shift toward an example of transformation. This negotiation was only the beginning of a complex process that has demanded tremendous efforts from every sector of the society. Today, it is still relevant to re-evaluate what does it take to actually build a long-lasting peace: To repair a broken society after war it is necessary to go beyond cease fire, it is required to holistically understand the reasons that provoked the conflict in the first place, and create conditions to avoid these circumstances to repeat. In Colombia, social inequities and unequal access to land or work opportunities where some of the main reasons that burst the armed conflict. Hence, they are now central points on the peace-building agenda and the focal point to this dissertation.
This thesis aimed to contribute to peace from the development of productive infrastructure to ensure economic stability to the demobilized ex-FARC community in Dabeiba, who had been developing collective production initiatives as part of their reincorporation plan. This "peace signers" have established in two separate settlements: one for housing (Llano Grande) and one for productive activities (Taparales), this segregation of uses, represents a mayor logistic complication for the development of their economic activity and consequently, a threat to the peace process, since it is hard to ensure dignified living conditions for the former actors of the conflict.
The project is grounded on the historical background of the conflict in Colombia and the peace agreement implementation in Dabeiba and transcends to an empirical, collective knowledge-building through field studies to better understand the site singularities and analyse implicated stakeholders in terms of interests, possibilities and limitations. This research led to the proposal of a development plan for the production infrastructure in Taparales, oriented to improve working conditions for "agroprogreso" association members, increase production quality and efficiency and, ultimately built resilience in the farm by diversifying the income sources and the sustainable use of ecosystem services.

Keywords : peace-building, social enterprices, agroforestry, reincorporation.

GRETA FAXBERG

ASSEMBLAGE CITY

- CONTEXT AND CONFLICT IN URBAN DEVELOPMENT

MATTER SPACE STRUCTURE
Supervisor: Naima Callenberg
Examiner: Daniel Norell
MT'23

This thesis tackles the polarized debate around the call for classism as opposition to current urban development. It critically examines the effects of responding to these demands, and seeks to find alternative ways of addressing the conflict in urban development.

The thesis is set in a speculative development scenario, where a central site in Gothenburg has been chosen as a testbed for investigation. The aim is to analyze how a new addition can be designed in order to transform the site, positioned between a turn-of-the-century neoclassical neighborhood built for the wealthy, and a neighborhood formerly for the poor, disadvantaged and the working class from the same era, that was regenerated in the 1970's.

In recent years, architectural style has been heavily discussed in Gothenburg. Politicians, the municipality, civilians, organizations and architects are part-taking in the debate where two main sides crystallize. On the one hand, the municipality of Gothenburg is advocating for high density development, manifested in large scale typologies, creating profit for economic power figures. At the same time, the politicians have decided that new construction should be made in "classicist styles". Instead of being a demand from economical power figures, this is portrayed to be a demand of the public.

The thesis uses the manifesto Collage City (Rowe & Koetter, 1975) as apoint of departure for urban development, as well as assemblage theory to highlight the need for the formation of socio-material assemblages.

The thesis is structured around a mapping phase that leads to the formation of an archive. This archive is used in the development of a design proposal. Literature studies as well as historical research about the site has been an ongoing work throughout the work.

The aim is that the design addition becomes a mashup of the stylistic mix present at the site, and that the addition correlates to its surroundings. The result is meant to act as a conversation piece, positioned in a polemic debate; a sort of Potemkin facade which portrays on one side what is asked for by the public, and hides on the other the actual issue of the neoliberal economy that no longer answers to a need of the public.

KEYWORDS: Urban development, classicism, assemblage, criticism, politics.

GARD FINTLAND

A HOME IN THE URBAN FRINGE

BUILDING & TECTONICS

Supervisor: Mikael Ekegren
Examiner: Björn Gross
MT'23

The wave of modernist architecture that emerged during the latter half of the nineteenth century has become outdated. Jane Jacobs advocates for the value of the perimeter block as a backdrop for city life, Aldo Rossi writes about the importance of historical continuity in the urban environment, and Robert Venturi praises classical architecture's aesthetic and structural principles. Over time, their arguments have gained significant recognition in the field of architecture, inspiring many architects to follow in their footsteps.

However, we must not overlook our recent history and modern heritage. Urban developments from the modern era have ensured a more democratic and higher standard of living. Many residences are larger, offering better access to natural light and vegetation. Looking towards the future, new developments need to answer to contemporary challenges such as the climate crisis and the need for affordable housing. Our discipline requires constant reinvention to meet the demands of our time, while also drawing lessons from both recent and distant pasts.

The outer city of Gothenburg, with large spaces occupied by infrastructure and ground parking, holds a large potential for the city's continued expansion. In the Frölunda-Högsbo area, the municipality plans to develop housing for 100 000 new residents until 2035. Considering the scale of this intervention, planners risk upsetting the existing qualities of the district, but there is also an opportunity to improve and complement those qualities which are already there.

This project aims to develop a group of urban blocks in Frölunda, on a parking lot squeezed between the iconic high-rise towers from the 1960s and a future boulevard that will serve as a central artery of the envisioned Frölunda City. Ambitions are to balance the local identity of Frölunda and its existing qualities against the current trends towards a denser urban form and classical language of architecture. The design explores hybridity, typology, atmosphere, and style through an investigation of the building context and references drawn from the historical city.

Keywords: Modernism, Classicism, Typology, Style

LINNÉA GABRIELSSON & SOFIA PETERSON

UNLOCKING TIBRO

- Rethinking collaboration and value making in rurban areas

RURBAN TRANSFORMATIONS

Supervisor: Nils Björling
Examiner: Julia Fredriksson
MT'23

The purpose of this master's thesis is to challenge the status quo of rurban development since there is frequently a lack of visions for how rurban areas can develop in novel ways. The project takes place in Tibro, Sweden, and focuses on the former train track area and its old stock building known as Centralföreningen. The thesis presents a method for how one can approach renovation projects in rurban areas by using speculative scenarios. Therefore, three alternative futures are suggested and set within the building based on information obtained from the municipality's comprehensive plan and interviews with officials as well as associations. The visions highlight citizen collaboration and association life, as well as current challenges existing in Tibro today, including unemployment, a lack of engagement from youths and a distance between the municipality and the citizens. The futures are visualised as spatial proposals within Centralföreningen and investigate its potential as a social platform to strengthen the community.

As a result, the design process serves as a tool for research and further discussion of the overall goal: How can a method based on new values and forms of collaborations help transform Centralföreningen and strengthen Tibro? The concepts based on the scenarios are summarised and visualised into one final proposal that demonstrates the potential of Centralföreningen. A large focus of the thesis is social value-making, the creation of new meeting spaces as well as responsibility and collaboration within a community. The thesis ends with a discussion about how the alternative futures could facilitate cross-level interaction and mobilisation of community members, and concludes in strategies for how rurban municipalities could develop into the future.

Keywords : Rurban, Collaboration, Valuemaking, Transformation

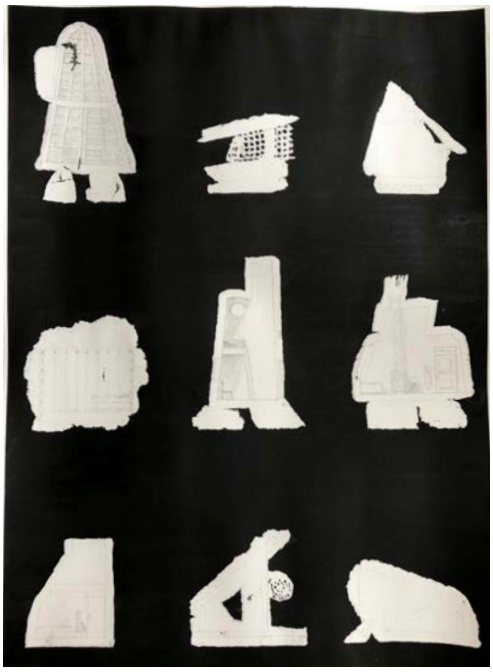
MICHAEL GATES CARLSSON

OBSERVING AND ANALOG PROCESSES

- ENGAGING IN ARCHITECTURE THROUGH A PHENOMENOLOGICAL PRACTICE.

MATER SPACE STRUCTURE

Supervisor: Peter Christensson
Examiner: Daniel Norell
MT´23



The purpose of this thesis is to explore an analog design process and how it could deepen a sensory relationship to architecture, both in the way we analyze it and how we assign it a speculative form. My question is: What sets analog design processes apart from other design modes, and what could analog drawing techniques contribute in an increasingly digital context? Would it be possible to better engage human agency and, thus, put ourselves into a more deliberate relationship with the surrounding physical world by better taking human bodily consciousness into account, the basic physical predicament described by phenomenology?

My starting point will be the texts of Juhani Pallasmaa, specifically those related to the intersection of phenomenology and architecture. Both philosophers and architects have criticized the rational type of thinking that paved the way for the blessings of modernity, and, at the same time demystified (and perhaps dehumanized) our perceptions of the world. The jumping-off point for this thesis is a look at what could be learned from adopting a more bodily oriented design process by means of analog methods, hand drawing and model making. The theoretical framework for my project builds on the subject of architectural phenomenology and I intend to take this opportunity to dig deeper into the publications of Juhani Pallasmaa and Gaston Bachelard, among others.

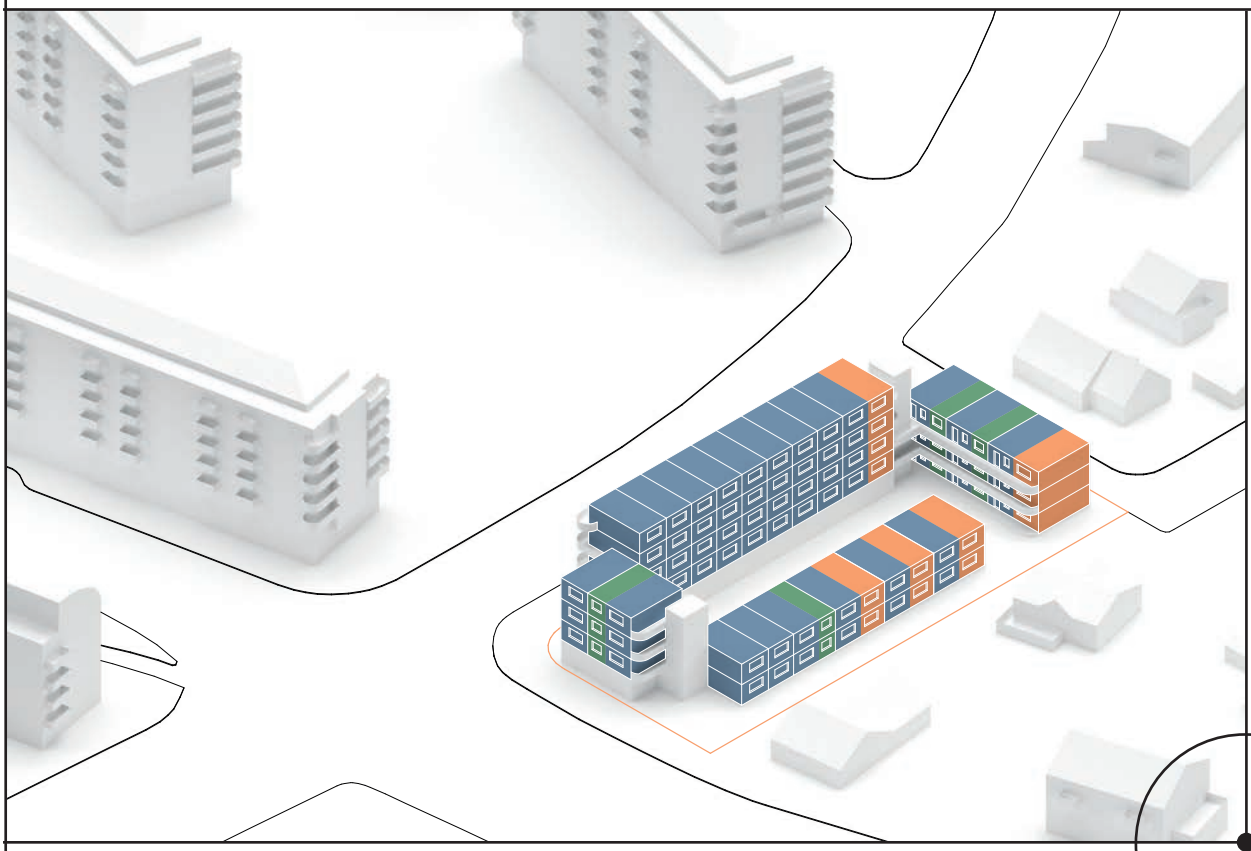
On a practical level the aim of my thesis is to design a hermitage starting with analog recordings of the chosen site and explore modes of drawing. The goal is to design a building large enough to accommodate one or two people for roughly 5 days. This typology or building will be of a suitable scale to serve as the point of departure for my exploration of the questions raised in this thesis. In a contemporary setting this typology could support a more general phenomenological reflection over life, diving deeper into the bodily experience of existing in space and in the world at large.

Keywords : Phenomenology, Drawing, Analog, Observing

SASKIA GEDIN

MODULAR HOUSING FOR YOUNG ADULTS

- AFFORDABILITY, QUALITY & SITE INTEGRATION



HOUSING

Supervisor: Jan Larsson
Examiner: Kaj Granath
MT'23

This thesis aims to investigate how residences can be designed as modular structures in cross-laminated timber to create affordable and qualitative housing for young adults that can be easily integrated into different sites to target the housing shortage among young adults in Sweden.

The method consists of a combination of theoretical research and research by design to explore the aspects of modularity, affordable housing, residential qualities, and site integration. The research also investigates the potential of using cross-laminated timber as a construction material, given its sustainable profile and production process, suitable for modular design. Theoretical research is conducted by examining methods for affordable housing, an analysis tool for evaluating residential qualities, and approaches to site integration that respect cultural values. The findings are then used to form design strategies that set the basis for a design proposal of a modular apartment series.

A design application is thereafter carried out to test the potential of the modular apartment series, where the design proposal is applied to a specific site and context. The chosen site has a high cultural value, making it an interesting subject for evaluating site integration. The chosen context of the design application is student housing, providing a more precise context suitable for the chosen site. The design application evaluates the applicability of the design proposal and its relevance to the research questions and the aim of the thesis.

Overall, the thesis presents an in-depth investigation into the potential of modular housing in cross-laminated timber to provide affordable and high-quality residences for young adults in Sweden. The importance of considering site integration and cultural values in the design process is highlighted, along with the practical considerations of using cross-laminated timber as a construction material. The most prominent strategy is found to be to internally optimise similarities in the design to urge affordability and quality while externally allowing for a high degree of customisation to facilitate site integration. The findings of this study can potentially be useful for architects, urban planners, and policy-makers involved in addressing the housing shortage among young adults in Sweden.

Keywords : modular housing, residential qualities, cross-laminated timber

JOHANNA GIMFJORD NIELSEN

WALLS OF OUR PUBLIC REALM

- A STUDY OF FRONTAGE USE AND DESIGN IN RELATION TO LOCATION

SOCIAL ECOLOGICAL URBANISM

Supervisor: Gianna Stavroulaki
Examiner: Lars Marcus
MT 23

The gap between our buildings and their surrounding urban environment, termed street-level architecture, though vital in shaping a lively city, is not always adequately planned or designed to consider the building's location, context, and local needs. The term "levande bottenvåningar", directly translated to "lively ground floors", is widely used today by planners and other actors in city planning as an ideal quality for an attractive urban environment. The most common strategy for achieving this being 'active frontages', where large transparent frontages allow the interior activity to spill out into the public realm. However, this overreliance on a single strategy causes the envisioned lively ground floors to often turn into vacant or empty retail stores without enough customers, or apartments with the blinds constantly drawn to avoid outside visual intrusion.

As architects, we want to shape our building's ground floors to maximize their potential contribution to urban life, but it's important to note that there isn't a one-size-fits-all solution that can achieve this. By first recognizing the unique urban configuration and the different opportunities each location affords, can we design functioning street levels, even for streets that are offshoots from the main streets but still in the public eye.

This thesis explores what makes grounds floors lively and whether the concept of 'interactive frontages' can be used to achieve this desired liveliness in secondary and background streets, which often do not have enough foot traffic to support commercial activities yet make up most of the street network.

The thesis consists of studies of ground floor architecture in an urban context focusing on the design of the frontage, the program behind it and its local and global location and context. The result is a tool-kit showcasing how to design the right frontage zone in the right context with a resilience spanning decades of urban life. The tool-kit is then implemented, tested and evaluated through a design study in a specific site in Gothenburg.

Keywords: Interactive frontage design, space syntax theory, street-level architecture, public space, urban design.

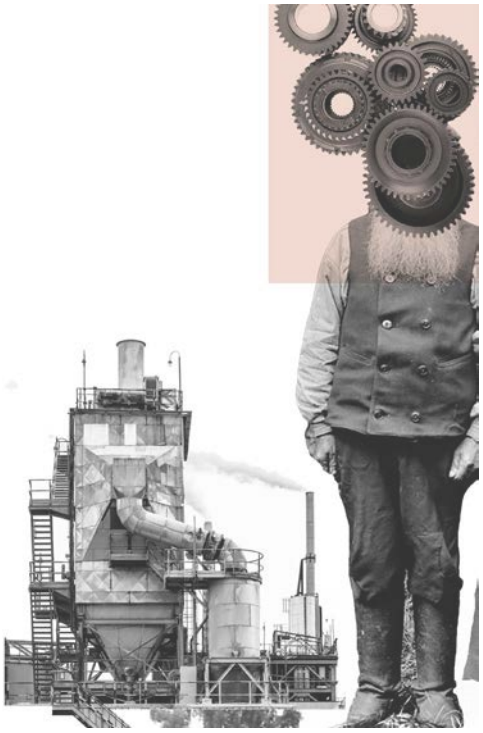
AKSHAYA GOPALAKRISHNAN

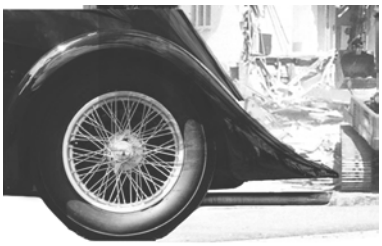
CONFIGURING IDENTITIES

- PLACE IDENTITY AND INTERMEDIATE TOWNS

RURBAN TRANSFORMATIONS

Supervisor: Louise Didriksson
Examiner: Julia Fredriksson
MT'23





Ongoing urbanisation trends have resulted in the expansion of cities, with people from diverse backgrounds aiming to reap the benefits. Under such circumstances, intermediate towns have emerged as front runners in the search for a common ground between rurality and urban development. With the potential to provide comfortable living conditions away from the hustle of the city, these regions, due to the proximity of their location form an important interface between the two networks. While there has been immense research on the socio-spatial factors in rural and urban areas, how people identify with intermediate towns and their features is less explored.

The research focuses on the role of design in shaping the identity of intermediate towns and underlines important factors to be considered in the process. Hosting both resident and commuter populations, the Swedish town of Sandared was chosen as a case study for the research.

The study was conducted by interpreting the term "place identity" from three different perspectives-visual, social, and spatial. A theoretical framework based on these perspectives was then carried forward into the case by guiding the data analysis and design strategy for Sandared's town center. Data analysis showed a disconnect between the town and the people on various fronts. From a system perspective, the town's current centre provided very less opportunities for people to interact and included several redundant and unoccupied spaces along with being perceived as decrepit and un-inviting.

With the aim of reconnecting the town with its people, the design proposal, through the introduction of inclusive social spaces, provides increased opportunities for interaction. By finding a balance between mobility and livability, the spaces foster the development of place identity by enabling engagement with social, spatial, and visual aspects.

When evaluated, the theoretical framework was found to align with the requirements of the case, making it a relevant approach for investigating socio-spatial relations in similar contexts. The research highlights how defining strong socially constructed place identities can result in the sustainable development of intermediate towns.

Key Words : Intermediate towns, place identity, inclusive social spaces

KARL-JOHAN GYDELL

GOLDEN SLUMBERS FAMILY HOSPICE

HEALTHCARE

Supervisor: Susanne Clase
Examiner: Johanna Eriksson
MT'23

That a hospice is a place where you come to die is a common misconception. In reality, the hospice philosophy is about providing a safe shelter where guests come to embrace quality of life.

In a traditional Swedish hospice, the guest will be living with a partner or family member, while visitors can come and go. In a children's hospice on the other hand, it's more common for the entire family to be living together at the hospice.

In the case of a children's hospice, it is generally acknowledged that siblings and parents are in need of care and support just like the patient. While this holistic approach is recognized and designed for in most children's hospices, families with children won't be able to take part of it unless it's the child who is sick.

But what distinguishes the trauma of a sick child's sibling, from that of a sick parent's child? The purpose of a "Family Hospice" would be to provide a temporary home for families with children, offering a comprehensive care and support for the entire family regardless of whether the child or parent is ill.

The aim of the thesis is to design a "Family Hospice" in Bräcke, Gothenburg. The design proposal is constructed based on literature studies of garden- and hospice design, conversations with specialists and study visits.

The result may contribute to a further discussion on whether the concept of a family hospice could be the way forward for pediatric palliative care in Sweden, as a supplement to already existing alternatives.

Keywords: family hospice, children, pediatric palliative care, residential healthcare

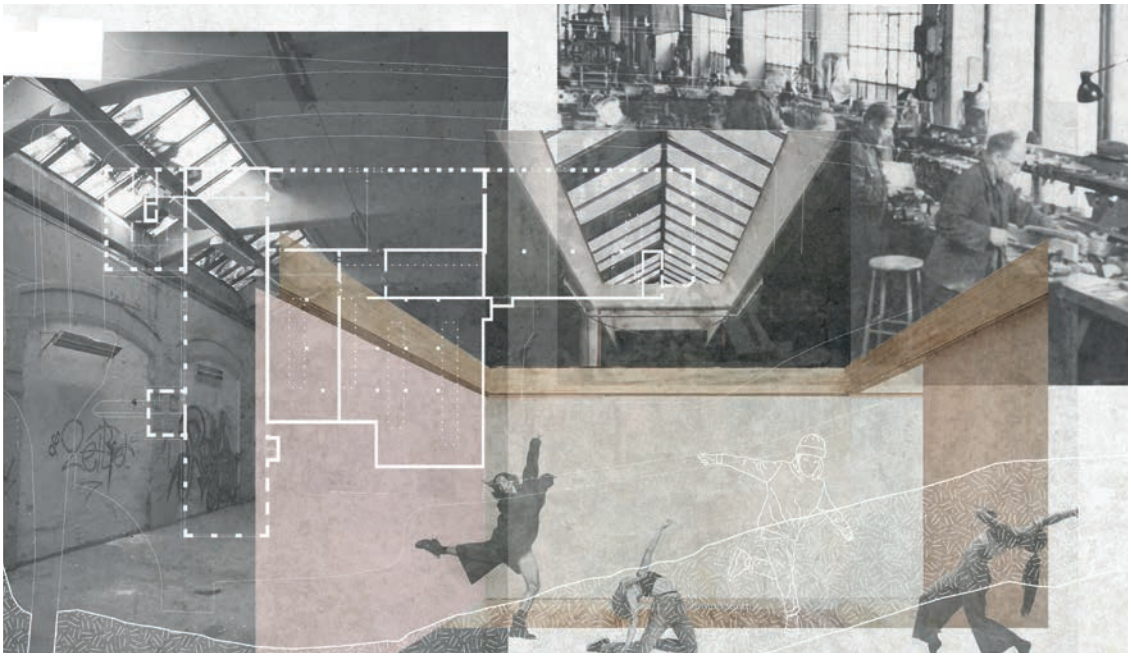
HILTA HARMUTH

PLACE THROUGH ENCOUNTER

- A NARRATIVE EXPLORATION OF A THIRD PLACE IN A RURBAN CONTEXT

RURBAN TRANSFORMATION

Supervisor: Marco Adelfio
Examiner: Nils Björling
MT'23



Rurban areas in particular are affected by the ongoing challenges through urbanization and densification. Vast and fast changes in infrastructure and prerequisites may result in a loss of connection of the individual to their surroundings, leading in turn to a minimized sense of conviviality and liveability. Third places, the social surroundings beyond the home as the first and work as the second place, can play an important role in acting as facilitators of change and act as connectors of the individual to the broader community.
The main aim of the Thesis is to explore how encounters can be enabled in a rurban context, through design implementations that are informed by third place qualities.

To set the ground for design, the notion of a third place is explored through different methods of theoretical and contextual analysis, to investigate how the concept of these places needs to adapt to the current discourse and the specific characteristics deriving from the context. These findings were concluded in principles for the third place, that further guided the process.

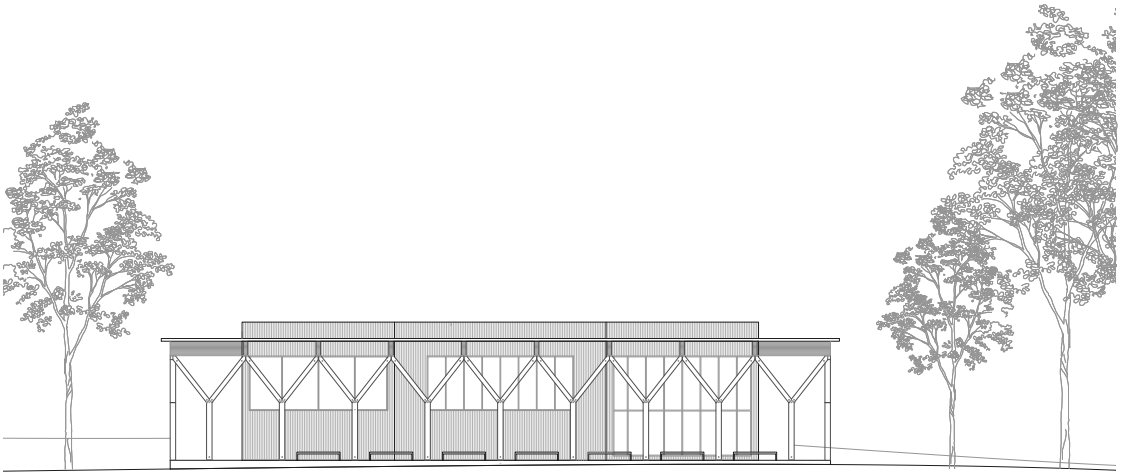
In design explorations through collages and axonometric drawings the Thesis investigates in a narrative way, how the former electrical factory Kniven in Partille, can be adapted to act as a third place.

Keywords: Third Places, Encounter, Rurbanity

PETRA HJELM

CEREMONIAL SPACES

BUILDING AND TECTONICS
Supervisor: Mikael Ekegren
Examiner: Björn Gross
MT´23



Ceremonies means a formal gathering that marks an important happening in one's life. Depending on the organization or religion ceremonies can be different but that have in common that they are there to mark the importance of the celebration or lost. Architecture that host these types of gatherings are often monumental in the sense that they can be extravagant. The ceremonial building creates the atmosphere and boundaries for the gatherings.

Today we often think about religious places to celebrate or grieve loved ones, therefore many might feel detached from these ceremonies as they don't represent their own belvies. Architecture for religious buildings are often ornamented with symbols that create a fixed environment. The structures are not flexible and inclusive for people with different belvies

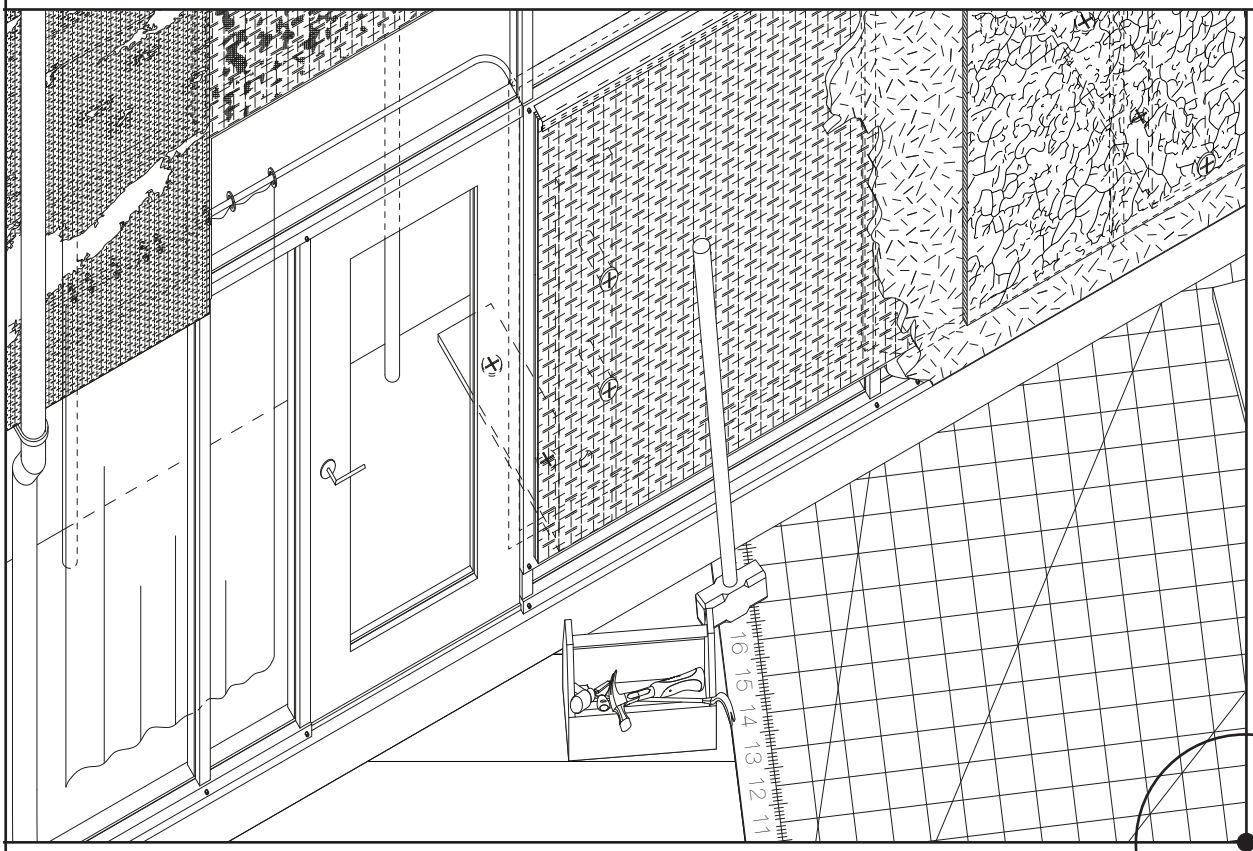
Therefore this thesis aims to give a new type of ceremonial building that both mark important stages in life without being religious or political. In the project I work with both theatrical references and case studies to form a proposed ceremonial building in Slottsskogen.

Keywords : Civil ceremonies, Slottsskogen

ELLEN HÄLLEBRAND

BETWEEN RESOURCE AND WASTE

- ON 'CLOSING THE LOOP' IN ARCHITECTURE



MATTER SPACE STRUCTURE
Supervisor: Daniel Norell
Examiner: Daniel Norell
MT'23

Waste has been defined as that which is irrelevant, obsolete, or that which has no value. As a category of materials, it is interesting because it reveals the normative order of the world, but also because its ambiguous nature allows for reinterpretation and repurposing.

"Closing the loop" implies that material flows can be made fully circular by regarding used materials and commodities as resources for new production. In such an ideal system the category of waste disappears. This thesis argues that besides looking into how the loop can be closed, architecture should explore the properties of the category of waste in order to investigate the loop itself. Wasted matter is proof of something being wasted – time, labour and resources – and should not be framed as solely a sustainability issue. Rather than attempting to eliminate waste this thesis examines the potential of waste, asking the question: How can that which lacks value and purpose be designed or be designed with, while still critically engaging with its wasted state?

Taking cues from research within the social sciences and humanities, as well as from contemporary practices in art and architecture, varying scales of the waste phenomenon are addressed. Site visits at waste management businesses in Malmö inform the thesis of the infrastructures of recycling. The materiality of waste is studied in material studies of discarded objects. The observations made in the case studies are elaborated on in design explorations. By making casts and assemblages, strategies for dealing with waste in design emerge.

The outcome of the thesis is a speculation in how the accidental and non-standard properties of materials marked by a demolition process can be considered and included in design. The qualities that such materials possess become operational by abstracting them through representation. Manifested in the drawings of a building in the borderland between model and reality, the design speculation is contextualized by its discourse rather than a site. By turning to waste, the thesis examines moments where the loop from wasting to extraction starts over, where linearity is to be tied together to circularity.

Keywords: waste, CDW, reuse, circular economy

ANNA HÖGBERG

VISIT ~~SWEDEN~~ NATURE

- Destination development with nature as the protagonist

RURBAN TRANSFORMATIONS

Supervisor: Ida Röstlund
Examiner: Marco Adelfio
MT'23

Environmental degradation, limitations of resources, biodiversity loss, and disruption of ecosystems are a few of the issues humanity has brought upon the world. Academic research shows that when people have less interaction with nature, they are less likely to recognize environmental degradation as their problem. It is time for a change and it starts with human actions and for humans to admit the problem and their responsibility.

This thesis investigates the roots of these problems which are based on the lost connection between humans and nature. From a critical perspective, the thesis addresses our problematic human-centric worldview that positions humans as superior to nature. The thesis then uses a more ecocentric worldview to deal with environmental issues by raising awareness of human symbiosis with nature.

The thesis translates the knowledge and need of reconnecting to nature tourism and regenerative ways to coexist. The study consists of developing an already exiting tourism attraction with an ecocentric mindset and a concept that strives towards 'Nature as the protagonist'.

The aim is to find a balance between converting the site into a well-used tourist attraction and limiting the exploitation and distribution of nature and its systems.

The project will use research for and through design that is integrated and explored in a case study for creating measures that respond to the thesis aim and the concept. The chosen site for the case study is a small mountain in Värmland called Tossebergsklätten. The result of the thesis is a proposed development plan for Tossebergsklätten and a design proposal based on the developed strategies that strive towards 'Nature as the protagonist'.

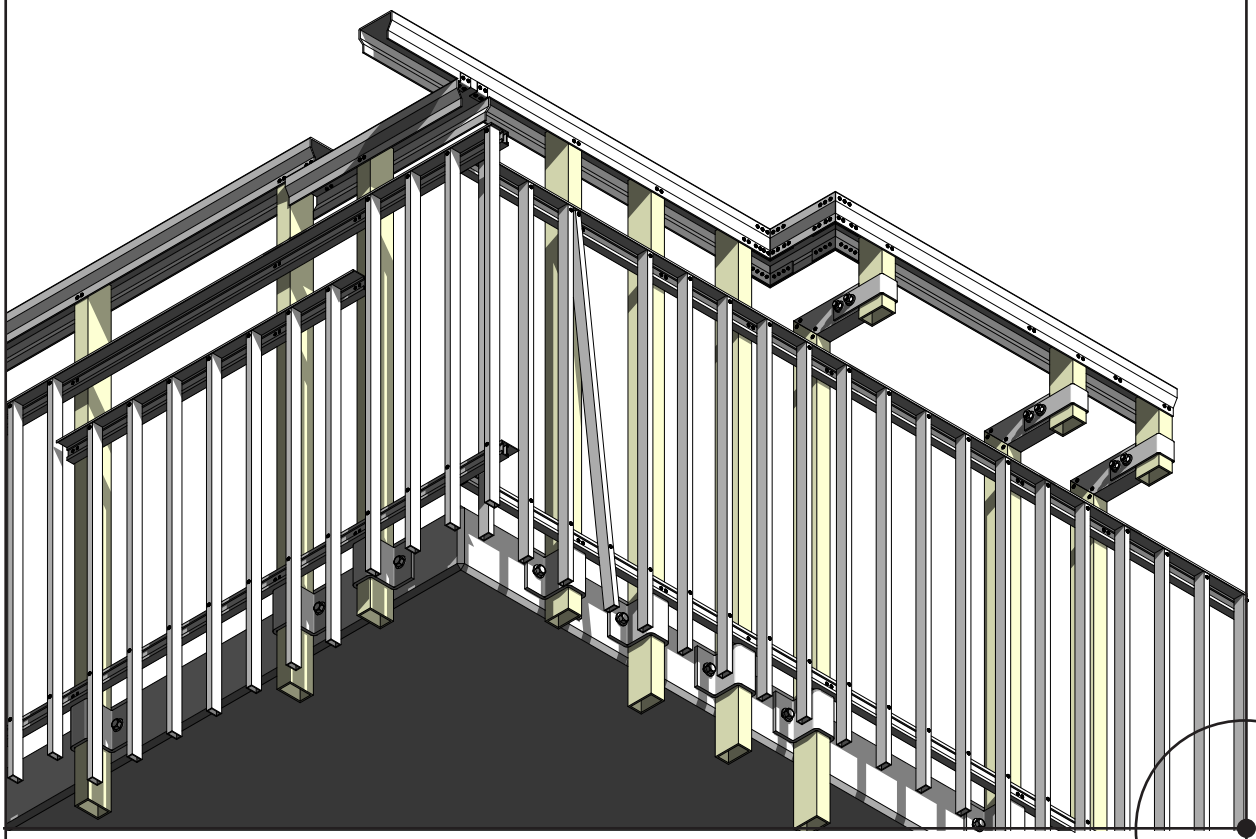
Lastly, the thesis discusses the opportunities to adapt the found investigations and development measures to a more general framework that can help to activate and support less utilized land areas to balance and relieve over-consumed nature in exploited areas.

Keywords :
Ecocentric perspective, Regenerative design, Destination development, Nature

JOHAN HÖPER

NINE INCH DETAILS

- EXPLORING THE ARCHITECTURAL POTENTIAL OF POST ASSEMBLY DETAILS



MATTER SPACE STRUCTURE

Supervisor: Daniel Norell

Examiner: Daniel Norell

MT´23

The smallest of the elements of architecture is the detail, an architectural phenomenon and storyteller. The detail has typically been something which is designed as part of the general concept or expression of architecture. Details refer to specific elements of design and has similarities to the role of the ornament. An element with traditionally close ties to craftmanship.

In mainstream practices of today the detail seems to have lost much of Its significance. Due to strained economy, and failed management processes, the detail is not a narrative guide of crafts and intention. Rather, it is the involuntary result of an industry that depends on and favors standardization and efficiency. A detail can be a clumsily folded sheet of metal that covers the gap in a niche between a window frame and a layer of bricks on a facade. Details that occur either within or in-between systems of products to solve issues that arise post-assembly and are rarely designed by an architect

This thesis does not aim to perpetuate the importance of the custom designed detail or the craftsmanship behind it. Rather, it attempts to see opportunities in how materials and joints are handled in contemporary architectural production. It adopts mainstream and cynical production with features to explore its potential. Can such architecture be nudged from ordinary and ugly to ordinary and interresting? This work embraces and tweaks standardized building products and the post-assembly details that cover the gaps between them.

The thesis is conceived as a reseach through design project that critically investigates and maps the multi-layered work processes and material handling of contemporary building sites and architecture in search for alternative expressions. Through drawings and ligne claire graphics, the project explores the reconstructed reality and discloses the variegated results of post assembly. In addition, the work is based on drawing and model experiments involving both craft and products. This thesis deals with products and montage in an ambiguous way to emphasis the estethic vunerability in main stream architecture. Through form and models based on a standardized production machinery, the involuntary, sometimes absurd, added detail is exhibited and explored

Keywords: details, production, absurd post-assembly, standardization,

NATALIE ISAKSSON

VILLA KJELVIK

- CALM AND SIMPLE SPACES

BUILDING AND TECTONICS

Supervisor: Björn Gross
Examiner: Mikael Ekegren
MT´23

The sensory experience of architecture and its effects on the quality of life and well-being serves as background and inspiration for this thesis. In today's fast-paced and often stressful society, there is a growing need for calm and peaceful environments that allow individuals to disconnect from distractions and connect with themselves.

This thesis aims to research how to design architecture to create a home that addresses the resident's needs and well-being rather than simply serving as a means of artistic expression.

The research has used a combination of methods, including research by design, site explorations, and the study of reference projects and literature on topics such as atmosphere, phenomenology, and soft minimalism.

This thesis follows guidelines and wishes, to some extent, from the clients – the three families who own the site today. The strategy for the design proposal has been to design a new flexible and adaptable home with two complementary buildings. The new home also has the potential to serve as a multi-generational home or a holiday home shared by different families.

While following the guidelines and wishes of the clients, the main focus lies on the experience of architecture in a home environment, with a particular emphasis on closely studied architectural attributes, qualities, and junctions that contribute to a sense of calm and simplicity.

Through the research, this thesis aims to contribute to the understanding of how to design architecture to provide residents with experiences of harmony to enhance their quality of life and well-being. By creating homes with calm and simple spaces, individuals may be better able to live in the present moment and find respite from the stresses and distractions of modern society.

Keywords: Atmosphere, Phenomenology, Soft minimalism, Harmony, Calm, Simple, Clay blocks, Nature.

DENICE IVARSSON

XRAYSCAPE

- NORTHERN SKY PHENOMENA THROUGH EXTENDED REALITY

MATERIAL TURN
Supervisor: Jonas Lundberg
Examiner: Kengo Skorick
MT'23

Northern sky phenomena, such as northern lights, midnight sun and polar night, attract people from all around the globe. For the local population on the other hand, the never-ending nights during winter and never-ending days during summer can entail negative effects, repelling people.

Extended reality, XR, is a versatile technology that can be applied to enhance or represent different activities ranging from entertainment to professional. XR has entered exhibition contexts for improved way-finding, additional information and exhibited material. Recent studies also indicate that XR could provide potential rehabilitation methods for different types of depression.

This thesis explores the combination of XR as an exhibition technology and antidepressant. The display of various northern sky phenomena aims to offer complementing experiences to the visitor, whether it is a traveller coming for the northern lights but who is also intrigued by the midnight sun, or a resident who wishes to escape the darkness that causes their seasonal affective disorder.

The site chosen for the exhibition is the decommissioned mine Tuolluvaara in Kiruna, Sweden. Kiruna has a conflicted history and relationship with nature due to its extensive iron ore mining activity. Kiruna is also the municipality in Sweden where the highest number of Sámi people live. The mine has heavily inflicted and continues to do so on land that has historically been used for reindeer herding. The mining industry and Sámi represent two extreme versions of what it means to live of what nature has to offer. The mine financially supports a whole nation and is essential for the city of Kiruna that we know today, but has serious consequences for nature, its wildlife, people and architecture of Kiruna.

Sámi tourism today struggles with what image to share, tourists often expect a traditional or stereotypical Sámi culture. Reindeer herding nowadays is carried out with electric vehicles and economically supports a reducing number of Sámi people. Maintaining an outdated image risks to 'disneyficate' the culture. Reclaiming the abandoned mine and filling it with natural wonders under Sámi direction could contribute to a more versatile impression of Sámi culture and reconciliation.

Keywords : extended reality, exhibition, VR, MR, AR

REBECCA M.L. JOHANSSON

VOMB

- VENUSIAN OBSERVATORY & MINING BASE

MATERIAL TURN
Supervisor: Jonas Lundberg
Examiner: Kengo Skorick
MT'23

Ever since our first observation of the universe, outer space has been something that many of us have thought about. When refering to space, it has usually been called something underlining its depth or unknown character, e.g. “nothingness” or “way beyond”, even though everyone of us were created within a universe. Today, our fascination for space has spread to multiple sectors, one of them being architecture.

Space exploration has brought valuable knowledge and inventions, however, not without consequences. As of today, all resources for space projects have been extracted from Earth, both financially and in terms of material. Space travel has also brought many health conerns to the human body and mind. Given this situation, the aim of this thesis was to design a visionary, functional and conceptual architectural proposal, focusing on the following questions:

What can space architecture do for longterm resilience in space, both for human well-being and the human being as a species?

If we want to expand in space, where would we settle first and why, from a health perspective?

In order to continue with space research, we need to construct better material cycles for future space projects to come. In order to carry out longer manned space missions, more knowledge on human health needs to be applied.

Keywords : Space, Sci-fi, Venus, Health, Inflatable

DANIEL JOHANSSON

RESILIENT MODULES

- ADAPTABLE HOUSING AND MODULAR TIMBER CONSTRUCTION

HOUSING

Supervisor: Anna Braide
Examiner: Kaj Granath
MT´23

AI prompt: resilient modules, abstract painting

Architecture and the building industry play major roles in our pursuit of a more sustainable future. With the built environment generating 39% of the annual global CO_2 emissions, the impact on ecological sustainability is unquestioned. But architecture also has a direct impact on social sustainability, with how design can promote health, well-being and equality.

New alternatives to established methods and strategies need to be evaluated in search for a way forward. This thesis investigates the combination of two fields, commonly labeled and suggested as practical responses to the call for sustainability within architecture and the built environment;

- *Adaptable housing strategies*, in terms of socially sustainable layouts capable of responding to changing needs and demands. What we design today is typically focusing on highly specific contemporary programs and preferences. But with this strategy in a world of continuous change, we are leaving out future users. Adaptable housing strategies can respond to changes in needs for an individual household, as it grows and shrinks over time, but also accomodate needs of different types of households and be resilient to our inevitable social, cultural and demographic developments over time.

- *Prefabricated timber modules*, as an environmentally sustainable construction method, in terms of a renewable material combined with energy-efficient prefabrication in a controlled environment off-site. Fewer hours spent on building site and better control of processes leading to less material waste and reduced energy consumption.

The thesis investigates and highlights dynamics, possibilities and limitations in a merge of these two fields. Increasing knowledge on potential alternatives for sustainable residential architecture. The aim is a design proposal of adaptable apartments, built with a system of a prefabricated, volumetric timber modules, and combined into a multi-storey residential building.

Keywords:
sustainable housing, adaptability, flexibility, generality, elasticity, modularity, modules, prefabrication, wood

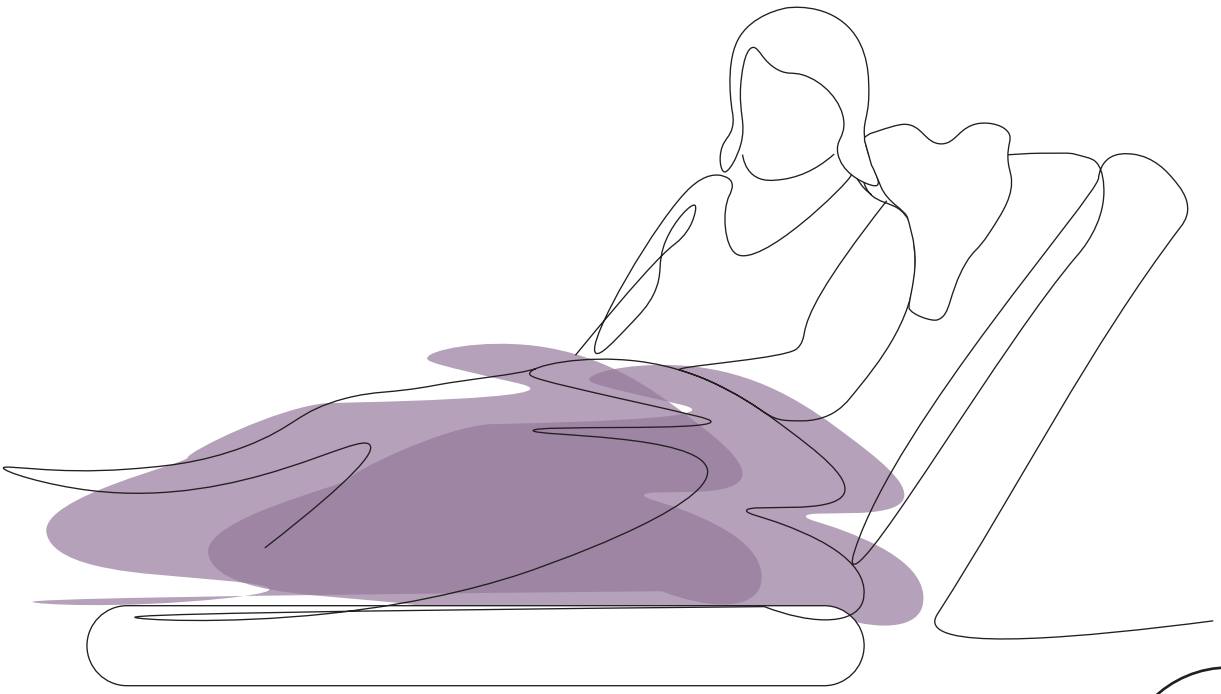
HANNA JOHANSSON

NIMA IN UPPSALA

- A NEUROSURGERY UNIT FOR POSTOPERATIVE- AND INTERMEDIATE CARE

HEALTHCARE

Supervisor: Göran Lindahl
Examiner: Cristiana Caira
MT´23



Akademiska sjukhuset in Uppsala serves all patients in the middle part of Sweden which includes almost 1,9 million people. Today, the hospital has challenges to develop the site which is tightly built with few possibilities for expansion and development. At the same time, the buildings are older and need to be updated according to today's standards of highly specialized healthcare facilities.

This master thesis will further investigate this challenge in a collaboration with a neurosurgery unit for patients who need intermediate or post-operative care (NIMA) at Akademiska sjukhuset. The unit has challenges with the facility where the care rooms are shared between three to six patients which cause both stress and challenges with privacy and recovery. NIMA also has challenges with hiring enough staff who wants to work there. Many employees attests that they suffer from stress and anxiety due to bad working environments, high workload, and many patients.

Additionally, the patients at the unit are especially vulnerable to their environment as they suffer from injuries, diseases or have been in surgery for reasons related to their brain, spinal cord, or peripheral nervous system. The patients are also in need of constant observation by staff which add extra requirements on the work conditions and environment. Research shows that through design and access to outdoor environment, it is possible to support the health and facilitate recovery for both staff and patients in hospitals.

By combining studies from research within the healthcare field, architectural knowledge and research, interviews with staff and observations at the unit, this thesis developed and present three scenarios with different scope. The scenarios are designed to facilitate staff's work, improve the environment for patients and better support visitors to patients treated within the unit. In a long term, this can contribute to an increase of health and wellbeing.

The main aim has been to develop an inspiring document with solutions the unit can use as a basis and starting point in a further discussion of an actual project to redesign the facility. This is also relevant in the ongoing discussion of how to develop Akademiska sjukhuset in the long-term perspective.

Keywords : Healthcare, Hospital, Design, Clinical environments, Architecture

LISA JOHANSSON

RURBAN COMMON SPACES

- IN FUTURE SCENARIOS OF COLLABORATIVE ECONOMY AND LOCAL SELF-SUFFICIENCY

RURBAN TRANSFORMATIONS

Supervisor: Marco Adelfio
Examiner: Nils Björling
MT´23

Although we find ourselves in the age of climate emergency, the gap between climate pledges from authorities and impactful action is undeniable. Many mean that current economic systems, oriented towards infinite growth, are working counteractive to a transition and that the solutions lie beyond them. The non-urban context is often overlooked in discussions about future development that responds to the climate crisis. Sweden largely consists of areas that can be categorized as in between rural and urban – rurban. These places have undergone substantial transformations during the last century where profit driven urbanization processes have caused job opportunities and services to move elsewhere. Simultaneously, there is a growing movement of people wanting to explore alternative ways of life within the planetary boundaries. There are many examples of rurban bottom-up initiatives, using the conditions to their advantage. This thesis explores this window of opportunity.

The aim is to explore alternative strategies for development of the Swedish rurban context beyond the economic growth-oriented norm though the following questions:
How can the needs for rurban communities in future scenarios of collaborative economy and local self-sufficiency be spatialized?
How can the spaces be characterized to relate to the identity and history of a site while proposing an alternative future?

Literature studies on future scenario narratives of collaborative economy and local self-sufficiency is used to compile a collection of design principles applicable to different scales. The site of the thesis is the former mill town Strömsfors, Sweden. The principles are filtered through findings from the site analysis resulting in site sensitive design strategies for common rurban spaces. The strategies describe the need for spaces used for sharing, connecting and using local resources. An important enabling factor for implementing these functions is a strengthened sense of community, possibly achieved through revitalization of common spaces and buildings with heritage value. The transformation proposal consists of adaptive re-use of buildings and activation of in-between spaces. The thesis concludes with discussing the importance of contextualization in design of rurban common spaces and how this thesis is a way to raise questions on the topics and visualize one of many possible futures.

Keywords : Rurbanism, collaborative economy, local self-sufficiency, heritage

PER JOHANSSON

BETWEEN IMAGINING AND REMEMBERING

- AN EXTENSION TO THE GOTHENBURG MUSEUM OF ART

BUILDING & TECTONICS
Supervisor: Björn Gross
Examiner: Mikael Ekegren
MT'23

Gothenburg Museum of Art is set to be extended and remodelled, with an architectural competition being held in 2023 to determine the design for the project. This thesis aims to offer a deeper reflection on the competition, and potentially explore broader questions beyond what the competition alone may address.

The site at Götaplatsen houses some of the most prominent cultural institutions in the city and it presents a fascinating history as the entrance to the Gothenburg exhibition in 1923. Since its inauguration the museum has been altered and extended two times, in 1968 and 1996. During the years there has also been several proposals for how to extend the museum and modify Götaplatsen. The thesis explores these layers, the built, the planned, the unrealized, the alternate proposals, the modified etc.

The main focus of the thesis explores how one as a designer should relate to the multiplicity of references which the postmodern condition consists of. When adding or modifying buildings in an urban context questions of what should be preserved or restored and what parts of the story should be told or re-imagined emerge.
The secondary focus of the thesis deals with how certain core conflicts of the museum institution can be resolved, such as that of protecting artworks and at the same time making them available, or that of simultaneously allowing for freedom of movement as well as spaces for contemplation.

The process of designing began by investigating the historical layers and the related discussions surrounding the site, by for example examining drawings at the regional archive.

After this initial phase the design task later evolved into how both qualities from the original ideas behind the building (from ARES winning competition entry in 1918) as well as later proposals (in particular professor Lars Ågrens extension proposal) could be combined into a coherent new design proposal and in a sense “finishing” what was started. This proposed design also meets and adapts to the buildings current state and present-day requirements of the museum institution.

Keywords : Gothenburg Museum of Art, Addition, Cultural Heritage

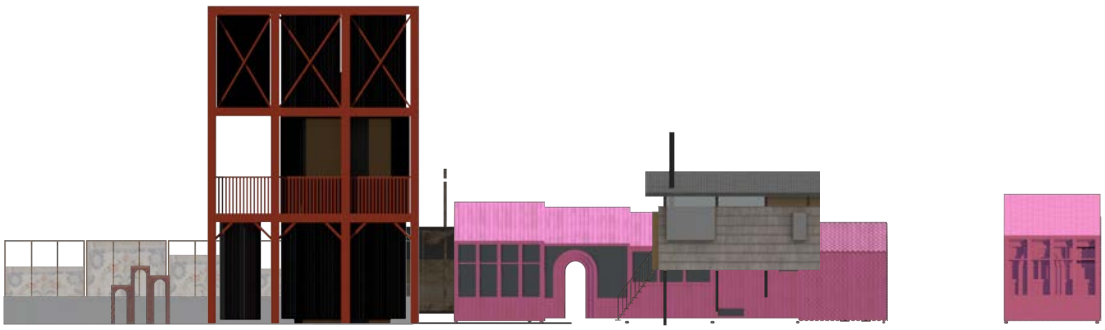
ERKKA JUUSELA

CROSS TRACKS

- LOCAL TOYS, DESIGNING EVENT SPACES FOR THE LONG TERM

RURBAN TRANSFORMATION

Supervisor: Ida Röstlund
Examiner:Marco Adelfio
MT'23



This project discusses event architecture and how structures can be built to support the event and the local community further on. The purpose is to examine the current building process and to illustrate an alternative to a permanent building process by using temporary and mobile structures that reflect their program and local identities in their visual form.

When looking at the current management structures surrounding large scale temporary events we see that they are often in the hands of few organizers (Olympic committee, FIFA, FIS) yet the actual impact is often felt by the local community and biodiversity. Afterwards the impact continues when these areas fall derelict or at least are underused. This can be seen when looking at Beijing Olympic 2022, FIFA World Cup 2022 and possibly Fis Planica 2023. There is an evident need for restructuring the management and building process of these events.

The project started from a personal fondness towards cross country skiing and thus uses it as a case study to illustrate the larger topic of creating event spaces and its problems and possible solutions at a manageable scale. Some facets of the project aim to be more universal such as the discussion between added flexibility and local identity as well as implementing plasticity to the surrounding permanent building stock whereas some are specific to the local case study such as chosen structures, material use, location and expression of the structures.

Firstly the thesis discusses the current process of building permanent area for temporary use in a top down hierarchical manner after which a case study of cross country ski world cup in Falun is examined with small scale structures that are permanent in material use, temporary in placement and arrangement and mobile in their nature. The case study brings together short term and long term needs for both the event and community in five structures that all influence different topics and have different expression based on their programmatic needs and physical context whilst still remaining universal enough to support changes in use or placement.

Keywords : Temporary/Mobile Architecture, local community, event architecture, Falun

KELI KADRIU

HEALING BEFORE

- HOW ARCHITECTURE CAN CONTRIBUTE TO WELL-BEING IN YOUNG ADULTS?

DIRECTION HEALTHCARE

Supervisor: Jens Axelsson
Examiner: Cristiana Caira
MT'23

Despite the global increase in mental health disorders, a large number of people go untreated due to the underestimation of the disease, costs, and social stigma. The COVID-19 pandemic has further amplified the importance of mental health, as people around the world struggled with anxiety, stress, depression and loneliness, particularly among young adults. Although research has highlighted the importance of the build environment in promoting mental health and well-being, developing a cohesive vision is challenging due to the different perspectives and stakeholders involved.

The objective of this thesis is to investigate how the build environment can positively contribute to mental health and well-being in young adults from an architectural perspective. The study will examine (1) the relationship between design and well-being through a holistic view of mental health, and (2) how this connection can be applied to an industrial site with a rich history, currently undergoing development as residential area.

The design proposal is built upon research focused on literature review, best practices, interviews and site analysis, and revealed that interventions must be tailored to different age groups, local mental health needs and environmental determinants, and country context. Therefore, a specific toolkit for the design proposal has been developed, resulting in a new building typology that supports young adults' mental health and well-being through mental health promotion and care for vulnerable individuals.

To promote mental health, the build environment should provide multiple activities placed along the gradient of challenge to support different levels of well-being. The indoor environment is as much important as the outdoor environment, and contact with nature and daylight is extremely important for a successful outcome.

Keywords :
Mental health, well-being, health promotion, salutogenic design, EBD, biophilic design, outdoor environment, industrial heritage, regenerative reuse, landscape storytelling

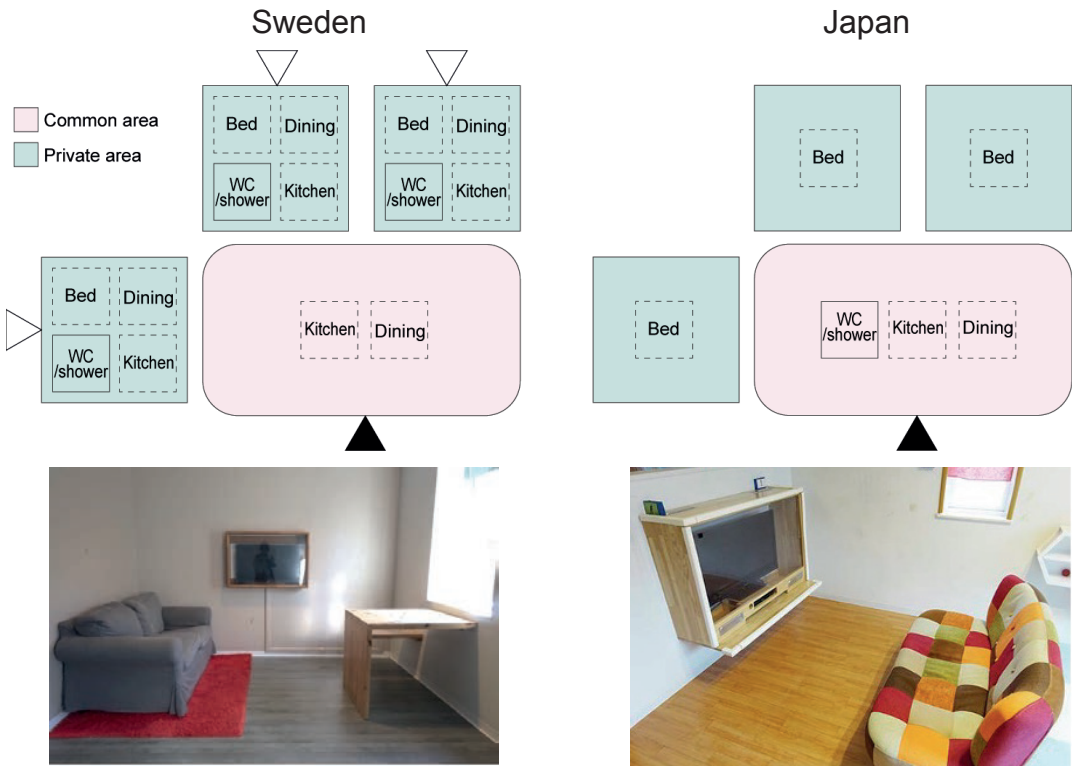
YUKO KANDO

SAFE AND SUPPORTIVE HOME DESIGN FOR CHALLENGING BEHAVIOURS

- PRACTICES FROM GROUP HOMES IN SWEDEN AND JAPAN

HEALTHCARE

Supervisor: Morgan Andersson
Examiner: Göran Lindahl
MT´23



Currently, the improvement of home design for people with challenging behaviours has become a salient issue in the context of group homes for people with disabilities in both Sweden and Japan. Behaviours such as self-injury, harm to others, and disruption can result in severe accidents, but little is known about how home design can mitigate such behaviours. Thus, this study aims to explore home design elements that can address the needs of individuals who exhibit challenging behaviours, while considering the differences and similarities between group homes for people with disabilities in Sweden and Japan. Specifically, this study seeks to identify the challenges faced in supporting people with challenging behaviours and how home design can promote their safety and comfort, as well as the safety and comfort of staff members. To accomplish this, four research methods, literature study, interviews, observations, and floor plan analyses, were employed to examine the historical and current housing status of people with challenging behaviours in both countries.

The results implied that Swedish group homes have a building form with a high degree of independence, while Japanese group homes have a more collective and dormitory-like structure. In terms of challenging behaviours, the Swedish apartment-type homes are easier to separate flow yet hard to adapt the equipment in the apartments to prevent triggering such behaviours. In contrast, Japanese room-type homes have issues with separating flow, yet the rooms can control stimulation effectively because of their simple form. I conclude that these three points might be essential to balance safety and comfort:

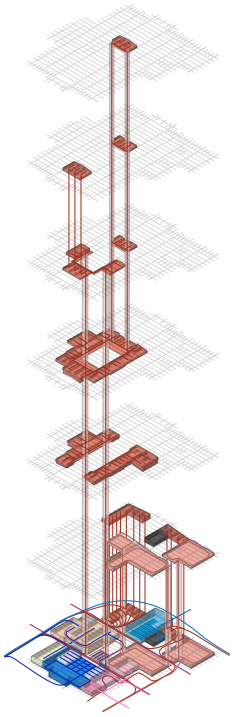
- eliminating environmental stressors that could trigger the behaviours as much as possible
- preventing residents and staff from getting harmed after the behaviours occur
- designing and customising the details as home-like as possible according to individual characteristics

Keywords : challenging behaviours, autism, intellectual disability, group homes, international comparison, Sweden, Japan

MARIA KARLSSON

THE NEXT TRACK

- TRANSFORMING A TRAIN WORKSHOP INTO A CULTURAL MEETING PLACE



MATERIAL TURN

Supervisor: Jonas Lundberg
Examiner: Kengo Skorick
MT'23

De-industrialization has resulted in many abandoned industrial buildings and the growth of our cities have motivated adaptive reuse of these buildings to become increasingly common. Balancing future visions with preserving historical values is an important part of these projects and according to Benjamin Franger (Douet J. 2013, p. 110) there are many strategies for this. The aim of this thesis is to explore how cultural historical values can be defined and which strategies can and should be used to reflect that in the choices of what to preserve, modify, add and accentuate.

Old industrial sites are often great meeting places, inspiring environments and, before they are transformed, the rents are often low. This makes these areas well suited for new creatives initiatives. Another challenge during these projects is to make the areas pleasant and attractive without having excessive rises in property values driving these initiatives away. So, another aim of the thesis is to explore how industrial sites can maintain well suited as meeting places for a diversity of creative initiatives.

This is explored by studying the transformation of the train carriage workshop of Lokstallarna in Malmö and proposing how it can be used in the future. The explorations consist of analysing the context, interviewing actors involved in the transformation process, studying literature and reference projects, and making design explorations concerning program, volume, circulation and material choices.

The outcome of the explorations is that the aspects of the site that is increasing the understanding of how it was originally used is of higher historical value than the physical building elements. The movement created by the line of production is important, and creating similar movement for the new functions is a way reflect this in the design. Differentiating new additions from the exiting using modern materials and production methods makes the project true to the layers of time. Yet, cohesion in colour scheme and character of materials bring harmony between old and new. A slow process where the site has a wide range of activities and more established actors can help lift new initiatives is a way to promote creative diversity. Creating safe and convenient walking paths between apartments and the cultural actors is another.

Keywords : Industrial heritage, adaptive reuse, transformation

BARBARA KRAUS

FROM WORK TO PLAY

- EXPLORING THE PRESERVATION OF THE INDUSTRIAL BUILDING AND ITS REACTIVATION THROUGH ADAPTIVE REUSE

MATTER SPACE STRUCTURE
Supervisor: Sara Olsson
Examiner: Daniel Norell
MT'23

Industrial heritage often presents a unique challenge within the heritage and conservation discourse as its significance has been somehow recognized only in the last 50 years and its value is still frequently being dismissed. The question is also how do we approach their preservation as these usually large-scale buildings were mainly made to accommodate machinery, not human beings?

Heritage preservation in general does not have one size fits all solution. Even though many may argue there is a preferred approach, which can often be seen in institutionally protected "monuments". It is typically to maintain the objects and do only the necessary, minimal interventions. This often makes them objects that cannot be interacted with but that we passively view while listening to their story that was curated by someone else providing a set narrative.

Industrial heritage can here provide more interesting opportunities for how to approach the preservation of a building. These were once places of work that people interacted with daily, and some may still remember them being in use. They were never intended as untouchable monuments but as functional buildings, always meant to change depending on the current needs. So, their new evolution and the idea of their change, even if just subtle, may feel like a more organic part of their life.

Using the M-verkstaden in Gamlestaden, a former machine repair workshop for the SKF, built in the early 1900s, and situated in the heart of SKF's complex, as a site of investigation, this thesis aims to look at the industrial heritage as valuable evidence of its time that can be used to inform and shape its new future.

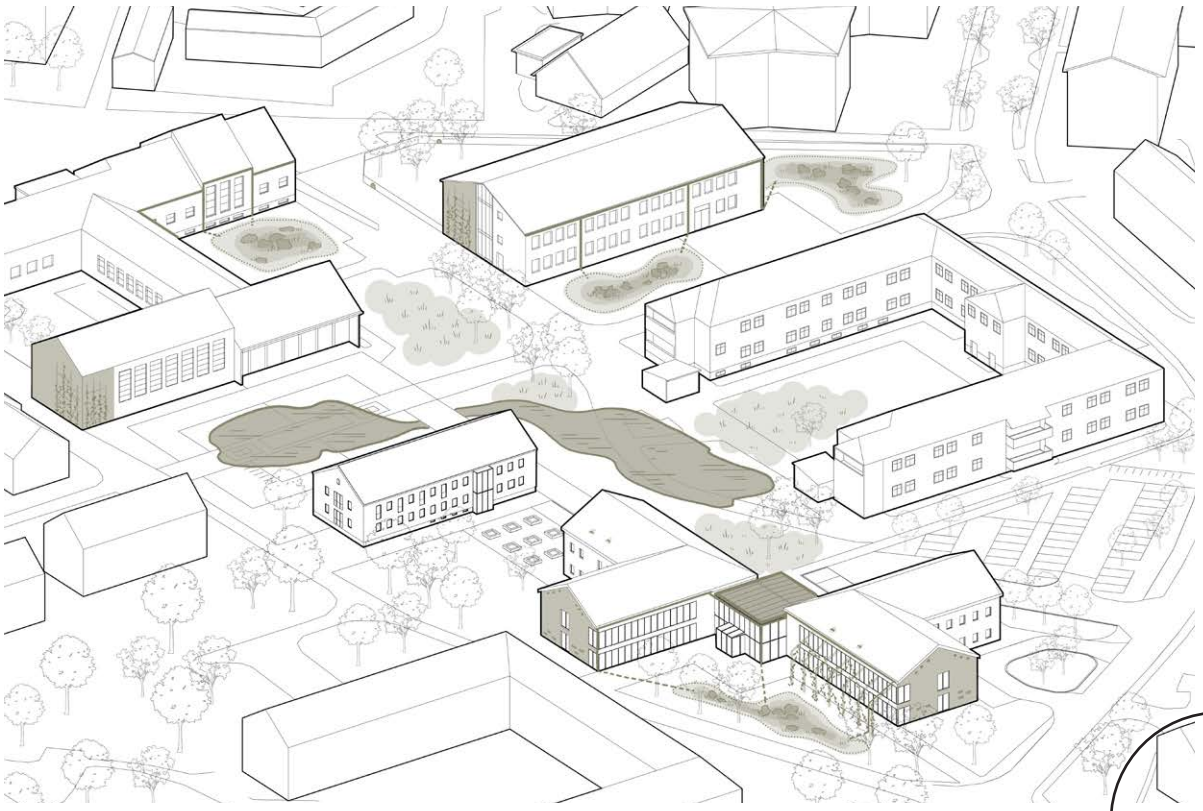
Documentation and mapping of the building play an important role in understanding the building and are used to influence the interventions. Interpreting stories of the past not as one set truth but as unfinished narratives forming a new public space that reactivates the area and allows people to connect and experience it in their own way.

Keywords : industrial heritage, preservation, adaptive reuse, public space

ALEKSANDRA KUKLINSKA

(UN)NATURAL HABITAT

- Redesigning spaces for support of biodiversity and bring a human & nature coexistence



BUILDING DESIGN FOR SUSTAINABILITY

Supervisor: Walter Unterrainer
Examiner: Liane Thuvander
MT´23

Sustainability becomes an inseparable element of the built environment. We observe that the most popularized sustainable solutions are focusing mostly on aspects of building materials or energy efficient systems. However, even building in a new environmentally-friendly way, still interferes in natural habitat and leads to its slower or faster degradation. There is a gap of building examples that would consider biodiversity support in the early stage of the project. At the same time, it is already well-known that nature has a big positive impact on our mental health and well-being. How beneficial would it be then, for both of the sides (human - nature) if architects started to design spaces with inclusion of wildlife in the built environment?

The purpose of the work is to draw attention to the problem of exclusion of biodiversity in the field of architecture and habitat degradation caused by ongoing urbanisation. In order to achieve a coexistence between human and nature, newly designed projects, as well as already existing spaces should aim to integrate nature in the built environment. The aim of this thesis is however to highlight the importance of transformation and redesign of already existing outdoor spaces.

The research part was based on literature and study of references to ground a base of present knowledge. In the next stage, the context of the site was analysed in order to get a bigger picture and understand wider correlations between chosen site and other biodiversity valuable areas. Later, the process of rethinking and redesigning were made in relation to stated findings and was summarised with sketch concepts for ideas of adjustments. The final proposal is a presentation of a few selected concepts, shown with drawings and perspectives.

This paper does not provide a biological knowledge about biodiversity but is taking an architectural perspective as a main direction. Thesis illustrates how big possibilities can be found in already existing spaces and how crucial the transformation approach can be for the prevention of biodiversity loss. The results show that the broader local context and cross-disciplinary approach is needed for achieving a new healthy shared habitat.

key words:

biodiversity support, shared habitat, human-nature

LOVISA KUMLIEN

HALF EMPTY HOUSES

- NEW WAYS OF LIVING WITHIN THE SINGLE FAMILY HOUSE

BUILDING DESIGN FOR SUSTAINABILITY

Supervisor: Karin Kjellson
Examiner: Walter Unterrainer
MT'23

The single family house is a typology with an invisible vacancy and a great future potential to tackle large societal challenges. 40% of Swedish households live in single family houses and they are to be found all over the country. Many of them are built for a family with children but today the majority of these houses are inhabited by only 1 or 2 persons and a third of all house owners express they have too much space.

There is a discrepancy between what we build or dream of and the reality of how we live today. The lack of variations in sizes and ownership models can make it hard to both stay in and move to the area.

The aim of this thesis is to investigate the potential of the single family house to develop new housing solutions within the existing as well as summarising knowledge and strategies for how this can be done and how to reach qualities in the design while doing so.

The project takes place in the context of the island Åstol where the only option to create more housing is to develop within the existing 180 villas and where the future of the local community is dependent on how they make use of their limited space. The outcome of the thesis is a design proposal of how 3 of these villas can be transformed to support a sustainable development.

Through research of relevant reports and references on the subject together with real life examples based on interviews and statistics, the proposals of transformations are presented as a palette of potential showcasing new ways of living - matching the needs of today's society as well as challenging the norm of how we live today.

Keywords: single family house, transformation, cohousing, rural and rurban development, housing norms

SASKIA LANGBEIN

SHARING A HOME

- In Poblenou, Barcelona

BUILDING DESIGN AND TRANSFORMATION FOR SUSTAINABILITY

Supervisor: Tina Wik
Examiner: Paula Femenias

MT'23

By designing our environment, we are not only creating new spaces to go through, pass by and be in, but we are also creating a surrounding that dictates how we live. Everything is designed for a certain user. The things designed for a broad variety of users are often designed for an imaginatory norm. In the case of housing this norm is to live either by yourself or with a core family. In Europe, the average houshold size is 3,1 people and many apartments are designed for this average. When looking for an apartment without fitting these norms, the options get sparse and inhabitants need to try to appropriate a space that is not made for them. While populations in cities are increasing, space per person is increasing and rents rising, many people decide to move in with other people outside of their core family. This means a new way of living together is calling for an adaptation of housing. The new user group that becomes more of a norm needs facilitation to do so.

In this master thesis, I will experiment with shared housing. I want to discover the alternative ways of living in a community and how to open up new opportunities.
Who is it good for? How is it used? What is it still missing? In this thesis, I present a cluster apartment design that works within the context of the neighborhood Poblenou in Barcelona. A city that as one of the highest densities in Europe and fastest rising rents in Spain. A city that is modern, open to change, but presents a sense of community and neighborhood that I so far haven't experienced in other cities.

Keywords :
shared housing, barcelona,
community, cluster apartments,
low-tech

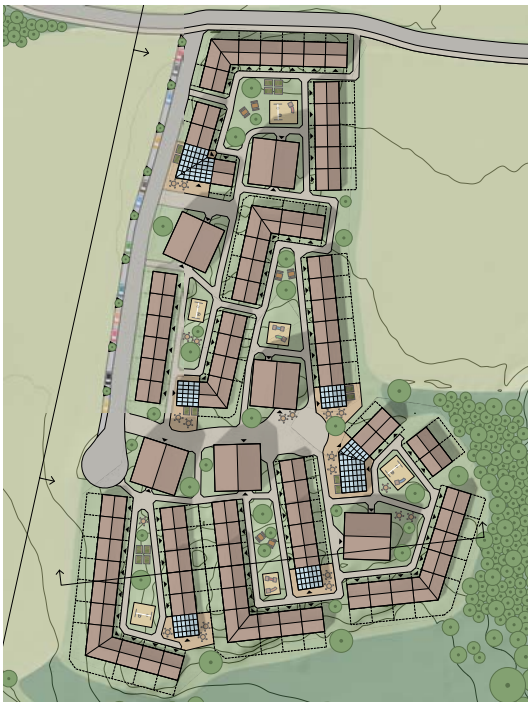
ISAK LARBORN

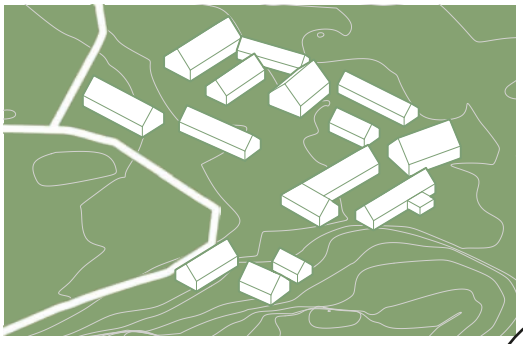
WHEN THE CITY MOVES CLOSER

- A RURBAN DEVELOPMENT FRAMEWORK FOR SÄVE

RURBAN TRANSFORMATIONS

Supervisor: Louise Didriksson
Examiner: Marco Adelfio
MT'23





Säve is a rural village of 700 people located within the municipality of Gothenburg, on the flat fertile plains of northern Hisingen. With farms and farmlands still located at the centre of the village, it still feels like it has not fully transitioned into a suburban area. This could change in the future, with the comprehensive plan of the City of Gothenburg proposing up to 12 000 new housing units in the Säve area, which would increase the population of Säve to over 30 000. A prerequisite for this is reopening the closed railway station, which would bring travel times to central Gothenburg down to 15 minutes.

Most of the land around Säve is agricultural clay plains, some of the best farmland available. Agricultural land is a limited resource, and it is one that is needed more and more with the world's growing population and increasing worries regarding the state of national security in Europe. Climate change could also mean that Sweden has to take on a greater role in the global food supply chain in the future.

Building on agricultural land is prohibited under the Swedish environmental code, unless the development is a "significant public interest" that "cannot be fulfilled elsewhere. While this law sounds strict, it is quite toothless in practice, as enforcement is minimal and it is generally left up to each individual municipality to interpret. Redevelopment of agricultural land for urban land uses is in fact increasing, not decreasing.

Säve is affected by various external and internal pressures. To find a balanced path forward for Säve, one which allows the community to develop into the future while still preserving its rural feel and its productive agriculture, the context and history of Säve as well as theory surrounding agricultural land redevelopment has been studied. In the history of Säve, a traditional type of agricultural village built with the intent to conserve useful agricultural land was found. These historical villages, their land use patterns and building typologies have been studied. The result is a framework that allows new villages to be constructed, taking minimal amounts of agricultural land, while still allowing Säve to develop into the future for decades to come.

Keywords : rurban, rural, agriculture, village, planning

ELLINOR LARSEN

DESIGNING FOR LEARNING

- AN OVERVIEW AND EVALUATION OF THE SWEDISH SCHOOL BUILDING HISTORY COMBINED WITH STRATEGIES FOR DESIGNING SCHOOLS

CRITICAL SPACIAL PERSPECTIVES
Supervisor: Julia Fredriksson
Examiner: Kristina Grange
MT'23

The Swedish school system has been described as experimenting with children. The criticism is mainly that new systems and pedagogical ideas were implemented quickly without being based on research. Have architects also treated the school building experimentally without reflecting on the potential consequences of their design?

The aim of the thesis is to develop design strategies that promote learning that can be used when designing school environments. My goal is that the master thesis could be used by architects to get a better understanding of how school buildings should be designed in order to optimize learning and avoid repeating the mistakes found in historical examples. My research question have been: How should we design schools to promote learning according to research and evaluation of historical building typologies?

To accomplish the aim and answer the research question, I reviewed research on school design linked to academic performance. Then, I analyzed historical school buildings by comparing them to the research. Thereafter, I designed two classrooms and adjacent group rooms, translating the research into design. Lastly, the literature review and historical analysis was concluded into design strategies aimed to guide architects to design schools that promote good academic performance. Research shows that lighting, color, material and room shape has a great impact on students' behavior. Knowing how students are affected by our design choices is crucial when creating the right environment for the right task.

The result of the historical evaluation shows that there has been a lack of understanding childrens' needs when designing schools. We can see repeating trends in the school design. More than once have schools been built that aren't adequate learning spaces. It seems like architects and stakeholders haven't learned from previous mistakes, partly because research on school architectures effects on academic performance has been scarce. Children are sensitive to auditory and visual stimulation when trying to concentrate. Most of the strategies are helping the students to focus on the task and avoiding distractors.

Keywords : Learning environment , School building, Concentration difficulties, Pedagogy, Education

FILIP LARSSON

RAINWATER ARCHITECTURE

- REIMAGINING KUNGSTORGET FOR THE 400 YEAR JUBILEE

BUILDING & TECTONICS

Supervisor: Mikael Ekegren
Examiner: Björn Gross
MT'23

The purpose of this master thesis is to investigate what it means for the urban development - to be striving for becoming the best city when it rains. This relating to Gothenburg's 400 year jubilee effort "Rain Gothenburg".

Western countries today handles water in a wasteful, non-reflective manner as if it was an endless resource. The city of Gothenburg may not face a fresh water drought in the near future thanks to Göta Älv. However, the city - with the intent of being the best city when it rains - needs to become an exemplary model for how rain and cloudburst elegantly could be turned from a problem to a resouce for the urban development.

Moreover, the population of denser urban areas are increasingly seeking refuge to rural environments for health and wellbeing. Has the city failed its inhabitants to provide the right preconditions for leading healthy, fullworthy lives?

Studies show that presence of green and especially blue spaces generate less subscriptions of antidepressants. Could then dense urban settings become healthier environments, if blue spaces are tightly interwoven with the everyday urban fabric?

This thesis therefor explores how rain in Gothenburg can be conciously integrated in a central urban setting - utilised through new additions on Kungstorget. The aim is to generate awareness of the potential of rainwater as a resource, to create intimate spaces and an increased proximity to blue spaces in a central urban context - for enhanced experiences, healthier and more atmospheric environments.

The project intends to re-establish the teeming life on Kungstorget, replacing parking lots with rainwater experiences and spaces for trade and interaction. The design is informed partly by historical, cultural and contemporary analyzes, and partly by how the architecture should interact with the rainwater chain. This method could generate a teeming urban hub that demonstrates how Gothenburg is turning rain from an inconvenience to an asset, in the attempt of being the best city when it rains.

Keywords : Rain interventions, Phenomenology, Atmosphere, Blue space, Construction

EMMA LAW-BO-KANG

ATLAS OF COLORS

- COLORS FOR BETTER THERAPEUTIC ENVIRONMENTS

HEALTHCARE

Supervisor: Marie Larsson
Examiner: Cristiana Caira
MT'23

Perception may be defined as the process by which individuals receive, recognize, organize and interpret sensory information in order to give meaning to their environment. In the psychiatric field, it turns out several mental illnesses alter the senses of perception for patients. Architecture plays a critical role in psychiatric care, as the physical environment can have a significant impact on the emotional and psychological well-being of individuals receiving treatment.

The ability of color to impact human emotions, behavior, and well-being is significant and makes it a powerful tool that can be used to achieve desired outcomes. This color impact on human well-being is particularly important in healthcare settings, where it has been shown to influence people's mood, perception of pain, and recovery time. Therefore, it is important for architects to consider the impact of color in their designs and to use color in a thoughtful and intentional way to enhance patients' well-being and recovery.

The thesis rests on the analysis of the use of color in space and its effect on people diagnosed with Post-Traumatic Stress Disorder (PTSD), in the context of built environments. It then delves into different ways in which color can be used to support trauma recovery and promote feelings of safety and comfort. This includes an examination of color psychology, color symbolism, and the ways in which different hues and other color characteristics can impact emotional states.

The identification of stress-suitable colors led to the elaboration of a color palette. By suggesting this tool, the thesis aims to provide practical guidance and inspiration to architects for designing more supportive and healing environments in the psychiatric field. This thesis aims to bridge the gap between the psychiatric and architectural fields, shedding light on the importance of designing for individuals with disorders. It offers a valuable resource for professionals dedicated to creating environments that promote healing and well-being for those who have experienced trauma. More, it approaches a field with a lack of research and sets an explorative base for further research on the topic.

Keywords : color perception, mental health, therapeutic environment, psychiatric architecture, trauma-informed design

ZHE LI

The Northernmost Nostalgia

- An exploration on floating structure applicable to polar bear ecology and other Arctic lives

MATERIAL TURN
Supervisor: Kengo Skorick
Examiner: Jonas Lundberg
MT'23

As global warming causes significant changes, the melting ice cap in the Arctic has drew more attention. Meanwhile, a sixth mass extinction has already occurred in the 'Anthropocene'. Arctic lives, including narwhals, polar bears and walruses, will be the first to get involved due to inadequate habitat. If human activity continues as it is, we could see the demise of polar bears sometime between 2050 and 2100.

We certainly hope that the Paris agreement could limit global temperature change to 1.5 degrees Celsius above pre-industrial levels. But in most cases, ice caps will disappear in a foreseeable future, so do polar bears. People have already realized the importance of biodiversity to ecosystems. Sanctuaries and national parks are set up in order to preserve wild animal's habitat. But polar bears are in a very special situation, their tracks range from the northernmost multiyear ice to the terrestrial hills and plains. Sea ice is a key platform for polar bears to accumulate a year's weight. It is also the most threatened habitat.

Sea ice is an extremely fragile ecosystem that possesses a simple chain of energy transfer. When one of its links is disrupted, it will deal a serious blow to the whole system. It's not just the polar bear that's at stake, but also many other species that live in it, various kinds of algae and bacteria, polar cod, and polar bears' main food source, seals.

As some experts are investigating, artificially enabling sea ice re-formation is possible, such as pumping warm seawater from the deep sea to the surface and seasonal injections of aerosols to reduce solar radiation. But what can we do as Architect? What results are obtained by maximizing the benefits of space from a non-anthropocentric design perspective? The location and design core of this project are far from human society. It will not entagle with human interests in order to maximize the design opportunity regarding polar bear's minimal autonomy as well as the consciousness of vulnerable Arctic ecology.This will be a process of constant questioning and reflection.

The 'oasis' or 'oases' could only support limited amount of polar bears to hang on with their survival skills in hand. But they might be the seeds.

Keywords : non-anthropocentric, Arctic ecosystem, polar bear territory

KLARA LIDSTRÖM

LAYERS OF TIME

- AN INVESTIGATION OF TRANSFORMATION BY ADAPTIVE REUSE

MATTER SPACE STRUCTURE
Supervisor: Naima Callenberg
Examiner: Daniel Norell
MT'23

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

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

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

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

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

Keywords : Adaptive, Reuse, Heritage, Palimpsest

IDA LINDBÄCK & ELLEN JONSSON

NEVER ENDING STORIES

- TRANSFORMATION OF AN INDUSTRIAL BUILDING IN FORSÅKER

BUILDING DESIGN FOR SUSTAINABILITY
Supervisor: Walter Unterrainer
Examiner: Paula Femenias
MT'23

The purpose of this thesis is to illustrate how building transformations using circular design principles can lower emissions and minimize resource extraction while also enabling more rich, functional and enjoyable environments.

With a rapidly growing global population the pressure on nature and natural resources can be expected to further increase. The Swedish building sector already accounts for 40% of national greenhouse gas emissions and waste generation and 45% of our resource extraction. To avoid the worst-case climate scenarios, it is necessary to make a shift in the current linear system and explore new ways to design, build and live.

This thesis will address these problems by showcasing how a transformation of an industrial building in Forsåker can help lower the environmental impact, revitalize a neglected neighbourhood and add new layers to the story and identity of the place. The project focus on designing out waste and extending the buildings life span by creating more adaptable spaces, utilizing reused and regenerative materials and designing new additions for future reuse. Furthermore, the program of this project strives to intensify the use of the building and promote more sustainable lifestyles within a circular economy, such as offering functions that support sharing goods, services and space.

The carbon and resource savings made in this project are highlighted through a life cycle analysis. The result shows that the structure and climate shell of the existing building contains 10960 tons materials and 1 390 tons embodied carbon, which is almost 3 times the embodied carbon and more than 30 times of the material mass compared to the new additions.

Keywords:
Circularity – Transformation – Reuse

EVELYN LINDFORS

FOR PEOPLE BY PEOPLE

- A PARTICIPATORY DESIGN PROJECT FOR AN URBAN FUTURE IN HALMSTAD

URBAN CHALLENGES

Supervisor: Joaquim Tarrasó & Carl-Johan Vesterlund
Examiner: Joaquim Tarrasó
MT´23

Architects are responsible for our built environment, ensuring it's functionality, aesthetics, and sustainability. The ecological sustainability is increasing in importance due to climate change, but another important factor, that's more difficult to measure and that's also in need of attention, is the social sustainability (Tunström, 2019). People create life in our urban spaces, not architects. We can only provide for the space, but without people utilizing it, our profession may become purposeless. We are essentially dependent on each other to succeed, but somehow the people's voice in the matter of urban design seems to be insignificant or forgotten.

The city of Halmstad is losing its attractivity due to a shopping mall in the outskirts of the city and from Covid-19 repercussions, simultaneously as a conflict about a hotel development on Österskans was created between the municipality and the citizens (Halmstad Kommun, 2023). The hotel project was ended after a public vote in 2022, with no new plan for the area to this day.

The purpose was to investigate and develop a design method and practice of participatory design, on the chosen site of Österskans in Halmstad, with the leading question:

How can a participatory design process be developed, with an aim to create a sustainable and attractive urban environment, together with citizens of Halmstad?

The method consist of input, interpretation, and implementation, where the input was gathered from participatory actions like questionnaires, interviews and workshops. The input was made into a framework of design principles and zoning map which the final design proposal was centred around. The proposal has a holistic approach divided into five categories: flows, greenery, activities, piers, and buildings. The flows and activities are focusing on the human scale, encouraging an increase of liveliness, the greenery promotes biodiversity and human health, the piers connect Österskans to the river, and the building links the cultural buildings together and creates a meetingplace.

The thesis is a pilot project, testing a new approach in a smaller scale, for the purpose of finding a way for architects to move forward in the development of social sustainable urban environments.

Keywords : participatory design, sustainability, urban planning

ELLEN LUNDH

EMBASSY OF IDENTITY

- SENDIRÁÐ AUÐKENNIS.

BUILDING AND TECTONICS

Supervisor: Mikael Ekegren
Examiner: Björn Gross

MT´23

Architecture is not only about designing buildings, but also about telling stories. Through the built environment, architecture has the important potential to tell a story about a country's past and present identity. This thesis explores how to create a structure that is not only efficient but also shows a deep consideration for its surroundings, improves the user's experience, and holds meaningful spatial architectural qualities.

The research question focuses on how to make a design intervention in a setting where the existing built environment needs to be handled with great care. The research subject is explored through a proposed design of an office extension for the Swedish Embassy in Iceland. The method used to answer the question is conducted through research by design.

Theoretical framework used for this thesis is based on strategies extracted from case studies on how to design in an environment sensitive to change, as well as theories from practicing architect from the field. The design process is carried out through an iterative process, involving model-making, sketching and conducting interviews with main stakeholders.

The thesis aims to spark public interest in architecture and its past and present history. But also, through designing a new extension to the Swedish Embassy in Iceland, spark interest for this delicate, multilayered and often concealed typology by proposing an example for future design that also challenge the traditional layout of an Embassy.

The hope with the thesis is to start a conversation about the role of architecture in society in relation to our built identity. To question if our design additions added value to its surroundings compensates for what might be lost. In addition, discuss the importance of context in design by giving specific suggestions on how to build in a sensitive environment.

Keywords : Embassy, Addition, Reykjavik

MALOU LUNDQVIST BERLE

DESIGN ON THE MARGINS

ARCHITECTURAL DESIGN AND EARLY CHILDHOOD DEVELOPMENT IN VULNERABLE COMMUNITIES

DESIGN ACTIVISM BEYOND BORDERS

Supervisor: Shea Hagy
Examiner: Liane Thuvander
MT´23

Most of the children in Woodlane Village in Pretoria, South Africa, are not attending preschool due to poverty and economic priorities of their caregivers. There is limited access to positive cognitive stimuli and the conditions of the streets pose multiple hazards for the children. Growing up being exposed to adversities such as poverty, discrimination, neglect, etc. will trigger the body's stress response and can cause long term stress which can have negative consequences for their future development. One of the most effective ways to build resistance towards toxic stress is for the child to have a responsive and reliable relationship with their primary caregiver, usually the mother. The capability to provide this is affected by exposure to serious stress brought on by health issues, financial insecurity, and other hardships.

This study aims to investigate how architectural design and participatory processes can empower the mothers and children of Woodland Village. Through workshops, interviews, and observation I was able to map the community, focusing on the threats, needs, and wants for the children and their caregivers in the Village. The data collected was used to [1] Create a design proposal with the purpose of designing opportunities for learning and interaction in public spaces and [2] Design a process for social and financial empowerment for the mothers through skill-building.

During interviews with the mothers, they expressed that the three most important qualities for their children to learn is how to share, be respectful and compassionate. When we talked about educational skills, they emphasized the importance of learning English. Not only for their children, but also for themselves. This led to the conclusion that the core purpose of the design intervention had to be to encourage social interaction and collaboration together with opportunities for language development. The main answer to the research question of how architectural design can be used to empower the children and women of Woodland Village is that there is a need for a placemaking design where the children can interact with each other and their mothers, while also focusing on independence and empowerment of the mothers.

Keywords : Early Childhood Development; Mother-child relationship; Vulnurable Communities; Empowerment; Ownership of Space; Architectural Design

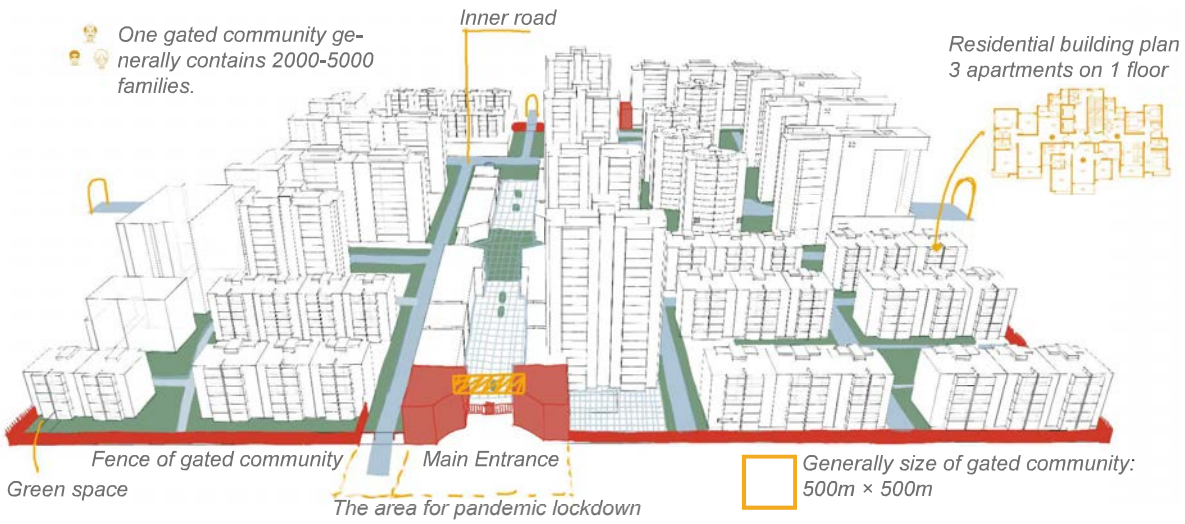
WENCHAO MA

THE HIDDEN POWER IN GATED COMMUNITY

- THROUGH THE LENS OF PANDEMIC LOCKDOWN

CRITICAL SPATIAL PERSPECTIVES
Supervisor: Julia Fredriksson
Examiner: Kristina Grange
MT´23

Typology diagram of gated community



In the context of the global pandemic, many cities around the world have experienced lockdown. Through the lens of the pandemic, we can perceive phenomena that we have never seen before, rethink the relationship between individuals, public and private space, and face contemporary urban space crisis. In the past three years, China, as one of the countries with strict measures to control the pandemic, implementing a Zero-covid policy. During this period, the gated community has become a powerful organizational form for controlling citizens.

Incorporating evidence from news media reports from various channels, relevant government policy documents, photographs, the ”pandemic diary” posted by residents, discussions on social media, and my own personal experience and narratives from relatives and friends, this master thesis analyses how gated community in China were used as a tool to enforce power before and during the pandemic.

The gated community in China is a very special typology. Its walls and gate shows the enclosed symbol since ancient China. And nowadays, it shows the richness of residents rather than the purpose of security. The gated community before pandemic contains the power relations between government power, market interests and citizens. During the pandemic, a new role emerges and reforms a new power structure which matches the spacial typology of gated community. And by analogy to Foucault’s plague model and Bentham’s Panopticon, there shows similarities and differences between pandemic gated community. The physical boundaries are not a key means of controlling citizens, but they are a material manifestation of the power system. This research quote concepts from analysis of Forbidden city by Jianfei Zhu , which shows how to break the power. And there are 2 types bottom-up resistance shows the individual and group practice of breaking the power during the pandemic.

Keywords :
Power over, Gated community, Pandemic lockdown in China.

SEYEDEHMAHDIS MIRSADEGHI

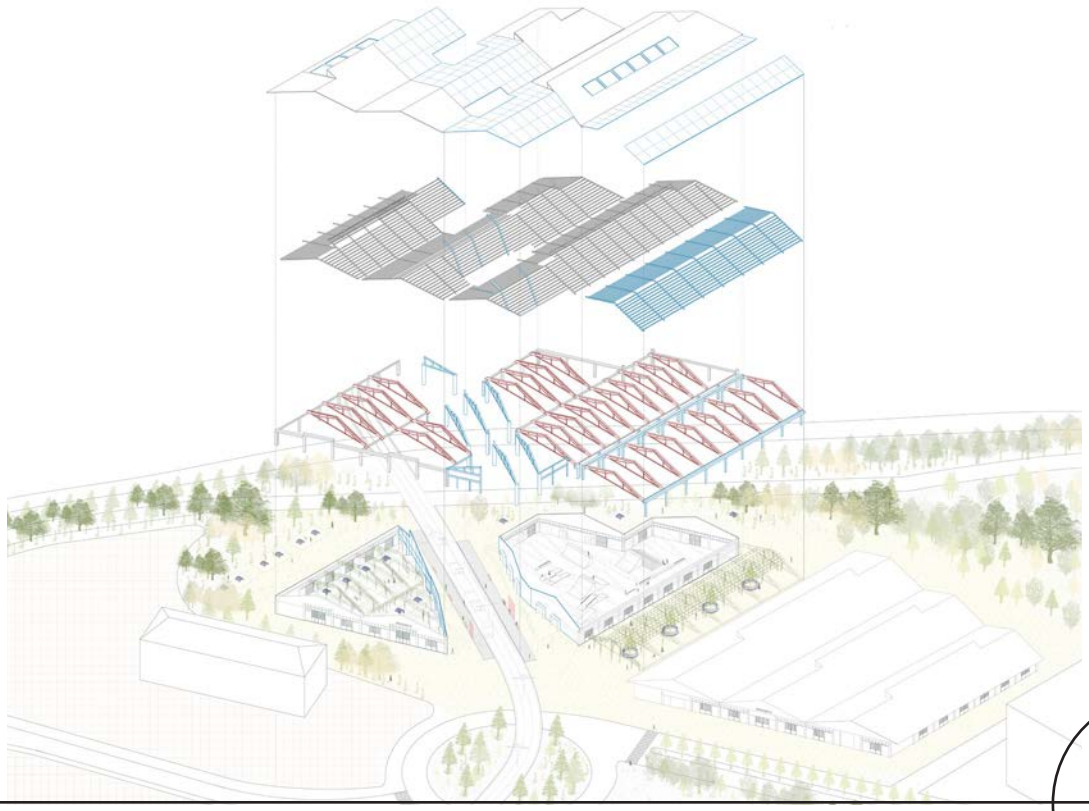
REIMAGINE THE FUTURE

- TRANSFORMATION OF MAGASIN E CONSIDERING THE FUTURE TRAM LINE IN FRIHAMNEN

URBAN CHALLENGES

Supervisor: Joaquim Tarrasó, Carl-Johan Vesterlund
Examiner: Joaquim Tarrasó

MT´23



This study addresses the problem of abandoned buildings no longer being used as intended and scheduled for demolition. The focus is on transforming contemporary industrial spaces in urban areas into spaces suitable for human use. In addition, the research looks into the possibility of relocating industrial areas Historically located on the outskirts of cities to more central urban locations.

Adaptive reuse offers a practical approach to promoting neighborhood revitalization and preserving cultural heritage. This approach involves reusing industrial structures by recycling their functional components and potentially relocating them to other sites, allowing these structures to serve new programs and functions. The benefits of adaptive reuse include mitigating the accumulation of abandoned and unused industrial structures and modifying them to meet current needs while safeguarding critical cultural assets from demolition.

This study seeks to investigate the project's narrative through multiple modes of representation, which are expected to act as the primary driver of change at the project site. Specifically, the study explores diverse approaches for establishing connections between historical layers and contemporary realities, particularly concerning the human experience. Additionally, by examining various scenarios for the building's functional and expressive transformation, this research offers a fresh perspective on engaging with a site's history in future development.
Question:
-How can the Magasin E building be adapted to fit the future development of Frihamnen?

Keywords : adaptive reuse, transformation, abandoned space.

EMMA NORBERG & SIMON NORBERG

NATURUM TJURPANNAN

OCEAN PLASTIC EXHIBITION CENTER AND STORM SHELTER

BUILDING & TECTONICS

Supervisor: Filip Rem
Examiner: Mikael Ekegren
MT´23

Tjurpannan Nature Reserve holds a distinctive beauty thanks to its special bedrock with a characteristic pink tone, shaped in a sculptural softness through the ice age thousand of years ago. In this landscape one can find historical examples of great talent for fitting the buildings into its surroundings. This is also an outstanding place to observe the unique spectacle of the storm, but when the storm settles the great threat of ocean plastic is revealed in this beautiful landscape.

The idea behind this master's thesis is to challenge the notion of conventional building methods and explore how the philosophy of a light footprint could be expressed through new desigs in this iconic landscape.

Focus will be put on exploring the question:
How will a light footprint shape the buildings and their overall appearance within its surrounding landscape of Tjurpannan?

In order to answer that question, the methods "research for design" and "research by design" have been used through an iterative design process.

The result is showcased in the final design of an ocean plastic exhibition center and a storm lookout, where careful consideration is taken to the conditions of each site. Several influences are interwoven such as topography, the character of the landscape and a special emphasis on how the new buildings touch the ground. Architectural drawings, illustrations and physical models are used to showcase the final designs in a wide range of scales to approach the built reality.

In conclusion, we believe this Master's thesis can contribute to the discourse on the importance of place and show how architecture can act as a translator to let the context be part of the project. But also how the philosophy of a light footprint can both ensure that the landscape is protected for future generations as well as being a significant part of the overall design.

Keywords :
Landscape / Environmental awareness / Adaptation / Footprint / Appearance

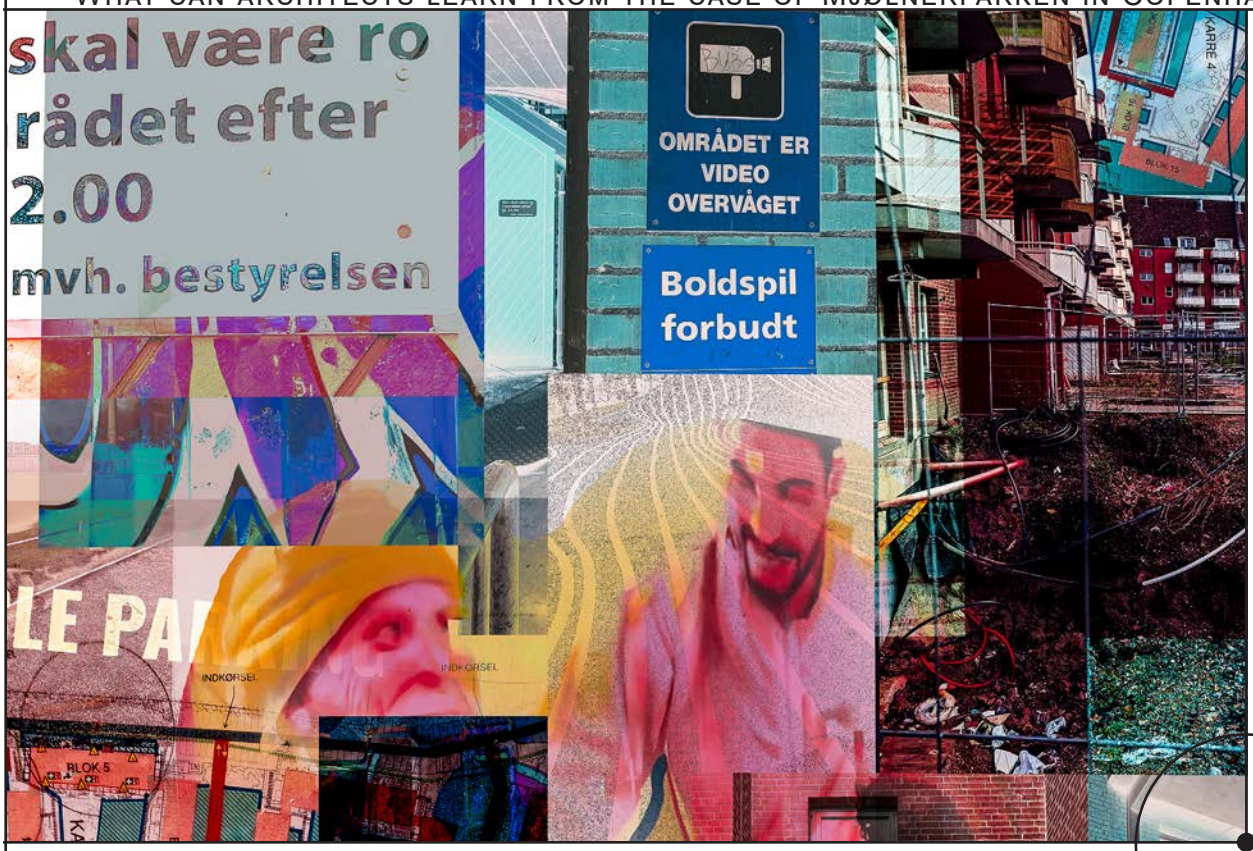
LISA NORD

EMPOWERING COMMUNITIES THROUGH YOUTH CENTER DESIGN

- What can architects learn from the case of Mjølnerparken in Copenhagen (...)

URBAN CHALLENGES

Supervisor: Joaquim Tarrasó and Carl-Johan Vesterlund
Examiner: Joaquim Tarrasó
MT'23



I believe it is important that everyone in the neighborhood feels included, a sense of belonging and heard.

Communities can be shaped in this way so that they are stronger together and share common interests. There are examples of neighborhoods with an active community base that supports an area's identity and culture. However, in an ever-changing, fast-paced world connected by multiple entities that move citizens for their own or others' interests, it may be difficult to form an active and invested community. This means acknowledging that issues of identity, culture, and urban safety do not affect everyone equally, but rather are the result of a complex interplay of factors.

Mjølnerparken was selected as a study area due to its strategic location and socio-economic status. It houses around 1,225 people, of which 83% are non-Western immigrants or born to immigrants. These areas, commonly referred to as ghettos, face challenges in developing socially sustainable communities due to several factors such as lack of jobs, population growth, governance and segregation. The purpose of this thesis is to provide an answer to the following question: What can architects learn from the case of Mjølnerparken in Copenhagen in terms of spatial aspects of social sustainability, specifically identity, inclusion and safety?

This is investigated through interviews, a SWOT analysis, site visits, and case studies to determine the overall focus of the debate, including what is lacking and how spatial planners may contribute to it. It also demonstrates how the ghetto is spatially manifested. A youth center design proposal is introduced to improve safety, identity, and inclusion in Mjølnerparken.

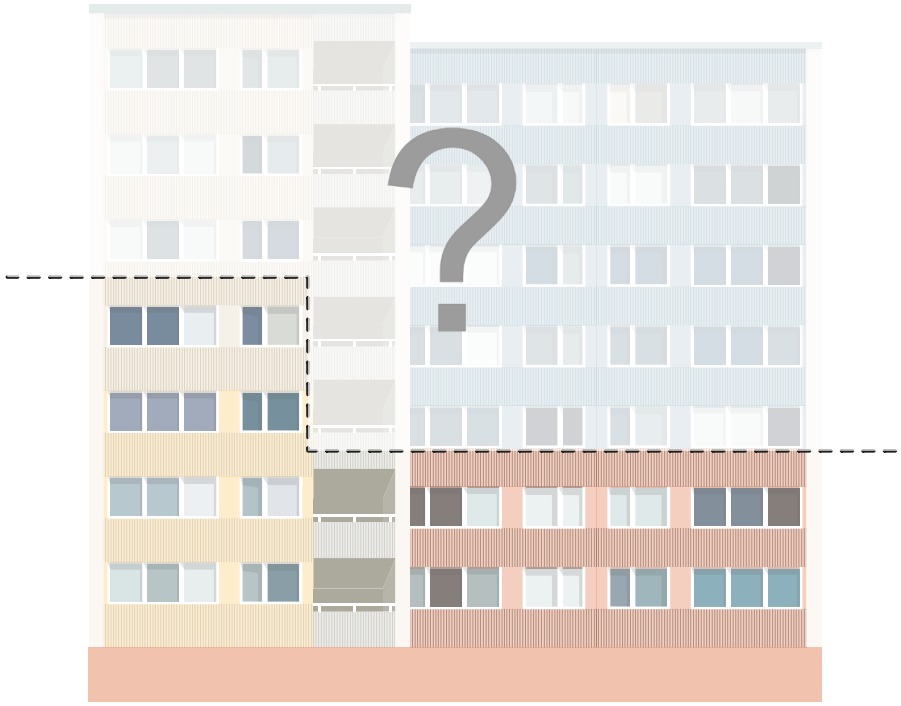
In conclusion, architects and the government must prioritize the involvement of outcast groups in projects and meet their needs to promote their integration into society. Expressing opinions on ongoing debates, such as the government's Ghetto plan, and learning the language are equally crucial. As architects and citizens, a responsibility exists to take a collaborative approach to future housing and urban projects.

Keywords : Inclusionary housing policies, proximity and connection & creating identity without exclusion.

JOHANNA OLIN

RENOVATION FOR THE FUTURE

- AN INVESTIGATION OF ENVIRONMENTAL IMPACT AND LIFECYCLE COSTS FROM DESIGN CHOICES DURING A RENOVATION PROJECT



BUILDING DESIGN FOR SUSTAINABILITY
Supervisor: Walter Unterrainer
Examiner: Paula Femenías
MT'23

Many of the buildings made in the 1960s to 1970s are today in urgent need of renovation. To be able to reach the goal of net-zero emissions by 2045 they are also in need of improved energy efficiency. While decreased energy usage after renovations leads to lower environmental impact, it also leads to long-term lower costs. With selection of lasting materials, it is also possible to lower the cost for maintenance. By performing life cycle assessments (LCA) and life cycle costs (LCC) on different design options of a future renovation project, this thesis investigates the interrelation between building costs and environmental impact alongside architectural qualities.

The thesis focuses on the renovation of an apartment building in Gärdsås in Gothenburg, where renovations have been initiated on buildings of the same type. Data from the already performed renovations will be used as reference for further investigations on one of the buildings that is still to be renovated. The previous renovations affected the facades and outside areas and the future renovations will be including a pipe exchange and renovation of bathrooms. These actions together with the façade renovation means that the tenants must be relocated during the renovation and more extensive renovations performed. This thesis aims to present an alternative to this renovation where the design choices are motivated by the result of the cost and environmental assessments.

Previous studies show that there is currently a lack of models to consider long term economical gain in public renovation projects. Since public housing companies have a larger responsibility to be socially sustainable, the balance between economical gain and increased rents becomes vital. Life cycle assessments show in a holistic way the climate impact of a building over its lifetime and can be used in an early design process to investigate different options. By simultaneously investigating life cycle costs, this thesis aims to motivate sustainable solutions with lower long-term costs over a building's lifetime. Additionally, the thesis aims to provide a basis for further discussion on the responsibility for renovation costs.

Keywords : lifecycle assessments, lifecycle costs, economy, renovation

JESSICA LUNDIN & PIA PALO

EXPERIMENTS, IMAGINARIES, DESIRES

- SEARCHING FOR A SPACE OF RESISTANCE

DESIGN ACTIVITSM BEYOND BORDERS

Supervisor: Marco Adelfio
Examiner: Monica Billger
MT´23

In recent decades, the dominant paradigm of top-down, profit driven urban development has been institutionalized and dogmatized by decision makers in cities. It leaves no space for alternative imaginaries, but rather tries to exert full control over the definition of how cities should be developed and used. As a means of resistance, this thesis argues for the need of the disorderly, for ambiguous urban spaces characterized by being messy, rough, and uncontrolled.

The thesis is situated in the specific context of Lundbystrand, an ex-industrial area of central Gothenburg that is being transformed into a cluster for tech and automotive industries. Market-driven development has led to demands for an ordered, clean, safe, and tidy urban form that conflict with spontaneous appropriation of space and bottom-up initiatives.

In response to this, the thesis challenges the conception of what you can do, and who can interfere in the public realm. It aims to convince of something most do not seem to agree with: that the messy, rough, and uncontrolled are spatial qualities that have positive human and non-human value. This is done through an exploration of the potential values of the disorderly, with a particular focus on ambiguity and the feeling of allowance that it creates.

The overarching approach is to embrace the uncertainty and complexity that make up the world, drawing on assemblage thinking and relationscaping. By exploring methods that focus on subjective experiences and recognizes more-than-human ways of thinking, the work investigates the role of micro-scale design experiments in provoking desires and other models of shaping the city.

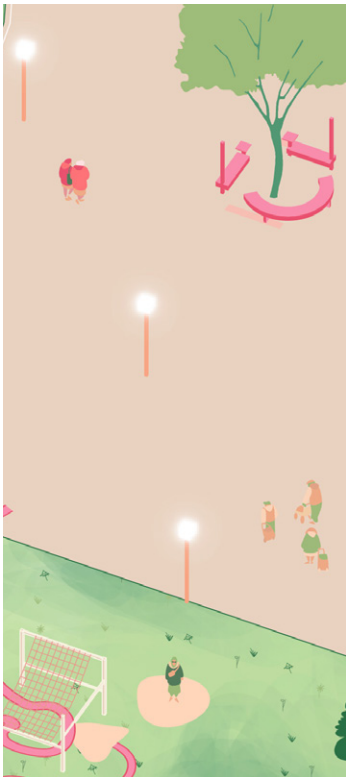
Rather than resulting in a design proposal, the thesis shows how experimental design processes can generate capacity to produce collective and individual imaginaries and actions, initiating a dialogue about whose desires dictate the visions of the future. The outcome is a contribution to an alternative spatial interpretation of Lundbystrand, with three on-site design experiments that transform and are transformed by the shifting assemblages they engage with.

Keywords: ambiguous space, assemblages, micro-scale, relationscaping, urban design

NINA PAROT

THE GRASS IS GREENER

- SHINING LIGHT ON THE POTENTIAL HELD BY OUTDOOR ENVIRONMENTS TO SUPPORT INTEGRATION PROCESSES



BUILDING DESIGN FOR SUSTAINABILITY

Supervisor: Walter Unterrainer
Examiner: Liane Thuvander
MT'23

In 2022, Gothenburg was ranked as the world's most sustainable city (GDS, 2022). The municipality prides itself in its effort to become more sustainable and often communicates on ecological sustainability (Miljö- Och Klimatprogrammet, n.d.). This contrasts with the growing disparities leading the city to be designated as one of Europe's most segregated (Thörn & Thörn, 2017).The segregation issue in Gothenburg exists since its modern development. In the second half of the 20th century, the city needed to accommodate the growing number of inhabitants while facing a housing crisis. Gothenburg quickly expanded, neighbourhoods were built beyond existing and continuously developed large scale infrastructures that became barriers within the city.
This layout is the source of many social and structural issues, as these neighbourhoods remain weakly connected to the urban system but highly dependent on the city centre. The most affected districts are the migrant dominated neighbourhoods located in north Gothenburg, specifically north-east where the segregation is spatial and social. This situation is a hindrance to the incorporation of its inhabitants. The barriers reduce the access to opportunities necessary for such a process to be successful. Instead of focusing on breaking down these long standing barriers, maybe the focus could lie in reducing the dependance of these neighbourhoods by increasing the opportunities on a local level.

This thesis focuses on the neighbourhood of Hjällbo.By exploring the transformation of three sites, the goal is to help create more cohesion, to lay the groundwork for the emergence of new programs. The focus lies on the enhancement of local qualities and interventions that facilitate the use of outdoor spaces and support inhabitants' lifestyles. By doing so promoting the densification of uses and diversification of local opportunities.
The three design proposals attempt to support integration by providing opportunities for interaction and connection of varying degrees, therefore enriching one's social network.The identification of the sites and the design proposals are a result of territorial analysis at different scales, literature studies exploring urban design and integration theories, cross-referenced with knowledge acquired through site visits and studying reference projects.

Keywords : Integration, redevelopment, local qualities, unequal opportunities

RICK PERSSON

DESIGN FRAMEWORK FOR OPTIMIZED GRIDSHELL STRUCTURES

- AND THEIR POTENTIAL APPLICATIONS

MATERIAL TURN
Supervisor: Kengo Skorick
Examiner: Jonas Lundberg
MT'23

This master thesis investigates the design process of gridshell structures constructed from discretized elements, with a focus on optimizing the design through exploration of key considerations such as geometry, material selection, fabrication techniques, and potential challenges. The research results in a design procedure that provides valuable insight for architects and engineers. Additionally, the thesis explores the potential of gridshell technology beyond typical pavilion applications, concluding with a discussion of future use cases and the development of prototypes that demonstrate the possibilities of gridshell technology.

The purpose of this master thesis is to explore the design process and potential applications of unstrained gridshell structures. The research will examine existing gridshell structures and the author's own prototyping and experimentation, developing a design procedure for gridshell structures and hypothesizing on their potential uses and benefits. The study will conclude with the demonstration of this knowledge through the creation of a compression-based prototype shell structure and the application of gridshell technology to another type of structure. The final discussion will focus on the implications and possibilities of gridshell technology for future design and construction.

Keywords : Structure, Geometry, Gridshell

ALBIN PETTERSSON BRÅTHE

IN PLACE

- ARCHITECTURE IN THE EXPERIENCE OF NATURE ENVIRONMENT

MATTER SPACE STRUCTURE
Supervisor: Peter Christensson
Examiner: Daniel Norell
MT'23

This thesis aims to investigate the experience of nature environment in relation to architecture, and how the two may enhance one another. With the city of Gothenburg as point of departure, a locally characteristic context acts testbed to explore the place defining elements and qualities of a nature environment, how it is perceived, and how architecture may act as an agent within this perception of the place.

The area for investigation through this thesis is Galterö, an island located in the outskirts of Gothenburg southern archipelago. Various techniques of mapping and recording are used to gain an understanding of the different present layers of the site and the elements defining the *place*. In contrast to more conventional mappings of urban contexts, this thesis explores mapping as a tool to decode and interpret a rural landscape. The notion of situated knowledge of the place is relevant in relation to the outcome from these exercises, and in the further process of architectural design on Galterö.

Experience of nature environments is very much about being present and being in direct contact with the place and the elements. Hence, the mapping methods used are dependent on physical presence and my own perceptions as moving my body through the landscape. This value in physical contact with the site is recurring through different phases of the process, such as in model making, program formulation etc.

In Place is synthesized as a proposed architectural intervention at the very western point of Galterö, called Galterö huvud. The architecture manifests the site as a culminating situation of the journey through the landscapes of Galterö. It recognizes the experience of nature environments as an act with high value in physical presence where the sense of disconnectivity from urbanity is a key aspect.

Formulating architecture in relation to this circumstance, two contrasting, yet relating, structures are suggested on the site. An oceanspace, hovering at the edge of the landscape – a shelter that exposes you. And a refuge on the shore, merged into the landscape – a shelter that actually shelters you.

Keywords:
nature – archipelago – mapping
character of place – situated knowledge

EBBA PIJL

URBAN FLOODSCAPES

- THE MULTISPECIES PERSPECTIVE

RURBAN TRANSFORMATIONS

Supervisor: Marco Adelfio
Examiner: Julia Fredriksson
MT´23

For decades, when developing the urban landscape, anthropocentric models for growth and urban compaction have been seen as ideal, in search for an optimal urban paradigm for sustainability. With the existing climate crisis, caused by human use of planetary resources, natural systems are left out of balance. Rising temperatures and extreme weather caused by heavy pollution and increase in greenhouse gasses have contributed to the loss of species and decrease in biodiversity. Among other consequences, flooding risk in urban areas is exacerbated.

The thesis emphasizes the importance of the climate crisis and the need for displaying how cities can be redesigned to work with flooding and nature. The purpose of this thesis is to work with and bring awareness about the climate crisis through architecture and design and explores how nature as a design tool can expose and bridge the lost connections between humans and nature in an urban setting. The aim of the thesis is to create a speculative design proposal of a wetland in Borås with the scenario of flooding as driving force. This helps to showcase how a city can develop its urban fabric in consideration of nature and biodiversity. Literature research, reference studies, sketch storming, AI- based explorations and site analysis work methodologically in a parallel and iterative process that includes both research for design and research by design. Through understanding natural systems of the site and combining them with theoretical principles, design objectives are formed. Speculative design is used as the main technique to represent and discuss the project. The main outcome are design interventions that allow for a connection between humans and nature, by re-establishing a wetland, re-meandering a river and promoting flooding scenarios.

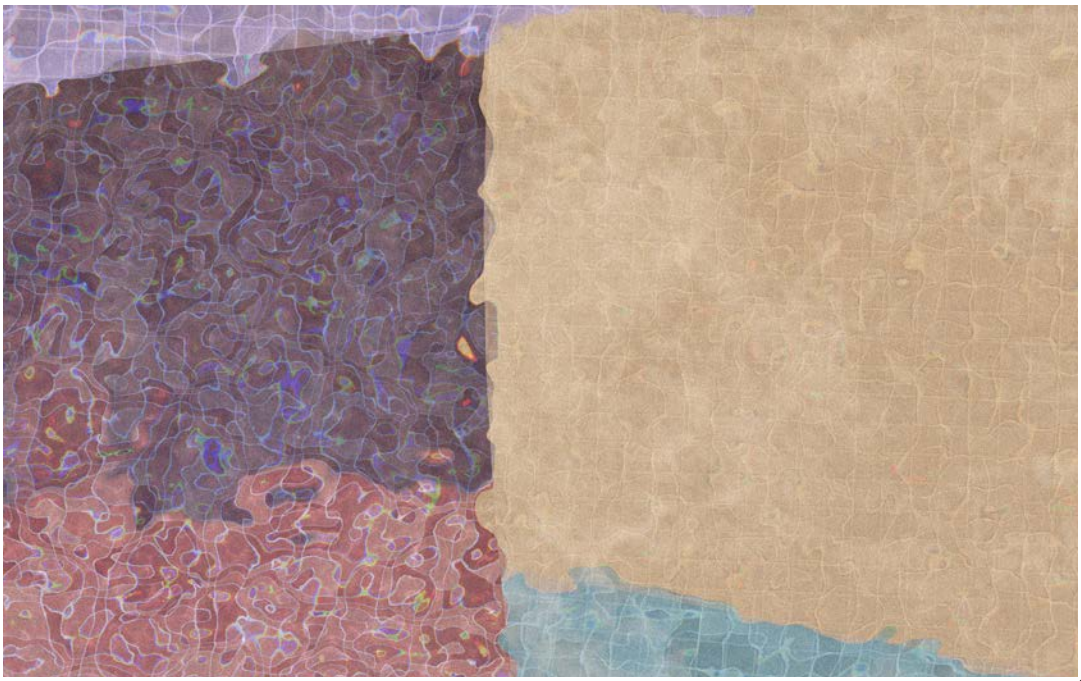
Keywords : Anthropocene, environmental sustainability, nature, humans, non-humans, landscapes, climate crisis, flooding, critical, speculative, rurban, relationships, degrowth, wetlands, biodiversity, multispecies

SIRI RAHM GULLANDER

CONSTRUCTION IN REVERSE

- ADDRESSING COLLECTIVE MEMORY THROUGH DISASSEMBLY AND REASSEMBLY OF A PUBLIC BUILDING

MATTER SPACE STRUCTURE
Supervisor: DANIEL NORELL
Examiner: DANIEL NORELL
MT´23



The contemporary urban landscape is undergoing constant change, creating a mix of building typologies and styles that coexist. In addition, the city and its buildings play a big part in the formation of memories and identities both for individuals and for collectives. This thesis investigates how a changing built fabric and the creation of memories could be addressed in tandem. How can selective reuse of an existing building, located on a site that is in transformation, support and develop collective memories?

The building this thesis centers around is Valhallabadet which is situated on Heden in Gothenburg. It was designed by the architects Nils Olsson and Gustaf Samuelsson in 1956. The building has a well-preserved exterior and interior with both historical, architectural and aesthetic values, for example the monumental wall mosaics in the interior by the artist Nils Wedels. The building has been threatened with demolition since March 2022, something that has stirred substantial protests and resistance.

The project is based on theories on collective memory, demolition and reuse. The method entails collecting, disassembling, and reassembling fragments from the building, resulting in a design for a new but reused building on a public square in the Guldheden neighbourhood from 1947 in Gothenburg. The design proposal for Guldheden is a carrier of collective memories from the Valhallabadet adapted and translated into structures that make it coexist with its new conditions as well as the past. The method of creating something new and at the same time familiar is interesting because it explores deconstruction on one site as well as subsequent construction on another site. The project thus addresses two specific contexts through interpretations and translations of the already existing. The thesis uses drawings, photographs and 3D-models as a way of collecting, archiving and representing material from the process.

“One can say that the city itself is the collective memory of its people, and like memory it is associated with objects and places. The city is the locus of the collective memory.”

- Aldo Rossi, Architecture of the city, 1984

Keywords : Collective Memory, Demolition, Reuse

HODA RAJABI GAJIN

BEHIND THE WALLS

- Exploring how architecture can be a mode of inquiry on questions of intimate partner violence.

DESIGN ACTIVISM BEYOND BORDERS
Supervisor: Emilio da Cruz Brandao
Examiner: Marco Adelfio
MT'23

Every three weeks, a woman is killed by a man in Sweden. In 2021, 38 300 crimes of assault and 8 600 rapes against women and girls were reported which is more than one rape per hour per year.

" In 19 cases of the confirmed cases of lethal violence in 2021, victims and perpetrators were related by a close relationship (partner or ex-partner), which accounted for 17 percent of all cases of lethal violence. In 2020, the corresponding number was 17 cases (14%)" (Brå, n.d., para. 6).

There are many different types of men's violence against women in an intimate partner relationship. Intimate partner violence (IPV) has a variety of meanings for different researchers. For purposes of this thesis, the definition used for IPV will be defined as any type of violence that happens in an intimate partner relationship. The victim and perpetrator have a history of close relationships with each other as a spouse or partner.

The question asked in this thesis is: How can ethnographic work and architectural design methods make architecture discipline engage with questions on non-physical violence in intimate partner relationships?

In order to answer this question, the theoretical aim has been to understand the psychology of abuse and find behaviors in an intimate partner relationship that causes violence. Its applied purpose has been to explore in which way architectural design can contribute to preventing and intervening in violence. By exploring a design approach that enables speculative visualization that tells narratives of sensitive subjects, the hope is to raise awareness among women of all demography to empower them in society.

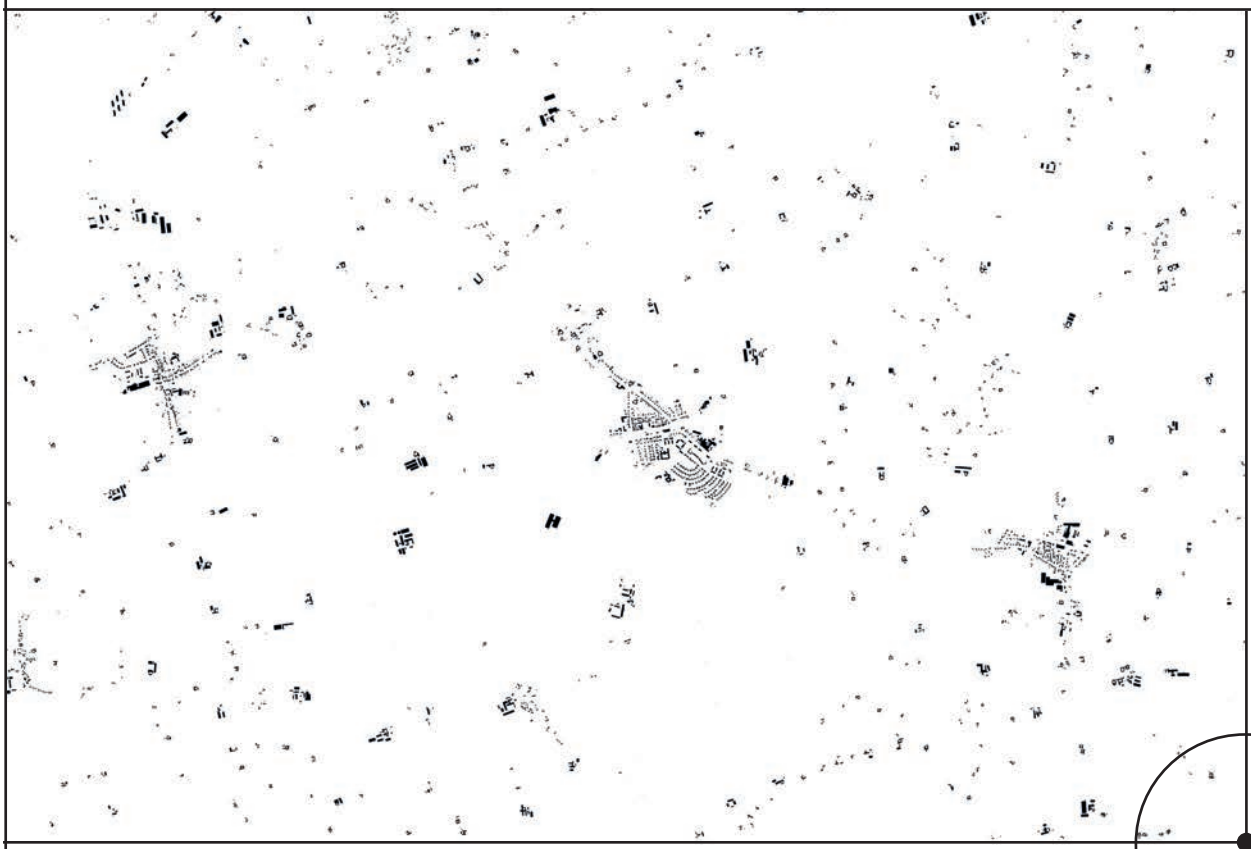
The studies led to the creation of a methodology working with spatial narratives and collecting stories to unveil and contextualize them. This included creative workshops using architectural instruments such as drawings, clay, surveys, etc. to gather personal experiences with intimate partner violence.

Keywords: Intimate partner relationship violence (IPV), types of domestic violence, non-physical abuse, psychology of abuse, psychological, emotional, and verbal violence

KAJSA ROSENLUND LINDVALL

MEDIATION

- EXPLORING HOW ARCHITECTURE CAN MEDIATE AMBIGUITIES



CRITICAL SPATIAL PERSPECTIVES
Supervisor: Nils Björling
Examiner: Kristina Grange
MT´23

Upon exceeding Moderaterna, becoming the second most influential party of the Swedish parliament, the polarizing Sweden Democrats have after twelve years in parliament entered the Swedish government through the formation of the Tidö Agreement. The policy agenda of the Sweden Democrats is identified as right-wing populist, nourished by discontent and distrust, and electoral results exhibit their following to be concentrated to peripheral territories.

From thematic dimensions of right-wing populism the thesis adopts the method design through research to explore embedded ambiguities of territory, actors and affects, in a situated case study by the research question ‘How can architecture mediate ambiguities?’. The result is a contextual framework with pervasive analysis of theoretical conceptions and a situated inventory, informing of a design proposal.

By approaching Gärsnäs, in the municipality of Simrishamn, Skåne, the thesis inquiry is situated in a representative village from which ambiguities are explored through a temporal and spatial inventory constituent of interviews and observations. Considering thematic ambiguities of right-wing populism, conceptions within urban theory define precarious conditions of uneven geographical development, whilst critical theory distinguishes indeterminate relational conceptions of the spatial environment. Interpreting theoretical conceptions against the inventory of Gärsnäs, a situated venture from which architecture can attend mediation is identified in maintenance activities. A further immersed inventory follows the maintenance activities of the municipality and Byalaget, delineating the exploration of a situated design proposal.

The thesis arrives at the conclusion that architecture can mediate ambiguities if ambiguities are investigated where they gain situated specificity, identifying of mediation. Upon identified situated specificities architecture is to be considered as indeterminate, of spatial practices to embed towards mediation. The design proposal is a radical suggestion where specific situated means of mediation have been interpreted exploring an indeterminate architecture towards mediation. The design proposal suggests the discussion of how architecture can mediate ambiguities to continue, recognizing critical uncertainties in mediation.

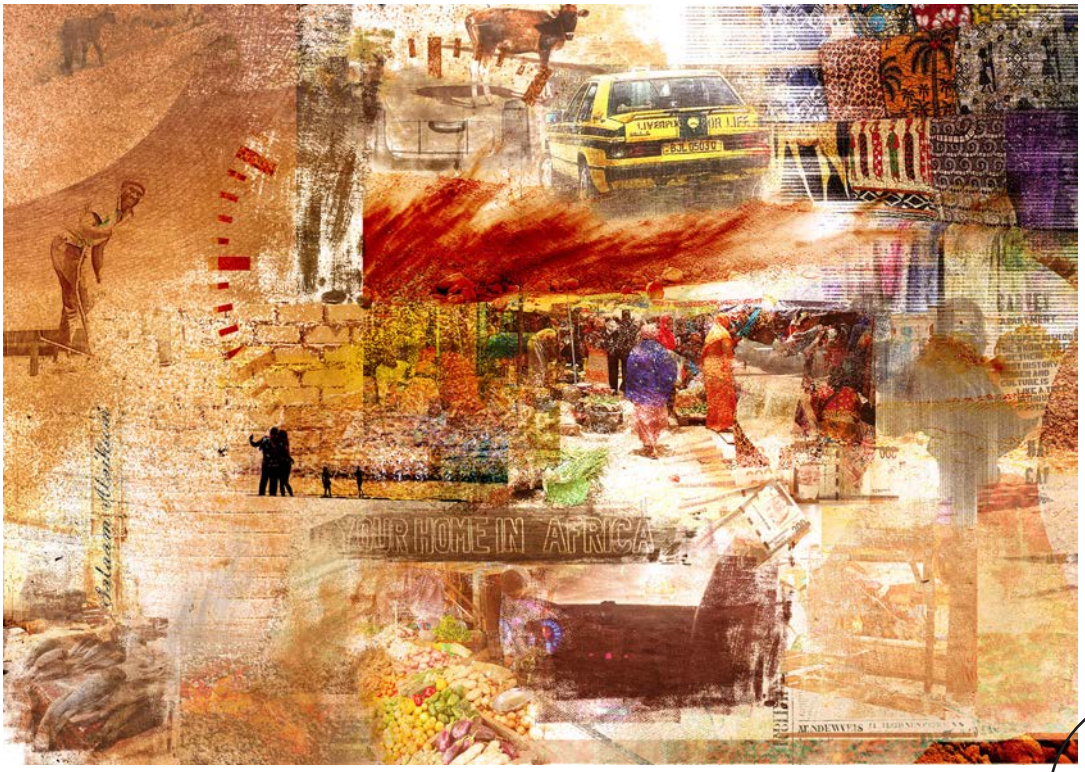
Keywords : Urbanization, Spatial Practice, Maintenance, Gärsnäs, Simrishamn

SIMON RUSTAS

CONVERSATION WITH EARTH

- HOW A SWEDISH INITIATED EARTH SCHOOL PROJECT IN THE GAMBIA CAN CONTRIBUTE TO DEVELOP EARTH BUILDING IN BOTH CONTEXTS

DESIGN ACTIVISM BEYOND BORDERS
Supervisor: Shea Hagy
Examiner: Liane Thuvander
MT'23



Since time immemorial, humankind has used earth to construct dwellings. In industrialised countries, earth was discarded and replaced by other materials with the arrival of the industrial revolution. However, with the rising awareness of sustainability in the construction sector today, earth building is experiencing a revival as an affordable and sustainable construction method. Earthen materials are still used in large parts of the world, mostly in developing areas in the global south, but as a result of colonial heritage and the global development discourse in the mid-twentieth century, earth architecture is commonly viewed upon as an inevitable preliminary stage of development toward industrial society, rendering the notion of it symbolising temporality and under-development. In other words, stigmas and a lack of adaptation to industrialised processes is hindering use of earth in modern day construction.

In 2018, Eivor Björkman Gambia aid, Detail Group AB and EarthLAB studio initiated a project to build a school of rammed earth in Ghana Town, a poor fishing community in The Gambia. The goal is to provide education in the community and promote earth building in Gambian urban development. With point of departure in practical learning and inter-disciplinary collaboration, this thesis explores the Gambian perspective on earth building and the nuances of a western architect doing work in The Gambia. What type of role can an international architect fill in this context? How to assist and elevate rather than compete with local initiatives already in place? And, coming from a country with a cultural disconnect to the material, what can be learnt and brought back from working in a country with traditional ties to it?

In a process revolving around mutual benefit, knowledge exchange and equal working relationship, the project is formed in dialogue between cultures and across disciplinary boundaries. The result is a method for how an aid work project can help develop earth building in both contexts, and shows how the intention of a western architect to provide help in a developing country can change with conversation. Conversation between people, cultures and contexts: a conversation with Earth.

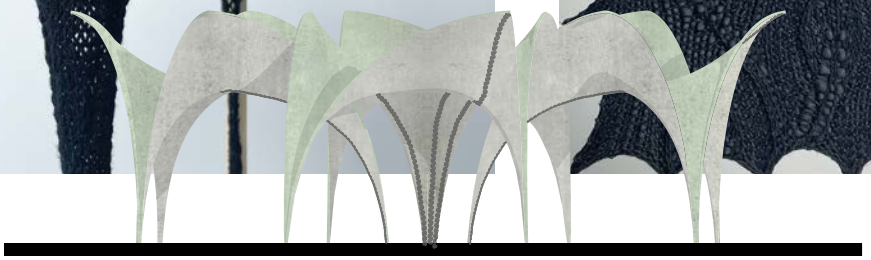
Keywords: Earth building, knowledge exchange, collaboration, The Gambia

KARIN SAHLIN

STITCH BY STITCH

KNITTING AS ORNAMENTATION, FORM AND FORMWORK

MATERIAL TURN
Supervisor: Kengo Skorick
Examiner: Jonas Lundberg
MT'23



A big shift in the building industry must be made due to climate change. Doubly curved geometry in architecture are often a result of structural optimization, and can be made with material efficient constructions of reinforced concrete. These geometries could therefore be used to decrease the building industry's impact on the environment. Unfortunately, they are both expensive and often built with material intensive structural solutions.

KnitCrete is a formwork system which has the potential of drastically reduce the amount of concrete and single-used formwork material. By tensioning knitted textile against a supporting falsework, it can be used as a stay-in-place mold for casting.

This thesis investigate fiber in architecture through the principles of KnitCrete. It explores the design possibilities of the method with an aim to understand how knitting, form and ornamentation can interact in an architectural design. The focus lies in how the knitting's inherent properties and attributes can be used as a design tool when using the KnitCrete method. The possibilities and limitations with knitting is the core and framework for this thesis.

The explorations are divided in two parts. The first part is investigating the potential of ornamentation in a knitted structure and the second part explores the possibilities of creating form with the knitted fabric. This form searching resulted in various models.

Through hands on explorations, I have showed that the color of yarn and coating, how the knitting is tensioned, size of the cavities, choice of knitting pattern and where you choose to place increases and decreases determine how the final visual expression will be. Lace knitting patterns have been of special interest since they are created by alternating smaller and bigger cavities. These patterns not only create an ornamentation, but also gives the surface a varying texture when coated.

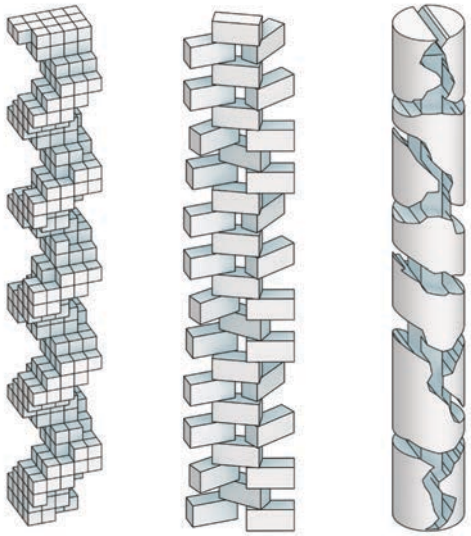
In order to approach KnitCrete in practice, the explorations were combined in to a pavilion. In this work, the complexity of creating a knitting pattern from a large bespoke, doubly-curved geometry become evident. This process must be simpler if KnitCrete is to be used as an effective construction technique in the future.

Keywords: KnitCrete, doubly-curved geometry, lace knitting pattern

SAMIRA SARRESHTEDARI

THE VERTICAL CITY

- DESGIN EXPOLRATIONS ON NEW TYPOLOGIES OF HIGH-RISE ARCHITECTURE



MATERIAL TURN

Supervisor: Jonas Lundberg
Examiner: Kengo Skorick
MT'23

High-rise architecture is becoming more common around the world. The urgent need for more habitable and public space has led to an increasing number of tall buildings in cities that have a low average building height. Tall buildings have a large potential in generating space vertically from a smaller piece of land, making them a fundamental part in cities with increasing urbanization and densification.

Today it seems that many tall buildings are concerned with striving for taller heights and dominance of a city's skyline. Many of the tall buildings that are currently being built have monotonous floor plans extruded vertically with facades consisting of glass panels. The rapid increase of these repetitious tall buildings has sparked discussions and hesitations toward high-rise architecture.

The purpose of this thesis is to understand the ongoing discussions of tall buildings and explore new typologies and potentials of high-rise architecture to reconceive the perception of what a tall building is and could be. The intention is to raise awareness of the potentials of tall buildings by showcasing a new perspective that provides with multifunctional components and has a reinvented expression. As tall buildings are a very current phenomena today, it is important to highlight the value that they can bring to a city.

This thesis departs from mapping the history of tall buildings to understand the evolution of height in architecture over time. Research papers and reference projects are also studied to explore the ongoing discussions and advancements in contemporary tall buildings. The literature review results in design principles that drive the design explorations forward through several iterations focusing on geometry, structure and program.

The knowledge gathered in this thesis ultimately results in an architectural design proposal of a tall building consisting of a vertical city, with the main focus being on reconceiving the traditional skyscraper typology.

Keywords : skyscraper, tall building, high-rise architecture, vertical city

LINNÉA SCHULTZ

INTEGRATING WISDOM

PROMOTING WELLNESS THROUGH THE DESIGN OF AN INTERGENERATIONAL PRESCHOOL

HEALTHCARE

Supervisor: Marie Strid

Examiner: Johanna Eriksson

MT´23

In early 2019, four per cent of the Swedish population reported feelings of loneliness, and almost four times as many (15 per cent) among those 75 and older (SCB, 2019). In Sweden, most interventions to reduce loneliness among the elderly focus on the individual or connecting with people of similar ages. However, recent studies have highlighted the effectiveness of intergenerational activities in reducing loneliness, as evidenced by successful collaborations between preschools and nursing homes (Kernan & Cortellesi, 2020; Drury et al., 2017).

This master's thesis presents an alternative to the increasingly popular collaborations between preschools and nursing homes that centres around seniors that live at home. The work continues to develop the concept of co-using preschool spaces to encourage intergenerational meetings and consequently improve the health and well-being of communities.

This master thesis highlights the benefits of intergenerational programmes. It explores the potential use of the preschool as a hub for intergenerational meetings through literature reviews, studies of reference projects and interviews with stakeholders. The research focuses on bringing generations together through co-use to support intergenerational learning and promote wellness among preschool children, seniors and staff.

The result of the investigation is a design proposal for a new preschool in Vättersnäs, Jönköping. The proposal includes multifunctional spaces for the community with a core focus on spatial qualities and layout for interactions between generations. Finally, this paper questions the current generational separation made in our society and highlights the benefits of blurring the line between them.

Keywords : intergenerational, preschool, children, elderly, co-use

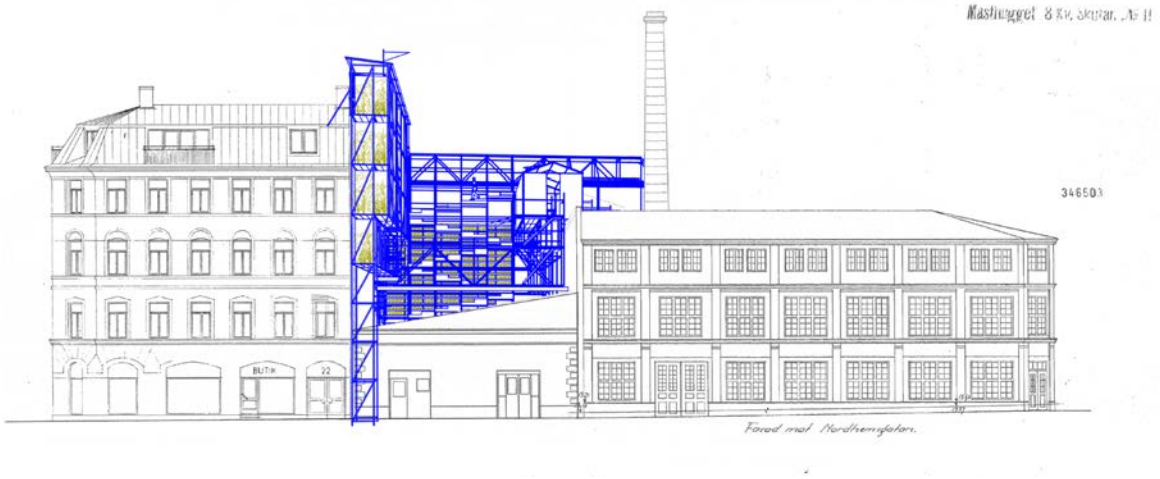
FENJA SCHWARZTRAUBER

HIJACKING THE ROOFS OF CENTRAL GOTHENBURG

- AN EXPLORATION OF ALTERNATIVE URBANISM

URBAN CHALLENGES

Supervisor: Carl-Johan Vesterlund
Supervisor + Examiner: Joaquim Tarrasó
MT'23



This thesis started out with the ambition to shed light on the lack of affordable housing in city centers and explore the potential of urban leftover spaces in relation to that. As cities become denser, architects are more and more challenged to design in previously overlooked urban infill spaces, which often accommodate great potential.

The aim of this thesis is to investigate adaptable alternative architecture and create a proposal for these infill spaces through that. The goal is to create an urban interruption that adds to the discussion of the current housing market, questions existing urban planning solutions, and generates alternative urbanism based on the “right to the city” approach, by infiltrating cities and utilizing unused niches.

The process began by investigating alternative architecture, including urban interruptions by artists Jakob Wirth and Santiago Cirugeda. Which lead to a design proposal showcasing an alternative urbanism in a gentrified area of central Gothenburg. This urban exploration tests alternative typologies, usages, and the adaptability of architecture while encouraging citizens to actively shape and build their environment.

The spatial prototype is based on a flexible construction method that can hijack and spread over rooftops and infiltrate various leftover spaces in Gothenburg or other cities around the world. It offers space for people with a small budget to reside, provides opportunities for self-sufficient urban gardening, and creates communal spaces that strengthen local social sustainability, while challenging gentrification and questioning whom urban centers are designed for.

The project is located in an urban leftover space on top of a closed city block in Gothenburg’s former harbor district, Långgatorna. A district that used to have a rather dodgy reputation but made a gradual transition into a popular bar area in Gothenburg. However, it continues to undergo gentrification, and the authentic pubs may soon be replaced by modern hotels and restaurants for a more affluent audience.

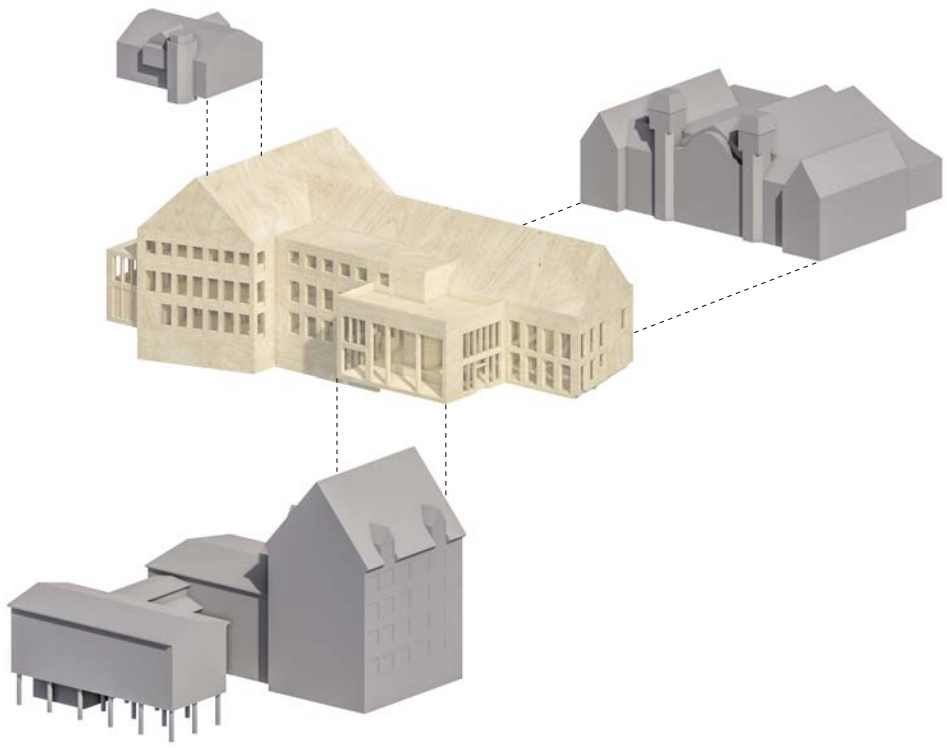
Keywords : gentrification, right to the city, urban leftover space, alternative architecture, alternative urbanism

JOEL SIDENVIK

BEYOND CREATIVE SPACES

The cultural centre as a tool for democratic participation in Ulricehamn

RURBAN TRANSFORMATIONS
Supervisor: John Helmfridsson
Examiner: Nils Björling
MT'23



Culture is changing as people get more accustomed to creating and not only consuming, leading to higher expectations of interactivity and participation. The role of the public, cultural institutions are also changing with the meeting place becoming a more important feature to focus on. At the same time, the need for new democratic arenas is increasing.

The city of Ulricehamn lacks a good, democratic meeting place, which is typically filled by a cultural, public institution. With the small scale of the city, this gives an opportunity to not only create a place that binds together the people, but different institutions and groups with the aim of making the democratic process more accessible with the cultural centre as a tool.

From an analysis of the context together with a cultural mapping and literature analysis, design strategies are formulated, focusing on creating a third place and integration with the cultural landscape of the city as well as selected actors.

The result of the thesis is both the design of a cultural centre but also a discussion based on this about how architecture can help facilitate the interaction between culture and the democratic process.

The design proposal aims to generate low- and high intensity meetings between the inhabitants of Ulricehamn through flexible spaces that house multiple actors in the same venue. The new building integrates with the City Hall and Youth centre to create new connections and means of participating in both culture and the decisions being made about the city.

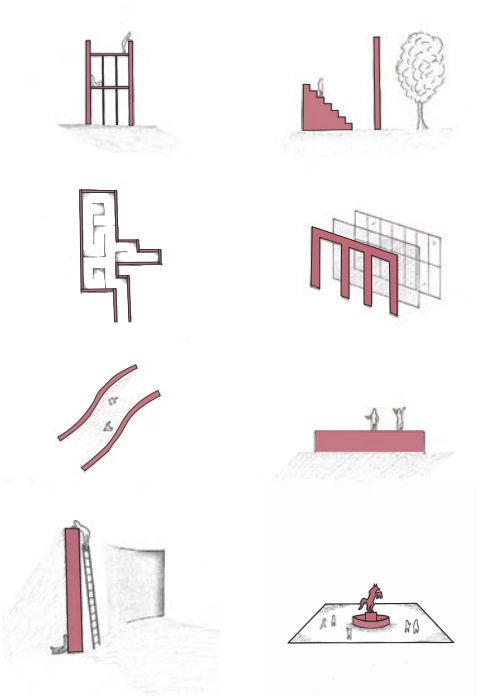
The opportunity of using culture to interact with the democratic process is discussed and the connection between the City Hall and other actors as an opportunity to create something specific to the context of Ulricehamn. The social aspect of culture is seen as an important part in keeping it relevant in a future changing landscape with the cultural centre being a place that can transcend the term third place.

Keywords : culture, democracy, youth, meeting place, connections

LINNÉA SIGESGÅRD

SEARCHING FOR SOCIAL

- ADRESSING SEGREGATION WITH SOCIAL ART IN FAVOUR OF EMPOWERMENT & INCLUSION



CRITICAL SPATIAL PERSPECTIVES

Supervisor: Nils Björling
Examiner: Isabelle Doucet
MT´23

Segregation has been linked to socio-economic inequality and becomes a threat to democracy when it is causing unequal rights to the city. The need to connect and belong to like-minded forms social groups conforming in culture, background and socioeconomic status. Over the last decades polarisation has increased resulting in conflicting preferences, beliefs and behaviours. Social art can be a medium to fight forces of social exclusion and has a capability to create positive social change. An art institution is an organisation founded for cultural or social purposes but is has been questioned for losing its focus to be a public space offering knowledge and democratic ideas. Art institutions needs to adapt and focus more on social change.

General research about segregation is common but its relation to institutions and specifically the democratic roles of art institutions is less studied in comparison. Public buildings are crucial for social well-being of a city and their importance for democracy and community needs to be stressed. The aim with the thesis is to investigate how social segregation has become a deep-rooted problem in Gothenburg and how social art and an art institution can respond to social segregation. To investigate what an art institution needs to empower its visitors and be a democratic and social platform for all citizens. The design aims to specifically target groups with low socioeconomic standard. The thesis is based on research for design with an iterative process. Theoretical studies are conducted in parallel with site analysis and design. The analysis are based on Gothenburg, on a regional and local level.

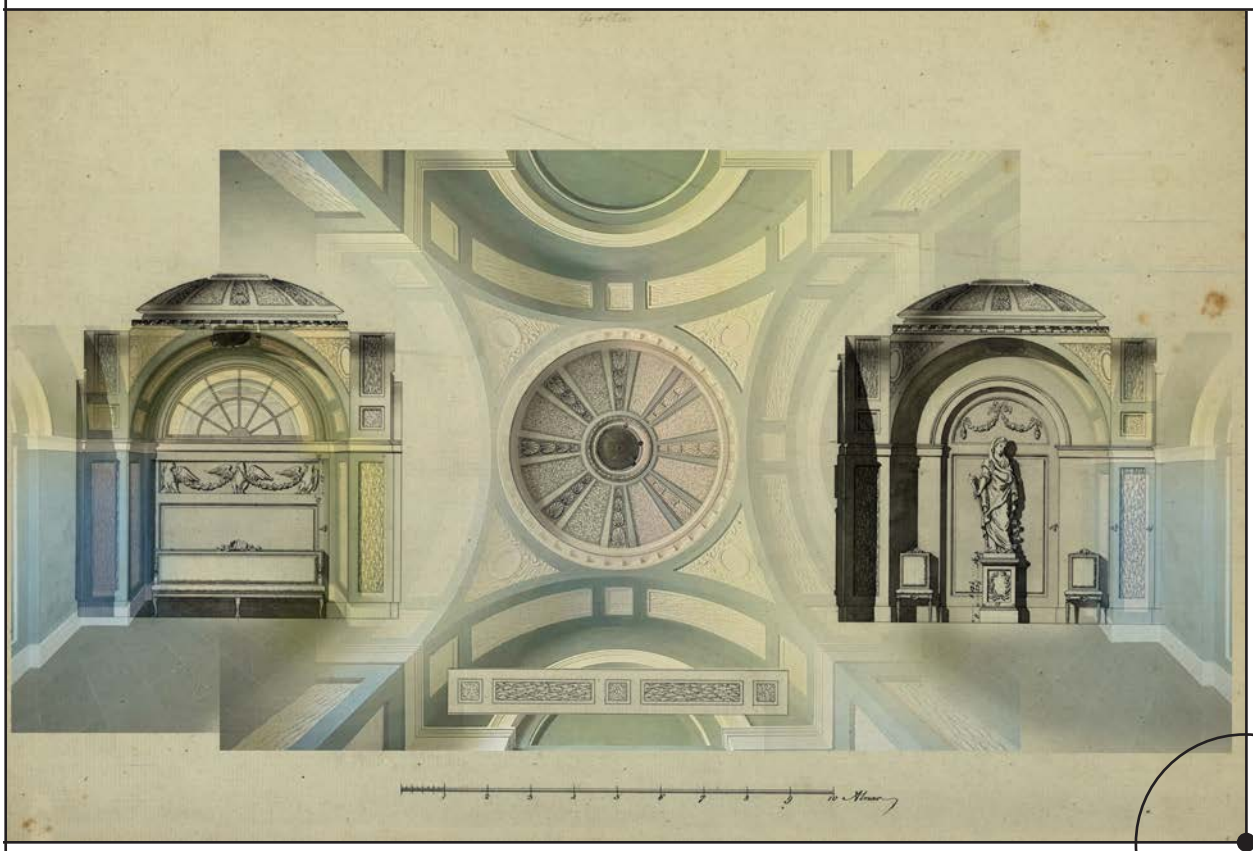
The aim has been answered by proposing a re-imagination of the conventional institution, representing inclusion, social meetings, democracy and social art in one organisation. The conclusions show that it is important to put strong emphasis on people and identity and to design space where citizens can socialise and engage democratically. The physical appearance of a building impact how attractive the content becomes. Architecture alone cannot make a public building integrated and the program and content has a lot of weight for the institution to reach its social and democratic goals.

Keywords : segregation, social constructions, social art, art institutions, inclusion

MARTIN SKREDSVIK

TECTONIC & SCENOGRAPHIC

- TO EXAMINE THE SCENOGRAPHIC USE IN ARCHITECTURE



MSS
Supervisor: Peter Christensson
Examiner: Daniel Norell
MT´23

Abstract
Designing a theatre in relation to Tectonic vs Scenographic architecture.
If the tectonic architecture clearly shows how the different elements of a building fulfill the function of carrying load or in themselves constitute a load, then what is the non-tectonic architecture and what does it do? Is it to be called scenographic because it places itself above nature's laws of mass and weight - does it pretend to invalidate the laws of gravity? Is there a dividing line between what we call scenographic architecture and what we would call scenography in architecture?
The starting point of this thesis is based on my personal experience as a photographer on one hand and opera singer on the other. As a photographer and filmmaker, you are constantly looking for new backdrops and set designs, as a stage artist on the other hand, you actively approach a set scenography that should enhance both the script and the characters to capture the audience and tell a story.
Using this as a starting point, I want to investigate in what sense scenographic properties and expressions can be used in relation to the built environment.
I have on several occasions used Gunnebo House and Gardens (Mölndal, Sweden) as a back-drop and set design for photo shoots. The property has been partially reconstructed and buildings have been posthumously erected although never realized during the 18th century. The basis for the reconstructions is a collection of over 200 drawings that the architect C W Carlberg left in his legacy. In the drawing collection one can find everything from landscapes and facades, to chiseled details of interiors, furniture and tiled stoves.
This thesis project claimes the Gunnebo estate as its site of investigation. It was designed by Carl Wilhelm Carlberg in the mid 18th century and is located just outside Gothenburg.
My aim with the thesis is to propose a theatre building at the site. It was never designed, there is no documentation or drawings of such a building, but the estate is clearly made to host a spectacle with prominent guests such as kings and queens.
The main building and park are a popular excursion destination during the summer months. Theater, classical concerts, weddings and plays are held inside the house and in parts of the garden.

Scenographic Tectonic Baroque Theatre

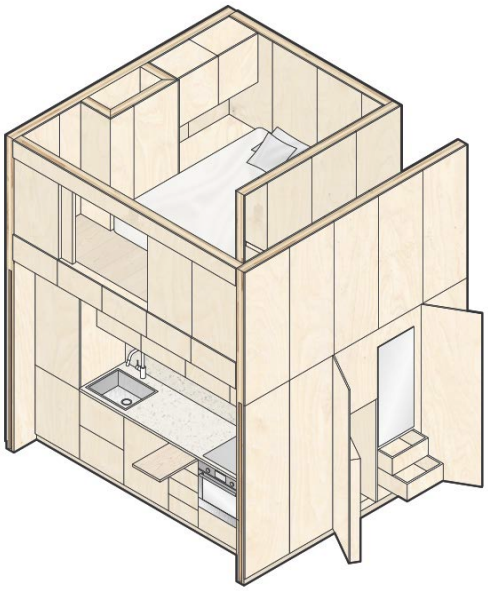
KERSTIN STAHRE & BEATRICE WALLÉN

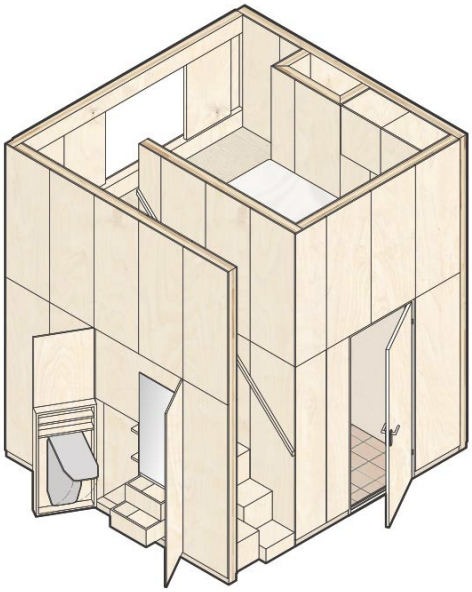
BUILT-INTERIOR

- AN EXPLORATION OF HOUSING QUALITIES OF *A LIVING BOX*

HOUSING

Supervisor: Jan Larsson
Examiner: Kaj Granath
MT'23





The main purpose of the master thesis is showing how integrated interior elements and objects can be designed to create good housing qualities in small living spaces, without interfering with architectural qualities or accessibility. Integrated interior elements and objects being built-in interior or furniture such as wardrobes, shelves, cabinets, foldable beds, workspaces and similar.

The three thesis questions investigate how unconventional design solutions can contribute to spatial configuration, adaptability and sustainability in small apartments. Consequently, the design proposals can generate the ability for apartment layouts and interiors to withstand over time and decrease the need for unnecessary transformations, hence supporting sustainability.

Historical aspects and contemporary research about architectural qualities, interior design and small-scale living creates the theoretical background. This combined with a thorough investigation and evaluation of innovative reference projects, results in a scope of different theoretical design solutions and developed floor plans.

To emphasise and underline a wide applicability and possible implementation of the design proposals, solutions for interior transformations of both apartments from the million homes programme and the past decade were tested.

Subsequently, the final design proposal of an interior module, a "Living Box", implemented in different apartment types is presented. To verify the quality of the design proposals, a new tool for evaluating housing qualities in apartments, gives an indication of the design proposal's fulfilment and attainment towards housing qualities.

The final design proposal of the interior module, "the Living Box", is mainly made of wood. It is equipped with the essential functions such as kitchen, bathroom, and storage, that easily can be adapted to users' need and preferences by exchangeable finishing layer and integrated objects. This interior module works as a spatial configuration unit that facilitates flexibility, adaptability, aesthetics, and sustainability - contributing to good housing qualities.

Keywords : Built-in interior, interior module, spatial configuration, housing qualities, adaptability

EMELIE STENHAMMAR

THE SENIOR FARM

- THE FARM WHERE AN ELDERLY HOME MEETS A KINDERGARDEN

HEALTHCARE

Supervisor:Susanne Clase
Examiner: Johanna Eriksson
MT´23

The population in Sweden is estimated to increase from 10 million to 12 million by 2060. It is expected that 25% of the population will be over 65 at that time. Even though the older population are essentially healthier, stronger and more active than ever before, many elderly experience loneliness and live more isolated. Loneliness is sometimes referred to as a national disease which can give severe physical and emotional symptoms. Therefore, loneliness must be taken seriously as it concerns one of the building blocks for achieving the sustainable development goal: good health and well-being.

The thesis aims to investigate and answer the questions: how can an environment support the interactions between children, animals and elderly, at the same time as it fights loneliness among the older generation? What typology of housing and what characteristics of the surrounding environment can be used in order to promote well being? The project use research, interviews and study visits to support the thesis concept of intergenerational activities and human and animal interaction. Research shows that these initiatives can have a major positive impact on the health and well-being of elderly, kids and the community in large.

The thesis is structured into five parts were several methods have been used. First, we have the theoretical part, covering the concept of elderly, loneliness, health promoting design, animal therapy and intergenerational meetings. The second part, covers site analysis, interviews and SWOT-analysis. In the third part, the vision and design strategies are presented. In the fourth part, a site specific project proposal is showcased by program, drawings and renders. At the end, the author reflects and gives final comments on the process and final results.

The design proposal ends up suggesting senior housing in combination with a preschool and a farm located in the Råda Mosse area of the city Lidköping. The thesis hopes to inspire others in how one can use design as a tool to support a physical environment and contribute to an increased well-being and a decreased sense of loneliness of the older generation.
.

Keywords: intergenerational, elderly, loneliness, health promoting design, animal therapy

BEATRICE STERNER

SOCIAL BRIDGES

- Intergenerational housing

HEALTHCARE

Supervisor: Susanne Clase
Examiner: Johanna Eriksson
MT´23

The aim of this thesis is to investigate the issues of an aging society and the growing need for alternative housing solutions to meet those demands. It discusses the issues of ageism and the lack of meetings between different generations. Further, the thesis responds to the issues of young adults not finding affordable and appropriate housing alternatives. The thesis proposes the implementation of a new housing model that combines sheltered housing, housing for young adults, and a nursing home while integrating a school and the community. The proposal is a housing project where intergenerational meetings naturally occur in order to prevent ageism.

The thesis opted for an exploratory approach with theory as its core. The theory is based on research papers, articles, books, and reference projects. Literature studies are complemented by an interview with an architect who has done extensive research within the field of intergenerational housing, an interview with two experts on the subject of intergenerational practice, as well as a study visit to an intergenerational housing project in Helsingborg.

The thesis provides insights into how you can implement different levels of shared and public spaces in a housing project in order to provide opportunities for intergenerational meetings. Further, it suggests architectural implementations in order to create a sense of home while enabling accessibility into the regular apartment as standard in order to create flexibility within the housing market.

This is primarily a conceptual approach to these issues and may lack enough insight into the economy, policies, and politics. Therefore, the research could be developed further with these areas in mind. This paper fulfills an identified need to develop new alternative housing solutions where the intention is that intergenerational meetings are promoted and valued.

Keywords : Intergenerational housing, communal housing, sense of home

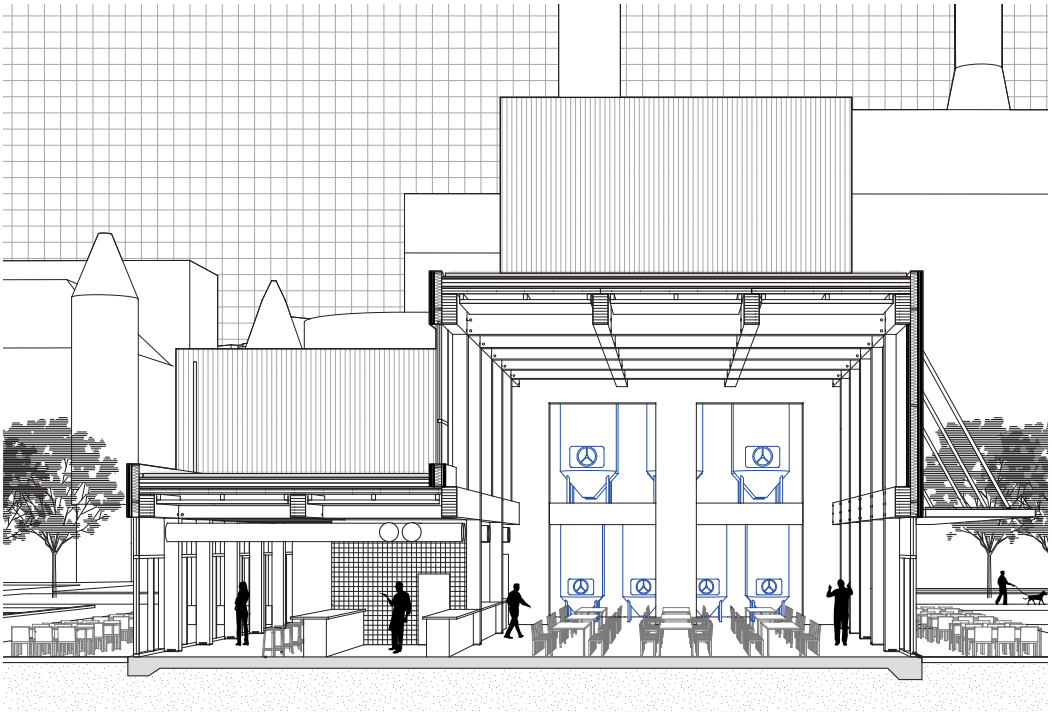
ALEXANDER SVENSSON

SKEPPSBRON BREWERY

SPATIAL SYNTHESIS OF ARCHITECTURAL TECTONICS

BUILDING & TECTONICS

Supervisor: Filip Rem
Examiner: Björn Gross
MT´23



This master thesis is exploring the relationship between spatial experience and architectural tectonics. Working with the building's tectonics as the performing medium in the design of a brewery and restaurant at Skeppsbron, Gothenburg. Deriving from the theory of architectural tectonics, the thesis aims to articulate the character of the stereotomic and tectonic, incorporating the essence of both structures as design tools to achieve a spatial experience that supports the given parameters of the building's functions as both an industrial facility in combination with a public venue. Resulting in a building that highlights the duality of spatial qualities, as well through contrast brings them together and creates a robust design, that is grounded on site and reflects the heritage of Skeppsbron and Gothenburg as a whole.

The method involves a study of the notion of architectural tectonics where the distinction made by Gottfried Semper in 'Four Elements of Architecture' creates a starting point. The definition of the hearth, earthwork, framework, and enclosure, with its inherent structures and attributes, develops a toolbox for design which revolves around the massive, light, and enclosing principles. Through analyzing the site, and the current transformation of Skeppsbron into a new public venue in the city, where housing and retail is planned together with a new quay edge and public bath the historical context of the site is emphasized.

With its long history as harbor and industrial character the site allow for a public and industrial building, where a brewery and restaurant become central, deriving from the precedent of a brewery at Skeppsbron in the 1800s as well as linking to the brewing industry in Gothenburg. Offering an open public program together with an industrial engine, the program is architecturally reflected through the tectonic character of each function. The public as a light framework structure and the brewery as stereotomic, focused space - gathered under an enclosing membrane. Highlighting the assemblage of the building and the duality of experience. Ultimately demonstrating how the tectonics of the building can be utilized to reflect both the architectural experience as well as the cultural heritage of the site.

Keywords : Skeppsbron, brewery, architectural tectonics, Four elements of architecture, Gottfried Semper

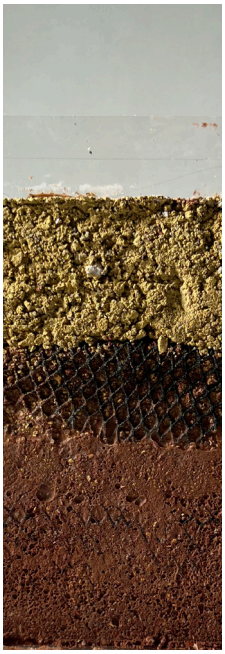
BONGKODPAST TANTIPISANU

FRAGMENTS

- EXPLORING WASTE-BASED CONCRETE FROM CONSTRUCTION AND DEMOLITION WASTE

MATERIAL TURN

Supervisor: Jonas Lundberg
Examiner: Kengo Skorick
MT'23



The generation of solid waste is an inevitable outcome of societies that have undergone industrialization. Economic growth has been observed to lead to a rise in the production of solid waste, which is typically disposed of in landfills and has been found to pollute the environment with waste materials, thereby affecting the quality of soil, water, and air. The current scenario is witnessing a surge in the extraction of raw materials to cater to the increasing demand. Simultaneously, the shortage of land-filling areas, rapid industrial expansion, and the adoption of a take-make-waste linear economy have resulted in a twofold increase in waste accumulation. Consequently, they have instigated a worldwide reevaluation of strategies pertaining to the rethinking of waste and its management.

The thesis explores the potential of utilizing recycled construction and demolition wastes (CDWs) as alternative materials in conjunction with the geopolymer or alkali-activated materials (AAM) technique. This approach enables the CDWs to function as a binder and be mixed with recycled fine and coarse aggregates, thereby eliminating the need for conventional river sand. Additionally, the use of no more than 10% cement allows for room-temperature curing of the materials.

The study aims to evaluate the performance of this approach under real-world conditions; therefore, the experimentation involving binders is conducted with the aim of exploring new possibilities for versatility and composition, thereby facilitating the re-evaluation of waste materials. This process is also linked to the unique characteristics of the waste sources and connects with the public to gain understandings of ”waste” or secondary materials amidst rapid urban development.

Aiming to focus on the experimentation of manipulating waste-based concrete that can undergo transformation over time and its potential for infinite recyclability. The influence of materials on the design of a building and the ways in which architects can utilize them to foster social connections and a sense of community where waste is sorted through waste-based pavilions The present study aims to investigate the ways in which architects can make well-informed decisions regarding the materials they utilize, taking into account the properties and lifecycle impacts of such materials.

Keywords : waste-based concrete; construction and demolition wastes; recycled aggregates; geopolymer

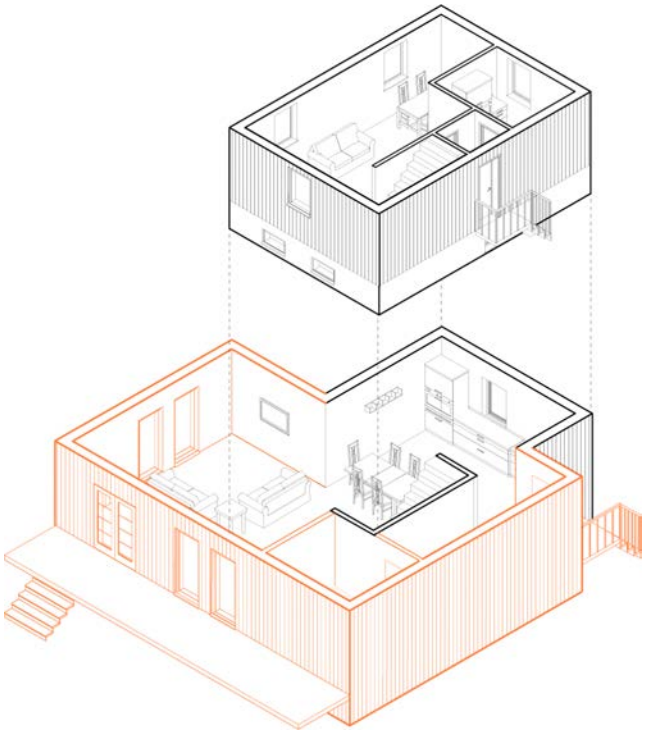
AFSANEH TAYEBI

TRANSFORMATION AS A REFLECTION OF TIME

- A STUDY OF BUILDING TRANSFORMATIONS IN BRÄCKE SMÅSTUGEOMRÅDE

HOUSING

Supervisor: Kaj Granath
Examiner: Anna Braide
MT'23



In 1934, the first small cottage area known as ''Bräcke småstugeområde'' was constructed in Gothenburg, consisting of 234 households with two different types of floor plans both strictly functionalist and standardized in terms of appearance, content and construction method.
Over time, each of these buildings have been expanded, refined and reshaped by their occupants according to their needs, resulting in a diverse range of spatial configurations.
This thesis aims to examine the spatial configuration and the use of spaces in each of the original floor plans and to determine and categorize the spatial changes made to each type of the buildings during the time by utilizing three different methods, time-series analysis, qualitative analysis and comparative analysis. By using a multi-method longitudinal approach, the study seeks to gain a comprehensive understanding of the transformations that have occurred in the buildings and their impact on spatial qualities.
The study explores what spaces and functions were added or removed, why these changes were made, and how they influenced the spatial qualities of the living spaces. Furthermore, the study explores the implications of these findings for future housing design to be more responsive and sustainable.

Keywords :

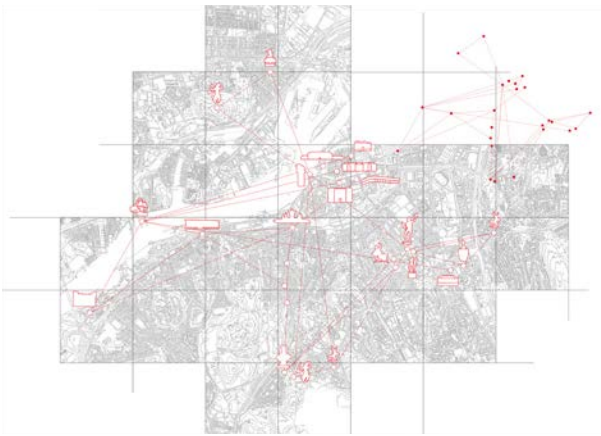
User-initiated transformation,
Post-occupancy alteration, Plan typology,
Space syntax analysis, Visibility graph analysis (VGA), Isovist analysis

ZOE THOMPSON

WHITENESS & SPACIAL CONSEQUENCE

DESIGN ACTIVISM BEYOND BORDERS

Supervisor: Emilio Da Cruz Brandao
Examiner: Marco Adelfio
MT'23



Architecture is humanity. Spacial humanity. Making a wall, a floor, or a window, is not something we are solely competent in doing in our professional role. We analyze human movement, need, and connection. We study how space works for human needs and we are responsible for reflecting on if the solutions are good solutions for actual people. Beyond the aesthetics, which are tedious since they are subjective, the architect is responsible for considering what happens in space. What movement does it dictate? What behavior does it encourage?

The consequences of racism and colonialism are translated into spaces we use daily. This thesis explores these issues in Gothenburg and proposes a way to intervene and teach about them, through architectural, speculative, design. The thesis uses a few different concepts to speak about Gothenburg in a decolonizing way: confession, heritage, borders, exile, participation, listening, representation, neighboring, hospitality, decolonization, profanation and returns. To activate these concepts different methods are used: photogrammetry, to uncover truths; infographics, to be educational; cartography, to be bold; interviews, to act as a humble listener; ironic design, to point out fault of current power structures; speculative design, to ignite thought; and journaling, to reflect on my part in structural racism. Above all, using graphic, architectural material as a means of provoking a discussion.

It ends up with a few different suggestions on how to welcome new residents of Gothenburg while simultaneously commenting on how not to do it. Suggesting how to take account of the narratives of space and places with the help of speculative design. The thesis invites and critiques whiteness as a construct and border in the built environment and deals with institutional racism, and my own position of power. Supported by stories and the narratives of space the thesis adds to a discourse and is an activated piece of anti-racist work, reflecting on the architect's accountability and calling to action.

Keywords : heritage, critical whiteness studies, anti-racism, decolonization, spacial separation

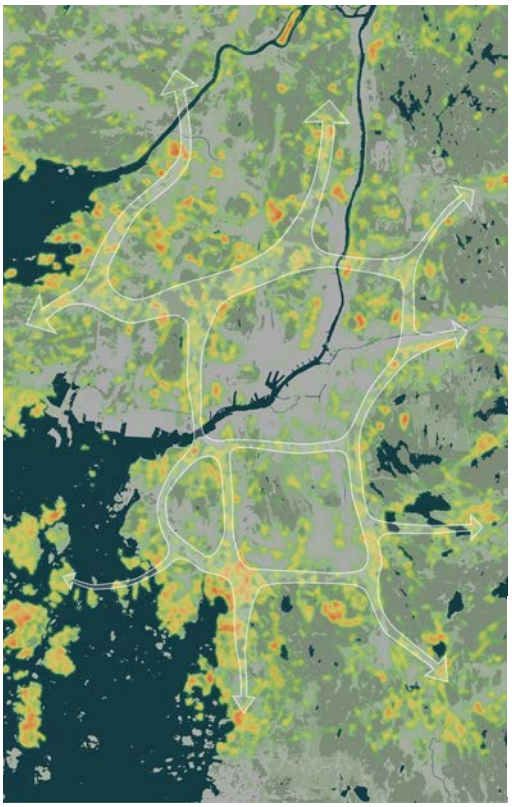
AMANDA T. HÄLL

PLANNING FOR POLLINATION

- CREATING COHABITATION THROUGH SOCIAL-ECOLOGICAL URBANISM

SOCIAL ECOLOGICAL URBANISM

Supervisor: Meta Berghauser Pont
Examiner: Lars Marcus
MT'23



It is estimated that 657 billion US dollars worth of annual global food production relies on the contribution of pollinators. That does not consider other crucial ecosystem services that pollinators provide, such as maintaining balanced ecosystems. Still, the decline of pollinating insects is showing in alarming numbers around the world. Industrialization of agriculture, use of pesticides and fragmentation of habitats has led to species declining to the brink of extinction. Many wild bees have adapted to the urban landscape as an alternative habitat due to high urban biodiversity and the loss of their original habitats. The urbanization of cities and exploitation of nature is increasing intensively and rapidly, threatening the biodiversity that is crucial for species survival. The urban landscape has a high potential to further support biodiversity if properly planned and designed. There is however not many studies showcasing how this can be done.

This thesis dives into the complex world of urban ecology and urban habitats. The focus is on two species of wild bees (Andrena marginata and Osmia bicornis) which represent different levels of sensitivities and can indicate the level of biodiversity. The report is divided into two parts; Identifying the needs and challenges in the current urban landscape for wild bees to spread and thrive; and based on that development, a plan and design proposal for Gothenburg to support a social ecological system through promoting urban habitats for the chosen species.

The research identified two aspects that are equally important for increasing the quality of urban habitats: connectivity and resources – feeding and foraging within a reachable distance and spreading between habitats. The proposal suggests the usage of three scales of design: city-, neighborhood and street-scale, reflecting the dependency of the individual habitat, its surrounding context as well as its entire urban habitat network.

Keywords: biodiversity, resilience, social-ecological systems, pollination, ecology, landscape architecture, urban habitat

LAURIDS TRAPP

A QUARRY AND A ZOO

- EXPOSING THE DISTORTED VIEW ON NATURE

MATTER SPACE STRUCTURE

Supervisor: Peter Christensson
Examiner: Daniel Norell

MT'23

My thesis takes the investigation of a quarry and a zoo as a start for a design that questions the paradox correlation between image and reality of nature and how this is embedded in architecture. Both live on the seizure and appropriation of nature and put the human in charge of managing it. The quarry is investigated as an example for the dependency of architecture on resource extraction. The scars left by them make this impact clearly visible. The zoo is interesting in that it inherits a history of violence against animals, but inverts this narrative by transfiguring the connection between humans and animals. The human always remains at the centre. How design creates the interaction between humans, animals and the animal enclosure in a zoo is analysed. An emphasis is put on the way the zoo shapes our look at animals. Eventually through the clash of context and program a design is developed. The quarry is rehabilitated providing ones again a habitat for flora and fauna. The divers climatic conditions of the quarry allow a variety of species to be introduced. Through a path and buildings visitors are able to experience the quarry. Different views are offered. A place is designed that is neither a zoo nor wild nature, that is neither fully staged nor fully authentic, where humans transition between being part of nature and the man-made, where they are "on the side" of the animal and then spy on it, a place that starts a discussion through such polarities about our paradox relationship with nature and the underlying challenges of nature conservation. In that way humans capability of destroying and saving nature is made tangible and is questioned. The problem of a purely human centred perspective is put forward by revealing our gaze through strategies of caricature. People alternate between being spectator and object. The design follows the idea that we care more about what we are aware of. It engages in that way with the potential of the zoo in making animals visible to promote conservation but also exposes our distorted view on nature.

Keywords : Zoo, quarry, nature conservation

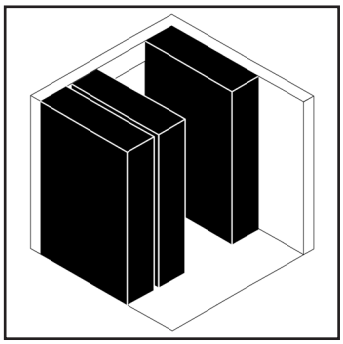
HENRIKSSON JENNIFER & ULVESTIG AMANDA

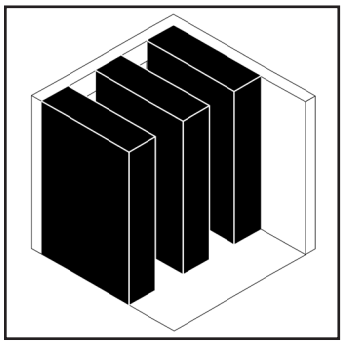
FROM SCENES TO SPACES

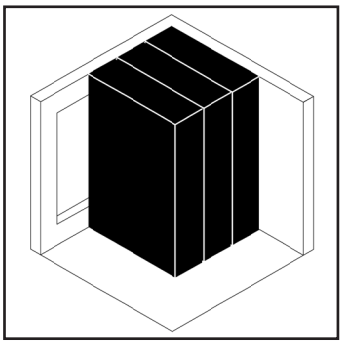
- Designing flexible and configurable student housing units

DIRECTION NAME

Supervisor: Jan Larsson
Examiner: Kaj Granath
MT'23







The home could be described as a theatre stage in which everyday life takes place in different scenes. Each of these scenes have disparate demands on the space, which needs to be adaptable to facilitate the needs in the individual scenarios, especially when living in a small space.

The number of solo households in Europe are increasing, about one third of all households are solo households. In the Nordic countries this number is even higher. At the same time, the dwelling sizes have decreased. This puts new demands on the living spaces as solo dwellers often experience a shortage of space in their small apartments. Student housing is often small, and excepted from standards commonly applied to regular apartments. This type of dwelling could therefore benefit from new, innovative, living solutions.

Many students who move to a new city to study, will only live there for a limited period of time. This, in combination with often limited finances and social connections in the new city, can make it difficult to buy and transport furnishings for an empty apartment.

This thesis explores the spatial configuration within a 33 sqm apartment where movable modules facilitate all basic needs of the home. The modules concurrently enable the dweller(s) to decide if they want to distribute their living space into one, two or three rooms. The partitioning can be set for a longer period of time as well as being changed daily depending on the dwellers' routine.

Through spatial and design explorations as well as theoretical studies this thesis aims to create an understanding of how our homes are used and what scenes they need to support. The thesis result consists of a design proposal for student housing with a flexible construction and apartment layout, without the need of added furniture. The design proposal is implemented on Gibraltarvallen in Gothenburg.

Keywords: architecture, flexibility, configurability, scenes, activities, apartments, student housing

SOFIA WALLIN

AN ARCHITECTURE CENTER INSIDE OUR HERITAGE

- A DEMONSTRATION PROJECT FOR A SUSTAINABLE BUILDING TRANSFORMATION

BUILDING DESIGN AND TRANSFORMATION FOR SUSTAINABILITY

Supervisor: Walter Unterrainer
Examiner: Paula Femenias
MT´23

Architecture creates the framework in which we all live our lives and together. It creates observations and interactions. In other words, it shapes life and makes us experience our surroundings. We all encounter it every day, it affects our well-being daily. It can change our existence today, tomorrow and in the future.

Further, current, and future generations are facing a new era. An era that requires change and responsibility in the way we live our everyday lives to reduce the consequences of climate change. The construction industry is one of the major sectors that has contributed to the global warming that we have seen over the years. Architects will be part of the modification required to lead the construction industry in the right direction which will require a change in the way we work and design. We have a responsibility to react and act.

The vision of the thesis is to develop an Architecture Center inside an existing industrial building to show the power of architecture. The project will be transformed inside a former shipyard building where both functions and added building materials will represent sustainability in different ways. In other words, a space to share and experience knowledge about architecture and sustainability in a transformed building.

To develop a successful Architecture Center and transformation an investigation for a potential program was done. Through interviews, case studies of existing architecture centers and transformation projects of industrial buildings, several different functions and qualities could be analyzed during the process. To be able to select sustainable additional parts for the transformation, alternative building methods were researched through literature studies.

The final outcome achieved a public Architecture Center where knowledge and experience can be shared to increase the general interest for architecture in the city. The transformation project represents alternative sustainable building methods where the existing structure and architectural qualities, such as long sight lines and repetitive construction, have been respectfully taken care of. The project represent architecture for the future.

Keywords : Architecture Center, Sustainability, Transformation

CASPER KLARÉN & JOHANNES WELANDER

CLIMATE MUTANTS

- THE RISE OF THE EXTREMOPHILES

MATERIAL TURN
Supervisor: Jonas Lundberg
Examiner: Kengo Skorick
MT'23

Graham Face - Patricia Piccinini, 2016. Courtesy the artist, Tolarno Galleries and Roslyn Oxley9 Gallery.

An architectural climate mutant is a structure designed with innovative materials, technologies, or design strategies to function effectively in response to changing climate conditions. It deviates from traditional architectural practices and embodies a response to the challenges posed by climate change.

The geological epoch entailing the era where mankind has evoked an escalated impact on our planet's geology and ecosystems, is designated the Anthropocene. The epoch indicates that humans have become the planets dominating species in shaping its future. With the repercussions of this developing into more frequent global examples of climate change in an alarming pace, there's a growing need for an architectural adaptation to the transitioning environments.

Extreme environments can be defined as geographical locations that are beyond the optimal range for development of living organisms. However, this does not mean that life cannot be found in extreme environments. By definition, the organisms that are able to adapt and thrive in extreme environments are known as extremophiles. This thesis aims to form an investigative perspective regarding human habitats in extreme environments. Rather than analyzing ways of mitigating and decreasing the risk of climate change, this thesis aims to contextualize what role architecture has in adapting to a more extreme world. Through exploration of both historical and contemporary strategies for vernacular design dealing with extreme environments, the goal is to form a toolkit for design in radically altered climates. By contextualizing the findings of the current knowledge, the thesis aspire to generate a variety of examples as different possibilities of adapting to the effects of the Anthropocene.

By utilizing an array of scenarios for extreme environment habitats, the project aims to deliver proposals for how the architecture can form a crucial part in relieving the risks posed to humans in a growing number of extreme environments across the world.

Keywords : Habitat, extreme environments, climate resilience, mutant, extremophile.

EMIL WESTLIN

ONE TREE, ONE BUILDING

- Exploring the architectural potential of a single pine

MATERIAL TURN

Supervisor: Kengo Skorick
Examiner: Jonas Lundberg
MT'23

One Tree, One Building explores the architectural potential of a single pine tree and proposes a design for a biodegradable forest cabin made entirely from this material. The study is grounded in a desire to challenge conventional building materials and methods and their often heavy baggage of environmental impact, and instead widen the view to find innovative solutions or rediscover forgotten techniques.

The research methodology involves a contextualization of the issues handled, looking at neighbouring research and concepts to position the investigations in a larger context.

Subsequently, a thorough investigation of the properties, quantities and characteristics of the Scots pine's various components was conducted prior to material investigations of how these components could be refined into building materials. The material experiments focus on three areas: boards, joinery and carbonization. The material findings are evaluated on perceived aesthetical and functional attributes.

The results of the investigations are then applied in a conceptual biodegradable forest cabin consisting solely of material descended from one exemplary pine tree - established from literary investigations. The proposed design serves as a vessel for the material findings and a precedent for future research. It does not deal with economic, regulatory or commercial feasibility.

Components interlock through intricate joinery and rely on the inherent strength of the pine tree, eliminating the need for metal fasteners or chemical adhesives. The carbonization strengthens the wood's resistance and enables a contrast and hierarchy in the design languages when interacting with the untreated heartwood.

The design exemplifies the potential of using local, renewable resources to create structures that are not only functional and aesthetically pleasing but also ecologically responsible. A enhancing link between the occupant and the surrounding forest environment.

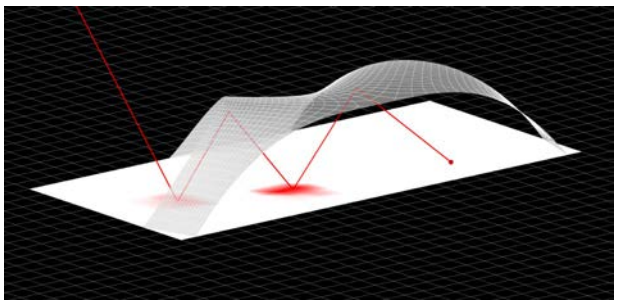
Keywords :

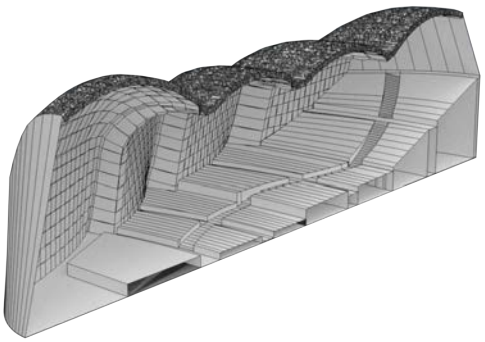
Pine Tree, Vernacular, Micro Architecture, Biodegrade, Zero Waste, Material Investigation, Forest Cabin

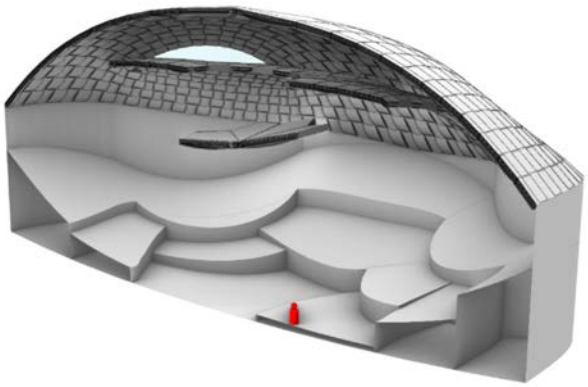
HERMAN EHRNBERG & SIMON WIKSTRÖM

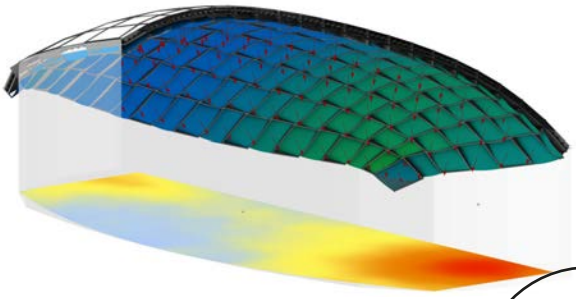
STRUCTURAL ACOUSTICS

- Structural and acoustical optimization of segment plate based shell structure









MATERIAL TURN

Supervisor: Jonas Lundberg
Examiner: Kengo Skorick
MT'23

This thesis aims to present a novel approach to the optimization of cassette-based shell structures covering an auditorium through a combination of acoustical and structural optimization techniques. The research is divided into three phases: theory, geometry, and design.

Phase 1 focuses on the theoretical foundation of the research, including the principles of acoustics, ray tracing, evolutionary algorithmic iterations, and cassette-based shell structures. This phase provides the necessary knowledge and understanding to develop a methodology for the optimization of shell structures that incorporates both acoustic and structural considerations and aims to establish a strong theoretical foundation that informs the optimization process in subsequent phases.

In Phase 2, the focus shifts to geometry optimization, where iterative optimization is conducted on the geometry of the shell structure. According to the methodology developed in Phase 1 the process involves the integration of acoustical theory, ray tracing, and evolutionary algorithmic iterations. The outcome of Phase 2 is a grasshopper component that can create an optimized auditorium design based on simple input parameters such as an approximate stage and seating area.

Finally, Phase 3 focuses on the final design of the auditorium based on the results of Phase 2. Materiality and effect are of critical importance in this phase. The aim is to create a visually pleasing and functional auditorium that meets the acoustic and structural performance requirements.

This project aims to add value to shell structures by integrating acoustical theory, ray tracing, and evolutionary algorithmic iterations to optimize both acoustical and structural properties. The thesis's goal is to provide a new methodology for optimizing shell structures that can be applied in various contexts, such as concert halls and theatres. The research presents a valuable contribution to the field of architectural design as well as to architectural acoustics and structural engineering by presenting a new approach to optimization that considers both acoustic and structural performance.

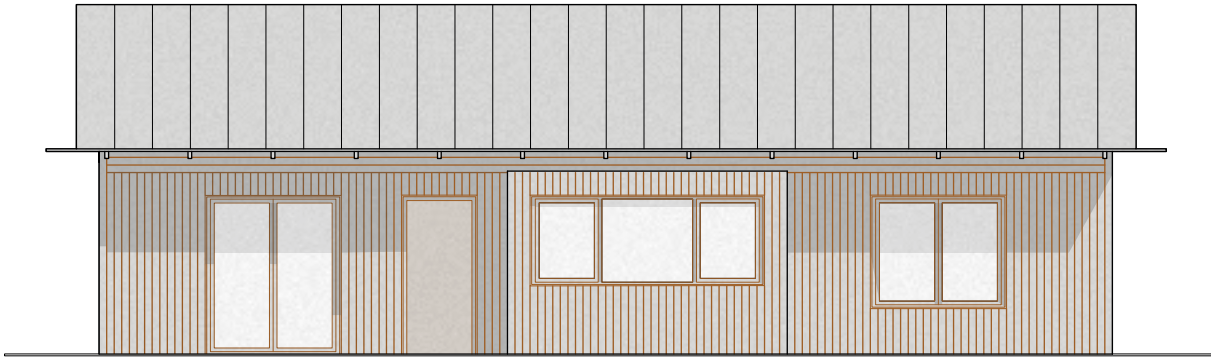
Keywords : optimization, shell-structures, ray-tracing, acoustics, auditorium design

MAJA WINTZELL

VILLA WINTZELL

- RE-IMAGINING THE SUMMERHOUSE AS A YEAR-ROUND HOME

BUILDING & TECTONICS
Supervisor: Björn Gross
Examiner: Mikael Ekengren
MT'23



The Swedish summer is sacred to those of us living through the Scandinavian winter, and our lives take on a whole new character with the start of spring. Therefore, the summerhouse is a common addition to the year-round home. It is a place where architecture can take on a simpler form, and sustain a carefree life in close connection with nature.

Our summerhouse, located in Bohuslän, represents all of these things to me. It was bought by my grandparents in 1967, and what was their way of reconnecting with their roots, has since become our entire family's way of coming home. It is because of this that my parents want to build a new house to retire in, just across the street from the summerhouse. This new house figures as the design task for this master's thesis, and the thesis question accumulates in the final design of the house.

This master's thesis investigates what a summerhouse is, what it consists of and stands for, and if it is possible to translate architecture that is so deeply rooted in the escape of everyday life, into architecture that houses it. It explores the history and heritage of summer houses, with a focus on our existing summerhouse and ultimatley the ideals that shaped it. This investigation is done through both research on design and research by design. The research on design ends in a definition of what a summerhouse is, and moves on to an exploration of wood construction and composition that support that definition. While wood is the obvious choice for this master's thesis, it is carefully explored so as to convey the defined expression.

The research by design results is a design proposal of a year-round home for my parents to retire in, including an additional building. In the end, it is a house that stands confidently among the already existing summer houses besides it, in a way that resembles them, without copying them. It is not a summerhouse, but it is a similar escape to a simpler and freer lifestyle supported by an equally carefree architecture.

Keywords: *summerhouse, vacation home, building composition, building details, wood construction*

JIEMING YAN & XINGDA GUO

BACK TO THE FUTURE

- A CLIMATE RESPONSIVE RAMMED EARTH HOUSE DESIGN IN YUNNAN, BASED ON COMPUTATIONAL APPROACH

BUILDING DESIGN AND TRANSFORMATION FOR SUSTAINABILITY

Supervisor: Shea Hagy
Examiner: Walter Unterrainer
MT'23

Climate change, energy crisis, and housing shortage pose significant global challenges. In the rural context of Yunnan, a developing region in China, the prevalent use of concrete-brick buildings raises sustainability concerns. This thesis aims to explore the potential of a climate-responsive rammed earth building design based on a computational approach to enhance indoor comfort and reduce climate impact, particularly in social housing projects.

The research will begin with an investigation of the local climate, earth vernacular, local context, and modern rammed earth technology. To compare the indoor climate and energy performance of concrete-brick and rammed earth constructions, a room-scale shoebox will be modeled with daylight and dynamic thermal simulations. Additionally, a life cycle assessment (LCA) will be conducted to evaluate their respective environmental impacts. Based on the findings, guidelines for rammed earth construction will be derived and synthesized.

Subsequent to computational simulations, data analysis, and evaluation, a climate-responsive rammed earth house will be designed on a specific site, utilizing the established guidelines. The newly-designed house will be simulated and compared to a typical concrete-brick stucture. The outcomes of this research and design endeavor are expected to contribute as a sustainable housing prototype, not only in Yunnan but also as an inspiration for similar social and climatic regions.

Keywords:
rammed earth, simulation, indoor climate, energy efficiency, life cycle assessment (LCA), vernacular, house design

SOFIA LÖFGREN & IDA YLENFORS

A NUDGING HOME

- A HOME FULL OF STRATEGIES FACILITATING A SUSTAINABLE LIFESTYLE

Visibility and Attractiveness
Visualized Info and Feedback
Arrangement
Community and commitment
Provide and Pre-choose
Ownership

HOUSING

Supervisor: Kaj Granath, Jakob Danckwardt-Lilliestrőm (White Arkitekter)
Examiner: Anna Braide
MT'23

We stand in front of an urgent global challenge and the climate crisis is a fact. One part of the solution is a transition to a more sustainable lifestyle. Our lifestyles are a result of activities and daily choices in our home, making the home a perfect arena for making a change.

The purpose of the thesis is to explore and answer the two research questions:
1. How can nudging strategies be used in residential architecture to support and promote sustainable lifestyles?
2. What would such a nudging home look like?

Nudging is an umbrella term for a number of strategies which alters the choice situation to encourage the user to take a certain action, without infringing on their free will. Nudging is used to influence people to take more long-term and sustainable actions, for themselves, our planet and society. One nudging example is to put the vegetarian alternative at the top of the lunch menu, which increases the sale of the dish drastically.

Swedes are willing to change their lifestyles to lessen their climate impact. However, there is a gap between intention and actual behavior. Nudging can bridge this gap and facilitate a change to a more sustainable lifestyle.

Through research, case studies, site visits and interviews, nudging strategies have been collected and transformed into an architectural toolbox. The toolbox consists of six strategies divided into different tools and examples of tangible interventions. The toolbox provides examples of interventions for different stakeholders, but the architect's role has been emphasized.

The toolbox is applied and tested in a design project in an emerging part of Västerås. The proposed nudging multi-family housing block puts the bike at the forefront and is organized around the shared spaces and functions. The building is presented in architectural drawings showcasing the nudging interventions.

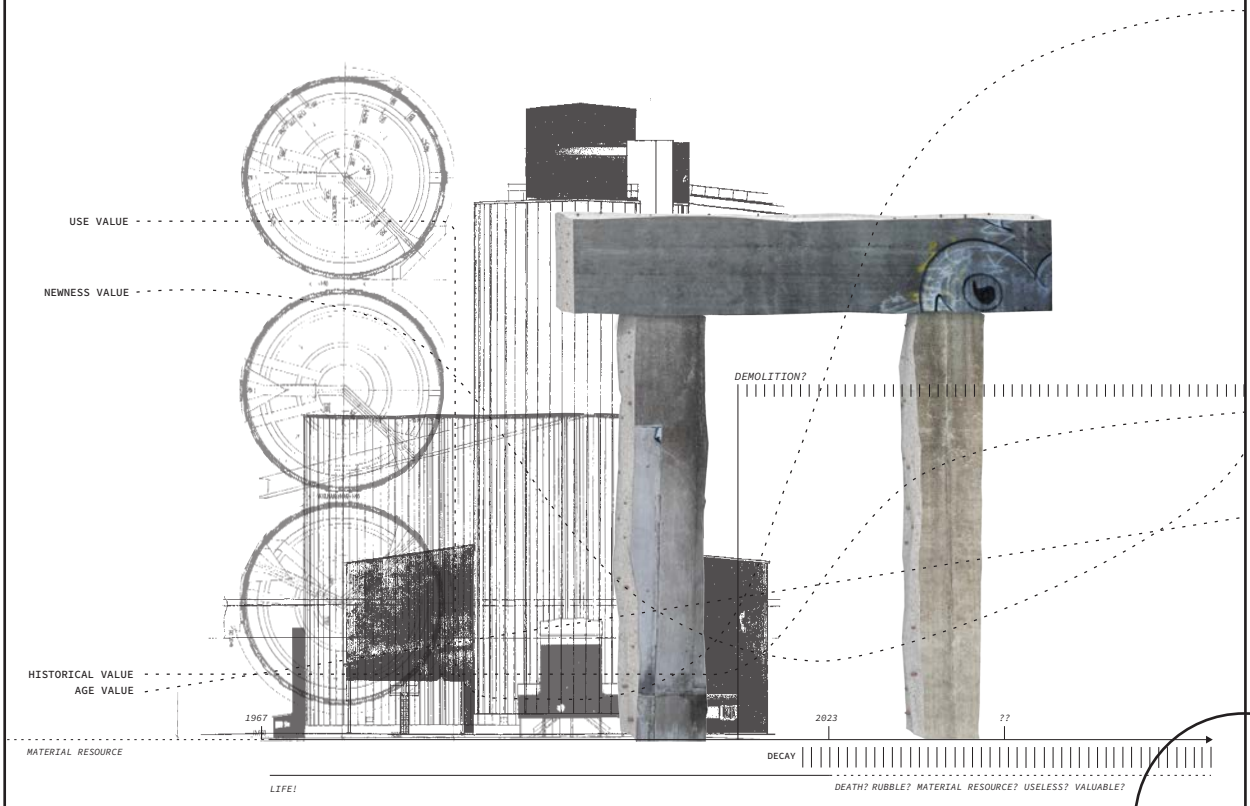
The thesis sheds light on the importance of sustainable lifestyle-aspects in architecture and contributes to the discussion of what the future multi-family housing will look like. Nudging is not the single answer to the challenges we are facing, but can be one important puzzle piece.

Keywords: Nudging, Sustainable Lifestyles, Housing, Architecture, Toolbox

JULIA ÖSTLUND

ENCAPSULATED POTENTIAL

- AN EXPLORATION OF ALTERNATIVE SCENARIOS FOR INDUSTRIAL REMNANTS



MATTER SPACE STRUCTURE

Supervisor: Naima Callenberg
Examiner: Daniel Norell
MT'23

This thesis seeks to investigate ways to communicate a critical perspective on contemporary urban development by exploring alternative scenarios for a former industrial site. By analyzing potential design approaches, a speculative design proposal can be presented in order to open up for discussion about what is considered valuable and broaden the general perception of conventionally considered useless structures.

This thesis is situated at the site of the former cement factory in Limhamn in Malmö. The site is characterized by its six large-scaled concrete silos filled with marks from the industry and decay, surrounded by newly constructed housing buildings. The majority of the traces left by the cement factory have already been erased and with the current parallel commission for the site, the remaining structures will soon face the same fate of demolition. How can the transformation of this site be approached to give importance to its industrial heritage and visualize the embedded values?

In order to investigate values the thesis uses a critical reading of the text *The Modern Cult of Monument : Its Essence and Its Development* written by Alois Riegl in 1903 combined with theories of life, death and design values in architecture presented in the text *Buildings Must Die : A Perverse View of Architecture* of Stephen Cairns and Jane M. Jacobs from 2017.

The structure of the thesis is developed by an iterative research by design process. Starting with a inventory of the site as a base for design explorations, in order to translate into design approaches. The design approaches are then applied in relation to the site to visualize the research and how these approaches can be translated into design.

The outcome of the thesis is a speculation on how the remaining structures on site can be deconstructed, relocated and reconstructed, focusing on design in relation to values. The outcome combines a pragmatic view on the silos as reused building material with a discussion about industrial heritage and explores the balance between the silos as symbolic industrial artifacts and a material resource but also the site as a shadow place and the act of moving things.

Keywords : industrial heritage, remnants, transformation, values