



# ***Changing Industry***

Exploring regenerative urban development  
beyond the clean slate

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***2026***

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Figure 1 to the right: Industrigatan. (Björnånger, 1972). Public domain.

Figure 2 to the left: Vänersborg. (Träff, C. A., n.d.). Public domain.

Figure 3 on bottom: Own photo

Thank you to...

... John for all your challenging questions

... Nils for your support throughout the thesis

... Martin Staude and Vänersborg municipality for your curiosity

... my friends at Chalmers for making the days go by

And of course all the people who I came into contact with on

Lilla Vassbotten who allowed me a glimpse into the life there



2026

*Changing industry: Exploring regenerative urban development beyond the clean slate*

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# Abstract

Industrial ground and harbours have long been prime land in urban transformations, not seldom developed through demolition of the current context. Industrial landscapes from the 1930s-1970s are often seen as lacking architectural qualities, both regarding the street scape and the buildings. However, with the current sustainability paradigm it is relevant to ask how these landscapes can be integrated in urban redevelopment and land transformations.

The aim of this thesis is to explore how industrial landscapes can be transformed through regenerative development while keeping current qualities. This to reevaluate and showcase how these places can become spaces for regeneration. Using the main question of "How can regenerative development be utilized to create regenerative areas in young industrial landscapes?". The sub-questions touch upon the potential for place-based reuse in young industrial landscapes, how regenerative development can be worked with and what strategies are relevant. The thesis builds upon theories of regenerative development, young industrial landscapes and the soft city concept.

To explore these questions an alternative development proposal is created for the mixed-use industrial area of Lilla Vassbotten in Vänersborg. Working from a research by design methodology, the process of the proposal is based on the theories about regenerative design and strategical framework created by Regenesi group (Mang & Reed, 2012). Through this, site-analysis, design and future co-evolution are explored.

Conclusions of this thesis point out qualities conducive to reuse of industrial areas and how regenerative development can be integrated into them. The areas are shown to be adaptable, for example through its large spaces and levelled ground. Key points for engaging regeneratively include working site-specific with local narratives and stakeholders, participatory processes and establishing networks. Regenerative development is both a process and an aim, and as such it is never finalized.

Keywords:

YOUNG INDUSTRIAL LANDSCAPE;  
REGENERATION; SOFT CITY; SITE-SPECIFIC

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Bachelor, Architecture, 2020 - 2023  
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Cultural Landscapes

## Other studies

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Art history 1b, autumn 2023

Art history 1a, spring 2020

My relationship to this place is that of an outsider. Growing up outside of Vänersborg, I spent a small part of my bus ride to school looking out from Dalbobron, until I came to the station. I seldom walked onto the area; it was always a place one passed by. At the same time, it is also an iconic place with the most accessible view of the town.

The memories with the area are instances. During Christmas when Teknosan decorates the top of the silo. Walking through Erikshjälpen to find leftover treasures. Going into ICA Kvantum to buy the final ingredient for a recipe. Bathing in the Old Hamnkanal with classmates and afterwards eating pizza by the volleyball nets. Trying to pass Residensbron safely after you realized you took the wrong side and there is no convenient pedestrian crossing available.

Even at my parents' home, Sanden makes itself present, as the sound of music from summer festivals travels over Vänern. Many memories, but not many from the industrial area itself. It has long been unavailable for me.

During my studies at Chalmers, an interest in the possibilities of younger industrial areas arose within me. Like a contradiction: how can these areas, which usually quite boring and unwelcoming, become spaces for life? Especially when we live with the constraints of climate change and heritage, in which demolition should be avoided. Hopefully, in this thesis I will be able to show you that it is possible.

# Table of Contents

<u>Introduction</u>	1	<u>Designing for harmony</u>	41
Background	3	Regenerating the place	43
Scope	4	Envisioning regenerative futures	45
Theory	5	Strategic intervention points	47
Framework and method	13	Enacting the process of change	49
Reference projects	15	Integrating functional ecosystems	51
		Creating resilience for the future	53
		Create accessible meeting places	55
<u>Understanding place</u>	19	Integrating urbanity among industry	57
Vänersborg	21	Lilla Vassbotten present and future	59
Sanden through time	23	Example of street spaces	61
Future plans for Sanden	25		
Present architectural qualities	27		
Spatial and temporal analysis	29	<u>Co - evolution</u>	63
Economical structure	31	Empowering local actors	65
Present ecosystems	33	Who's interests?	69
Soil and water	35	Enabling future development	71
Voices from the site	37	Conclusion	73
Sanden's story	39		
		References:	i
		Appendix	vii

## Introduction



# Phase

### Places mentioned

*Vänern:* Sweden's largest lake, provides drinking water for 800 000 people (Vänerns vattenvårdsförbund, 2007)

*Vänersborg:* city located at the southernmost part of Vänern, also known as "lilla Paris"/ "Little Paris" from the poet Birger Sjöberg's texts

*Vassbotten:* a small waterbody connected to Vänern's southern part. Connected to Göta Älv through the canal Karls grav

*Sanden:* infill area surrounded by water in between central Vänersborg and the area of Blåsut

*Dalbobron:* only bridge for private transportation between Vänersborg and the northern mainland. Placed on Sanden, it connects the city to road E45

*Lilla Vassbotten:* part of Sanden located between Dalbobron and the railway, nowadays a mixture between industry, stores and different businesses

## Background

As de-industrialisation of the northern hemisphere and urbanisation continues, industrial land has become an opportunity to densify closer to and within the city (Leboutte, 2009; Heesche et. al, 2023). Through this land conversion of areas such as acres and forests could be avoided.

However, these industrial grounds have often been treated as virgin land even though they have been built on previously. They are thought of as a clean slate empty of previous context (Bauman, 2013). During the 80-90s big scale urban development projects were common, creating attractive areas all over the global north in the transformation from industry cities to knowledge based, as industries moved to other parts of the globe (Hølgersen & Baeten, 2016). Such redevelopment has been criticized due to them creating an unequal distribution through a larger pattern of producing spaces for socio-economically well-off inhabitants.

More recently, other ideas and frameworks regarding how to transform these areas have begun establishing themselves, with more focus on ecological function, flexibility of use, slow change and context-based solutions (Waldheim, 2016; Olshammar, 2019). As industrial areas already have shown that they are adaptable over time through different crises, proposing that these areas may have a use in the future is becoming less farfetched (Rolfsted Mortensen & Braae, 2017).

In 2022 the city council of Vänersborg proposed a new detailed plan for the southern part of Sanden (Vänersborg kommun, 2022a). Currently an industrial and commercial area, the proposal suggested the demolition of present buildings in favour of a new residential area, park and commercial space with close access to the waterfront.

Creating these new developments would have meant a clean slate approach. However, architecture as a practice and work is dependent on other structures in society (Till, 2009). By wiping the area clean of its context, control and order is exercised of the space, ridding it of what is unwanted and beyond control. This has multiple consequences: it

disregards site specificity, excludes current narratives and communities from the area, removes harbour heritage, and increases stress on the environment.

Even so, Sanden has already been through a ridding of context previously. In the early 20th century, it was a reed area which later were infilled (Vänersborgs Söners Gille, 2011). As such the history of it as an industrial landscape is young.

The first proposed detailed plan needed to be revised, partly due to critique regarding flooding protection (Vänersborg kommun, 2022b). In the new plan the area is still programmed as industry with the additions of a pedestrian bridge and increased space for development of the railway. This creates opportunities to explore alternative futures for Sanden. Is there a space where a regenerative, context-based approach to urban development of young industrial landscapes can take place?

## Scope

### Aim & purpose

The main aim of this master thesis is to explore an alternative for future development of young industrial landscapes through a regenerative development perspective. For this aim the industrial area of Sanden in Vänersborg is chosen as exploration site. By using regenerative design, a site-specific, systems thinking approach is promoted allowing the place to develop both locally and regionally. Further objectives are to embrace the ecological potential, make the area accessible for all socio-economical groups and empower inhabitants and companies related to the area.

The purpose of this exploration is to revalue young industrial landscapes. It is to showcase them as places with architectural qualities where regeneration and transformation of society can occur. It is also to explore how new buildings can be integrated into the areas. This without resorting to the reaction of wiping the slate clean these landscapes often provoke.

### Delimitations

*This project is about*

- Transformation and integration of young industrial landscapes
- Proposing an alternative future for the infill area of Sanden in Vänersborg
- Believing in, finding and making the potential of the area visible
- Co-existence of humans and ecosystems
- Discussing the on-going planning process of Sanden

*This thesis is not about*

- Real-life planning or participatory processes
- Assessing specific building's conditions or potential for transformation, such as building weight
- Adhering to specific economic constraints
- Exploring all facets of regenerative development, such as global resource flows, access to political institutions and inclusion of socially stigmatized groups.

### Research questions

#### Main question

How can regenerative development be utilized to create regenerative areas in young industrial landscapes?

#### Sub-Questions

What potential do these areas present for a place-based reuse approach?

What development strategies should be utilized?

How can regenerative development be worked with?

# Theory

This thesis is mainly guided by three theoretical standpoints: young industrial landscapes, regenerative development and design, and the concept of Soft city. These are applied for different contexts in the thesis.

Young industrial landscapes provide a framework to analyse and understand the site and its architectural qualities and spaces.

Regenerative development and design are utilized both as a methodological framework and a design philosophy. A methodological framework in how to approach and understand the site, but also in how to structure the design process. A design philosophy through how it shapes the final aims of the project and site.

Added to this is also the Doughnut economy, which visualizes the how regenerative principles and the space to humanity has to act within to secure a safe and just future.

Finally, Soft city provides a concrete guide in how accessible, human-centred spaces can be created.

Together, these frameworks touch upon and shapes the thesis to create an understanding of the place, both as an effect of industrial space production and based on contextual ecological patterns. Furthermore, they define the aims and strategies used to achieve them.

## Young industrial landscapes

Architectural form is largely dependent on the era it was created. One divide in industrial eras is Young industrial landscapes, shortened as YIL. This refers to industrial areas roughly created between 1930s - 1970s (Heesche et. al, 2023). The definition embraces both landscapes and buildings, reading them together rather than separated.

Various methods have been used to typologize these landscapes. Rolfsted Mortensen and Braae (2017) were inspired by Bernd and Hilla Becher's photographic studies of industrial typologies. Heesche et. al (2023) used a typomorphological approach in which morphology of buildings and the typology of open spaces were combined to create a layered reading of the area. This showcased both generic and site-specific spatial characteristics. This method consists of categorizing different features of the landscape such as wall, floor etc. together with studying the site in relation to its surroundings.

Some characteristics Heesche et. al (2023) identified through the above method include location next to transportation infrastructure, flat ground, defined edges and entrances, orthogonal roads without pedestrian lanes and long, homogenous walls with few openings (figure 5). All qualities are not present in every YIL, resulting in different variants of YILs. The ones identified in the study are the "mixed and diverse", the "super-planned and over scaled" and the "manufacturing plant".

A common denominator is that YILs are built utilizing methods of standardisation and mass production, often giving them a generic appearance and few site-specific characteristics (Rolfsted Mortensen & Braae, 2017). As such it is hard to evaluate them from a heritage perspective as these places usually are neither monumental nor specific to its area's context. Rather, they exist in-between geographically generic processes (for example standardization) and smaller spatial added over time.

As a result, YIL have been identified to have potential for transformation rather than strict preservation (Heesche et. al, 2023). This due to their prevalence in today's world and their adaptable, generic spatial characteristics.



Leveled and paved horizontal space



Sometimes plantings of greenery



Closed edge zones, distinct entrances



Separated enclaves close to infrastructure



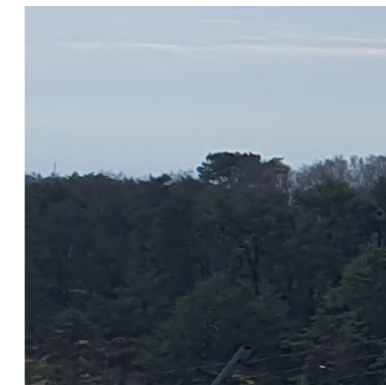
Few high buildings



Homogenous facades with few details



Wide streets with cars in focus



Separating green belts



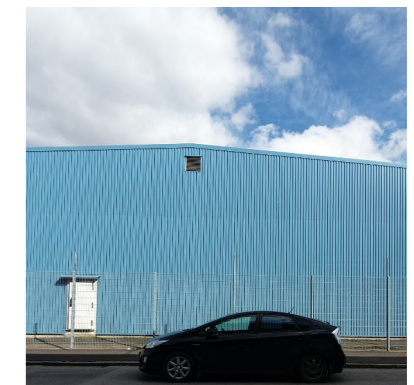
Large building volumes



Fenced plots



Buildings withdrawn from the street



Low level of texture in materials

Figure 5: Examples of different qualities present in YILs. Photo montage of industrial sites in Gothenburg.

## Examples of young industrial landscapes

This page presents three young industrial landscapes to exemplify what an industrial landscape can be. These landscapes were chosen due to their location in Gothenburg and because they represent the diversity found in of industrial landscapes. Different scale, location and openness to the public are some varying characteristics.

### Kvillebäcken

Industrial development began here in the late 19th century, with a renewed boom during the 1920s (Dicksson & Knutson Udd, 2022). Still, even 1930s it had a rural character to it. In the 1960s more buildings had been added to the area. Characteristic of the place are low and humble buildings.

After the 1980s new development away from the industrial started to occur and continues to this day, with new additions and a change from industry to a large focus on service in the industrial areas that remain (Dicksson & Knutson Udd, 2022). Parts have been redeveloped into housing. As such I view this landscape as a continuation of the development of the YIL. These buildings and areas often had their appearances changed. Building onto the common view of the replicable, common and adaptable industrial area, economic obsolescence and changes for profit are one strategy. As an area with longer history and small-scale actors, this area could be read as a mixed and diverse area from the typologies proposed by Heesche et. al (2023).

### Volvo Lundby

When industries first began to appear 1915 in this area there was ample space for expansions (Dicksson & Knutson Udd, 2016). However, by 1940 housing had started to surround the area which limited growth capacity. As Volvo, one of the main actors, had expanded greatly since its first car in 1927 they had to invest in new land in the 1950s. Nowadays the area is still used by Volvo, but mainly as office and development locales, with the buildings having gone through transformations in this change of function. Dicksson and Knutson Udd(2016) describes the changes and rebuilding of the area as unsentimental due to the tight location.

This area resembles the manufacturing plant typology, however some aspects vary due to topography of place. It also showcases a transformation by the company itself - from industry to offices, which are made possible by the adaptability of the original industrial spaces.

### The energy harbour and surrounding raffineries

History of the area is sparse, but it is reported that the energy harbour began development in 1929 (Wikipedia, 2025). Main structures found are those of fuel tanks and the infrastructure to and from the harbour where it arrives. It is difficult to reach, with traffic infrastructure and green areas separating the site.

This area is difficult to categorize, as it has been adapted to the topography, has large unregular plots, large voids and round buildings. However, it could possibly be classified as a overscaled landscape due to the size of it and the voids in-between.



Figure 6: Ortophoto Lundby 1960, with current plot borders. Min karta. Lantmäteriet. Edited to showcase area border. CC BY 4.0



Figure 8: Ortophoto of Kvillebäcken, 1960 and today's plot borders. Min karta ©Lantmäteriet. Edited to showcase area border. CC BY 4.0.



Figure 10: Ortophoto Energy harbour, 1960 and today's plot borders. Min karta. ©Lantmäteriet. Edited to showcase area border. CC BY 4.0.



Figure 7: Paved areas, different sizes and shapes of buildings.



Figure 9: Fenced in, cohesive brick facades and parking areas characterize the publicly available parts of Volvo Lundby.

## Regeneration

In contrast to the current mechanistic worldview where humanity and nature are separated and focus are on tightly defined problems, regenerative thinking is built on the ecological worldview (Hes & du Plessis, 2015). In this view, humanity is understood as an integral part of the whole natural system. This whole is a living system where its different parts are continuously self-renewing, evolving and re-organizing themselves, in comparison to a mechanical system which breaks down after a while.

Some values emphasised in the ecological worldview according to Hes and du Plessis (2015) are integrity, inclusivity, harmony, respect, mutuality, positive reciprocity, fellowship, responsibility, humility and non-attachment. They state that:

“the outcome of ones actions should contribute to the well-being, nourishment and regeneration of the world” (Hes & du Plessis, 2015, p. 37).

Therefore, regenerative development and design propose that it is possible for humanity to create positive impacts to surrounding environment and communities (Hes & du Plessis, 2015; Mang & Reed, 2012). Figure 11. visualizes the levels of work that every system works within (Krone, 1992). The lower levels (where current sustainability paradigm is situated) are needed for regeneration to be possible, but it does not change any situations. What the above the line work does is improving and making new possibilities available through connecting with the larger systems in the site. As such, regenerative work is highly contextual, emphasising analysing relationships and narratives connected to the site to develop them to their highest potential in the system.

According to Hes & du Plessis (2015) a common sentiment between regenerative practitioners that “it is not about the building”. What makes a project regenerative is therefore not a question of the single project or traditional architecture, but rather the effects and relationships the project results in.

## Development and design

This far, regeneratively has been established as a state of being and aim. However, it can also be a framework and method. According to Mang & Reed (2017) regenerative development is the framework from which the design is carried out from. The action of developing something is to “bring forth new potential” (Mang & Reed, 2012, p. 28). Forming relationships, potential and synergies between different parts of the whole.

As such, in the development phase the questions the design will answer are revealed (Mang, Reed & Regeneration, 2016). Engagement with stakeholders to make them co-responsible for the future development is also a part of regenerative development. By engaging them in the developmental process and making them stewards for the project, maintenance and further development is possible. Through that the potential has been unlocked.

Thereafter, regenerative design builds onto this foundation. With the direction regenerative development provides, regenerative design provides the strategies and techniques to create a project that is adapted for the place's conditions and strengthens its function (Mang & Reed, 2017).

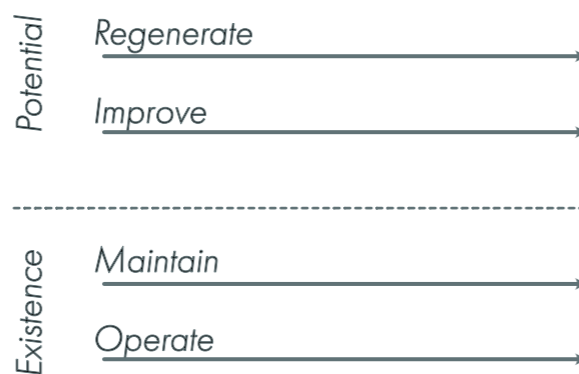


Figure 11: Levels of work. Mang, B., & Reed, P. (2012). ©2011 Institute for Developmental Process

## Doughnut economy

The *Doughnut for urban development* is a tool and way to visualize and work with the impacts of urban development (Hill-Hansen & Guldager Jensen, 2023). Based on Kate Raworth's doughnut framework, it showcases the space humanity must inhabit for “a safe and just” future, in which environmental prosperity (the ecological ceiling) is balanced with access to human rights such as water, justice and health care (the social foundation). Overshooting or undershooting these are a sign of either environmental degeneration or limited access to human rights.

What is added in this iteration is the creation of two rings, one connected to the ecological ceiling and one to the social foundation (figure 13). These divide and sort the different working areas making up the ceiling and the foundation. The ecological ceiling is then divided into

climate stability and healthy ecosystems, while the social foundation is made up of the lead words responsible, connected, inclusive and equitable.

From these values, the doughnut is then unrolled to showcase how urban developers can work to situate their project within the safe and just space for humanity. To do this, it is needed to assess impact of projects both locally and globally through many different lenses.

Two guiding principles for these values are regenerative and distributive by design (figure 12). These propose that society needs to enable shared access to resources and care, and that today's linear system of resources needs to be swapped for a circular one which heals environments.

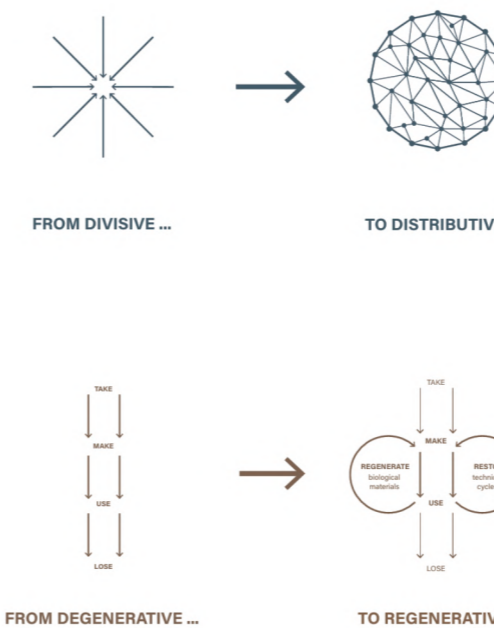


Figure 12: The principles of distributive and regenerative development. Hill-Hansen & Guldager Jensen. (Eds). (2023). CC-BY-SA 4.0

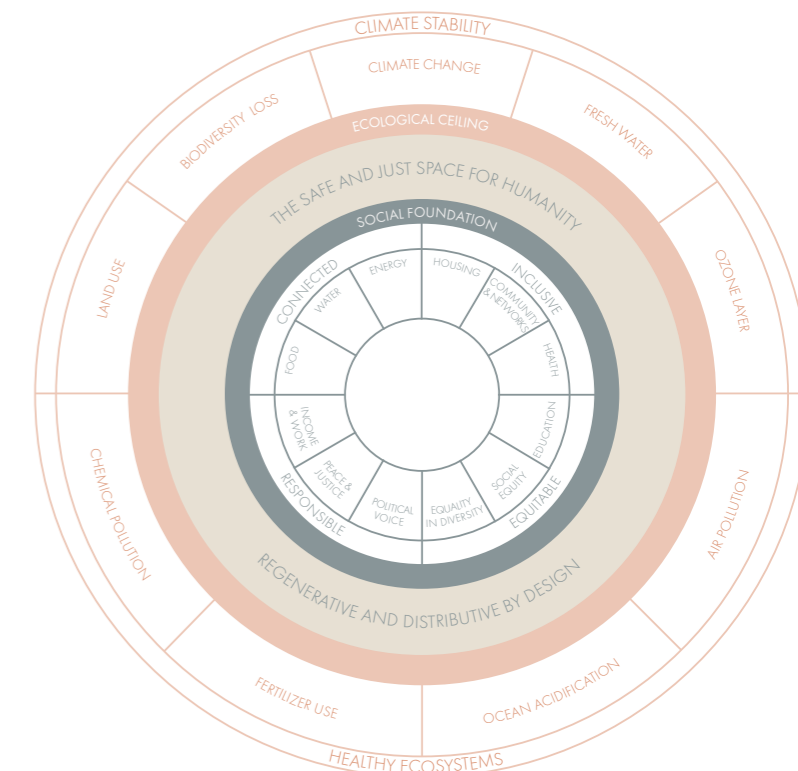


Figure 13: The Urban development doughnut of social and planetary boundaries. Hill-Hansen & Guldager Jensen. (Eds). (2023). CC-BY-SA 4.0. Edited colours.

## Soft city

Created by David Sim (2022), soft city is a concept showcasing different urban qualities needed in order create cities that focus on human wellbeing. Soft is defined as being about the qualities of creating pleasant urban environments and buildings in which neighbours can connect and co-exist. Through focusing on the small and big design choices of reference cities which are regarded as good places to live in such as Copenhagen, David Sim proposes a "set of criteria to evaluate the quality and liveability of the urban built environment" (p. 212). These are:

- Mixed use areas and buildings
- Different kinds of outdoor spaces
- Flexibility over time
- Human scale
- Pedestrian friendliness
- Feeling of influence over one's space
- Pleasant microclimate
- Smaller CO2 footprint
- Increased biodiversity

Together, they make up a guide for qualities which supports the benefits of living in a city such as close proximity to people and attractions, high degree of service and a creative environment. This while also creating a comfortable everyday life.

A building typology Sim especially promotes as being able to fulfil the above criteria is that of closed blocks with active ground floors. These create possibilities for different qualities on the yard/street facade of the building, are commonly easy to walk around and can contain many different functions on different floors. This creates possibilities for adaptable buildings and surroundings.

Examples of qualities



Figure 14. A conglomeration of different buildings giving interaction opportunities with the water



Figure 15. Active groundfloor with possibilities for the residents to put a personal touch on their entrance



Figure 16. Sunny, pedestrian focused street with generous public space.

## Key takeaways

Young industrial landscapes are by design often generic as they are built upon the paradigms of industrialisation and modernisation. Spatially, this means that the areas often are adapted to the needs of transport, storage and production, with big streets and flattened ground for ease of vehicular movement and storage, and large building footprints for linear modes of production. Different variants are present of these landscapes, with differences often being in the number of different actors within the site and its connections to surrounding areas.

In keeping an area relevant for industry, maintaining the space for transport and production can therefore be vital. However, as industries has become more globalised with production commonly moved to the southern hemisphere and transportation being a new kind of storage, industrial areas are also changing. As products of generic, global processes, young industrial landscapes can therefore be more suited for transformation than preservation as Heesche et. al(2023) states.

Looking at the built references of YILs, they are seldom left untouched through time. New additions and unsentimental transformations reveal an environment constantly adapting to society's and its user's, needs. These landscapes are adaptable to changes, which further strengthens the argument that they are suited for transformation.

Analyzing industrial areas have a tradition of utilizing photography as a method. Showcasing one kind of typology of building or one quality in a grid brings awareness to the generic but also special characteristics of the subject.

As regenerative development works from the potential that exist in a place, it aims to increase the interconnectedness between different parts and tie back spaces to the larger systems in the site. For this project, the definition of regenerative development and design proposed by Regenesys will be the guiding theory of the methodology, analysis and further creation of the project. It also showcases the importance of including stakeholders in participatory processes and how these are the people that will continue to regenerate the area throughout the ages.

The doughnut for urban development is useful through concretely showcasing how urban developers through design can have a positive impact globally and locally.

Through tying industrial landscapes and regenerative development together with the soft city concept, the need to analyse present qualities and systems become evident. When making industrial areas accessible for people and other species an approach softening the industrial environments are needed.

Sim (2021) points to the mixed city and how many different activities and sizes of spaces coexist. Creating layers vertically, walkable streets and making active ground floors are some strategies for these, which from a review of the common spatial qualities of YIL often are missing. In contrast, a mixed and diverse city has spaces of many different varieties, with areas being multifunctional. Even large activities such as supermarkets can be placed in blocks underground or underneath an elevated inner courtyard, with smaller businesses along the street line. This retains the impression of an active street life while at the same time allowing for large transports and large building footprint.

# Framework and method

The process for working on this project is based on the framework by the Regenes group (Mang & Reed, 2012). It is a three-phase process beginning with understanding the place and its potential. Thereafter, creating a design and ending with continuous co-evolution. These phases are performed and revised continuously and overlaps in many instances. Figure 17 visualises how the process is structured.

Phase one is to establish how big the "here" is, "here" referring to the site and its scale. It asks questions relating to what patterns and potential can be found, what happens in the place and what is the story of the place. From this it engages with local stakeholders and tries to create a vocation for the area to envision the regenerative potential.

Phase two works with the design, what is needed to keep to the vision and how to implement it. Prioritize solutions that create webs that connect many different stakeholders.

In phase three co-evolution is the focus. Co-evolution refers to what is needed for the community and stakeholders connected to the project to continue maintaining, envisioning and developing the project indefinitely. Some aspects included are creating different roles for people, creating a shared identity relating to the story of the place and to continue envision the place's potential. It also relates to how to keep focus even when new stakeholders arrive.

This methodology and process outlined above is visible in the booklet through the different phases that separates it.

To delimitate the project, no participatory co-design processes are used. Instead, the co-evolution phase of the project is a speculative discussion of what the project can do for stakeholders, how stakeholders could be included in the process and in the further development of the project. Afterwards, the conclusions of the thesis will be presented.

Main method used for the project is Research by design. The focus of the project is the design work and gaining knowledge through exploring possibilities through design iterations. Sketching is the main tool for this, with exploring alternatives using pen and paper. Additional tools used are creation of a time line for the area, a digital 3D model and final drawings.

Research for design methods such as literature reviews and interviews are used in some instances but is not the main focus.

## Main research tools

Sketching: creating visions and possibilities on paper freely trying different ideas.

GIS-data: visualizing different maps of the site and gaining understanding of patterns through them.

Timeline: envisioning narratives of what will be and how things will develop.

Digital model: good for visualizing the project and its aspects.

Drawings: creation and refinement of iterations of the project, digital and physical.

Photography: used to categorize and analyze site qualities of YILs. The methodology is based on a scaled-down photographic structure used by Rolfsted Mortensen and Braae (2017), and the qualities established by Heesche et. al. (2023).

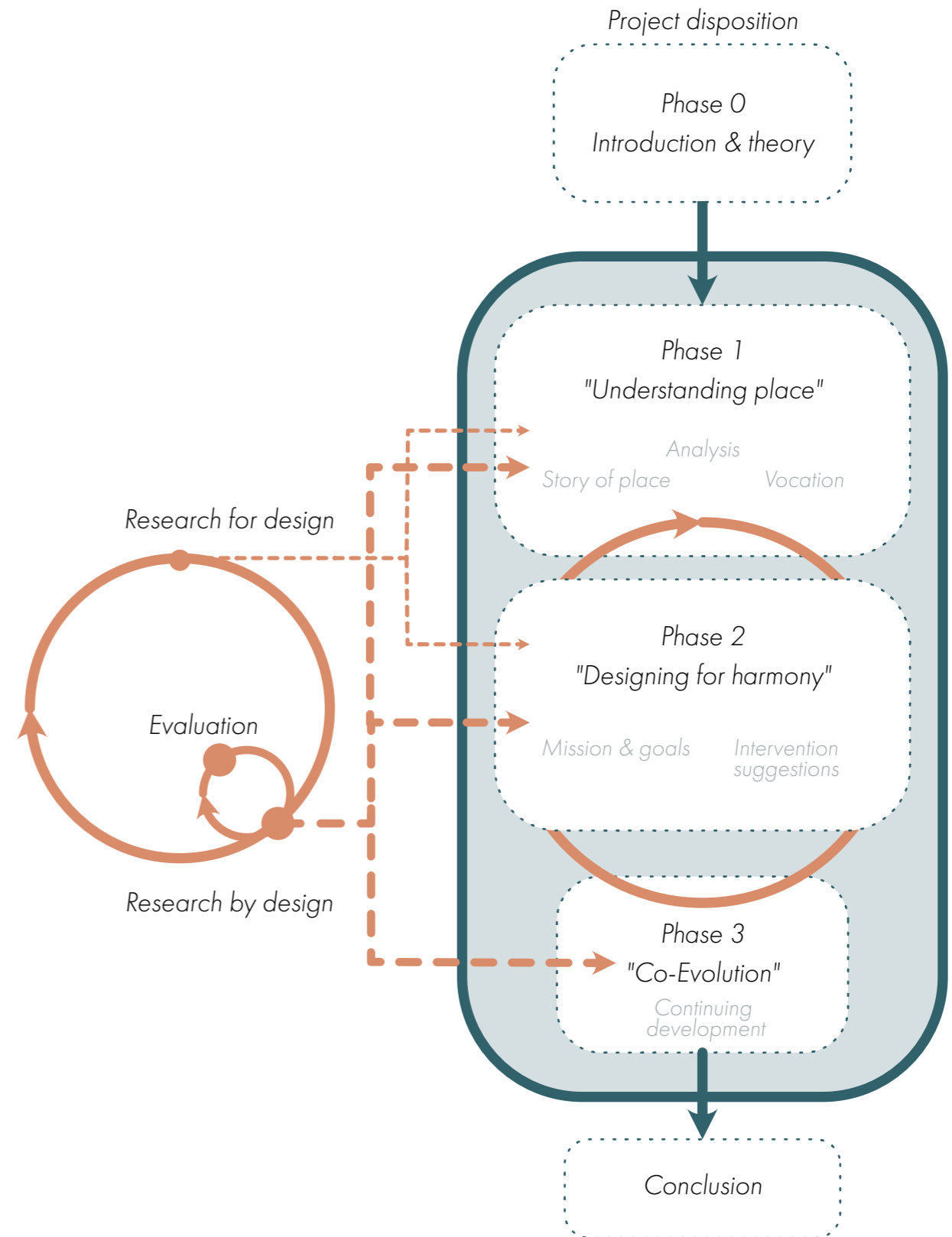


Figure 17: Framework and method diagram

# Reference projects

## Las Salinas

This currently unconstructed project showcases the power of regenerative design and development. Reimagined by Regenesys and planned by Sasaki, it is a plan to revitalize Vina del Mar in Chile (Mang, Haggard, & Regenesys, 2016; Sasaki, 2017.). It was previously a petroleum plant which the owners wanted to redevelop to give back to the community. But from the community's viewpoint, the area was their last hope as the current city development created hardships for them, which lead to resistance for the plans.

Through Regenesys' studies of the community, residents and the corporation were able to find common ground, resulting in a shared mission in transforming the city.

What is relevant in this project is that it is an actual example of a project that specifically uses regenerative strategies to redevelop areas. It showcases how systems and design beneficial for the entire city can be created through community engagement, and how this process can form new hope.



Figure 18: From Las Salinas: Brownfield transformation redefines city's trajectory. [Plan], by Sasaki, n.d., Sasaki. (<https://www.sasaki.com/voices/las-salinas-brownfield-transformation-redefines-a-citys-trajectory/>). © 2026 Sasaki Associates, Inc.

## Key takeaways

- It creates a tabula rasa, but still manages to be defined as a regenerative project through its engagement with the community and to revitalize the ecosystem
- Strategies for redeveloping closed single-use industrial areas and open mixed-use industrial areas are different and will probably get different reactions
- Engaging the community inspires and creates momentum
- Demolition makes large scale soil remediation possible, but small scale is also an alternative
- Large scale integration of public space and nature through green corridors

## Duck Land

This unbuilt, theoretical project was a suggestion for redeveloping Hamburg Docklands between 1989 and 1991 by Cedric Price Architects (Hardingham, 2016). It showcases a vision of Hamburg in which the docklands are turned into a wetland for birds instead of redeveloped into new buildings and urban spaces, emphasising the interactions between humans and birds (Building Design, 1991).

Cedric Price called it an "anticipatory architecture" which accepts changes and that it might in the long run turn out to not be the best solution (Building design, 1991). Further arguments can be made that it is based in degrowth, interspecies interaction and giving space to think about a city's future (Doucet, 2019).

## Key takeaways

- Dare to envision new futures beyond growth
- Accepting that spaces and projects change with time, design therefore for the possibility of change
- Question if every building is important. Where does the line go for when it becomes tabula rasa and when the time has come to move on and demolish. Is it possible to regenerate through "undoing" rather than improving?
- Should humans and other species be separated? As buildings are demolished to make way for wetland, cannot these co-exist?
- Interspecies relationships
- Designing land/ water connections



Figure 19: Copy of a site map with birds for Duck Land (Cedric Price Architects, 1989–1991). Courtesy Cedric Price fonds, Canadian Centre for Architecture, Montréal.

## R-Urban

This project is an approach for co-producing resilience through neighbourhood communities and action (Petrescu et. al, 2016). It was created by aaa - atelier d'architecture autogérée (atelier d'architecture autogérée, n.d.). The topics they focus on often centre around collective commons, co-production, ecological design and political action through design.

What R-urban focuses on is creating an "infrastructure for the co-production of resilience" (Petrescu et.al., 2016) taking the shape of civic-hubs which can host multiple different activities (R-urban partners, 2015). Engaging with different stakeholders and actors, both professionals and community members, a pluralist, empowering, participatory bottom-up approach allowing for democratic co-production of a local ecosystem of services and projects (Petrescu et.al, 2016).

## Key takeaways

- There are multiple ways of connecting people through different ecosystems of services and projects
- Achieving regeneration using only material resource cycles often miss the international flows of materials. It becomes a question of which scale one's project taps into, if it is big enough to change something. Focusing on services, projects and other alternative cycles which engages the community can be more rewarding and transforming
- Projects acting outside of capitalistic gain through municipal goodwill can be vulnerable for change in leadership
- Visualizing flows and changes with axonometric/perspective drawings communicates well

## Ringön

A mixed-use industrial area in Gothenburg which has evolved throughout the ages. Currently has many different actors and functions present. As it is quite secluded, it has been able to retain industrial activities throughout the years. The municipality has proposed a slow transformation of the area, in which the current industry and workshop activities are retained side by side with increased accessibility to the area.

Different events such as yearly festivals and an increased presence of breweries have opened in the area, which has created more social cohesion and engagement among the current stakeholders and attracted new groups (Olshammar, 2019). Creative activities can therefore help keep displacement at bay.

## Key takeaways

- Displacement is a part of gentrification. Inviting new activities while retaining the old can be an opportunity to create new bonds between actors
- What narratives surround the area? These decide in what light and what futures are possible to imagine through transformation
- Maintenance or investments in the place and events can foster social cohesion and change narratives
- Waterfront redevelopment is very powerful. Through taking away industrial access to the water, an areas narrative and characteristics can change drastically
- Things can go slow, but try to be clear about what the intentions moving forward are to allow for local actors to plan ahead

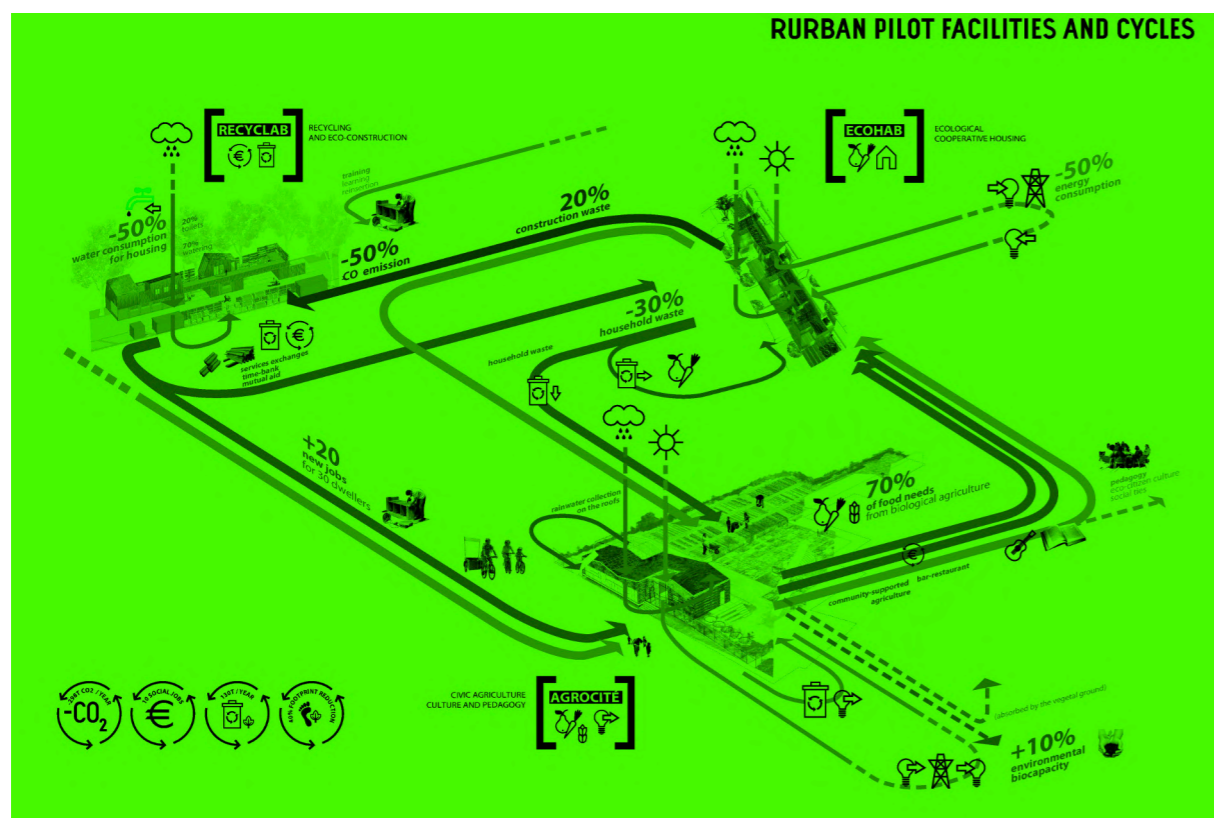


Figure 20: From R-urban [Diagram], by Atelier D'Architecture Autogeree,n.d., R-Urban. (<http://r-urban.net/en/projects/>). CC BY-NC-ND 3.0



Figure 21: Feeling of going in Rinön and view towards the other side of the river.

## Understanding place



Phase



Figure 22: Muddringsarbete vid nya trafikkanalen, klar 1916. (1916). Public domain.

Figure 23: Från fabriks och hantverksföreningens fest på Vassbotten i Vänersborg 30/8 1930. (1930). Public domain.

# Vänernsberg

Located at the edge of Lake Vänern, Vänernsberg is a natural road and communications hub connecting Norway, Värmland and Dalsland with Trollhättan and beyond since its establishment in 1644 (Hedqvist et al., n.d.). It was a centre for changing modes of transportation for iron transport when Göta Älv was inaccessible from Vänern. This continued undisturbed until the 1750s when a canal going between Trollhättan and Vänern was established, creating alternative transportation connections to the sea (Hedqvist et al., n.d).

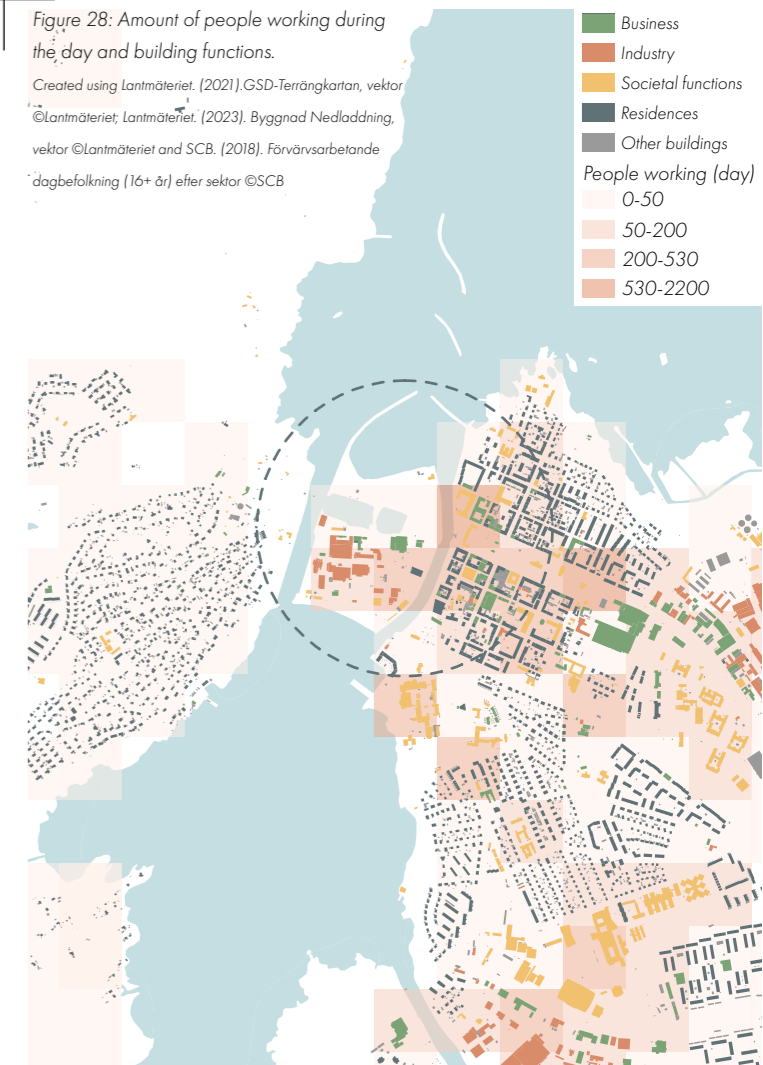
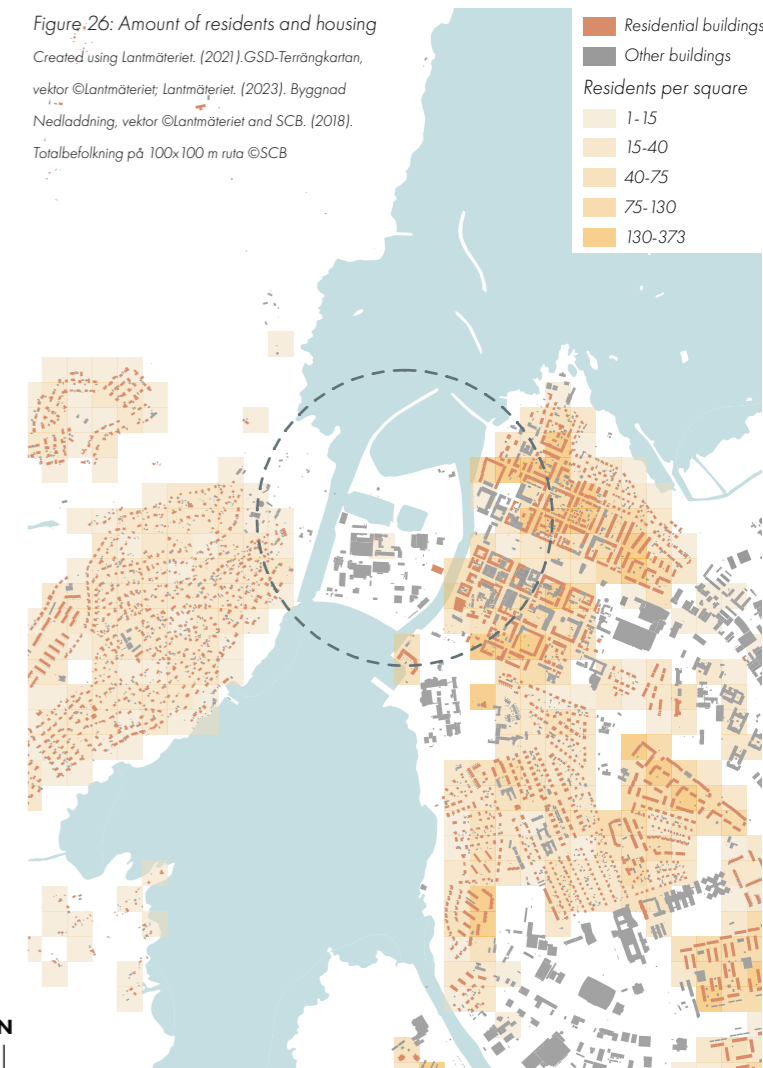
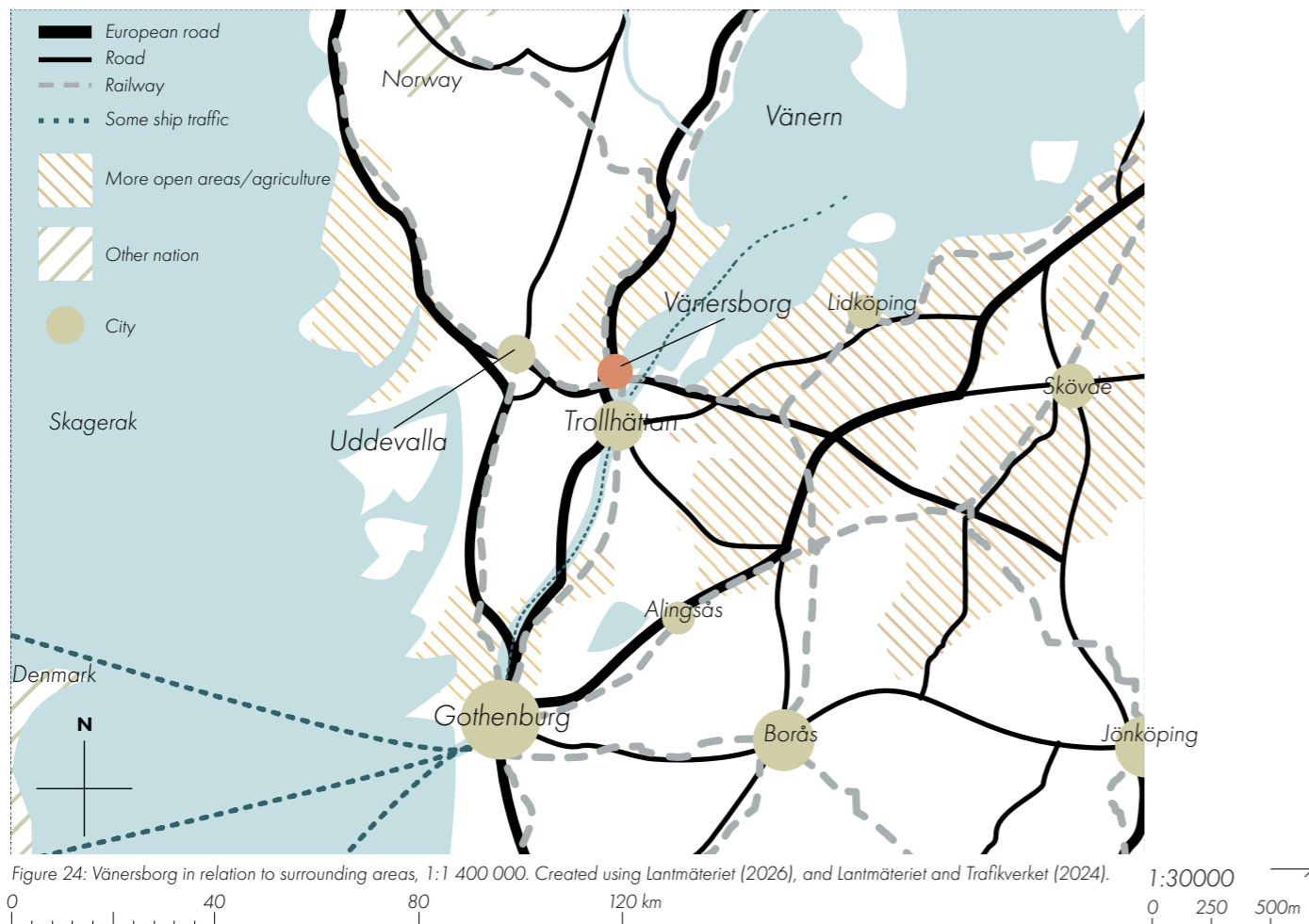
In the 19th century traffic on the canal and lake increased, making Vänernsberg one of the most important lake-harbours in Sweden (Hedqvist et al., n.d). The area flourished with transportation of grains until the 1860s when the railway broke the canal's dominance. Some prolific historical industries were the safety matches and shoe factories (Vänernsberg kommun, 2023a).

Novadays, Vänernsberg has about 40 000 inhabitants (Vänernsberg kommun, 2025a). In recent years, the city has begun expanding and densifying, sometimes on agricultural land (Vänernsberg kommun, 2026).

The city is connected to Trollhättan and Gothenburg through a short train trip (figure 24). Through the city two major red connecting streets goes through, connecting in the inner city. However, this connection is not utilized often as it is partly a pedestrian street. Instead traffic is re-routed over to Sanden.

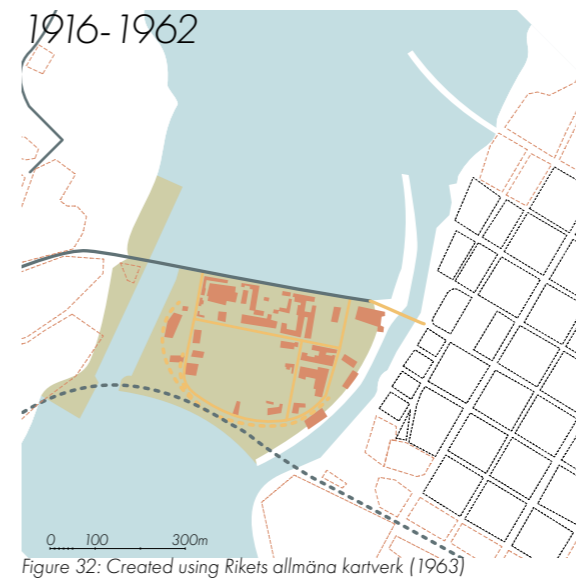
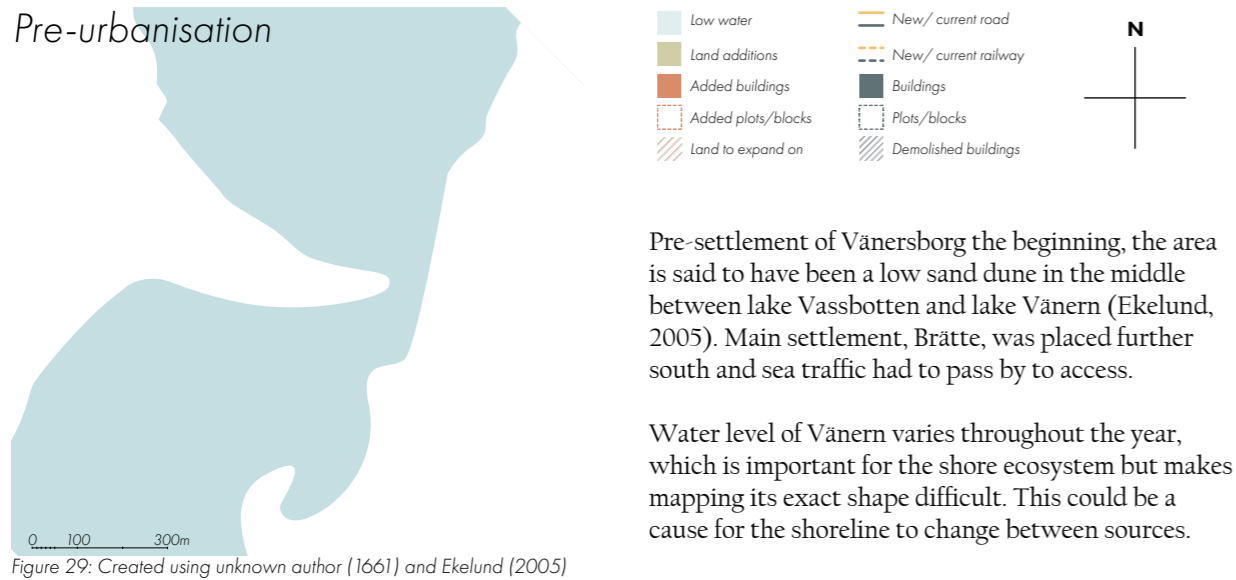
In figure 26 it is shown that there is basically no residents in Sanden, which differs from surrounding areas. However, it is located by the inner city, which contains many places of work (figure 28) and of residence.

Figure 27 showcases how majority of the inner city is made up of open areas and managed greenery, with a large forest to the north.

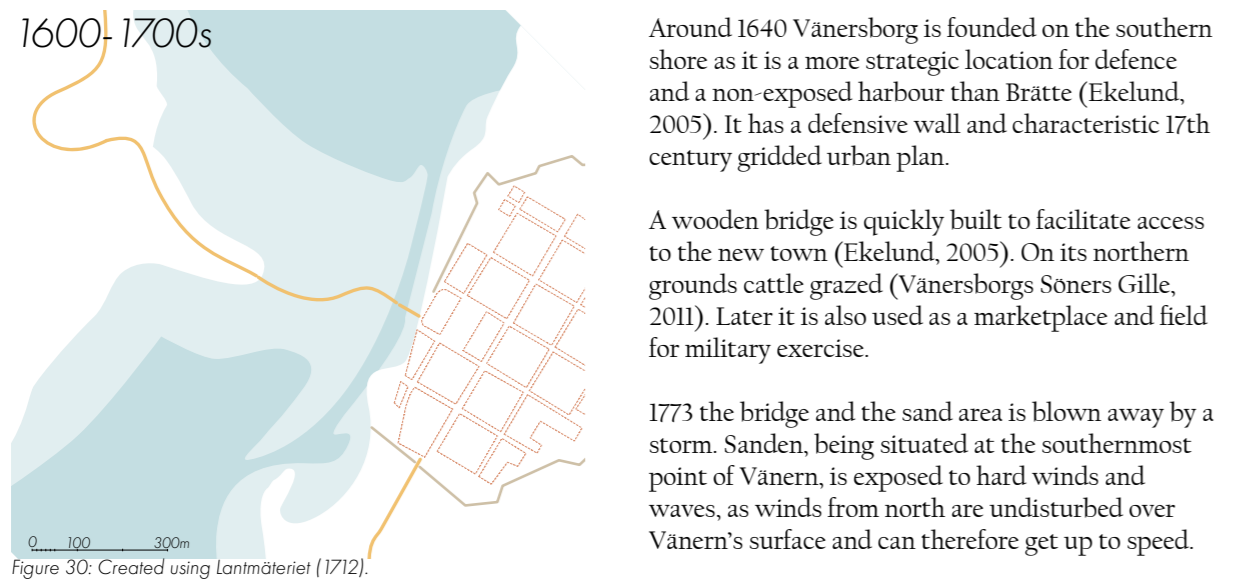


# Sanden through time

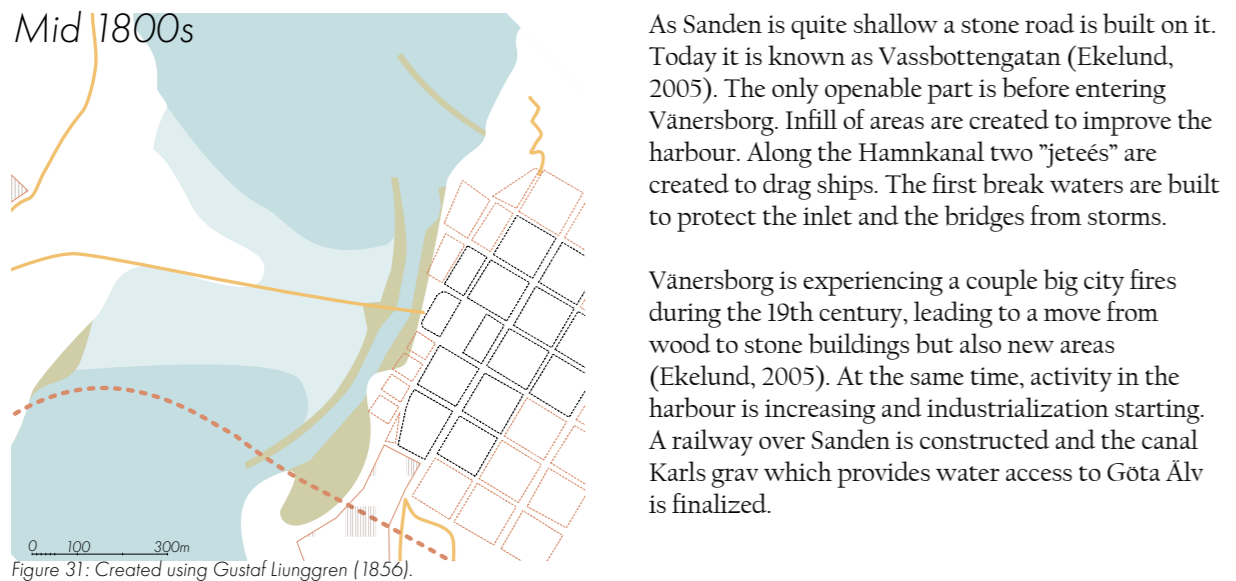
## Pre-urbanisation



## 1600-1700s



## Mid 1800s



# Future plans for Sanden

For the past years plans of transformation from the municipality has been in the works. In the “Fördjupad översiktsplan för Vänersborg och Vargön” (Vänersborgs kommun, 2023b), Sanden and Lilla Vassbotten are deemed areas of interest for further city development.

For northern Sanden, the current proposal for a detailed plan from Vänersborg municipality (2025c) is to move the guest harbour here and diversify the potential activities to cater to different ages. One example of this diversification is to establish a place to put recreational vehicles on. The flexibility of this retains the possibility to arrange events here, while simultaneously creating life all day and night.

In southern Sanden, the current proposal (Vänersborgs kommun, 2025d) is mainly to redesign the street grid in preparation for future development. This includes changing place on some roads and creating one pedestrian and bike bridge to Blåsut. New space to Trafikverket for an additional train track and space for the Coast guard’s new building is also included.

A second bridge is also planned (Vänersborgs kommun, 2025e), this one is between Sundsgatan and over the Old Harbour Chanel.

The map is also showcasing the focus area for this thesis, which is drawn north of Dalbobron. While the area is a result of industrial activity and large-scale land infill, it is excluded due to it not being a traditional young industrial landscape and also not containing major road infrastructure.

- |                                 |                      |
|---------------------------------|----------------------|
| Parking                         | New train platform   |
| Squares                         | Harbour              |
| Supporting facilities           | Pool                 |
| Buildings                       | Event area           |
| Recreational vehicle parking    | Reshaped block       |
| Proposed areas for bridges      | New street structure |
| Area for master thesis proposal | Potential bridge     |

Figure 35: proposed changes on Sanden.  
 Created by using Vänersborgs kommun(2019, 2025d, e, f, g . Background map  
 Lantmäteriet. (2021). GSD-Terrängkartan, vektor ©Lantmäteriet and Lantmäteriet.  
 (2023). Byggnad Nedladdning, vektor ©Lantmäteriet  
 0 75 150m



# Present architectural qualities

These photos showcase some examples of different qualities found in the area. Regarding the different typologies that Heesche et. al (2023) distinguished, my opinion is that this falls into a "Mixed and Diverse" landscape. As this is an older landscape, new buildings have been added throughout the years. This has created a blend of different styles and ages. Scale and materials vary, and the street structure has also been changed.

Some other commonalities are that the terrain itself is a result of industrial technology. The island was created when the new canal for bigger ships was dug out (Vänersborgs Söners Gille, 2011), and in addition the dredged remains were placed to create this infill. It is also a manner of taking care of "waste" products.

Regarding the buildings, since the terrain is level many doors open directly on the ground, resulting in that vehicles can drive into the building. These buildings are mainly square, low volumes with homogenous facades. A few high buildings, most iconically the silo, are scattered around. In many places the buildings are further in from the street line, creating wide street sections.

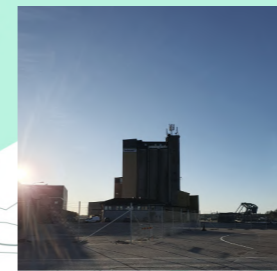
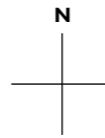
Street structure is made for the car, with asphalt, straight and wide roads, parking spaces and open spaces for unloading or loading material.

There are green areas, but these are mainly along streets or on the edge of the area. They consist mainly of moved lawns, tree plantings or "weeds" poking through in the cracks.

For a large part of the area entrance is restricted. This is shown through the many fences that are present and hinders access, closes paths and obscures the view of the area. Since many buildings are connected the permeability is closed of even more.

For a photographic overview, look into the photography appendix (figure 76).

Figure 36: Map of industrial qualities with photos  
 Created by using Vänersborg kommun(2019, 2025d, e, f, g . Background map Lantmäteriet. (2021).GSD-Terrängkartan, vektor ©Lantmäteriet and Lantmäteriet. (2023). Byggnad Nedladdning, vektor ©Lantmäteriet  
 0 75 150m



4. Few tall buildings



5. Leveled terrain



6. Wide, straight roads



1. Fences and shrubs



2. Homogenous facades



3. Green & blue areas

- Wide, paved spaces
- Fenced in private areas
- Deep buildings
- Homogenous, closed facades
- Fence
- Opening in fence
- High point
- Vehicular entrance points

# Spatial and temporal analysis

Looking from above, the area is currently domineered and divided by the big infrastructural interventions Dalbobron and Vassbottenleden. These create clear areas, each of them having their own character. To the north, an open activity area with a focus on water and beach activities. In the south, stores and industries. The divide is further emphasised by the edge created by the big waterbody found underneath Dalbobron.

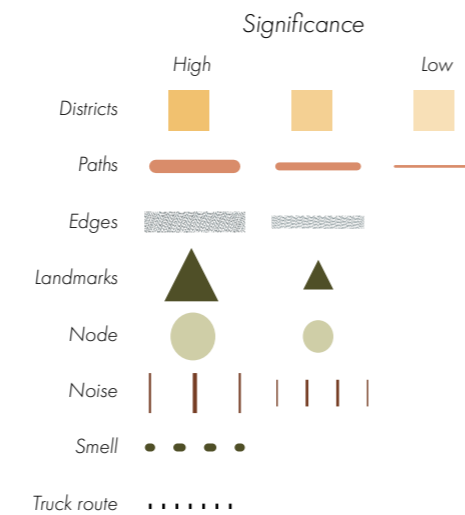
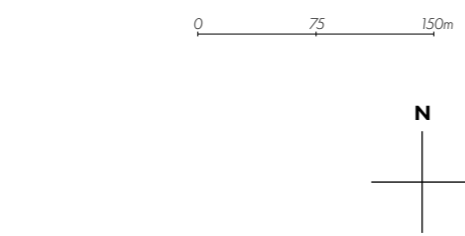
The districts in turn are often defined through the clustering of large buildings, or through the wide views offered by open areas. Similar businesses seem to be placed quite nearby each other, for example second hand stores flocking around Erikshjälpen and car mechanics in the south.

Inside the industrial area fences are commonly found, creating edges between the different plots. There are few public nodes in this area. Main meeting points for traffic and people are the crossing of the bridge and outside of ICA Kvantum where many people move. Both Dalbobron and ICA are reference points in the city. The other main landmarks in the area are Teknosan's silo which is both visible from the main Vänersborg area and from Dalbobron, and Sanden, the open festival area.

As it is an industrial area close by major roads and transportation networks, noise is quite present. The largest sources are the railway, with trains every hour, and the car traffic present on the streets. Other noise sources are Tekonsan and ICA. Teknosan is also a source of smell and truck traffic in the area. During summer, festivals and concerts can be held at the festival area which can have quite a lot of noise.

The parts of Vänersborg surrounding Sanden are mainly accessible quays. To the west, a grass area, inaccessible from Sanden, is situated. To the east, the old harbour and its promenade is located. Along this walk restaurants, the train station and residential houses are located. These are accessible through 3 bridges.

Figure 37: Lynch analysis of Sanden  
Created using Lantmäteriet. (2021).GSD-Terrängkartan, vektor ©Lantmäteriet



# Economical structure

The main function of the buildings in the area is as industry, but as time has progressed a lot of non-industrial uses has moved in in the old industrial locales. Nowadays, stores, services and gyms are some of the other activities present in the area. There is also one apartment house in the area built after the plans from 2019 (Vänernsberg kommun, 2019).

Majority of built land is owned by local private companies, many who also has offices on site. The state mainly owns the railway and parts of the west water canal. Vänernsberg's municipality owns and maintains other parts of the land, including Dalbobron.

Among the businesses are also non-profits and different social enterprises. In the northern part of Lilla Vassbotten second hands are clustering, while in the west a cluster of different gyms and sports societies are found. The two main engagements built on volunteering, Erikshjälpen and Friskis & Svettis together has around 280 volunteers over the year.

Turnover for the area is at the lowest 750 000 000 kr yearly, with the biggest businesses being ICA Kvantum and the animal feed companies Teknosan and Spannex. Above 230 people work in the area with the main employers being ICA Kvantum and Nobina, with around 50 employees each. ICA has according to allabolag.se the tenth largest turnover in Vänernsberg. Biggest public service according collected information is the Coast Guard.

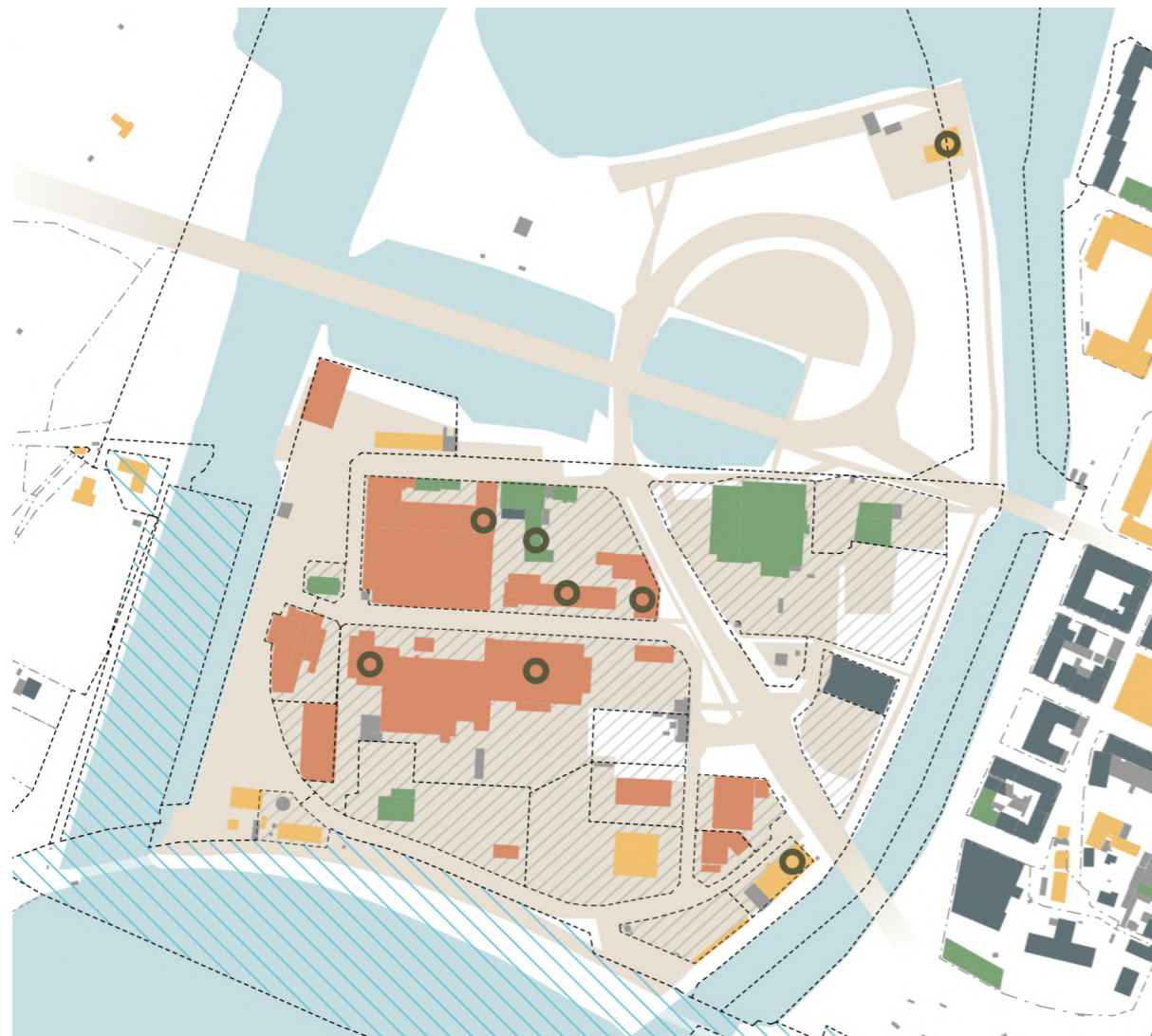


Figure 38: Building usage, properties, covered ground and alternative economical activities. Created using Lantmäteriet. (2021).GSD-Terrängkartan, vektor ©Lantmäteriet; Lantmäteriet. (n.d.) Fastighet Sverige ©Lantmäteriet and Lantmäteriet. (2023). Byggnad Nedladdning, vektor ©Lantmäteriet

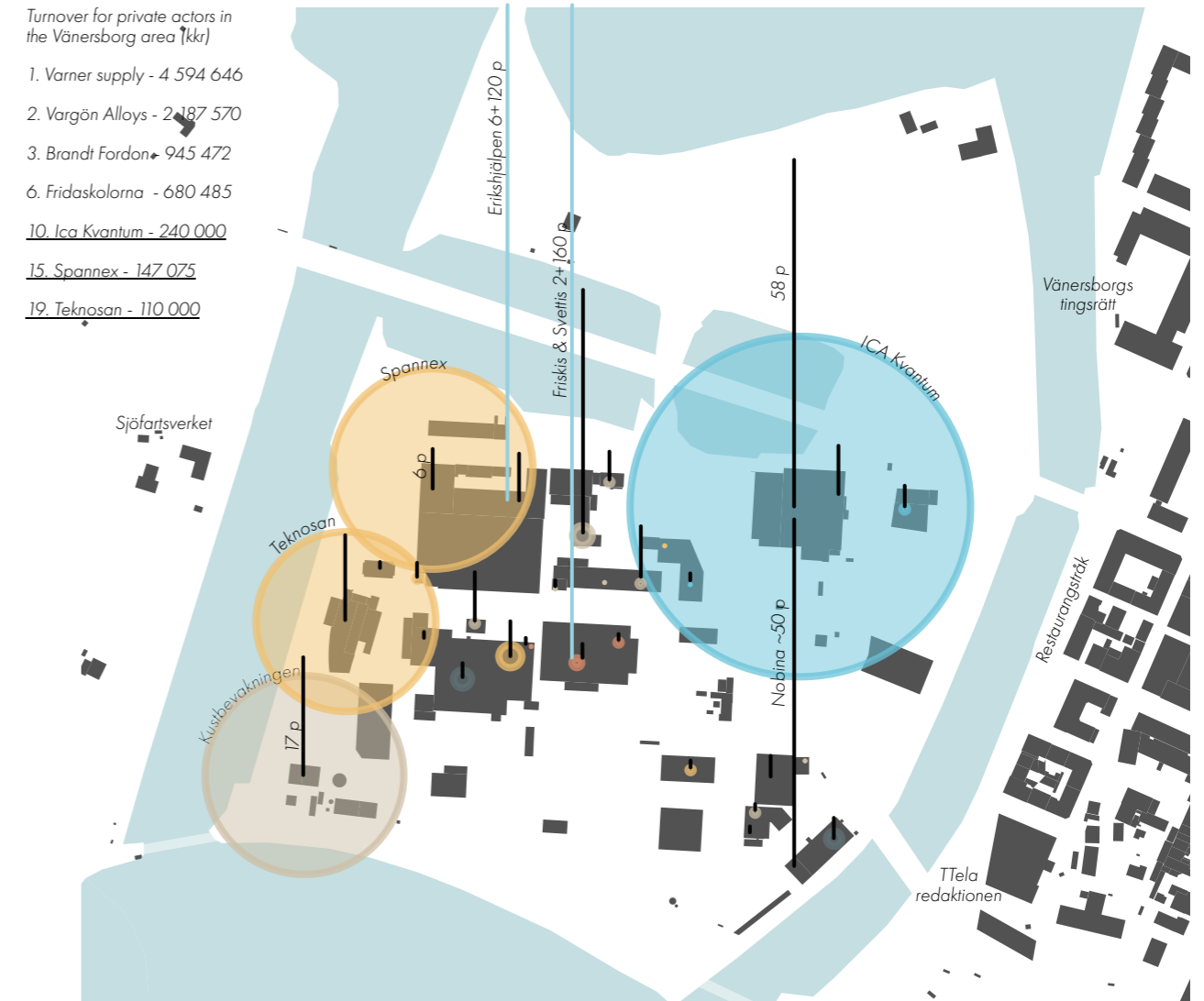
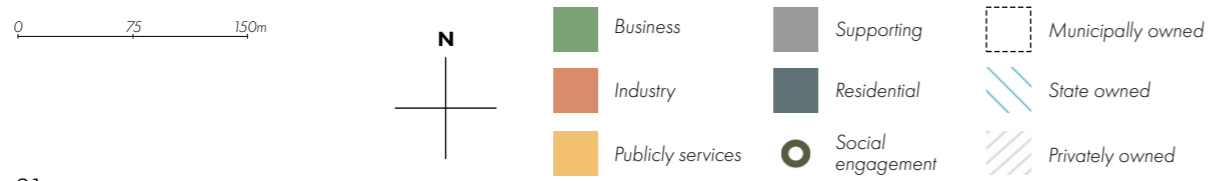
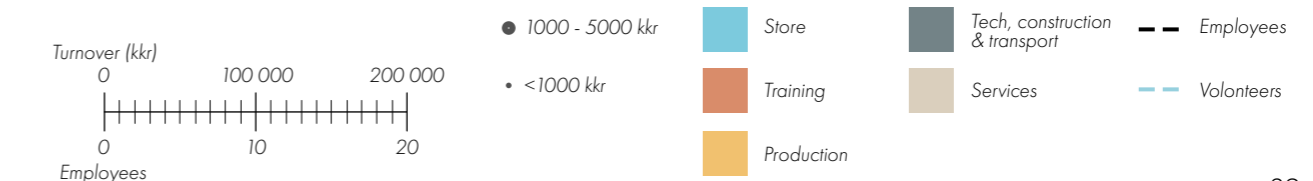


Figure 39: Turnover, volunteers and working people in the area. Data collected from allabolag.se (until march 2026) and unofficial talks with businesses. Background map created using Lantmäteriet. (2021).GSD-Terrängkartan, vektor ©Lantmäteriet and Lantmäteriet. (2023). Byggnad Nedladdning, vektor ©Lantmäteriet



# Present ecosystems

Situated between Lake Vänern and Lake Vassbotten, the defining characteristic of Sanden is water which surrounds it on all sides. Predominant wind direction is from southwest (Planbeskrivning Södra sanden, 2023). Outside of the area to the north breakwaters are placed, to disrupt waves during strong winds. To the west, Dalbobergen nature reserve is situated, and to the south the park Skräcklan has one of its entrances.

Main biotopes present in the area are grass lawns, a lot of tree avenues and reed covered areas. Other non-tended areas are present as well, these contain mostly weeds, small bushes and younger trees. Large parts are paved over, with big areas dedicated to parking.

In the reed areas, fishes have previously been present. These areas where water meets land are important places for different kinds of life. Some other typologies meeting the water are piers and different kinds of stacked stone.

The five bridges connecting the area do not provide many opportunities for species movement. Two of them mainly facilitate insect movement with flowering plants during the summer

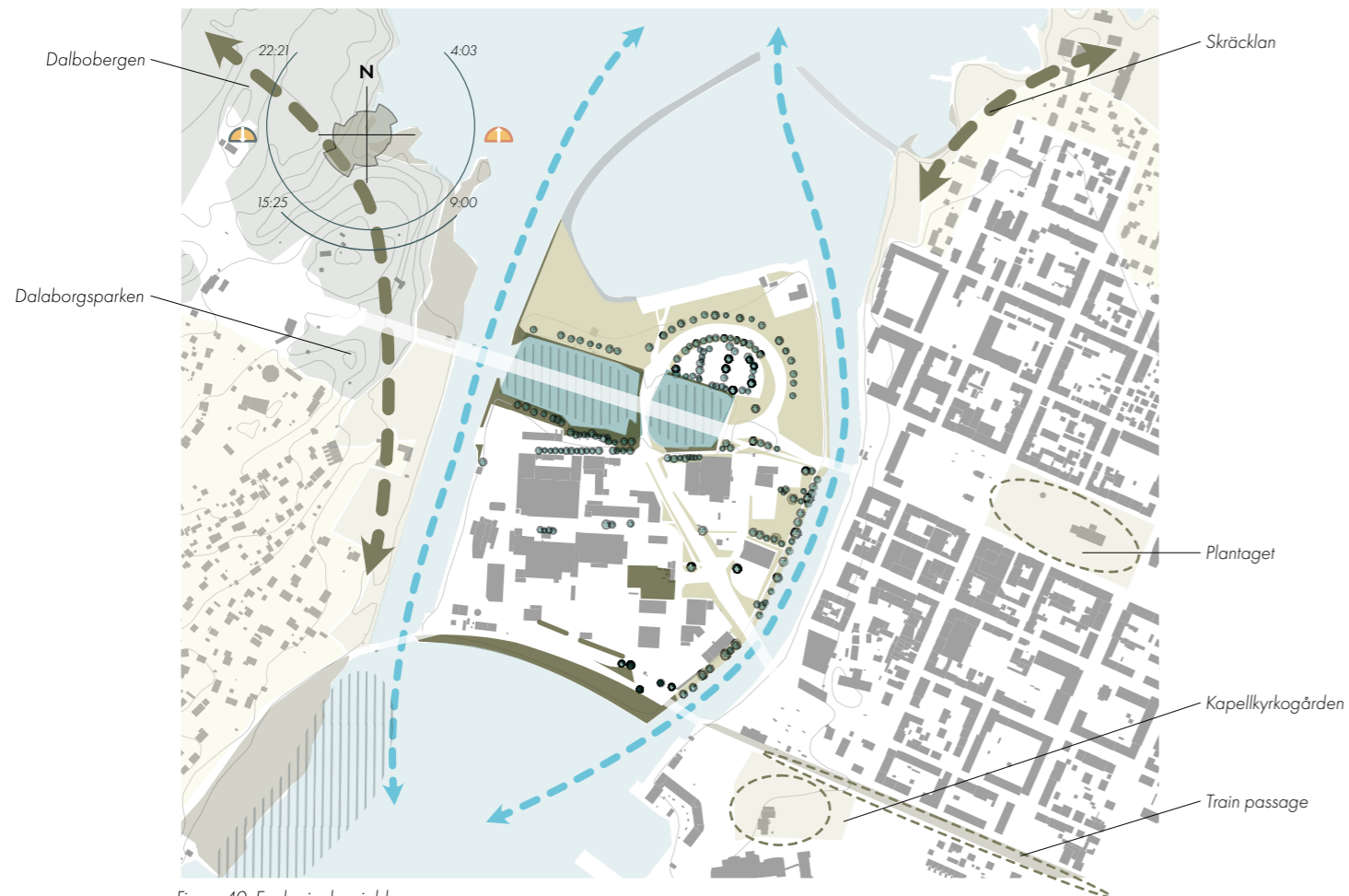
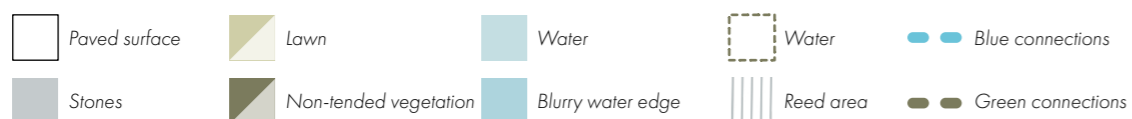


Figure 40: Ecological variables.

Created using Lantmäteriet. (2021). GSD-Terrängkartan, vektor ©Lantmäteriet and Lantmäteriet. (2023). Byggnad Nedladdning, vektor ©Lantmäteriet



## Reed

Surrounding the shores of Vänern and the infill are reeds. These can be seen as a remnant of the area before the infill. Reed areas provide many ecosystem services such as habitat for different species, protect from erosion, material and a border between land and water (Degerman, 2022).

Water areas without reed in between land and the reed's starting point, a "blue line", creates good conditions for biodiversity (Degerman, 2022). To avoid overgrowth, human maintenance of the areas can be needed.



Figure 41: Reed area

## Avenue

A couple avenues are present on Sanden. The oldest is most probably the one present along Vassbottengatan. It provides many ecosystem services through being a shelter and spreading corridor for different species, affects microclimate by reducing heat and providing shade, improves soil stability and has a heritage and aesthetic function as well (Naturvårdsverket, 2014).

Throughout the year the main change is how the leaves change, from a full crown in the summer to bare during winter. Trees found are alder, elm and linden.



Figure 42: Avenue

## Grass lawn

Smaller and bigger patches of lawn are present in the area. They are spread in-between road infrastructure and more connected park areas, particularly on the north side. The potential for ecosystem services in grass lawns is lower than other open grass areas, such as meadows (Boverket, 2021). Some ecosystem services open areas have been as habitats for different species, recreation and water management.

Throughout the year, maintenance is intensive as the grass needs cutting, which also affects how accessible the area is for other species.



Figure 43: Lawn

# Soil and water

Historically, this area has been one of the most precarious in Vänersborg. Situated at the lower end of Vänern, northern winds beginning at the other side build up waves during the distance travelled from the other side of Vänern. Today the breakwaters create a protection around the area. However, it is still the most exposed area of the city. Rising about, 1-2 m over the regular water level (Vänersborg kommun, 2025d), a 200-year rain is projected to cover almost the entire area.

Furthermore, as the area has low points inside, water can be standing for longer amounts of time.

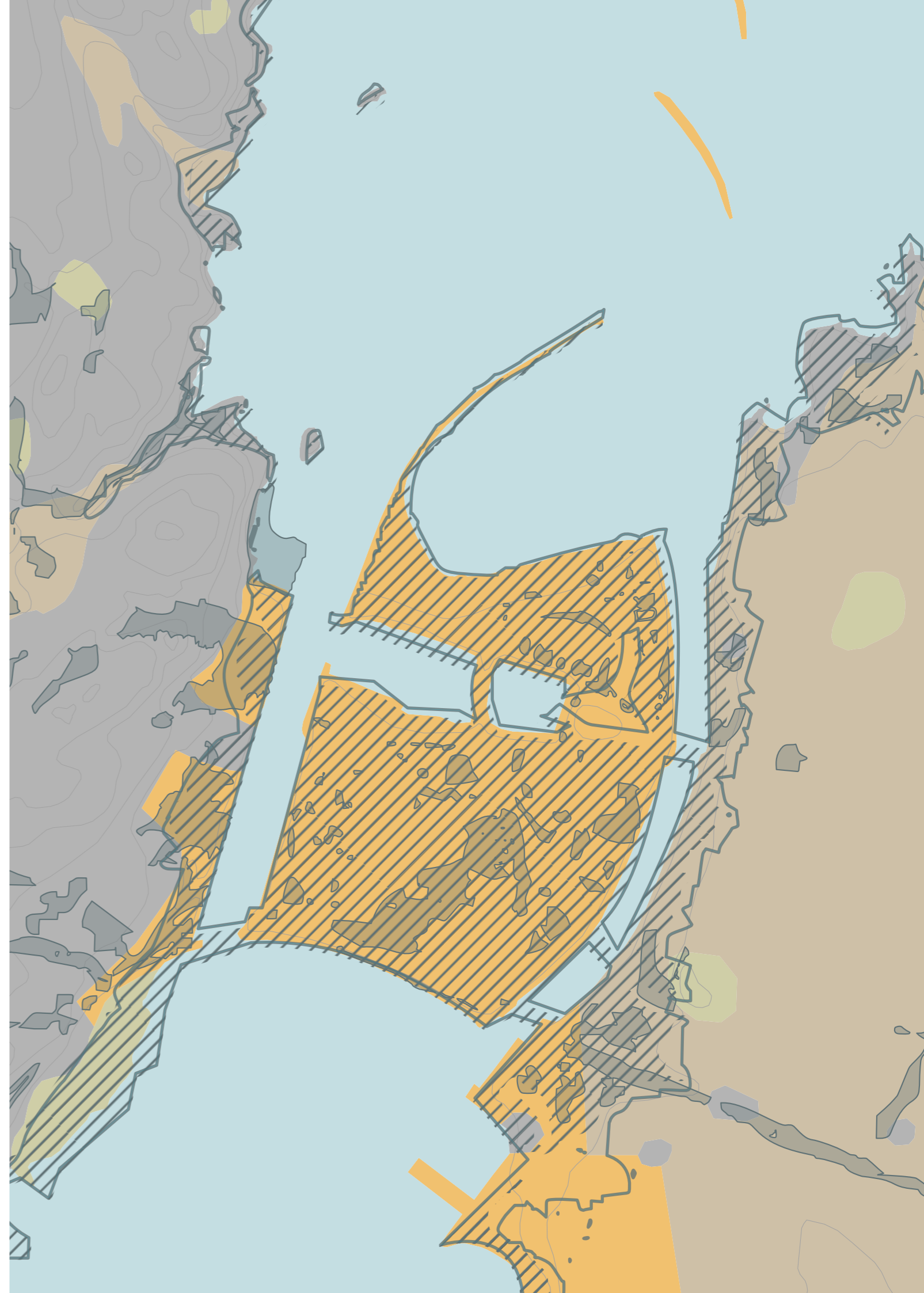
Soil in the area is unstable and consists of infill packed on top of deep areas of clay. Therefore, added buildings will need to be light and/or stabilized by piling (Vänersborg kommun, 2025d).

Contamination has been measured in the soil of the area (Vänersborg kommun, 2025d). Some contaminations noted are chrome, different aromatic compounds and mercury. They have been found as deep as 1,5 m in some instances.

Figure 44: Soil present and flooding areas in Sanden  
 Created using SGU. (2024). Jordarter 1:25 000 - 1: 100 000 ©SGU  
 and MCF. (2025). Översvämningss kartering av Väner. ©MCF



- Infill
- Glacial clay
- Sediment, clay - silt
- Basement
- Post-glacial sand
- Post-glacial silt
- Water
- Potential standing water, 200 yr. flood
- 200 - year flood level
- Maximum flooding level



# Voices from the site

This part is to visualize and bring forward different perspectives of Sanden encountered while studying the site. The human voices have been collected through unofficial conversations, readings and my own general knowledge, while non-human actors have been arrived at through knowledge of the place's patterns and how mobile the different categories of species move.

A general result is that the different businesses and industries generally enjoy the site, emphasising the relation to inner city and amount of parking. At the same time, influence and accessibility is generally bound to the property they own or rent. The same situation is for property owners which have large influence and access to their own land.

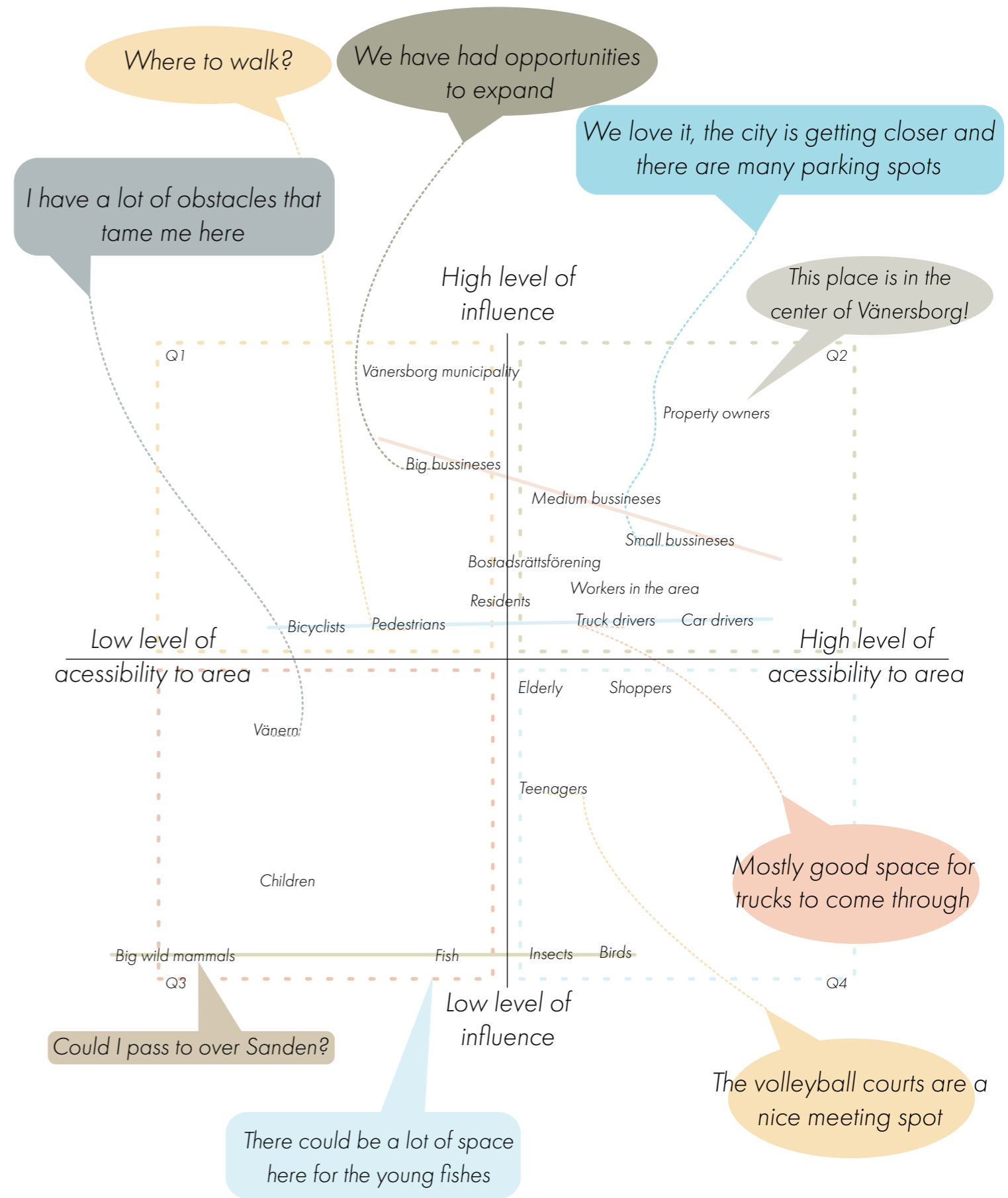
The human group with lowest influence and accessibility are children. Apart from them being in the care of their parents, the area has large infrastructure with roads and few spaces for children apart from some sports activities. Teens are more independent and have as such more accessibility and influence. However, there are still few spaces for them.

On the other hand, non-human perspectives have another experience. The categories presented are a generalisation, as different species have different needs. The focus have been more on the commonalities between them, such as size and mobility.

Birds and insects are mobile beyond land borders, while bigger mammals need to have bridges or swim to move onto the site. Fishes are mobile throughout the water, and can access the area underneath Dalbobron, but for natural reasons, they cannot access the land. Influence for all of these groups is however low. The general experience is that these voices have been disregarded through the land conversion which lessened natural communication and spaces for child rearing.

The groups in Q3 are the most vulnerable with low accessibility and influence which should be a focus in the work. Thereafter, stakeholders in Q1 and Q4 should be worked with to respectively increase the accessibility and level of influence where possible.

Figure 45: Level of influence/ accessibility to area mapping. Based on how much societal power, capital and agency in the area contra how easy they move in the area, where they are allowed to go and what spaces are made for them



# Sanden's story

I am Sanden. My history begins with the creation of Vänern, of the ice sheets shaping the ground. I am situated between these two lakes, Vänern and Vassbotten and am the thin line separating the two. My place is shallow, with northern winds finding strength from Säffle so when bad weather hits I am in the forefront. When humans first established bridges over me their work was destroyed by these waves and winds. Nowadays, breakwaters are here to protect against these forces.

In my reeds pike, insect and bird were present. With the highs and lows of Vänern changing throughout the year. This wetland which was said to be unhygienic had space for much life, with pike often being on the menu for surrounding settlements.

People have used me mainly for transportation, they drove in the shallow areas over me into the city. They placed boats along the edges and parked their carriages on me after the dredging. Now I am more road than place for life, as people barely need to touch me to reach the city.

After dredging there was not a shortage of time until I was utilized. People gathered then and now for temporary festivals, circuses and tivolies. My prime time is during summer. On my southern side industry and businesses reside. Underneath the asphalt contamination is hiding from the activities, the same that fill the area with opportunities and people.

## The vocation

Based on the story to the side, the story of Sanden is established to be based in inbetween-ness. Water levels have gone up and down, allowing people and creatures to pass. An unstable place where winds and waves destroyed the early constructions created. It is an edge which people has passed to get from different places, it is creative destruction. It is a meeting space, where people, boats and wagons have gathered to enter Vänersborg. It is a place for festivities along the shoreline. It is a place for commerce, where transportation can take one anywhere.

What value, what gift this place brings to Vänersborg is that of an edge. It is a bridge between systems, people and species, allowing for meetings. It reminds one of the powers of water and wind.

This part of the process, creating a story of place, is usually to create a vocation for the area, a common vision for the engaged stakeholders to unite behind to facilitate care and showcase leverage points. This vocation is a manifestation of the place's special role in the system. From this, smaller roles are found for the different stakeholders. The question of "what value can I contribute with in this process, in this space?" is something asked of the participating parts.

As this is a speculative thesis, no common story of place has been created together with the local stakeholders. As the design part of this thesis will explore how different systems can be managed at the site to regenerate it, some speculative value-adding roles will inevitably be assigned to different potential stakeholders.

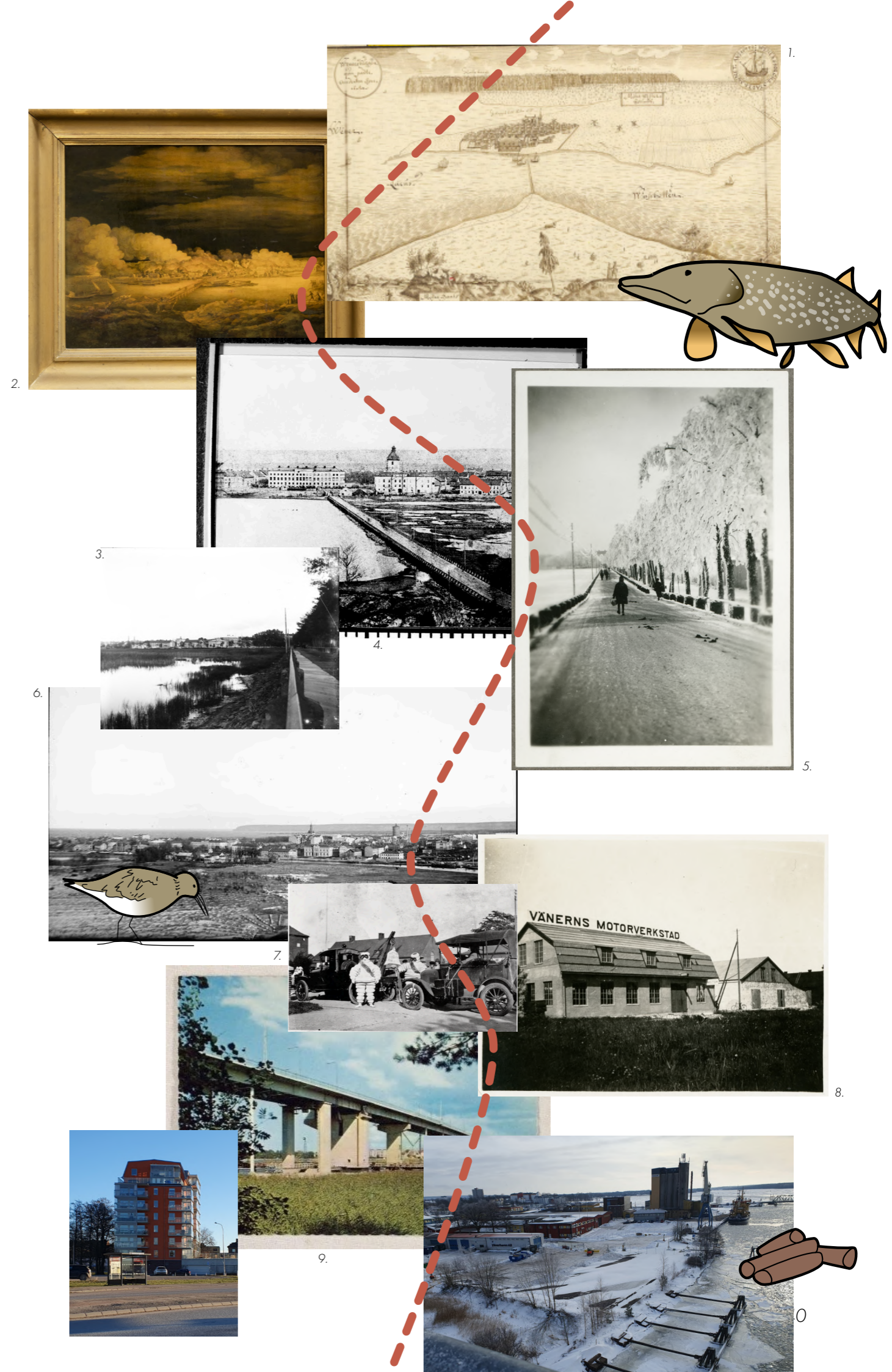
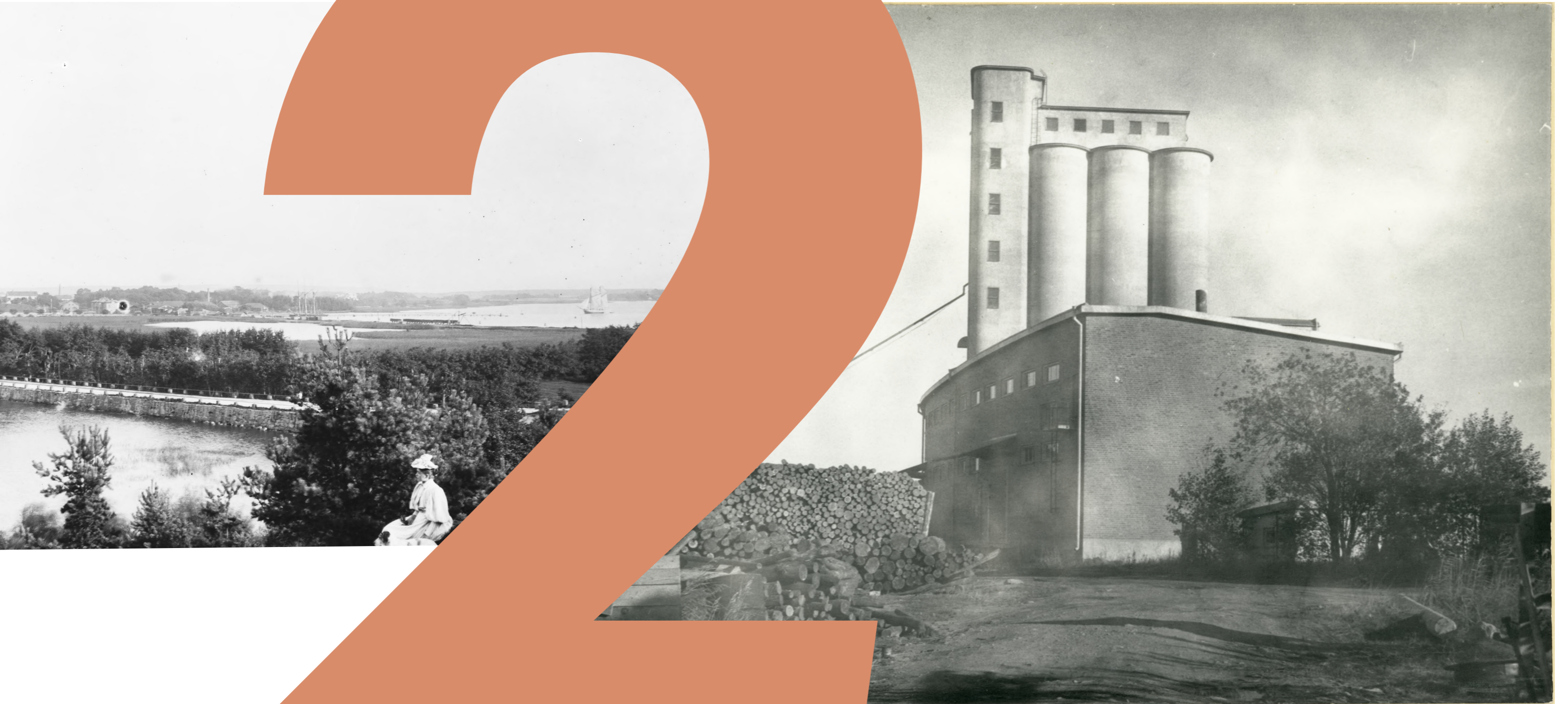


Figure 46: Showcasing a story of Sanden through time with species and developments.

1. Vänersborg. (Kempenskiöld, 1699). Public domain.
2. Vänersborgs stadsbrand 1834. (Ehrengrenat, 1834). CC-BY 4.0
3. Dalbobron. (Fält, n.d.). Public domain.
4. Dalbobron på 1860-talet. (n.d.). Public domain.
5. Photo: Vänersborg, Dalbobron. (Ingrid, 1926-29) Public domain.
6. Vy över Vänersborg. (n.d.) Public domain.
7. Från fabriks och hantverksföreningens fest på Vassbotten i Vänersborg 30/8 1930. (1930). Public domain.
8. Väners Motorverkstad, Lilla Vassbotten. (n.d.) Public domain.
9. Nya Dalbobron. (E. Danielsson AB, n.d.) CC BY 4.0

Designing for harmony



Phase

Figure 47: Utsikt från Dalbobergen även Dalbobron och södra delen av Vänersborg. (1895). Public domain.

Figure 48: Vänersborgs hamn, silo. (n.d.). Public domain.

# Regenerating the place

The framework for the diagram is based on the story of place-concept from *Regenerative development and design* (Mang, Haggard & Regenesis, 2016) and the permaculture working method from *The Permaculture City* (Hemenway, 2015).

Through the process of creating a vocation for Sanden, a large amount of knowledge has been collected. Figure 49 takes this vocation and translates it to a mission for the site. This mission and the research question work in similar ways, by creating a focus on the impact of the final proposal.

Thereafter, the mission was divided into smaller goals. While the mission summarizes the scope, these goals signify what a regenerative development of the area could be. To arrive at the goals, I found relevant themes from the *Doughnut for urban development* and combined these with the analysis of the site-context and the reference projects.

Attached to each goal are strategies which are actions that can be taken to achieve the different goals (Hemenway, 2015). These strategies are based on my experience analysing the area, reference projects, ecosystem services and the different aims from the urban development doughnut. Shared strategies or ones having synergies are prioritized and showcased through the lines tying them together.

## Vocation

What value, what gift this place brings to Vänersborg is that of an edge. It is a bridge between systems, people and species, allowing for meetings. It reminds one of the power of water and wind.

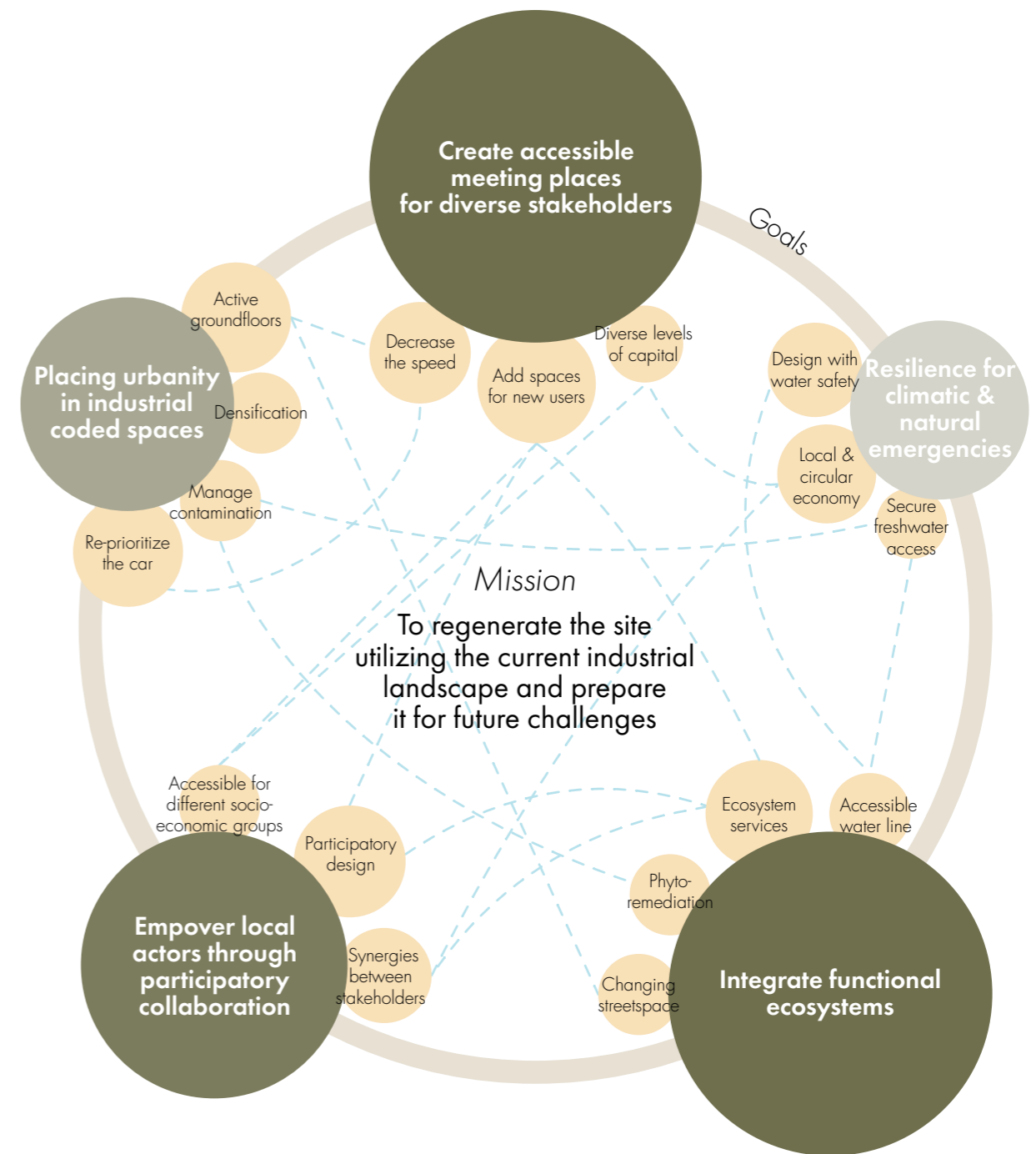


Figure 49: Mission, goals and potential strategies to achieve regenerative development in the project.

## Envisioning regenerative futures

Creating different iterations and visions of the area is one of the backbones of this project. Through the delimitations and the references, different variants of what "regenerative development" means for industrial areas have been created. These illustrations showcase alternative futures for the area from the suggestion that will be presented later in the booklet. What these showcase is that regenerative development can come in many different shapes, but they do have consequences.

The first sketch is an implementation of the Duck Land project by Cedric Price Architects. In this, human activity is limited to passages crossing the area, while the focus is on the ecological and biodiversity impacts of the place through the creation of a marshland. The possibility of flooding and naturally fluctuating water levels is a possibility rather than an obstacle. As such it also embodies the role Sanden has inhabited throughout history and its natural patterns. Furthermore, it is a chance for thinking about the future of the area without considering economic growth. However, precious land is lost, connecting roads inside Vänersborg has to be rerouted and jobs disappear.

The second sketch is based on Las Salinas by Sasaki. In this, a new urban web is established through demolishing everything present. It creates an area with ample public and green space and good street connections, but also a very structured built environment. Buildings are developed by one actor, creating an impression of a unified area. However, this erases current context and the development differs largely from the historical environment of Vänersborg.

These can be seen as two sides of the same coin of clean slate development. Duck land deconstructs current area and lets the area overgrow with the influence of natural processes and some human management. The slate becomes utilized again through a disassembly perspective. In the original proposal from Cedric Price Architects, it was presented as a possibility to take a break from development and think about what future one desires (Building design, 1991).

The Las Salinas based proposal utilizes the clean slate to enact the construction of a new urban area. It is a big change that is more in line with the mindset about societal growth and post-industrial urban development

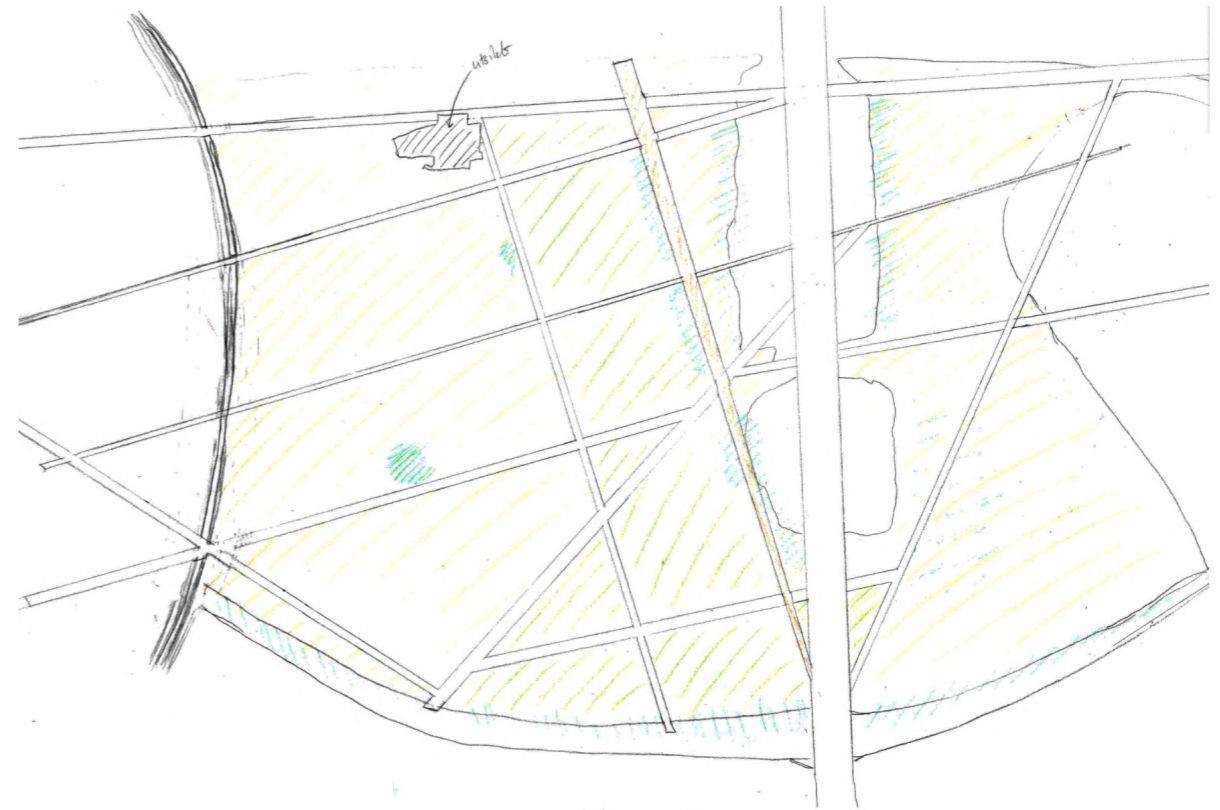


Figure 50: What if Duck Land? Trying to explore how the area could be by deconstructing almost everything and letting nature reclaim the area. Passage for visits would be through broadwalks following the streets.



Figure 51: What if Las Salinas? Trying to explore how a clean slate could affect the place by creating buildings with good light conditions, open and a new grand park.

# Strategic intervention points

Following pages will showcase the interventions closer. Based on the 5 goals presented in the "Mission, goals and strategies" page, these pages will go through how these are achieved, which functions are performed and what is needed for them to succeed.

Main interventions are focused on streets, public places and urban infills, with some key projects that create future possibilities for the area (figure 52). These interventions are suggested proposals based on my perspective of the area, and as such a real-life implementation would also need to be based in the stakeholders and people related to the area's opinions and visions.

One key project is a new, lower Dalbobro on the same spot as earlier. Could potentially be pre-made in parts and installed on the site while traffic is rerouted on Vassbottengatan. This bridge would make transport to the other side easier, make parts of Vassbottenleden redundant and free up space. Through this, potential for new new buildings is established.

The other key project is opening the southern shore which today is blocked by the train. Here a maintained reed area could be established to promote ecosystem services. Access would be provided by floating docks.

Focus on the streets are making them active and walkable with rainwater treatment and green connections alongside. Public space should be possible along the edges and in certain plazas. A connection is opened up between Industri- and Hantverkaregatan to make it easier to move in between the areas.

New public spaces are added focusing on different activities. A raingarden for ecosystem services and water management together with it being a space for leisure that could be used as an outdoor gym and playground. A boule plaza along Vassbottengatan that could bring people together and spaces around the ICA blocks.

Lastly, buildings placed in closed blocks are added to diversify the area, add new people and to define the streets more. These buildings should be around 3-5 floors high, contain a variety of spaces to facilitate varied uses and have an active ground floor.

Figure 52: intervention points on Sanden.  
Background: ortophoto of Sanden (2023-24). Min karta.  
©Lantmäteriet. Edited by author. CC BY 4.0



- New Dalbobro
- Floating buildings
- Boule plaza
- Passages inspired by Viktoria-passagen in Gothenburg
- Green and blue activity passage
- Rain garden
- Reed and jetty landscape
- Point interventions
- Changed streetscape
- Change of land usage
- Larger greenery
- Space freed



# Enacting the process of change

This page showcases how the area can be worked with and changed over time. The method presented is based on the one developed by Reich Åkerlund (2024), with changes made to make the continuous and simultaneous aspects of change more visible.

This method promotes a step-by-step process which allows for current stakeholders to remain. Through this the possibility of it remaining an alive space in Vänersborg is continued. Diverse industrial areas can often perform a maintenance function for city areas (Olshammar, 2019), and as such have an important role in the resilience of the area. Furthermore, smaller processes could potentially allow for different actors to engage in the transformation.

Current contamination accumulated during the years from industrial activity prevents uses such as housing (Vänersborgs kommun, 2022a). To lower risks associated with prolonged stay in the area and allow for lessening the number of paved areas, soil remediation opens possibilities of other land uses.

Remediation techniques can be harsh on the environment, moving large amounts of soil and leaving industrial areas unusable (SLU, 2025). However, natural based processes such as phytoremediation have been provided as a solution. Phytoremediation can be thought of as a collection of remediation techniques based on natural processes, such as utilizing plants that take up the toxins. Purifying using these methods can become an event, with examples of services being visually stimulating environments and potential resources in the plants themselves.

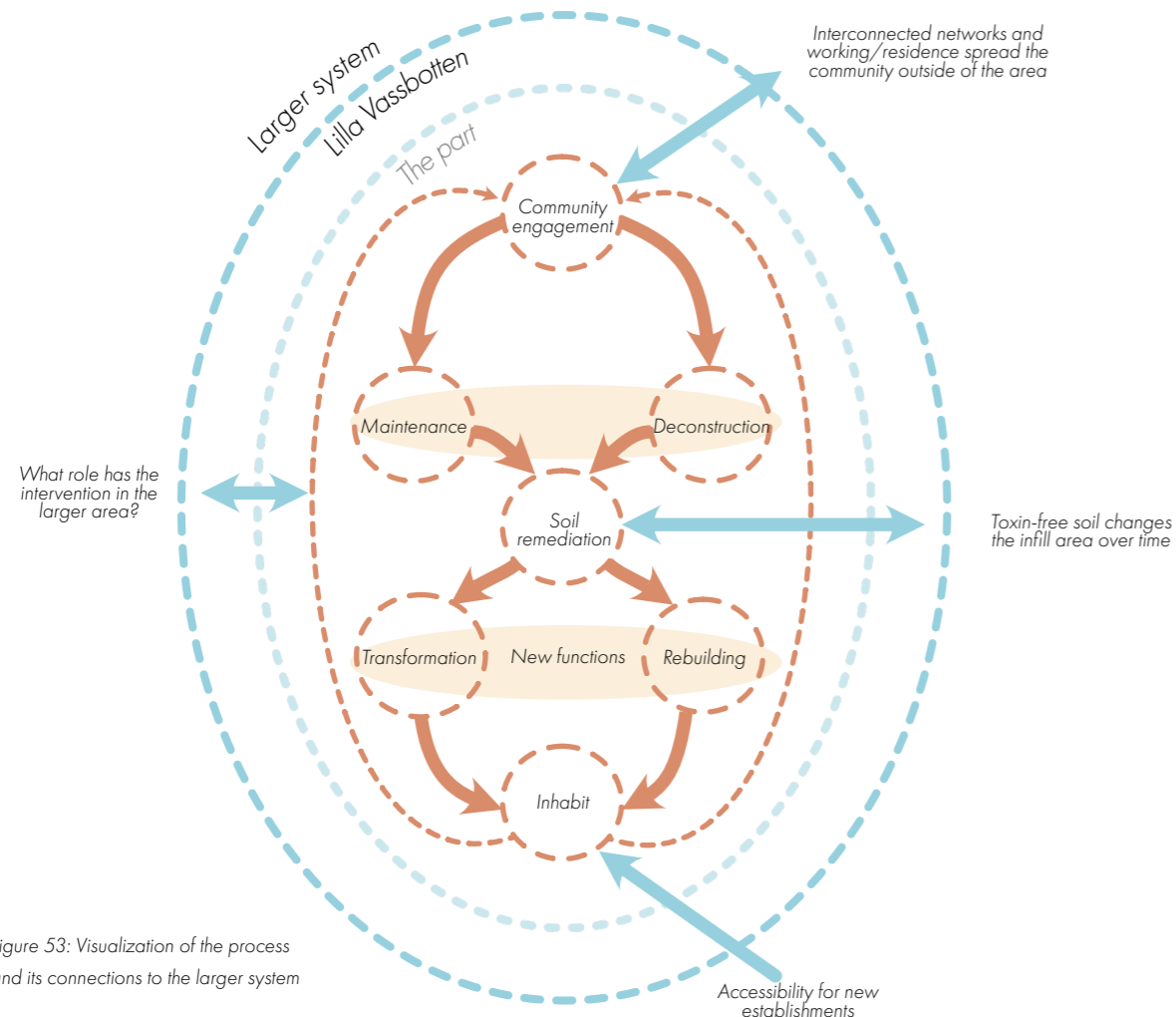
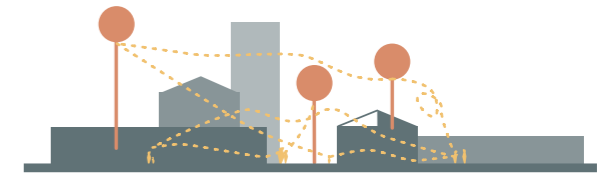


Figure 53: Visualization of the process and its connections to the larger system

## 1 - Community engagement

Establishing vocation and story of place through involving stakeholders. Find suitable intervention points. Life in the area continues as normal.



## 2 - Maintenance or deconstruction

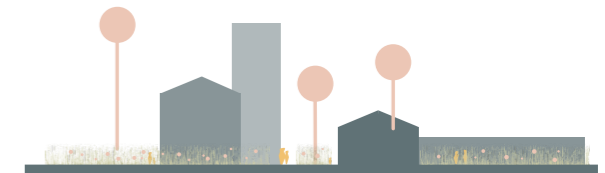
Begin a process of change. In certain cases, demolition is necessary, otherwise maintain as much as possible.



## 3 - Strategic soil remediation process

Soil remediation of the area, favour methods based in natural processes such as phytoremediation to lessen disturbances.

During this time, engage people in the process and motivate them to take own initiatives.



## 4 - New functions

Adapting current buildings or establishing new ones. Involves both finding new actors to the area and changing the spatial form. Can be both small and large interventions with one example being opening bottom floors in current industrial buildings.



## 5 - Inhabit

The changes find their place in the area and is fully integrated in the network. New changes, both to old and new developments can occur which reverts the process back to step 1.



Figure 54: Stages of the developmental process

# Integrating functional ecosystems

Currently, the site has few connective green areas with high quality ecosystems services. These mainly exist along the old Vassbottengata and the grand jetés in the shape of avenues. In between these are some trees and lawns.

## Biotores

Increasing biodiversity and through greenery creating nicer microclimate is favourable both for humans and other species (Sim, 2022). These qualities can be improved by densifying with the three selected biotores (p. 38).

Through adding more avenues along the streets, the groundwork of green corridors is being built as young trees need time to mature to have the most effect. Adding avenues also have the positive effects of rainwater management, shade and a beautiful streetscape.

Instead of grass lawn, less intensely maintained areas such as meadows filled with native plants are added to increase biodiversity.

Underneath Dalbobron reeded areas are currently found. As reed is good for biodiversity while managed, a new reed wetland area along the southern shore can be created with an artificial "blue line" where fish and birds can be. This area can be accessible for humans to promote eco-literacy and provide nice sunsets. This reed wetland can also be implemented underneath Dalbobron where currently reed is residing.

## Connecting the sides

As Sanden before the dredging of the Hamnkanal was a quite low place suitable to wade over, it could potentially be interesting to reinstate the connection for larger animals between Blåsut and Vänernborg that probably was lost. This could be done through the pedestrian bridge by the train, and then afterwards creating an ecological corridor which would prevent accidents while making crossing possible.

## Contamination & water

As contamination is a feature of the area, the ecosystem found would have to change throughout the developmental process. Phytoremediation plants would go in first to make the soil free from contaminants, and afterwards other plants would be added that have qualities related to for example rainwater management, edibility, beauty and biodiversity. The rainwater park could be such a space where this transition could be exemplified.

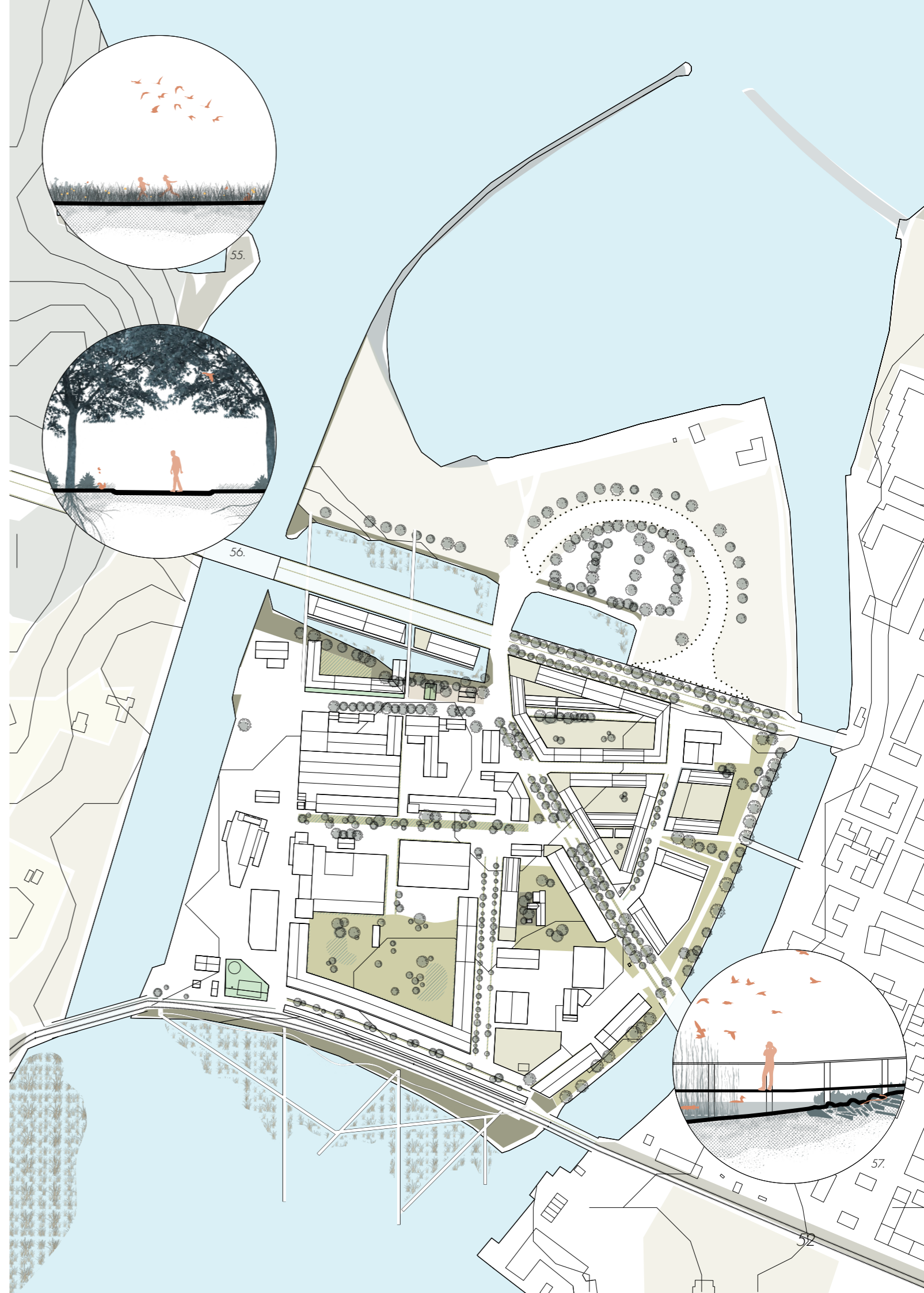
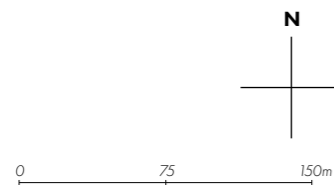
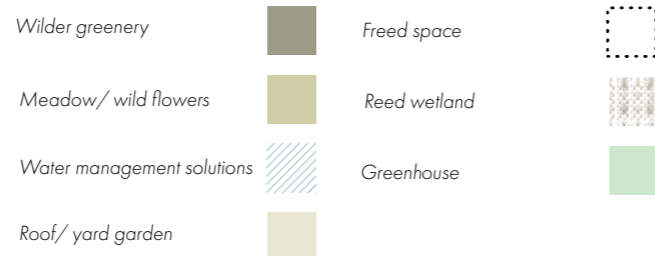
Furthermore, from an ecological perspective, making the area adaptable to fluctuating water levels would be beneficial for the ecosystem. As Vänern currently fluctuates less than before, a greater variety would reduce many of the changes in Vänerns natural landscape currently found, such as overgrown beaches. That is also why arranging reed wetlands are suitable for the area, as these biotores unchecked often take over areas.

## Different interests

As humans and the multitude of other species do not have the same needs in many regards, conflict between these needs are inevitable. Some conflicts that could arise here is a wetland with many mosquitoes close by, and animal safety from both road and water traffic. However, healthy spaces for humans can often be favourable for other species as well, such as parks. Design is in that regard finding weighing different interests. Finding symbiotic relationships in between is therefore important. One example could be the presence of avenues which are enjoyed by both humans and others.

Figures 55, 56 & 57: Biotores strenghtened on the site. Top to down, meadow, avenue and reed wetland.

Figure 58: Map showcasing vegetation and biotores of the proposal



# Creating resilience for the future

As this area is in a vulnerable spot, some precautions are taken to ensure its and the people residing within its resilience towards different changes or events.

## Circular economy

To begin with, meeting spaces and active ground floors are integrated in the site to promote a local and circular economy. By combining new and old buildings, different needs and levels of income can access the site which increases the adaptability and possibilities in the area for diverse uses. As the area in its current shape is defined by one kind of architecture, adding new kinds can make it more resilient over time. However, small buildings with foundations should be protected as they are harder to build cheaply. Therefore, maintenance of these opens more possibilities.

Furthermore, implementing a circular economy could create cooperation between stakeholders and greater management of resources. By interconnecting stakeholders social cohesion and trust could be built. Second hands are one part of this equation. Another aspect could be establishing industrial symbiosis where circulation of resources between businesses is done (Svenska nätverket för industriell och urban symbios, n.d.). Creating a community for the different stakeholders involved in businesses or volunteering in the area could be a way to promote collaboration between actors.

Finding new resources could also strengthen a local circular economy. However, the site does not contain many natural resources other than the water surrounding it. Creating resources such as reed could be an alternative. Reed can for example be used as soil fertilizer, building material and in the creation of products.

Edible greenery in the current soil could be a source of contamination and should as such be implemented with caution until the soil has been remediated. Roof gardens could also be utilized to increased greenery and food options.

As for energy, current buildings have already many solar power cells. More could be installed on new buildings with good access to sun.

## Water

As the area is situated in a vulnerable spot, protecting against water is necessary. This can be done through the increased water management system, but also by securing the ground floors while also keeping them accessible and active. Industrial buildings often have easily accessible ground floors with flat ground, meaning that these can be adapted to new uses. It also leaves them vulnerable to rising water height.

Foundations could be adapted to flooding and changing water levels. For example, placing building such as the ones proposed along Dalbobron, could make them more resilient. These solutions would potentially need a bit more coordination than only floodproofing the ground floor.

Making newly built houses keep a certain distance from the shoreline could also manage flooding damages, as it would take longer for the water to reach damaging levels. An alternative if one needs to build close by could be to adapt the foundations to fluctuating water levels. However, functions which are important for society such as hospitals should be avoided in this area. Instead, greenery could be added to create public spaces.

In the proposed detailed plan by Vänersborg municipality, the streets of part of the area, mainly in the block structures, would have to be elevated. This could potentially be implemented in added blocks. However, large scale implementation of elevated roads is not a suggestion this project uses. Instead, a boat for the emergency service could potentially be bought. However, Dalbobron would be elevated over the maximum projected water level to secure fast transportation between Vänersborg and Dalsland.

Having different water management systems would not only make the area more resilient in the face of flooding or rainwater, but it could also contribute to water security of Vänersborg. As water scarcity is becoming a larger issue, purifying and storing water through different system could work to address the problem.

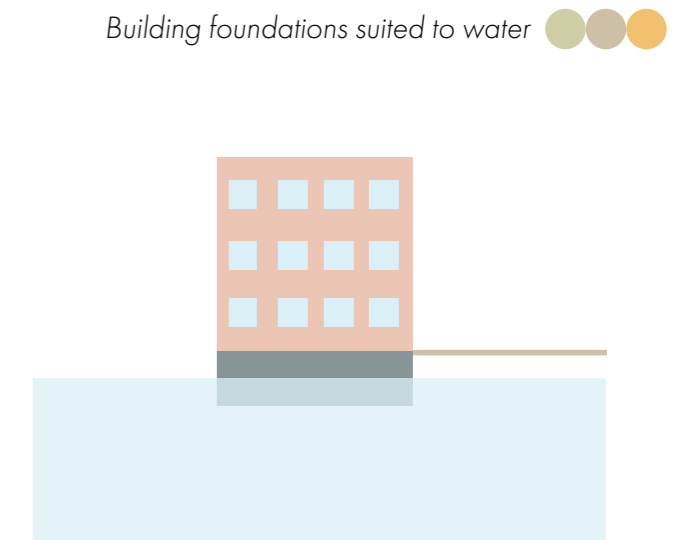
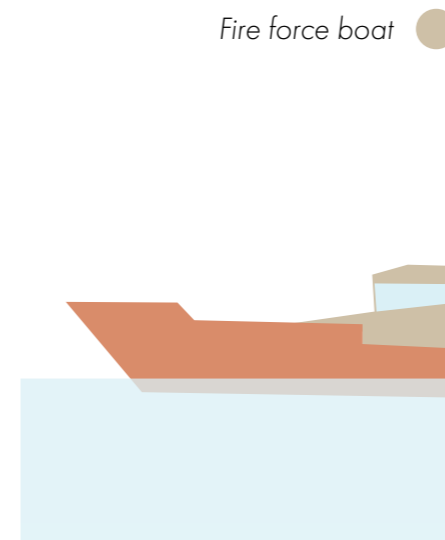
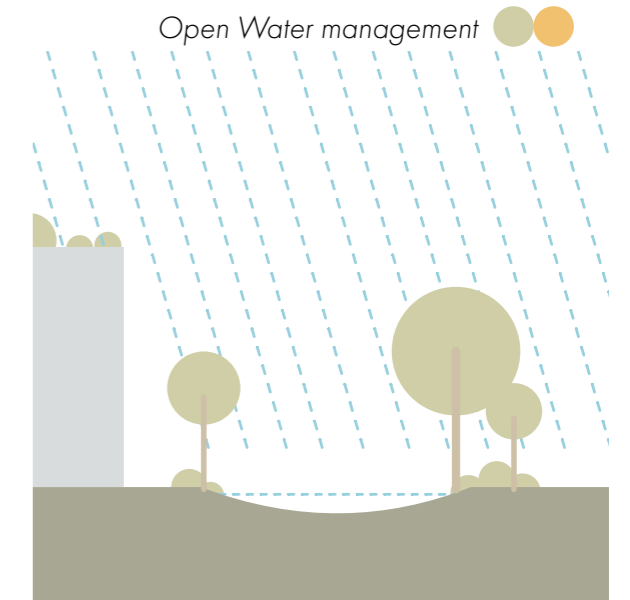
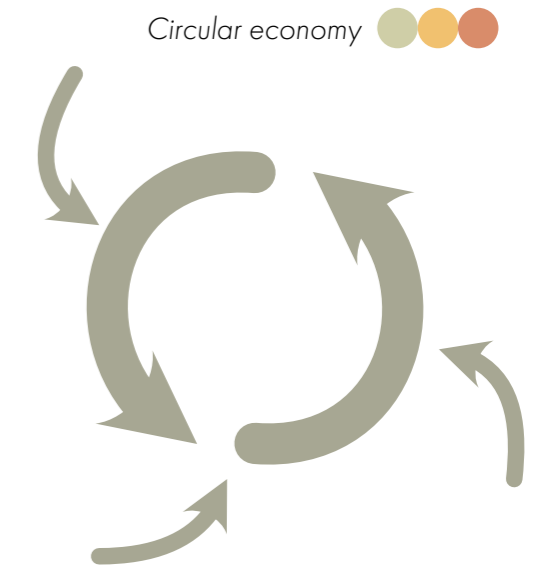


Figure 59: Collection of diagrams of strategies to implement and how they also support other goals.

# Create accessible meeting places

Working from the street network proposal created by Vänersborg municipality, this project relies on the addition of two new bridges which would connect Sanden more with Vänersborg. These create potential for more exchanges and flows between these areas, and between Blåsut and Vänersborg. As one currently must go by Dalbobron, it can be hard as a pedestrian or bicyclist to access Vänersborg.

## Inviting new people

New groups of users can be added by making a playground in the area and making more housing which would diversify the people present in the area. Furthermore, different social institutions that already are present could be worked with to increase the accessibility of the place for other social groups.

As newly built environments also can act as a barrier for users it is important that there are some public spaces attractive for the entire city in the area. This could be where the rain garden playground really shines as a meeting place, and the reed wetland as an accessible area by the train station. Adding a small activity plaza along Vassbottengatan would showcase more of the history of the area, while being a place where different businesses also could have outdoor areas.

These are only the big public spaces, as streets themselves are also important to welcome people. Through active ground floors and larger pedestrian lanes the different actors can take the street and create engaging fronts for their activities. Furthermore, it can be a space for the municipality to have seating and greenery for enjoyable walking tours.

## Streets

Pedestrian friendliness is one strategy for a more active and softer city (Sim, 2022). New connections which are implemented by this project is the reopening of a pedestrian path between Industrigatan and Hantverkargatan. This would make it easier to access the interior of the industrial area while also opening for a rainwater path to the rain garden.

Through the lowering of Dalbobron pedestrian and bike traffic would have an easier time moving between sides of Vänern. Furthermore, creating facades along the street would make it a more inviting space than it currently is.

Street spaces are changed to make them more walkable. The currently paved and flat ground facilitates accessibility for different users. Wide streets can fit many different functions, such as green corridors, lanes for different kinds of transport or events. Street parking is also possible in certain spots, but is decreased from the current level. With a new parking house, parking can instead be done in there.

With the wide streets found in the area decreasing their size through establishing new street lines is used. However, maintaining space for passing through the area by truck is important to make the area functional. This is done through having common spaces for vehicles and pedestrians in the main parts of the industrial area. This prioritises pedestrian and bike movement as cars and trucks have to adopt to that speed. To the train station, along Vassbottenleden and into the previous ICA-building there exist separated lanes for cars.

Other cornerstones are increasing active ground floors along the facades, adding greenery and decreasing speeds along the road. Active ground floors create activities and visual interest along the streets. Greenery can be added through combined water management solutions, avenues and parking spaces.

In the blocks themselves smaller streets combined with elevated inner yards can create more intimate areas contrasting with the wider streets of the industrial ground.

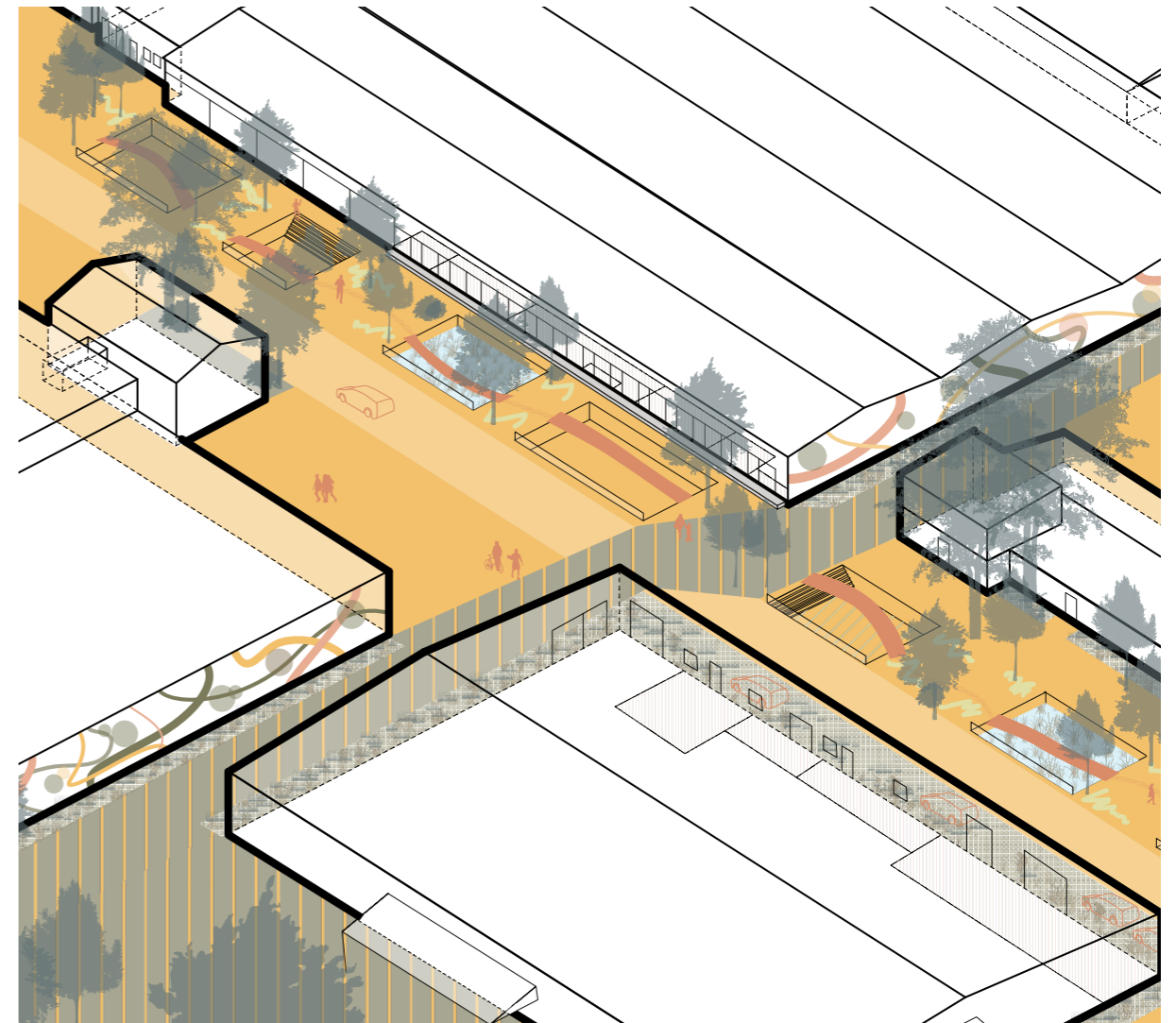


Figure 60: Drawing showcasing street life, public places and connections.

■ Bike and pedestrian street  
■ Combined street  
■ Hanging around area  
■ Managed greenspace

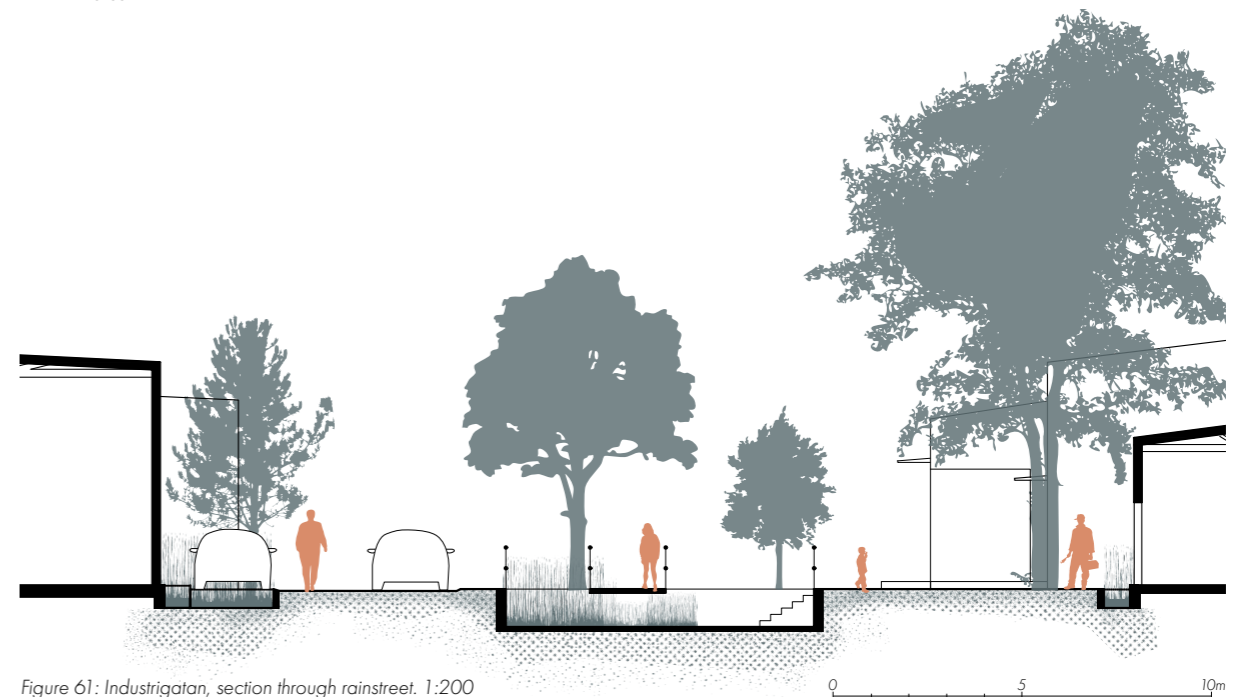


Figure 61: Industrigatan, section through rainstreet. 1:200

# Integrating urbanity among industry

This page is about how to make the area "softer" according to Soft city (Sim, 2021). Focus of this specific page will be on mixed use areas and buildings, flexibility over time and human scale. This would create a multi-dimensional densification of the site, breaking up the single-use area into more layers.

## Present buildings

The current built environment already contains a mixed blend of buildings, with different ages, heights and footprints. As such, many different uses have the possibility to inhabit them.

The simple "industrial shed" structure is flexible over time. They have large interior spaces with flexible plans. Through adding smaller locales along the street, which combines both large interior spaces and active ground floors, new users can be added. Sim (2022) states that even shallow spaces can create activity. Windows on the walls or in the roof can also be added to these closed volumes to increase the usability, or even a second floor in some instances.

Including a human scale is important to make an area that people want to be in (Sim, 2022). Breaking up homogenous facades through openings, active ground floors or decoration could be strategies to take care of this.

Abandoned or uncared for plots strengthen a narrative of decay and need for intervention. However, maintained and lived in buildings continue the narrative of an active place with potential.

## Additional buildings

Strategic densification is important. Examples are places along roads like Vassbottenleden, Dalbobotron or nodes such as the railway. These places have larger amounts of people passing by and through that higher chance of success. Additionally, these spaces currently have a lot of open areas which can be repurposed.

Prioritize keeping the building volumes thinner to contrast currently available buildings in the area. To not overpower the industrial buildings

or build higher than the silo, maintain a height of around 3 - 5 floors. This height is also good for the human scale and mixed layers between floors (Sim, 2022). Adding active ground floors is part of these layers, either through different workshops, offices or stores which could live up the area. Rooftop layers are also useful.

Create small plots rather than large to enable smaller developers or building communities to enter the area. Spatially, this creates diverse exteriors, spaces and a human scale (Sim, 2022). It can also open for other groups of people rather than only for socio-economically well-off people or large developers. Building communities can also establish relationships to the area and fosters more interaction between inhabitants (Boverket, 2025).

Avoid housing on the ground floor due to the flooding risk. For areas with exclusively newly added closed blocks, parking can be added underneath an elevated inner courtyard. Use the different floors and create multi-layered buildings with many activities.

## Public places

Creating different kinds of outdoor spaces is one part of the soft city concept. Currently the area has few attractive public spaces and many fenced in areas. Making these large amounts of open land accessible through the removal of fences and increased permeability between buildings is a potential for public space. With closeness to different workshops, places for production and the new transportation node, experimental and temporary activities could be situated here.

Furthermore, new public spaces would add a reason to stay out on the streets and connect the area to the surrounding context. Additional residents would make the area their immediate surrounding, opening for more activity and visual interest. Public spaces should as such have many different functions to be space efficient and attract many people. A promenade following the water and greenery could be one example, with health benefits, enjoyment of nature and meeting possibilities along it.

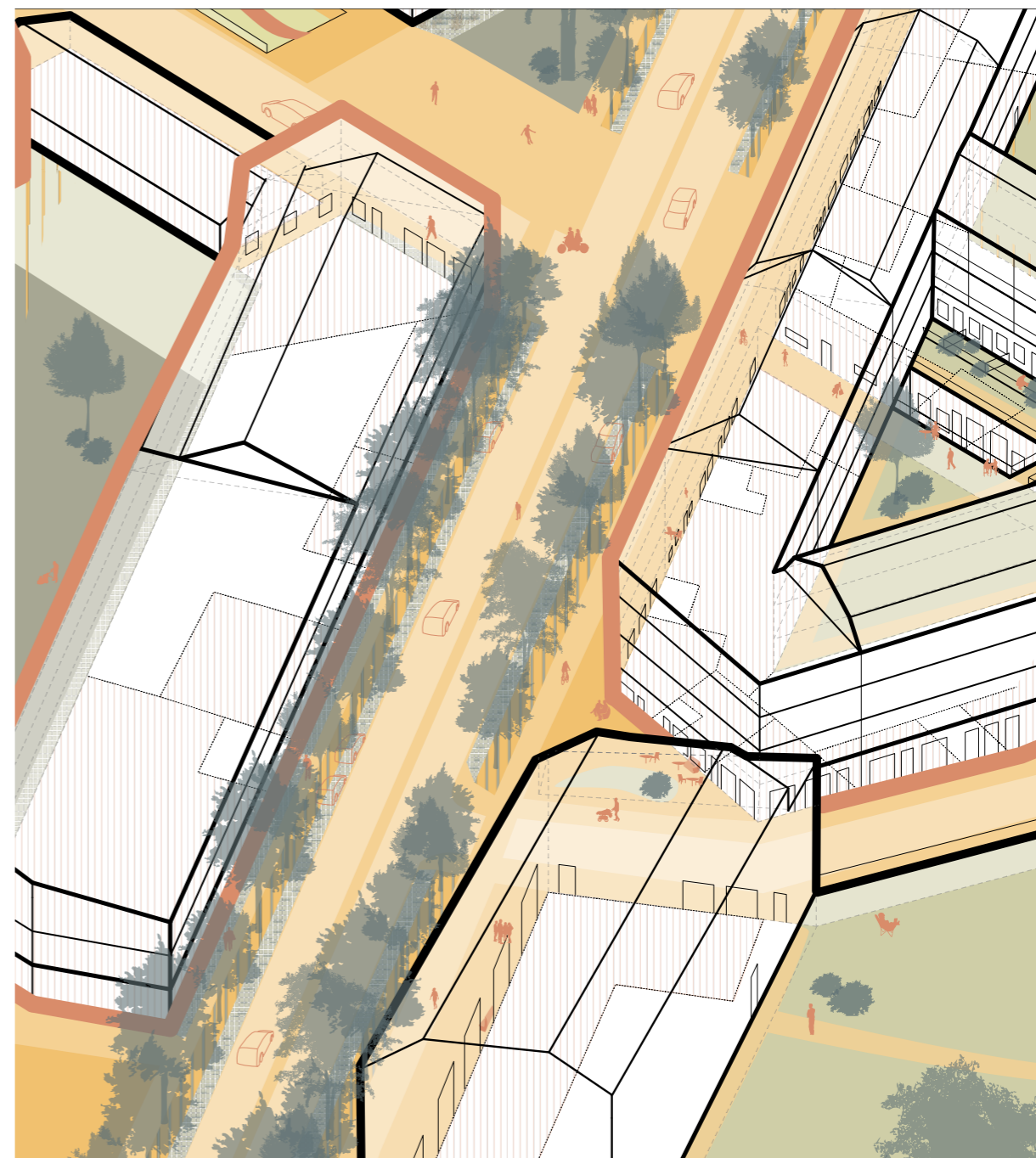


Figure 62: Drawing showcasing densification of Vassbottenleden. Examples of varying rentable spaces along the ground floor marked with stripes.

- Car street
- Bike and pedestrian street
- Combined street
- Hanging around area
- Managed greenspace
- Private yard greenery
- Private
- Rainwater management
- Rentable space



Figure 63: Diagram showing strategies for places and present/ added buildings.

# Lilla Vassbotten present and future

## Lilla Vassbotten now

Currently an area without much public life, spontaneous visits are few. Homogenous facades hide interior activities; streets mainly promote car use and public places are few.

## Lilla Vassbotten future

Lilla Vassbotten has tapped into its potential of being a natural meeting spot. Walkable streets make the area accessible for more users, while active ground floors on new and current buildings create a human scale to the area. Added residential and office spaces densify the

area allowing for more activity. Public spaces such as the reed wetland and boule plaza provide opportunities to interact. Additional greenery and rainwater management solutions create ecosystem services and increases resilience.

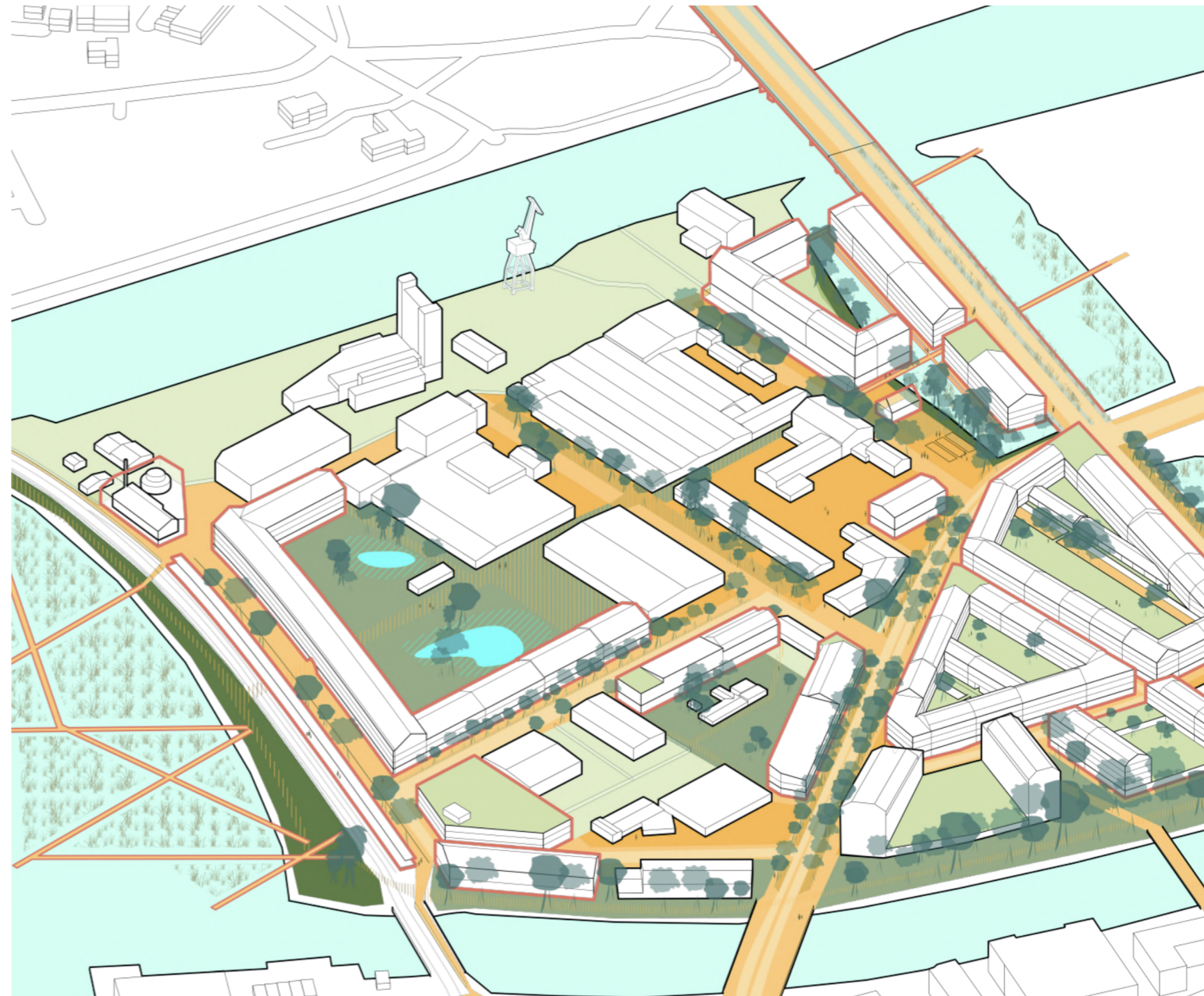
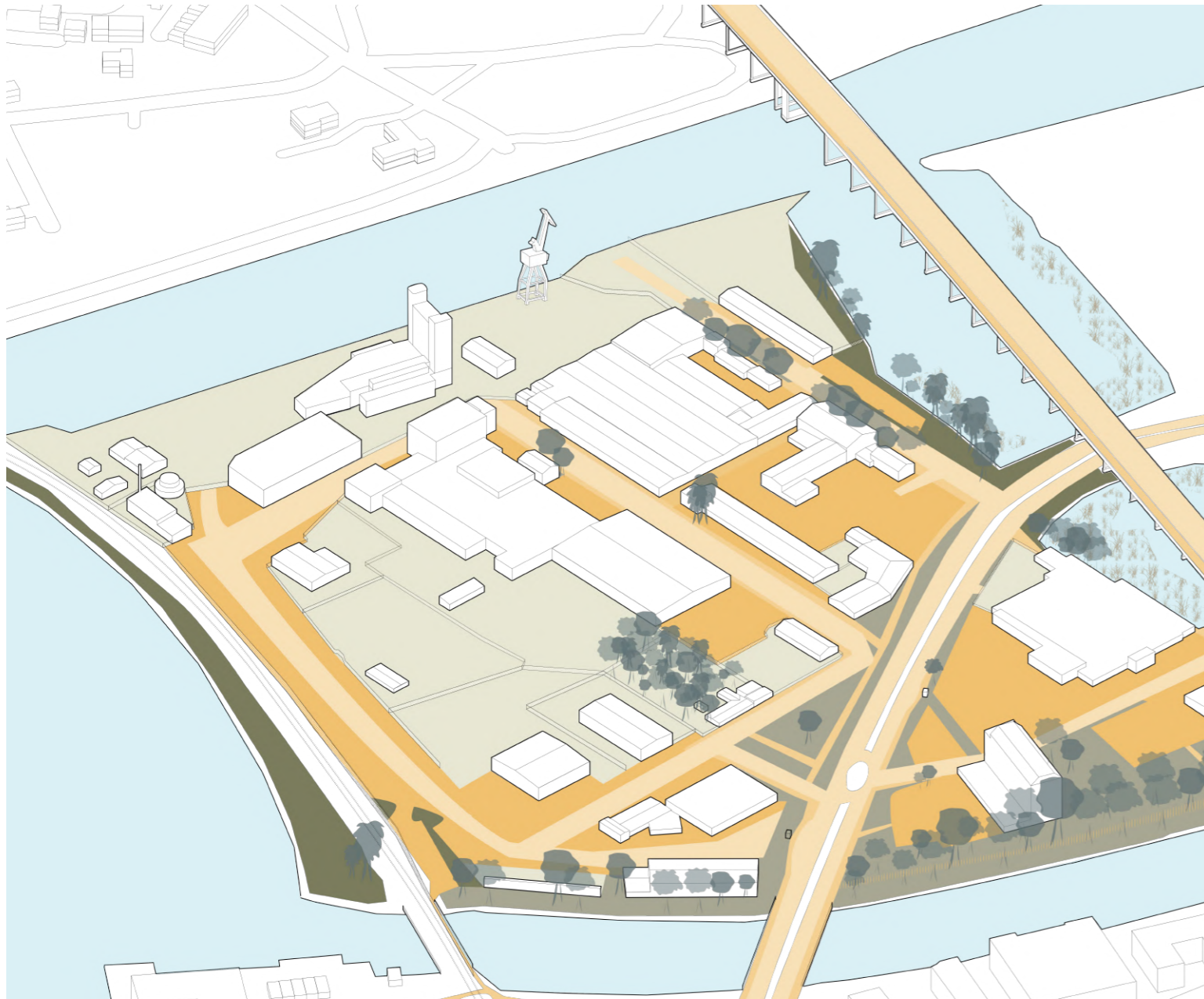


Figure 64: Isometric view of current area.

Figure 65: Isometric view of proposal.



## Example of street spaces

This page showcases one of the new areas more in detail. The places in focus are Vassbottengatan and the new Dalbobron.

### Vassbottengatan

Focus on the Vassbottengatan was to maximise the number of new qualities together with the existing qualities. Some of the existing qualities are smaller buildings with interesting facades, the remnants of the previous road into Vänersborg with its avenue and closeness to the water.

Car traffic is relocated on the current "parking/refuge" area that exist in between the buildings and Vassbottengatan itself, while Vassbottengatan is made into an activity street with its strategical placement close to the water and in a sunny position. Closest to the road over the current parking spot a place with gravel is created for boules or other activities. Being close to current second hands and stores can also aid this and give life to the area. The existing axis into central Vänersborg increases in importance with the establishment of a mixed-use quarter with a Victoriapassage-inspired street in the middle.

### New Dalbobron

Dalbobron is lowered and connects with the street network in this area. On the bridge an "avenue" of reed or grass can be created for rainwater collection and establishment of a smaller green corridor. Along the road, floating buildings connecting to the sides by small boardwalks could be placed. Due to the potential noise, these buildings could be suited for offices or other workshops. On the rooftop a nice view of Vänersborg would be established. Where they meet the water boardwalks connecting the buildings and the surroundings are established, creating meeting points and different layers along the water.



Figure 66: Vassbottengatan with new functions and boules square. 1:400

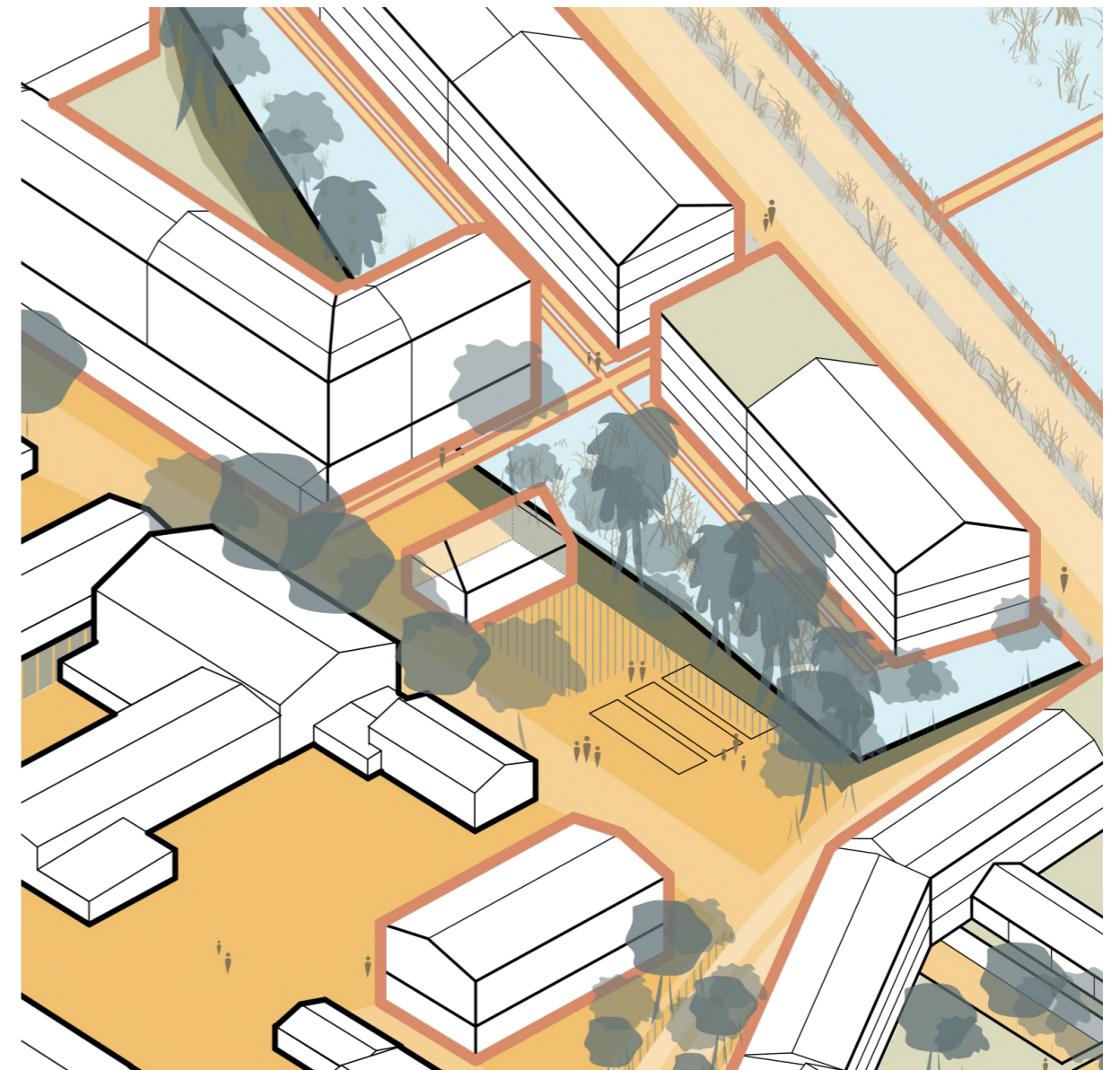


Figure 67: Boule corner and Dalbobron intervention. Showcasing street life and how they are changed.

Car street  
Bike and pedestrian street  
Combined street  
Hanging around area  
Managed greenspace  
Private yard greenery

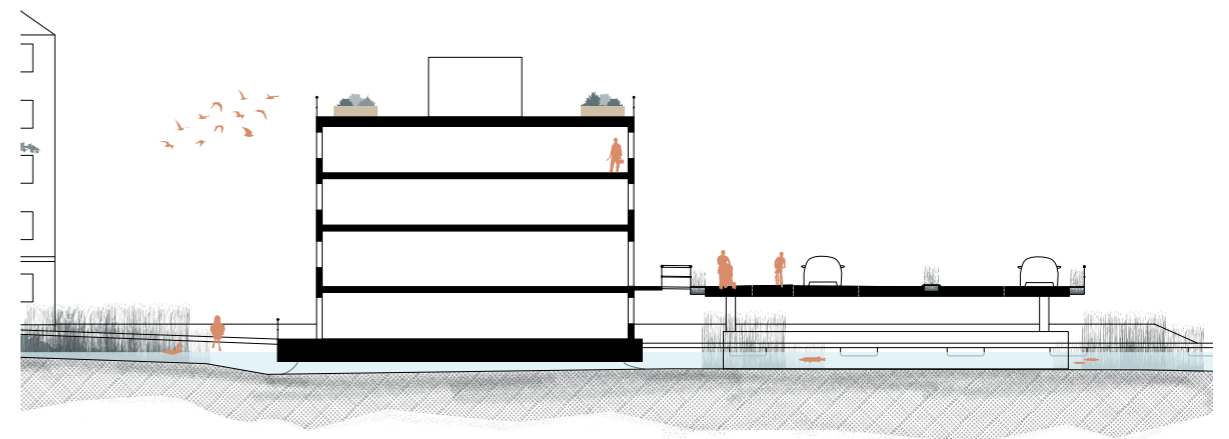


Figure 68: Lowered Dalbobron with buildings alongside. 1:400

Co - evolution

Phase

Figure 69: *Utsikt från Dalbobergen även Dalbobron och södra delen av Vänersborg. (1895). Public domain.*

## Empowering local actors

This page showcases how different strategies are connected to creating an empowering, regenerative area for the stakeholders. In the goal matrix (figure 49) three different sets of strategies were outlined. Synergies between stakeholders are in focus, as accessibility has been touched upon in previous chapters and participatory processes in the upcoming pages.

### Synergies through community

When establishing the different goals for regenerating the area, finding goals with strategies that support multiple different functions connects people and places (Mang, Haggard & Regenesis, 2016). Through these new ties, collaboration can be formed which has potential to shape networks of people across borders, even with the larger Västra Götaland area. Networks which together can work for change, resilience and in the interests of the individual and the group. Establishing circular economy practices is one strategy which can be utilized for this.

One example of a synergetic function established through this proposal is the rain garden. This place is an ecologically important area with water management properties, but also a meeting place and playground. Furthermore, by bringing in people to the area, it expands the customer base and spreads the words further. It integrates its activities into the larger context.

### Plots and building communities

Currently the plots in the area are mainly comprised of a few large plots. When developing the site, a division into smaller parcels is favourable to make development more accessible for many different actors. Another path is to promote building communities to establish themselves. These are groups of people who together build houses and often these buildings become affordable, create varied cityscapes and offer social security (Boverket, 2025). As such, it would promote community among new residents and create a lower economical threshold for people moving in.

### Fostering social cohesion

For a slow change of the area with lower risk of gentrification, fostering social cohesion among current actors is important (Olshammar, 2019). This is one of the possibilities participatory processes and meeting places bring forth, as creating networks and events among stakeholders ties people together. In places with low cohesion, stakeholders can almost feel relieved when gentrification occurs.

One possibility inspired by Ringön is to utilize different events to bring people together. Aqua blå is a popular festival which takes place every year at Sanden. Extending some activities through new connections in between the areas would be a way to invite people who maybe seldom is in the place. Learning from Ringön, having festivals such as this also allows people working in the area to meet other stakeholders which further strengthens social cohesion.

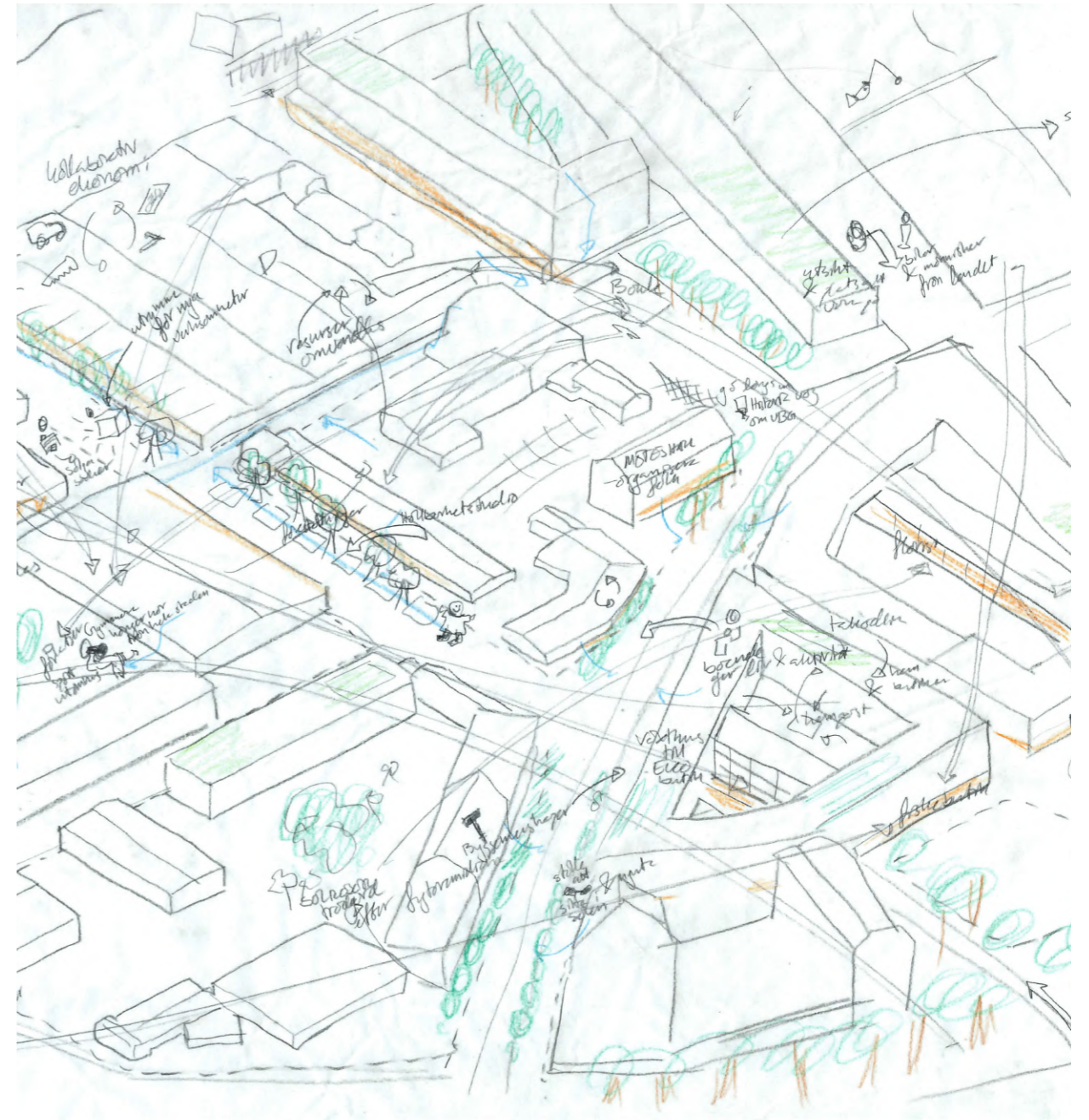


Figure 70: Showcasing the potential life in the area and the connections created between different actors

## Enabling participation

The concept of community is a difficult one in regard to young industrial landscapes, as it has been noted that these places might not be claimed by any community or identity (Rolfsted Mortensen & Braae, 2017). An explanation for the difficulty to create an emotional bond to these sites could be due to the generic nature of YILs and the differentiation between workplace and residence. However, as Lilla Vassbotten is centrally located and a smaller industrial landscape with a diverse array of buildings and activities, there could be demographics which has emotional bonds to the site.

In chapter 1 a stakeholder analysis was carried out, which showcased different stakeholder's relation to access and influence in the area. Accessibility and influence is in the current shape generally low. However, through changes implemented in street and plot structure, active ground floors, more connected biotopes and inclusive participatory developmental processes stakeholders place can be changed. This new stakeholder analysis (figure 71) showcases how it could be based on the motivations and goals of the project.

Many groups have moved more towards the upper right of the diagram. This is due to many reasons, both in method and in the design itself. Through using a participatory, co-evolution process influence and accessibility is strengthened. Furthermore, through design new public places and networks have formed.

Some potential stakeholders to engage are the property and business owners, employees and people with leisure activities. Furthermore, groups such as children are relevant to bring into such discussion as well as they have low influence and accessibility. When producing and distributing resources, it is important to be aware of which groups are benefiting the most (Holgensen, & Baeten, 2016). By participative design accessibility and influence can be strengthened for stakeholders.

To work regeneratively, inclusion and empowerment of different actors is important. In a participatory process non-human actors should also be represented, however, they remain in the low level of influence as they cannot speak for themselves.

## Stakeholder to steward

By having participatory processes in the developmental processes, a common vision of a place's potential can form among the stakeholders and community (Mang & Reed, 2012). This is part of the process when stakeholders stand behind a vocation for the area and work together to form that future. What this allows is for the actors to become a "partner-gardener" (Mang & Reed, 2012, p.19) of the area who feel responsibility for the continued development and health of the place. As such, being included in the continued development of an area opens possibilities of community support, initiatives and responsibility.

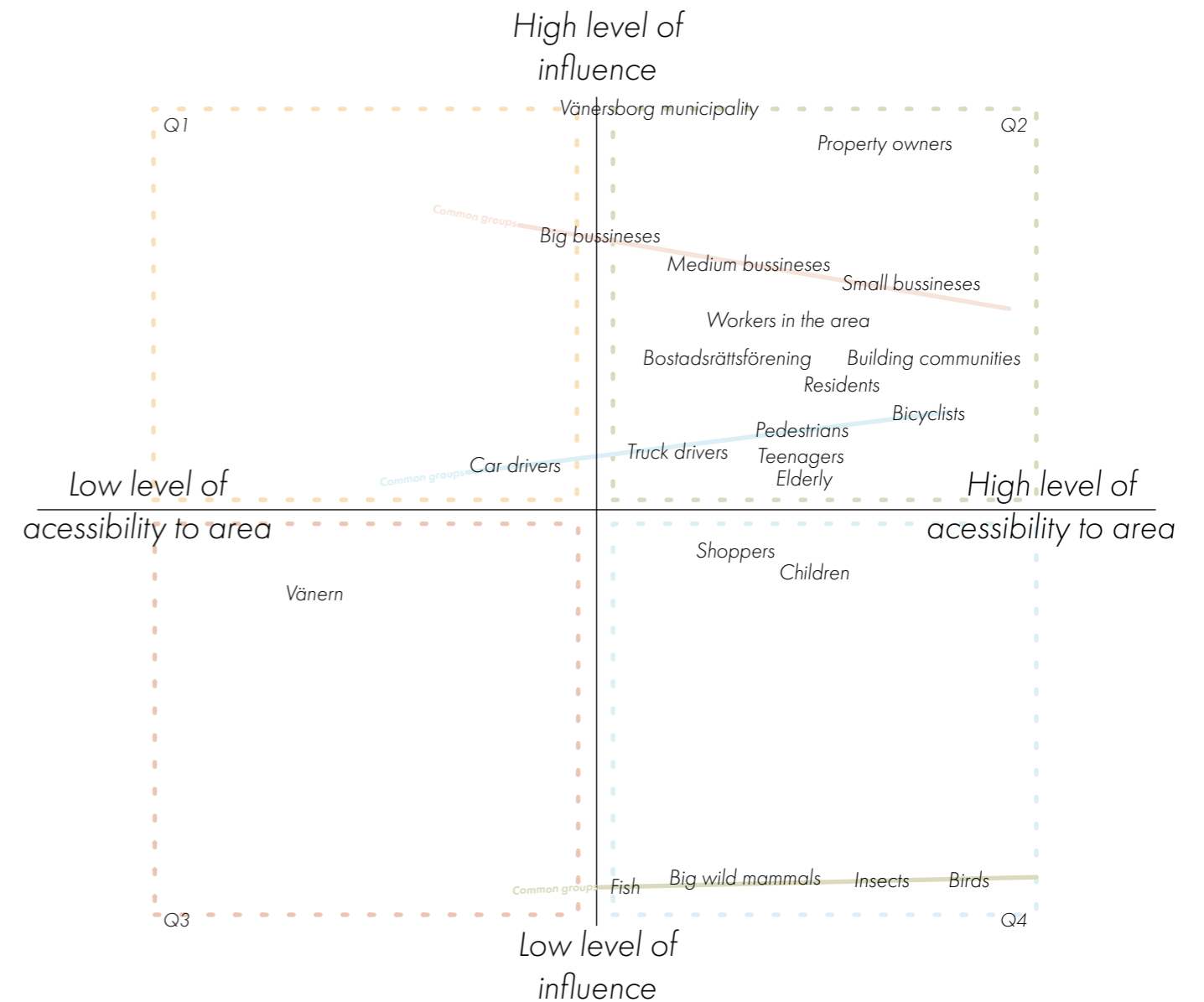


Figure 71: Updated accessibility - influence analysis based on the design proposal. Through allowing people to become participatory agents in developing the area, both influence and accessibility is affected. Parts of the design can also affect the accessibility, such as pedestrian-friendly streets.

# Who's interests?

When transforming places there are always contradictory visions and needs. These pages give some examples of the complexities, conflicts and contradictions that can become present in the area. Working with regenerative development these complexities are always a discussion to be had, however it should be anchored in the vocation and story of place created in the beginning of the process.

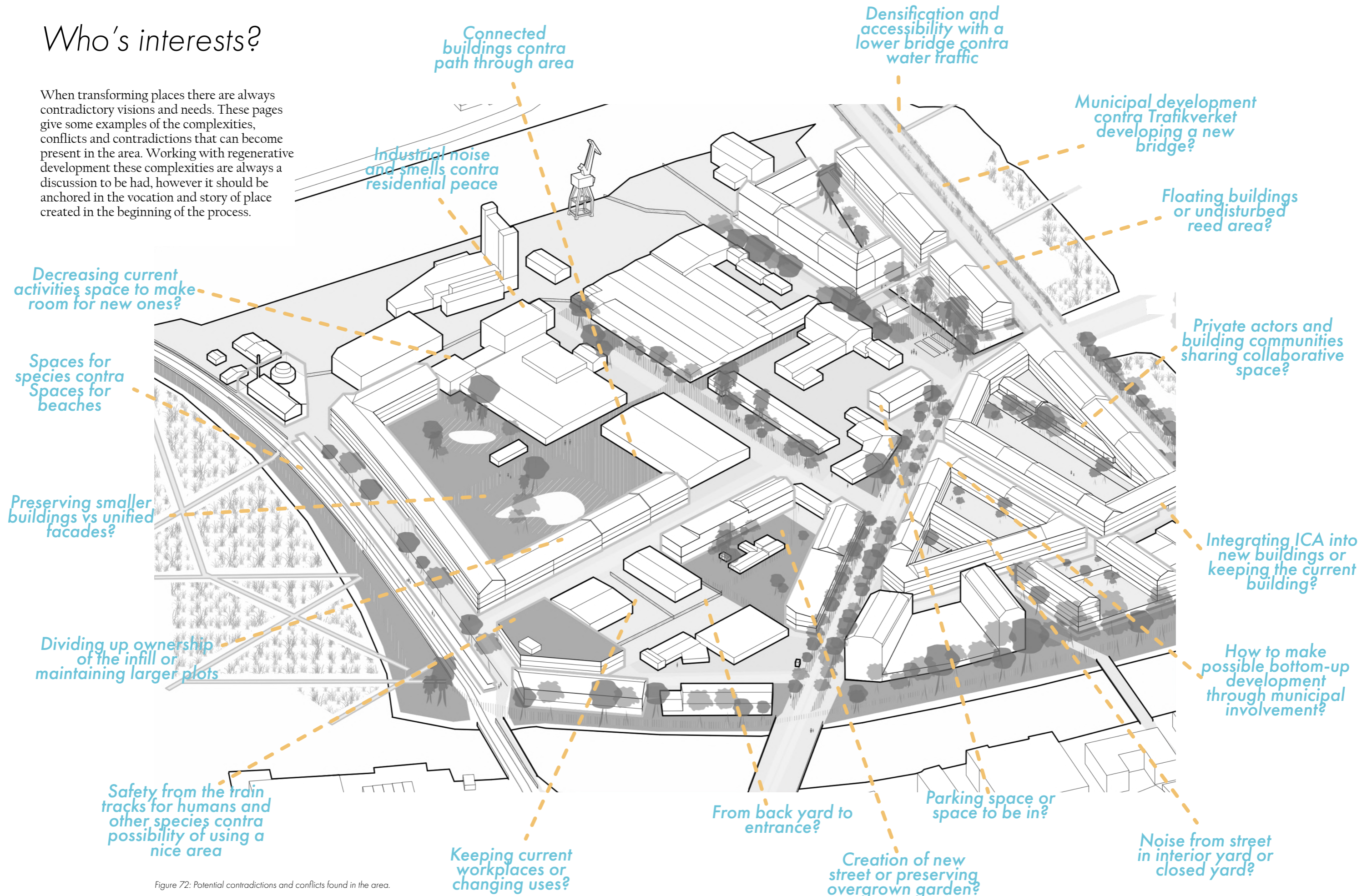


Figure 72: Potential contradictions and conflicts found in the area.

# Enabling future development

This spread go through how the proposal can be divided into phases, narratives and how future developments can be enacted.

## Phases of change

The enactment of this proposal is based on the process of change diagram (figure 54). Figure 73 suggests a potential timeline for the proposal. It showcases when the different changes can be "finished". As such change processes can begin earlier than in their assigned phase.

The first phase mainly showcases the currently planned municipal and governmental infrastructure developments. These change the way people enter the area. Private developers can therefore adapt facades to respond to this. Phase two continues the infrastructural changes and utilizes these to densify. Main actors for buildings are private developers and alternative, cooperative developers.

In phase three previous densification is supported by public spaces and integrated ecosystem services. The municipality is responsible for these. Phase four includes the new Dalbobro and Vassbottenleden, both which create possibilities for densification

along them. In the densification process different developers are included. Phase five continues this development.

## Narratives of change

What the previous text showcases is how regeneration is a continuous process. As such the place and its actors are not static. What form this development takes depends on how the narratives surrounding the space shapes public opinion of a place (Olshammar, 2019).

While speaking with local companies a narrative I found among some is that of the "failed transformation". That the municipality had grand plans which fell through and now the future is uncertain. However, narratives regarding potential were also present. They spoke about a place with a beautiful view, centrally located in Vänersborg which maybe should be something else than industry.

This work has been based on a story of Lilla Vassbotten shaped by my envisioning of the area's potential. It became a proposal that argues that industrial and mixed-use buildings can co-exist with environments more commonly found in inner cities. However, this

is not a fixed product, it supposes an area in motion. An example of how processes of regeneration can be incremental and continuous is the area of the previous harbour, which here is mainly left untouched. Therefore, it can still operate, but future implied change could be that it moves somewhere else with other activities taking its place. Figure 74 showcases examples of activities that could be integrated into the area overall, both currently and in the future.

How a project based on a collaborative envisioning would look like is unknown. However, what is important is to anchor it to the story of place established between the stakeholders, but also to be open for changes. Collaborative networks between different actors are a driving force for the continued path towards a place that acts regeneratively, as that is what can create new ideas and the community necessary to continue imagining.

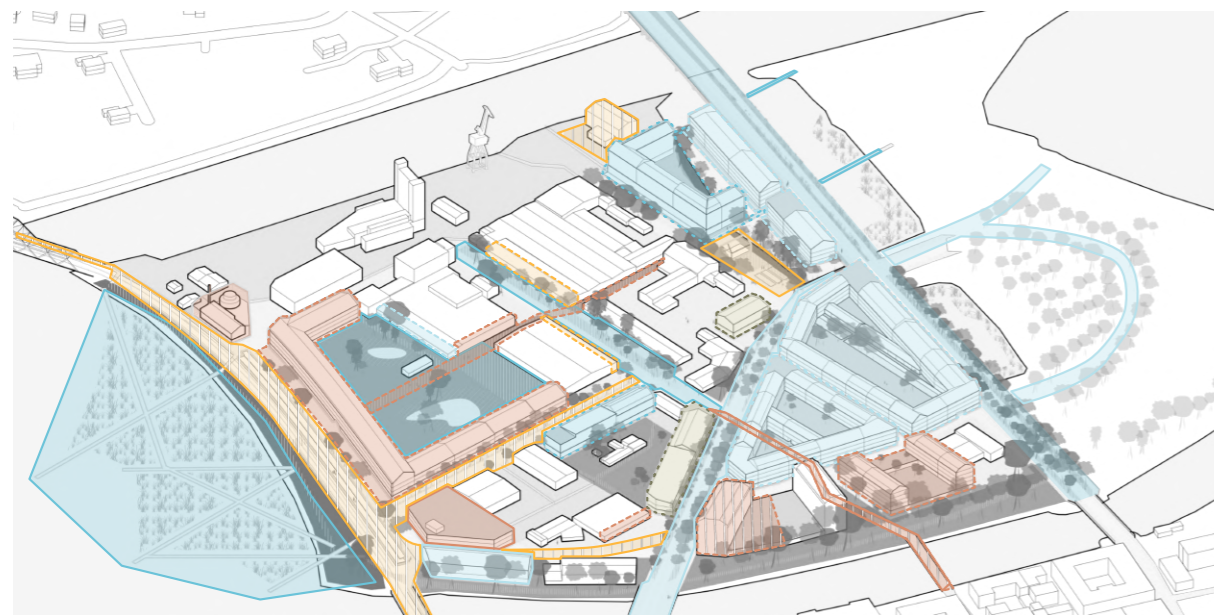


Figure 73: Time line of the proposed changes in the area.



Figure 74: Diagram connecting different activities and functions that could be in the site to the established goals for the proposal. Thereafter superimposed above the proposed spatial changes to the area.

Background: ortophoto of Sanden (2023-24). Min karta. ©Lantmäteriet. Edited by author. CC BY 4.0

# Conclusion

## Response to research questions

*How can regenerative development be utilized to create regenerative areas in young industrial landscapes (YIL)?*

Regeneration of areas is a continuous process which never ends. Working regeneratively includes understanding the patterns and qualities present. Through engaging stakeholders in a transformative process, they envision what the place was, is and can be. This increases their influence and accessibility to the place. As industrial areas often can be different from surrounding context, finding ways of creating networks in between stakeholders is a strategy to strengthen its place, create resilience and community.

In the project of Sanden regeneration was used as an aim defined by five goals: further integration between the city and industry, accessible meeting places, increased influence of stakeholders, supporting functional ecosystems and resilience. Through working with these goals, strategies were outlined which contributed to the final form of the area.

*What potential do young industrial landscapes present for a place-based reuse approach?*

Young industrial landscapes come in many different forms, each with their own specific potential based on site context, story of place and the community's wishes. As such all YILs do not share the same qualities that would be the basis for establishing what potential they have. On the other hand, as generic landscapes, there are commonalities between them. The findings of this thesis are mainly based on the qualities found in Lilla Vassbotten.

Along the streets paved and levelled ground, wide streets and open areas are some qualities found. These showcase the flexibility, ease of physical access and the large spaces present in industrial areas.

The structures of the buildings can be flexible, with a simple construction and deep interior. This can allow for transformation and addition of different functions. As the areas invite unsentimentality, a diverse array of functions and buildings can be integrated into these.

Furthermore, these sites are often close to different transportation infrastructure. Harbour, train and road structure are often present, which situates the places strategically and creates potential for transformation.

However, industrial areas also pose challenges, for example through separation from surrounding context and contamination.

*What developmental strategies should be utilized?*

The proposed development of Sanden creates a multilayered densification, with many different stakeholders and functions together utilizing the same spaces. This breaks off from the current industrial landscape. However, development can be seen from different perspectives. When selecting goals to assure regenerative development, these should be selected together with the stakeholders through co-creative processes. The goals themselves should support each other and target the entire system of the site.

In Sanden the goals established through this method was empowering local stakeholders through participation, accessible public spaces, resilience, functional ecosystems and integrating the industrial buildings among other typologies provide different perspectives and strategies that strengthen each other.

Some examples of strategies that support the goals are adding biotopes and green connections, making different engaging meeting spaces, densifying, reshaping streets and transforming current buildings. A manner of transformation of current and integration of new buildings is the soft city concept. This provides framework to make areas more suited to the human scale.

*How can regenerative development be worked with in young industrial landscapes?*

Working regeneratively is a process of continuous development. Engaging the local community and stakeholders through participatory processes is a way of anchoring the visions of the project on site. Creating or finding a narrative for industrial areas is important as the stories told decides in large part what kind of development people deem as valuable (Olshammar, 2019). For a context in which the area is supposed to remain, creating narratives supporting the site's existence and vitality is crucial.

Even though YIL often lack community a shared sense of responsibility and being listened to can be created if stakeholders together envision what the place is and can be. Through that finding interventions, goals and design can be created. Co-creatively engaging with stakeholders also establishes a continuity for people to continue to work towards after the initial phases even when new stakeholders arrive. These steps are part of the proposed methodology established by Regenesi (Mang & Reed, 2012).

## Challenges encountered

Working on this area has been challenging. In the beginning, the vision of the project was to establish smaller urban interventions tied together. But due to the site being too small of an area for this to have a larger regenerative impact, this idea was abandoned. Furthermore, the site conditions themselves were more difficult than anticipated, which resulted in greater delimitations to make a feasible project.

One of the big questions has been what regenerative development actually mean for the site. What shape does it take and which effects does it have? Whose opinion among clashing narratives of the site is the most important? The literature written about regenerative development and design provides a broad spectrum of projects in different scales and styles, which made it difficult to understand what regenerative development actually should be.

A turning point was the Las Salinas project. It is classified as regenerative even though the project is based on demolition and rebuilding, probably for people with good socio-economic situation. However, what makes it regenerative is how it engages with the local community's wishes, creates accessible public space and re-integrates the ecosystem into its plan. Therefore, regenerative development is defined through combining favourable, local narratives of the site with a positive impact on the environment and a community engaged in the site's continued well-being and development.

However, this created further challenges, as no community participation creation of a story of place was within the scope of the project. Instead inofficial talks with local actors and businesses were conducted to find out how they perceive the area and what their needs are. These conversations were in my mind throughout the process.

## Further development and insights

Throughout this process there has been many insights into how regenerative development function. It can be both a process and a goal, with the project never being finalized. Having open ends is not a bad design, it can also be a possibility for someone else to continue.

A regenerative process is available in many different scales. For this project, the larger scale seemed to have larger capacity of positive effects, but in other cases a smaller scale is more favourable. However, at the same time all scales must be considered, and even small interventions can, through its functions and the effects it has on the people involved, have a regenerative impact.

This thesis is a part of the discussion about Sanden's future. To bring it further one potential future development can be explored

by having real life co-creative workshops with stakeholders to find common goals with the area.

Furthermore, a discussion of how certain industrial needs, such as noise, practically can be combined with a more accessible area for passerbys is also relevant to explore in depth.

This project has been focusing on an alternative future for Lilla Vassbotten and Vänersborg. Building up systems, places and spreading accessibility out to the area. Finding suggestions for where community and co-creative synergies can be established. Hopefully it can be an interesting addition to the future conversation of the area.

Figure 75: A winter day's view over lilla Vassbotten from Dalbobron.



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# Appendix

## 1. Artificial intelligence

No artificial intelligence was used in the creation of this thesis.

## 2. Photographical mapping

Photos of the industrial area taken and put into a matrix with typologies similar to those distinguished by Heesche et. al (2023).



Leveled terrain



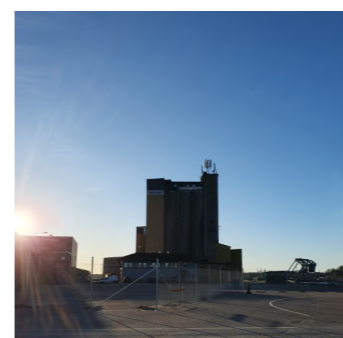
Wide, straight roads



Green & blue areas



(Homogenous) facades



Few tall buildings

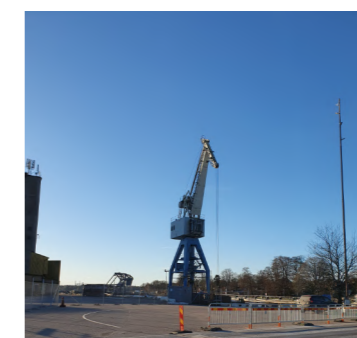


Figure 76: Examples of different qualities present in Lilla Vassbotten.

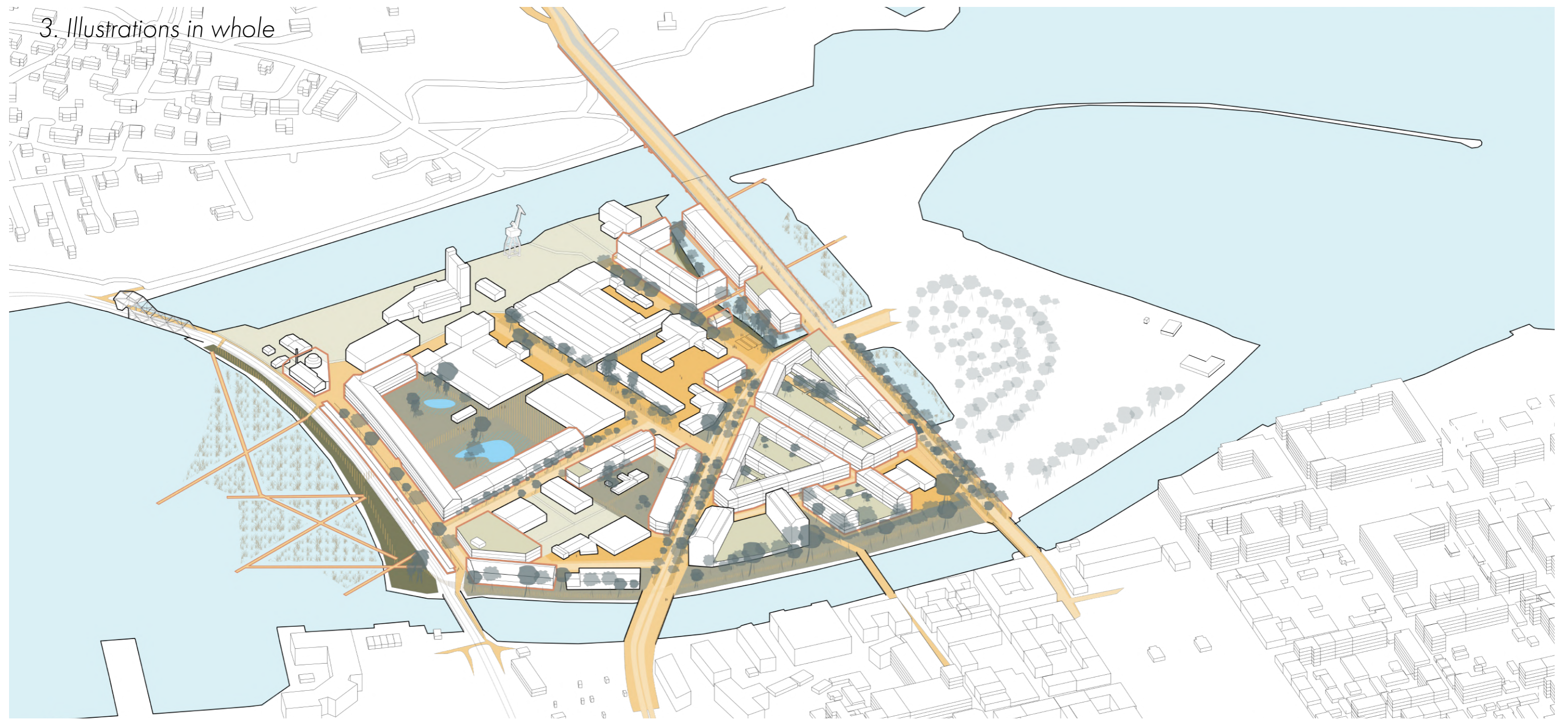


Figure 77: Entire isometric perspective of site



Figure 78: Section of Industrigatan, Vassbottengatan and Dalbbron. 1:400





