HARBORING PUBLIC SPACE

Radicant design for Malmö as a resilient harbor city: the case of Hullkajen

Philip Lang & Tove Skagerlind

Independent project • 30 hp | Swedish University of Agricultural Sciences, SLU
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Credits: 30 hp
Level: A2E
Course title: Independent Project in Landscape Architecture
Course code: EX0852
Programme: Landscape Architecture Master´s Programme
Course coordinating dept: Department of Landscape Architecture, Planning and Management
Place of publication: Alnarp
Year of publication: 2022
Cover picture: Philip Lang & Tove Skagerlind
Keywords: Radicant design, Resilience, Public space, Postindustrial harbor transformation, Alternative urban design method

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ABSTRACT

This work explores an unconventional and extended approach to site-specificity for postindustrial harbor transformation, applied to the design of public space, in order to achieve a more resilient and dynamic coastal city. For the purpose of practical application, a conceptual design proposal for a site in Nyhamnen, Malmö is presented. In light of growing issues of urbanization, city densification, and climate change, the need for reevaluation of conventional methods within city development is a significant matter. Nyhamnen is on the cusp of change, from an industrial harbor to a new urban district, which is outlined in the comprehensive plan. Qualities and features, that are typically disregarded, are brought to light and form the basis of the design concept. The theoretical backbone of this project relies on three overarching concepts: radicant design, resilience, and public space. Through the iterative method of Travelling transect, the chosen site of Hullkajen and its inherent resources is explored. The design proposal is presented in four distinguished phases to illustrate the challenges and possibilities of site transformation in developing harbor space over time. What is highlighted is the ever evolving urban landscape that is contingent on temporal, dynamic, and societal shifts. The reflection accentuates that nothing is constant, but a continuous process, and that this notion should be included in the discourse and praxis of planning and design.

Keywords: *radicant design, resilience, public space, postindustrial harbor transformation, alternative urban design method*



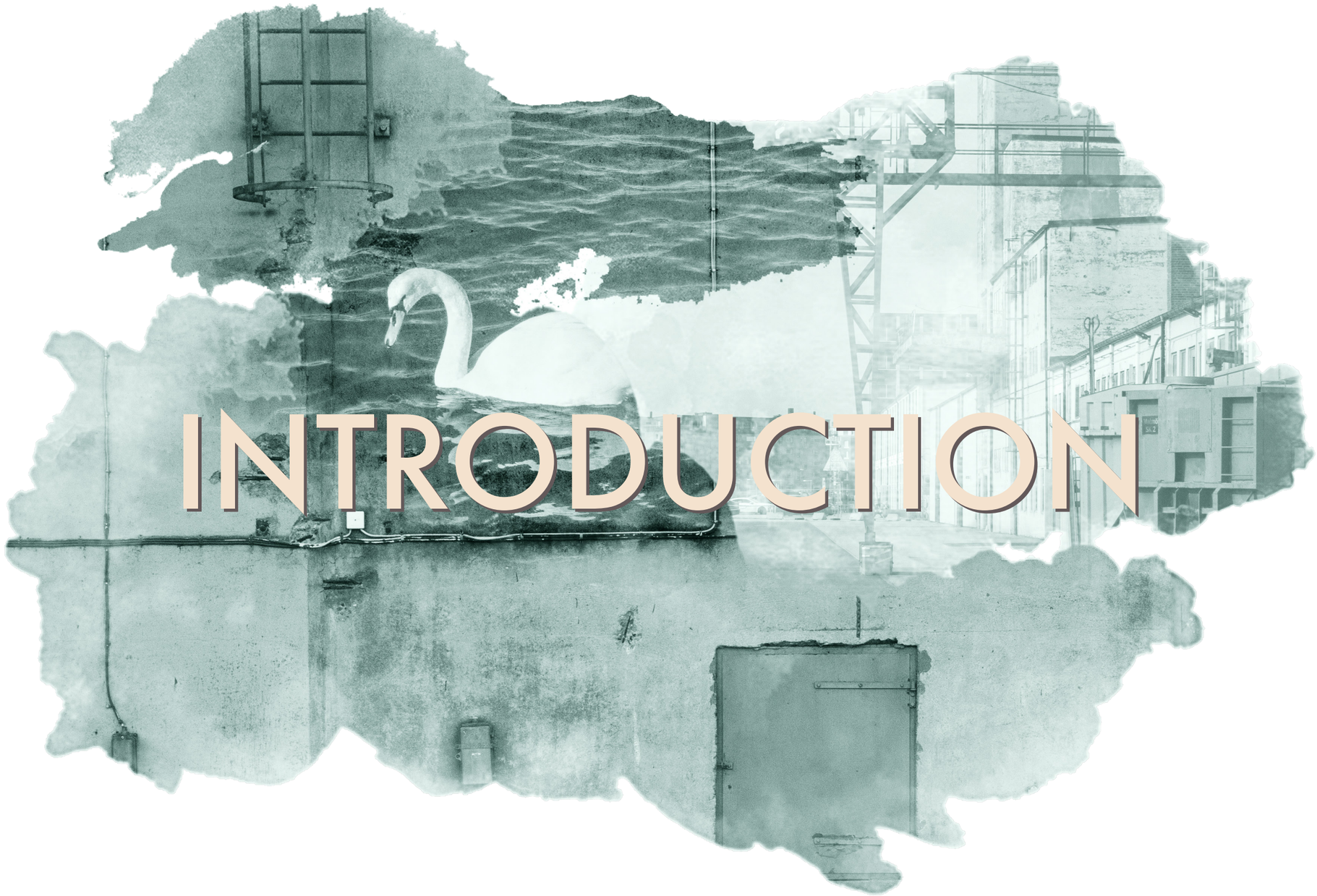
WORDS FROM THE AUTHORS

Our journey working together on this project has definitely been a process of ups and downs. Navigating the events of everyday life while balancing studies has sometimes been challenging, and we therefore thank each other for mutual understanding and patience. We would also like to thank our supervisor, Lisa Diedrich, for many inspiring and insightful discussions as well as her ocean full of ideas.

Thank you to Asterios and Elin at the Malmö City Planning Department for taking your time to let us in on the internal dialogue concerning Nyhamnen.

Finally, we send lots of love and gratitude to family and friends, who have tirelessly supported us along the way.

Philip & Tove



INTRODUCTION

INTRODUCTION

Harbor transformation; a global urban phenomena

Globalization and socio-economic change of today is altering the urban landscape of harbor cities throughout the world. The transition from an industrial to postindustrial economy has resulted in a situation where extensive harbor spaces are becoming derelict or unprofitable as industries shut down or relocate to more cost-effective parts of the globe. Simultaneously, the world is getting more and more urbanized. Currently, over half of the world's population is living in urban areas, and that share is projected to rise to 60 percent by 2030, which implies accelerated densification and development of cities (United Nations [UN], 2015a).

Unsurprisingly, harbor spaces with their favorable waterfront location and industrial character, attracts the attention of city officials, planners and investors. Economic profit and political incentives, such as city branding through new residential and commercial development, have become powerful driving forces behind transformation of these postindustrial harbors. This includes complex conditions and temporalities, and complicated stakeholder constellations (Dahl & Diedrich, 2020). Arguably, the historical importance of such harbor areas as a catalyst for economic and cultural growth of cities is maintained, but radically recast in accordance to market-driven and often large-scale urban development. As a consequence, criticism has been raised towards the fact that transformation of postindustrial sites often result in such radical conversion. Professor of landscape architecture Lisa Diedrich (2021) describes this as a *tabula rasa* approach, which eliminates existing structures in order to create a blank canvas for new construction, and is typically accompanied with generic transformation of the site, including upscale housing and offices, and shopping. Generally, certain industrial features are freeze-framed as a kind of *museumification* of the site, such as keeping a few rusty elements for aesthetic purposes only. Instead, Diedrich along with Ph.D in landscape architecture and urban planner Caroline Dahl (Dahl & Diedrich, 2020) argue for a transdisciplinary approach to postindustrial harbor transformation seen as part of a complex human-environment system. Central to this view is that the landscape architecture perspective is more prominent in the initial stages of planning, and acts as a connective mediator between disciplines. This includes a more site-responsive and process driven perspective using design as an investigative practice; a method wherein change is conducted through transformation of the existing rather than through eradication (tabula rasa) (Diedrich, 2021).

Urbanization and densification imposes another major challenge for growing cities in that it induces the need for more dynamic and functional public space - places that evolve through human activity, over time shaping a complex identity of the site. The challenge of urbanization is highlighted by the UN in Sustainable Development Goal (SDG) 11, where sub goal 11.7 aims to:

"***By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities.***" (UN, 2015a)



Fading industrial harbor environment at Hullkajen.

An important aspect of attaining SDG 11.7 and facilitating a city where social life can thrive is to provide an intricacy of architectural functions, such as enabling mixed use of public space. The presence of history and temporal aspects, including opportunities for daily activities and social encounters is important in this regard as a foundation for social life (Jacobs, 1961; Gehl, 2010, 2011).

As much as contemporary harbor transformations worldwide are the result of socio-economic fluxes and forces of globalization, these urban developments must continue to relate to future changes in a resilient manner. *Resilience*, in this project, is understood as the ability to respond to change or crisis, a dynamic concept that entails the meaning of both resistance and adaptation. In this sense resilient urban development goes beyond the concept of sustainability. Change is constant - a notion which in a most fundamental way should be applied to city planning. By incorporating the concept of resilience not only towards ongoing climate change, but also in relation to future socio-economic change and community strains, the complexity of urban development and vitality of urban life can be sustained.

Transforming Nyhamnen; reshaping the identity of Malmö as a coastal city

Malmö's harbor area is experiencing major redevelopment, initiated with the restructuring of Västra Hamnen since 2000, from an industrial port and shipyard to a residential, commercial and office district. Starting in 2018, the redevelopment plan of Nyhamnen is currently being realized, which in the decades to come is intended to consolidate Malmö's new role as a modern coastal city. Nyhamnen today is part a fading remnant of the old industrial harbor and discontinued ferry traffic, and part a place on the cusp of change. Malmö municipality describes the vision for the area as a dense, inclusive, innovative and sustainable city district whose identity will evolve successively, shaped by citizens and visitors. Development of Nyhamnen will address the city's challenges in regards to social, economical, and environmental goals, and the closeness to the sea and city center are highlighted as important qualities. The creation of 'blue-green' public spaces, that are inclusive and accessible for all citizens of Malmö, is a central part of the value foundation upon which Nyhamnen is to be built. Certain existing buildings and quays, particularly Hullkajen, are intended for a concentration of cultural and leisure activities (Malmö stad, 2019).

The comprehensive plan for Nyhamnen states that conventional methods and established routines must be challenged, and expresses openness toward alternative development methods and experimentation (Malmö stad, 2019). However, on a fundamental level the comprehensive plan fits into conventional planning strategy and market-driven development, which this masters project seeks to challenge by reimagining a part of Nyhamnen based on more dynamic and site-responsive aspects. By choosing to work with an area at Hullkajen in Nyhamnen we will explore and redefine the potentials of a site that is already being planned. We will then present a design concept as a comment to the comprehensive plan and, conceivably, add to the dialogue on future harbor development in Malmö and beyond.

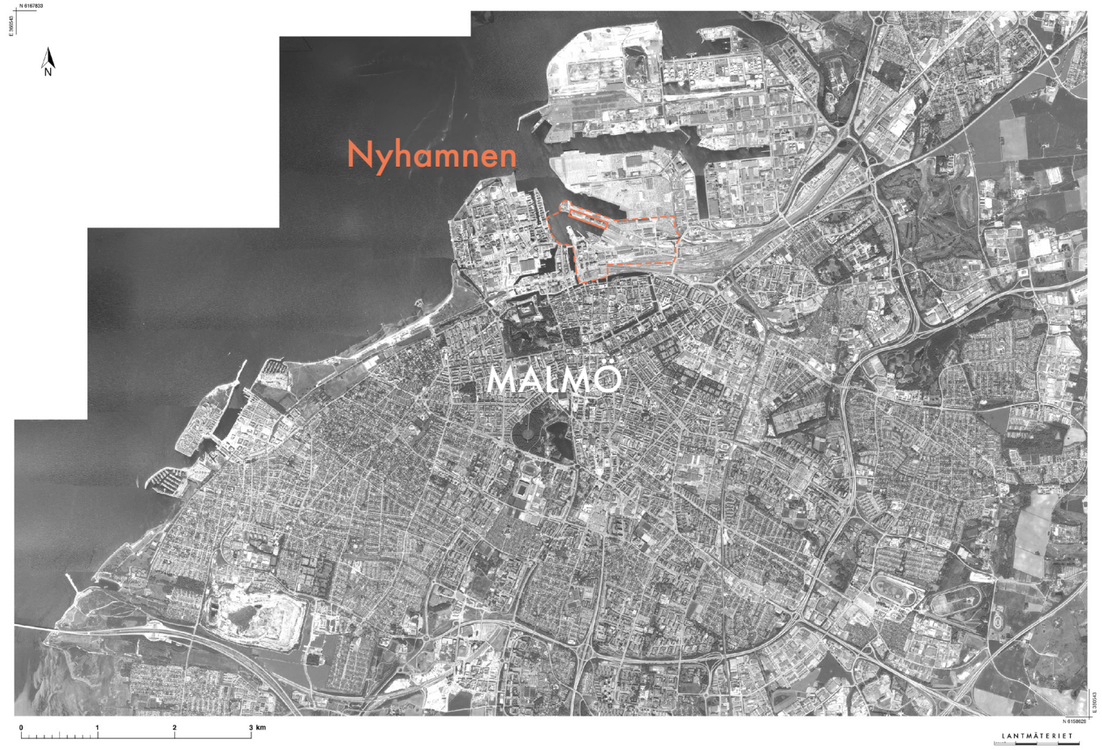


Silos at Hullkajen.

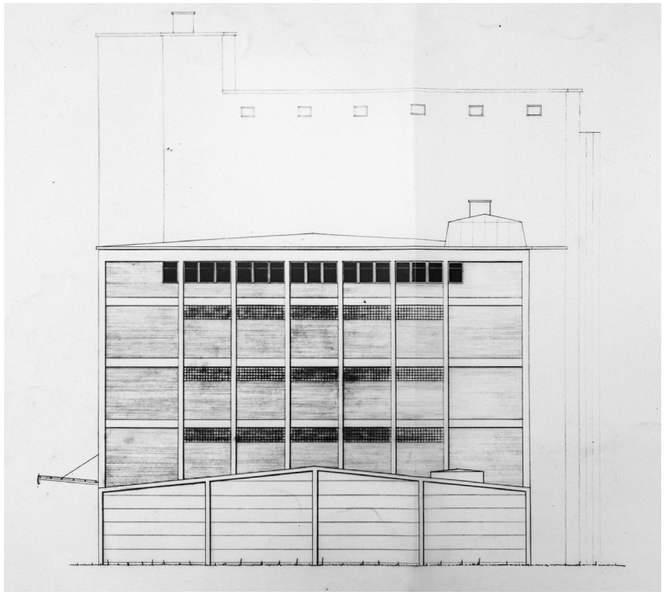
Objective

Our aim is to test an idea of how Malmö's harbor can be designed to cater for *public space* by reimagining a site in Nyhamnen through *radicant design*, which could support *resilience*. We wish to explore and edit the site based on what is offered; physically and contextually. This, because we want to challenge conventional methods by directing the focus toward alternative planning and design methods. As such, this project is intended as an example of how to incorporate transdisciplinary perspectives into urban redevelopment. The postindustrial landscape of Hullkajen can potentially be transformed into an unconventional urban setting, where existing buildings and the waterfront location facilitates qualities for unique and vibrant public spaces. Specifically, this project will result in a redesign concept for an old warehouse from the late 1950's, *Hullkajen 11*, and its direct proximity in Nyhamnen. As a way to illustrate dynamic and evolving aspects of the site, the design is presented as four phases, separated in time and showing different possibilities within the overall concept. Choosing Hullkajen 11 as the site for this design project is partly due to the fact that Malmö municipality has projected the building to be demolished, and partly based on the inherent qualities of the location. Though at first glance the old warehouse may seem rather inconspicuous, this project intends to view the site's qualities within a larger scope of a site-responsive approach, by elevating otherwise disregarded aspects. Based on these incentives, our research question for this project is as follows:

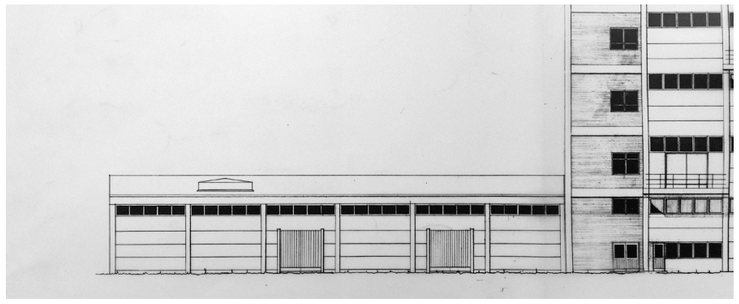
How can radicant design of public space support resilience within the development of the postindustrial harbor at Hullkajen?



The location of Nyhamnen (dashed lines) in Malmö (Lantmäteriet, 2022).



Excerpt from drawings of warehouse at Hullkajen 11 by Carl Engström, showing the west facade. Original scale 1:100 (Engström, 1963).



Excerpt from drawings of warehouse at Hullkajen 11 by Carl Engström, showing the south facade. Original scale 1:100 (Engström, 1963).



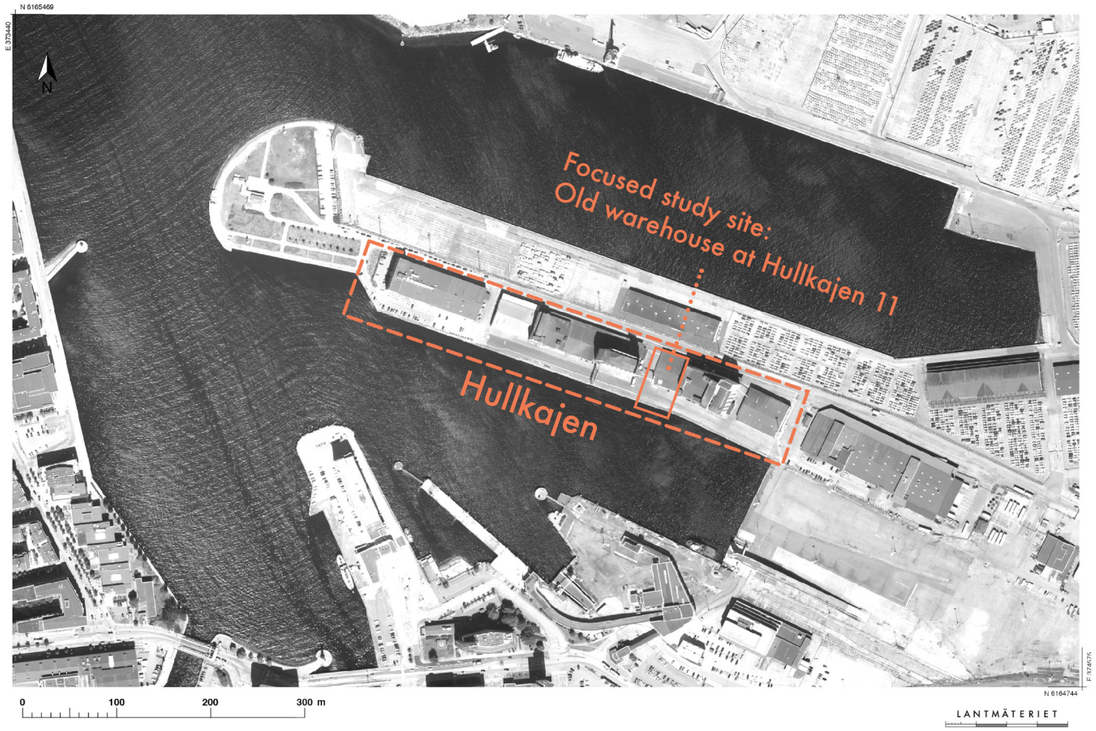
METHOD & MATERIAL

METHOD & MATERIAL

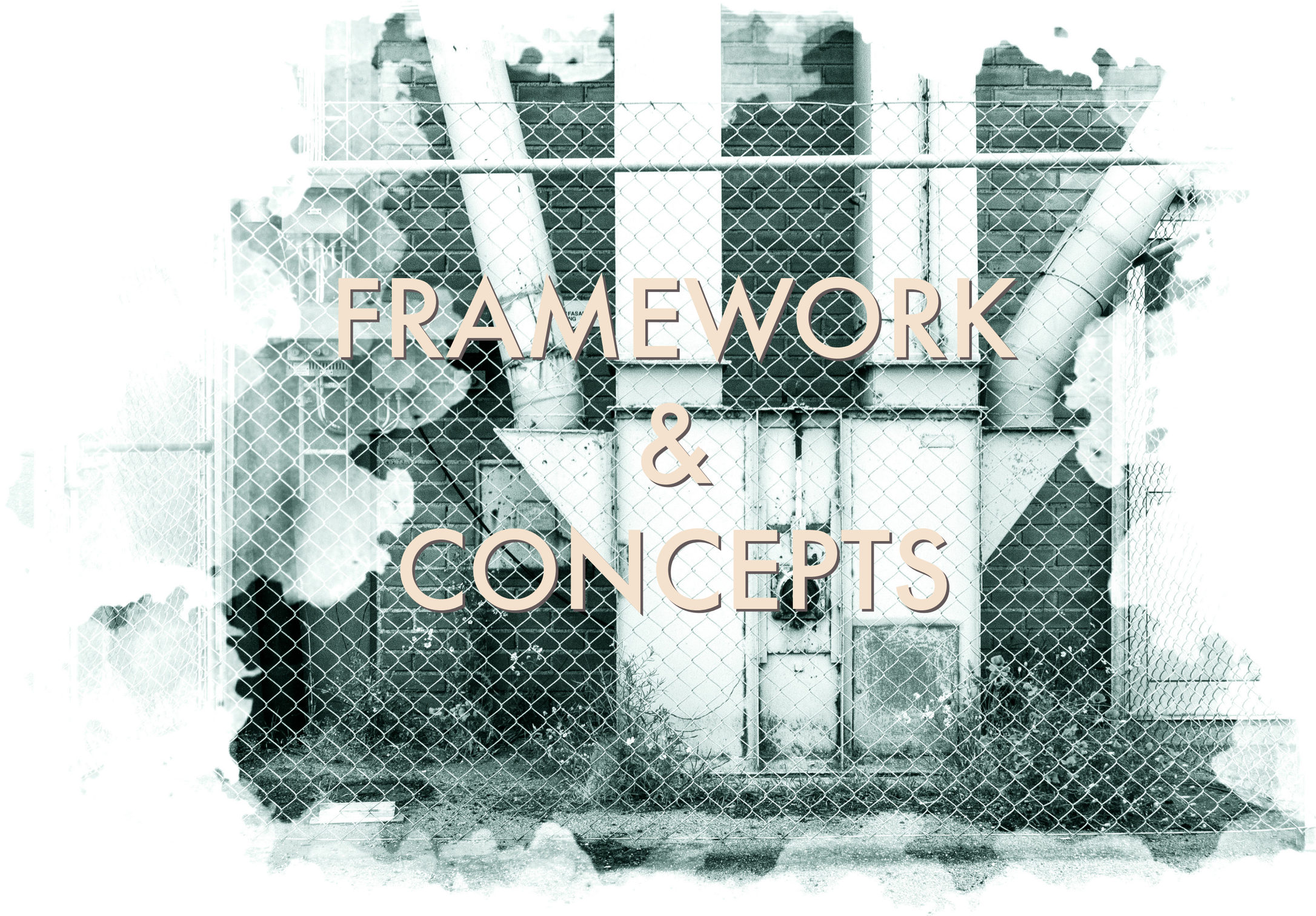
To gain insights into contemporary urban developmental issues concerning our topic, as well as current research about alternative design methods, a literature review was conducted. This laid the foundation for the understanding of site, radicant design, postindustrial landscapes and harbor development, public space, and resilience. Further apprehension of Nyhamnen, specifically, was built through an interview with Malmö City Planning Department, and the comprehensive plan for the area along with other relevant official documents. These were found online on the municipality's website. Several site visits were done throughout the first half of 2022, during which more essential information about the current state of the site was collected through photographs, sketches, and notes. The method used was that of the *Travelling transect*, as formulated by Lee and Diedrich (2019). It allows for an alternative way of exploring through bodily immersion, without boundaries or presumptions. The site inventory consists of elements found in, and in close proximity, to the site, for example materials, buildings, space dynamics, atmosphere, line of sights, and weather exposure. This was done as an iterative process and research by design as we worked with the radicant approach to exploration and design of the site. Other precedent European projects on this topic were taken as inspiration to guide our proceedings. What then followed was a design process in which the final concept(s) were created, based on our site reading. Last, a reflective segment shines light on the different dilemmas that were faced during the work process, be it concerning the literature, the design or the general landscape that is conventional city development.



Warehouse at Hullkajen 11.



Location of Hullkajen and the focused study site in Nyhamnen.



FRAMEWORK & CONCEPTS

FRAMEWORK & CONCEPTS

A radicant design approach to harbor transformation

Harbor transformation from a landscape perspective

As postindustrial countries world-wide find their industrial sites in decline and decay, urban planners and city officials launch grandiose projects to make use of these sites anew. The contemporary trend of postindustrial transformation constitutes a major challenge for urban planning, and the resulting design often brings critique to the rationale behind the process and methods. Discontinued industrial ports in coastal cities are regarded as prime locations for new residential and commercial development on an extensive scale, associated with huge financial costs and gains. However, the complexity of implementing and coordinating harbor transformation calls for new measures, which has led contemporary researchers to advocate for a transdisciplinary approach as a viable solution (Dahl & Diedrich, 2020). In addition to the societal challenge of transforming industrial ports into vibrant urban districts, coastal cities are particularly vulnerable to rising sea levels and other hazards induced by climate change, and are therefore in urgent need of complying with the sustainable development goals (United Nations Environment Programme [UNEP], 2022). Due to the complexity and scale of these transformation projects, and not least in the context of coping with climate change, Dahl & Diedrich (2020) propose an increased inclusion of landscape perspectives. Crucial to their proposal is an understanding of both landscape and postindustrial harbors as inherently dynamic in character, shaped by nature and culture, where city and landscape are not oppositional but closely intertwined. This resonates with the definition of landscape formulated by the European Landscape Convention, which states that landscape is: "a zone or area as perceived by local people or visitors, whose visual features and character are the result of the action of natural and/or cultural (that is, human) factors" (European Landscape Convention [ELC], 2006, p. 379). This definition implies the notion that landscapes evolve through time, as a result of a combination of natural spatial conditions, natural processes as well as man-made structures and human practices. Thus, the natural and cultural components of landscape are inseparable as they form in unison (Dahl & Diedrich, 2020; ELC, 2006). In addition, this understanding of landscape echoes the aim of the sustainable development goal 11.4 to strengthen efforts to protect and safeguard the world's cultural and natural heritage (UN, 2015a).

Radicant design; redefining site specificity

Dahl & Diedrich (2020, pp. 2-5) argue that industrial harbors should be studied as complex human-environment systems, which should entail, for example, a recognition of what is already there and how the processes that shape the landscape evolve, as well as an understanding of development and decay beyond linear evolution of space. This can be seen as a critique to the fact that transformation of postindustrial sites often result in radical conversion, described by Diedrich (2021), as a tabula rasa approach, with elements of museumification of industrial physical features. The tabula rasa approach entails elimination of existing structures in order to create a blank canvas for new construction, and is typically accompanied with a generic transformation of the site. This conventional approach to site specificity tends to freeze-frame industrial attributes as monuments in the urban landscape, merely consolidating a museumification of the site. However, the standstill or in-betweenness that characterizes declining industrial land signifies both challenges and unique possibilities for new urban design thinking and innovation. Apart from the approach of tabula rasa and museumification exists a range of thinking about a site in ways that add dynamic and temporal factors. Landscape scholar Ellen Braae (2015) puts forth the concept of *design as transformation*, rather than creation by elimination. Similarly, Diedrich proposes the concept of radicant design as a site-responsive way of exploring and transforming postindustrial sites. What radicant design contributes to the concept of site specificity is primarily an attention to the often neglected transient qualities, for example, how humans use or perceive the place or how processes of nature interact and affect the flux and character of the site (Diedrich, 2021, p. 176). An important position here is the view of design as an investigative practice capable of generating knowledge in regards to harbor transformation (Dahl & Diedrich, 2020). Thus, positioned within the scope of a transdisciplinary science, where the landscape perspective has a prominent role, a radicant design approach aspires to contribute knowledge about the perception and appreciation of the site.

Temporal & dynamic aspects of site

The notion of radicantity derives from botany where *radicants* refer to a botanical family which develop their roots along the stem and produce continuous enrootings in the surrounding environment as they grow (Collins English Dictionary, n.d.). Consequently, radicant design implies an evolving construct, a continuous process of transformation in communication with the site. Diedrich's idea of radicant design originates from French curator and art critic Nicolas Bourriaud's (2009) notion of *radicant aesthetics* as a process of stretching form in an evolutionary way into what Bourriaud describes as a *journey-form*. Bourriaud's (2009) suggestion of replacing the term site specificity with the concept of radicantity is a call for appreciation of change as opposed to status quo. Such continuous transformation is site-responsive and sustainable in the sense that it is based on resource consciousness.

Part of the critique of conventional site specificity is that it tends to reduce the qualities of a site to symbols or monuments of historical aspects, neatly apted into a contemporary market-driven form of urban planning. Although industrial artifacts may arguably be quaintly merged with the new architecture, the reasoning behind their preservation is commonly to constitute a picturesque element from a past moment in time. According to Diedrich (2021), this understanding of site specificity is static and site-repressive in the way it excludes many of the qualities and practices that inhabit a site. In contrast, the evolving construct of radicantity differs from the notion of design as a completed and static state. Radicantity does not strive for a fixed design as an end product as typically advocated by projects of modernity. Accordingly, there is no finished product in the sense of a concretized product description, rather the goal is the *process* of transformation. Diedrich (2021, p. 178) explains that postindustrial transformation can benefit from seeing the site simultaneously as a mental construct and a physical construction, as well as a fixed moment in time yet a work in progress.

Large-scale and long-term postindustrial projects require particular attention to temporal and dynamic aspects. Temporality refers to the sensual and physical aspects but also to the state of existing in relation to time. This notion puts emphasis on the time dimension as an ongoing motion in ever changing flux, as opposed to time as historical freeze-frames manifested in architectural form. Here, radicantity can facilitate change, not through romanticizing the past or envisioning a utopian future, but through precautious experimentation of the site's current qualities, including human practices (Diedrich, 2021).



View of industrial buildings at Hullkajen.

Site transformation as domestication or foreignization

Similarly to the notion of temporal and dynamic aspects, Burns & Kahn (2021, p. 7) propose an understanding of the site as a relational construct where meaning and value are obtained through situational interaction and exchange between site and designer. They state that design cannot simply be imposed on a place, but forms from the exchange between the real world and the representational world-as-known, the intrinsic and extrinsic, the natural and the unnatural. Therefore, the designer's apprehension of the site, both as a general theoretical concept and as an approach to the specific place of action, is crucial to the outcome of the design (Burns & Kahn, 2021). The designer acts inseparable from, and in relation to, societal and cultural norms, economic and political conditions, as well as their own personal views.

Influenced by Italian semiotician and linguist Umberto Eco, Diedrich (2021, pp. 182-183) makes use of linguistic metaphors in order to expand the designer's understanding and transformation of a site. Using the concepts of *site reading* and *site editing* to explain how designers commonly distinguish between preparatory and transformative acts of design, Diedrich (2021) attempts to span this division by introducing another linguistic metaphor: *translation* of site. Based on the ideas of Eco, translation is regarded here as a process of negotiation. Diedrich (2021) argues that "When applied to the context of postindustrial transformation, negotiation can facilitate translations between designer and site, between designer and public, between industrial and the urban structures, and between semiotic systems and spatial vocabularies of sites" (p. 183). Consequently, a designer's site reading determines the site editing.

Since translation requires the choice of, or sometimes a balancing between, staying true to the source text versus an open interpretation of the text, this process of negotiations inevitably includes both gains and losses. Diedrich (2021, p. 183) explains that the choice of the translator entails the decision to either *domesticate* or *foreignize* the text. In the first case the text is modified to fit the reader's preexisting knowledge, whereas in the latter case the reader's perspective and understanding needs to be enhanced in order to grasp the translation. Applying this analogy to postindustrial transformation, domestication corresponds to a radical modification of the industrial site, adapting it to current urban needs and ideals. Foreignization, in contrast, corresponds to an intention to change people's expectations regarding redevelopment, through the means of unconventional design interventions based on a fundamental appreciation for the site's broad range of existing qualities. Consequently, this theorizing forms the foundation for Diedrich's (2021) critique towards a narrow or deficient understanding of site and site-specificity in regards to industrial transformation projects, as she advocates for less of a domestication approach and more of a foreignization approach. This categorization of domestication or foreignization of site can also be viewed as a scale ranging from site-repressive to site-respective transformation.

Diedrich (2021, pp.181-183) argues, by connecting the ideas of Bourriaud, Eco, and Kahn & Burns, that by viewing design as journey-form instead of fixed form, the concept of radicantity can bridge the divide between site reading and site editing. In this way there is no separation between the preparatory act of site reading and the transformative act of site editing, but rather these concepts are merged to form a unison process of site-respective design. Thus, the question is not *if* a project is site specific but rather *how* it is site specific (Diedrich, 2013, pp. 44-70). In relation to this, Diedrich (2021, p. 187) concludes that radicant design practice in postindustrial transformation should be implemented within the larger scope of an expanded transdisciplinary approach.

Resilience

The term *resilience* is often used in physics as a way to describe certain materials' ability to bend but not break. But it can also be describing the way a body can return to its former health after an injury or an illness. Oxford English Dictionary (2002) states that resilience, in essence, is the ability [...] to recoil or spring back into shape after bending, stretching, or being compressed [...]", and being "able to recover quickly from difficult conditions" (p. 710). Resilience can also be described as something that "allows you to face a problem or challenge, overcome it, and get back to life a little bit stronger and a little bit wiser" (JED, n.d). Other words that describe resilience are 'flexibility', 'pliancy', 'recoil', and 'snap' (Thesaurus, n.d.). Thus, resilience is here defined as the inherent ability to revert back to an original state that, in some way or another, has been altered or disrupted. Much like a rubber ball being bounced onto a hard surface; it is momentarily deformed and released from its static position, until it returns back up and attains its round shape once again. Stockholm Resilience Center defines resilience as:

"[...] the capacity of a system, be it an individual, a forest, a city or an economy, to deal with change and continue to develop. It is about how humans and nature can use shocks and disturbances like a financial crisis or climate change to spur renewal and innovative thinking." (Stockholm Resilience Center, 2015).

Further explorations into the term reveals that resilience is even more multifaceted than what the dictionaries let on. It is not only denoting the ability to bounce back to a previous state, but also the capacity to adapt to ever changing site conditions; taking adversity and learning from it. Many are the disciplines that address resilience. In this thesis, it is used in connection to design and site, and all that entails.

Etymological journey

The many definitions of resilience could lead to confusion as to what resilience actually means when it is employed. David E. Alexander (2013) at the Institute for Risk and Disaster Reduction at University College London gives an account on the etymological journey of the word, and the many roles resilience has taken over the years. It becomes clear that the use of resilience is not merely a copy-and-paste concept in any given situation or discipline. Alexander presses that there could potentially be conflict among the definitions of resilience and urges a reconnection to the very origins of the word, so that a better understanding of the meaning can aid in the contemporary and continued uses of resilience.

It all starts with Latin. The first known origins is believed to derive from standard Latin in the form of *resilire*, *resilio*, for 'bounce', and then only used by learned men. During this time it was used in the sense of 'to shrink or contract' and 'to avoid', however it was most commonly used for "leaping, jumping or rebounding" (Alexander, 2013, p. 2708). The word entered English via French through the verb of *resile*, meaning 'retract', 'return to a former position, and 'desist'" (Alexander, 2013, p. 2708).

When resilience finally aided scientific purposes it was to describe the nature of echoes The first appearance in a dictionary was in the middle of the 17th century in a work called the Glossographia, of which several imitations were produced after. Resilience kept its definition of 'rebounding' throughout the first half of the 1800's when it also gained an emotional significance after being featured in *Hymn to the Earth*, from 1834 (Alexander, 2013, p. 2710). By this time, and throughout the entire century, the word had gained many uses and definitions, such as 'rebounding', 'elasticity', and 'fickleness', as well as in connection to earthquake-prone areas, like in Japan. The use of resilience to assist in mechanical descriptions and characteristics of materials was transferred into the field of civil protection and thus acquired the modern use of it therein. The resisting of a force through "strength (rigidity) and absorbing it with deformation (ductility)", started to be used as an analogy for human society. Alexander states:

"[T]he strength of a human society under stress is its ability to devise means of resisting disaster and maintaining its integrity (coherence), while the ductility lies in its ability to adapt to circumstances produced by the calamity in order to lessen their impact" (Alexander, 2013, p. 2710).

The accumulating definitions to the term were ascribed to the increasing disciplines that took to its rising popularity, among which were anatomy, coronary surgery, and watch making. By the mid 20th century, it had garnered a standing role in ecology, and at the very same time, resilience could also be found within psychology discourse, but it didn't gain popularity until the 1980's. By the end of the 1990's, resilience continued to spread, now into the social sciences, and particularly human ecology, by credit of economists, and geographers. Human ecology studies how people react and behave in connection to their environment, and how its extremes affect them. Resilience was a way of describing the adaptability capacity, and the notion of system stability was adopted from the ecological use of resilience (Alexander, 2013).

Alexander points out that even though resilience has had a fair share of alternating definitions, the core meaning usually circles back to "rebounding, adapting, overcoming and maintaining integrity" (Alexander, 2013, p. 2710). He also emphasizes that some of these definitions contradict each other, especially regarding the notion of reinstating equilibrium while also drifting away from it due to the inherent meaning of change and reaching a new state for the system (Alexander, 2013). Ecologically, resilience has had, and continues to have, great significance in describing the adaptation capacity of ecosystems and species. It is suggested that systems have a resilient capacity and when that capacity is surpassed change will follow. This transition is a process and does not necessarily happen overnight, but could occur rapidly depending on how strong the forces that induce change are. Therefore, resilience in this sense does not imply a finite tangible element of an ecosystem, but is a fluctuating characteristic of a system conditioned into modification over time, adjusting to ever changing environmental conditions. In fact instability in a system can bring about resilience. A highly resilient system can afford great fluctuation without diminishing. Nevertheless, there is the omnipresent ambiguity of definition and "confusion about whether resilience is a process, a state or a quality" (Alexander, 2013, p. 2711), but many believe that it ultimately bottoms down to systems seeking to reach equilibrium, or homeostasis, in pursuit of integrity (Alexander, 2013). This notion of reaching a stable state or not is defined by ecologists Pickett, Cadenassso, and Grove (2004, pp. 369-384). They present two ways of defining the paradigms; as simply equilibrium where the system seeks to revert back to its original state; or the non-equilibrium where it is never a stable state but an ever evolving system due to internal and external forces.

During the 1950's, resilience gained new ground within system theory and the idea of open systems that lean towards a holistic disposition rather than reductionistic, meaning that every system is in constant exchange with other systems. Different voices within the ecology discourse on the meaning of resilient ecosystems debate whether ecosystems tend to induce changes upon being exposed to any sort of stress, thus leading to small changes to keep equilibrium.

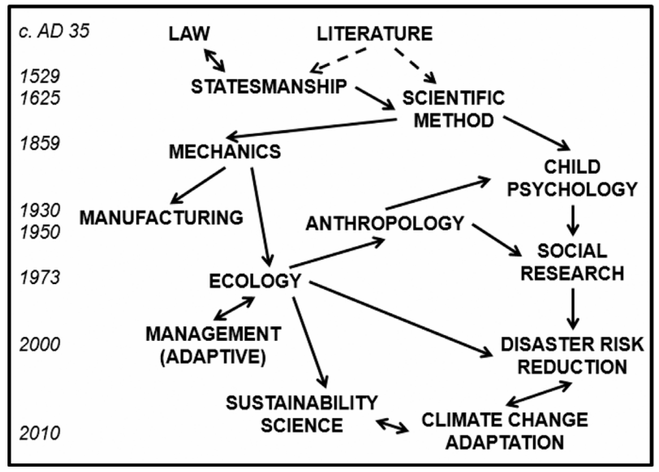
An opposition to this is that all this in fact points to the notion of constant development within a system, rather than stability (Alexander, 2013).

In developmental psychology, resilience is discussed as something individuals attain at different social and bio-ecological levels and that "lack of resilience at one level (from the individual to the world) can undermine resilience at other levels [...]" (Alexander, 2013, p. 2712). However, it is not believed that this concept altogether translates to community, that is, the idea of individuals' resilience adding up to community resilience. Even so, the system affiliation to resilience is something that is welcomed in socio-ecology (Alexander, 2013).

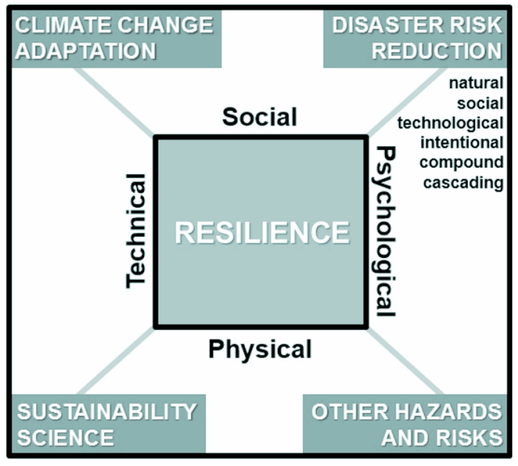
The adoption of the term resilience into social sciences happened gradually with the start at around the 1950's, and then used in the developmental psychology in children. It aided in the explanation on how children respond to and come back from adversity. However it wasn't until the shift of the 1960's to 1970's that the term clearly entered psychology by way of anthropology which received it from ecology research. But where ecology applies resilience to the open system concept, anthropologists and psychologists employed it to the system of the mind (Alexander, 2013). In connection to social-ecological nature, resilience has been described as "the capacity to adapt or transform in the face of change in social-ecological systems, particularly unexpected change, in ways that continue to support human well-being." (Folke, et al., 2016, p. 2). A division in definitions occurred when the term reached sociology and human geography at the end of the 20th century and beginning of the 21st. After it had been used in psychology for the individual, resilience had now evolved into community resilience. The analogy of resilience in mechanics was used to describe how societies also should strive for a capacity to adapt, especially during times of climate change and potentially more hazardous environmental conditions.

Further, Alexander (2013) stresses the fact that there has not been a common definition and understanding of the term resilience, which has made it difficult to apply operationally, "i.e. designing strategies to achieve it in diverse, and often dynamic, circumstances" (Alexander, 2013, p. 2713). However, he also suggests that it can be used in any circumstance when a system is exposed to shock of any kind. That said, there is concern whether the term's popularity amounts to nothing more than being a hyped up buzz-word that cannot function in and of itself as a paradigm, only as a descriptor "of objectives, intentions, states of mind and body, and the behavior of people and things" (Alexander, 2013, p. 2713).

The history of resilience stretches both over a long period of time as well as across several disciplines. Some definitions were of the positive nature and some were of negative notion, but even though it can be interpreted and defined differently; it can essentially be understood as the bridging "between (dynamic) adaptation and (static) resistance" (Alexander, 2013, p. 2714), and that one common denominator for all definitions is dynamism.



Etymological disciplinary journey (Alexander, 2013),



Aspects of resilience (Alexander, 2013).

Resilience as development strategy

Resilience is fundamentally connected to the Sustainable Development Goals (SDGs). Goal 11 concerns making "cities and human settlements inclusive, safe, resilient and sustainable" (UN, 2015b), wherein resilience is combined with sustainability. Every goal can be attributed to aiming for resilience in different ways, but mostly it is used regarding climate change. As a response to the urgent global environmental issues, the Intergovernmental Panel on Climate Change advocates for 'climate resilient development', which it says contributes to coping with climate change (Intergovernmental Panel on Climate Change [IPCC], 2022). Many organizations and networks within the EU and the UN have been established in the cause of increasing resilience within cities, such as Resilient Cities Network, Local Governments for Sustainability (ICLEI), and Covenant of Mayors for Climate & Energy (of which Malmö is a member). Within climate adaptation and mitigation, resilience is a sought after attribute in terms of cities and communities' abilities to withstand the ongoing climate change and the challenges it brings. This is evident in goal number 13 of the SDGs (UN, 2015c). A specific definition for resilience, however, is not stated. A more definite terminology is presented by the United Nations International Strategy for Disaster Reduction which regards resilience as:

"***The ability of a system, community or society exposed to hazards to resist, absorb, accommodate to and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions.***" (UNISDR, 2009, p. 24).

These organizations aim to establish frameworks that help members develop more resilient and sustainable policies. In the climate adaptation discourse, there is greater emphasis on risk reduction, its technicalities, and the economic value any implementation or adaptation might have. This could run the risk of overseeing the softer values that then end up falling into in-between-space of the more hardscaped structural planning.

Resilience in site thinking

Associate professor in landscape architecture and urban design, Kristina Hill (2021), formulates resilience in the approach to site thinking and the "need to conceptualize flows and temporality as more "real" than the traditional notion of sites as fixed locations bounded by physical forms and legal restrictions." (p. 145). It indicates the idea of site as a palimpsest of not only physical and ephemeral elements that are in constant relational fluctuation, but also of contemporary ideas, like politics, that shapes those sites. She further suggests that science and design should not be viewed as opposites, but rather as parts of a paradigm that could predicate a more site and transitory based method that acknowledges both perspectives.

The application of resilience in postindustrial harbor redevelopment can have great potential if it is defined, but based on the etymological emergence of resilience and other adaptations there is no apparent and clear-cut definition. This is due to the many transdisciplinary claims to the word, and could therefore very likely keep changing in the future. We choose to adopt the notion of resilience as a quality to obtain, and a mindset to underpin urban design and city planning. It is not a way to upkeep the state of a closed standardized system, but rather a network of systems (open system) that will meet and respond to societal and environmental changes. In this regard, urban planning and design stands on scientific calculations for climate change, but also incorporates the intuitive and site responsive aspects as well. Therefore the scope of design transcends geographical boundaries and connects the dynamic and static of a site. Implementation of resilience in planning and praxis, specifically when developing postindustrial harbor space, can assist Malmö in attaining the goal of becoming a role model for modern coastal cities.

Public space

Features of urban landscape act dynamically both as a separating and connecting medium between various land uses in the city. The urban landscape, including buildings and structures, form the character and identity of the city, as well as the foundation for social life (Memlük, 2012, p.282). In addition to the physical features, mental and relational constructs contribute to how public space is used and perceived.

The urban landscape does not only encompass built infrastructure and natural environment, but also the social activities and human practices that occur within it. Architectural journalist Jane Jacobs (1961) and architect Jan Gehl (2011, 2010) argue that successful city districts are fundamentally dependent on the social interactions produced by life on the streets and in public places. Jacobs (1961) states that more vibrant city districts increase casual social interaction, and that those trivial interactions may support a sense of local community and social cohesion. An important aspect of facilitating a vibrant district is to provide a complexity of architectural functions, such as enabling mixed use of public space. Another aspect is what Jacobs (1961) calls "the need for aged buildings", in other words, a need for history and temporal aspects to be present. This resonates with the notion of how historian and geographer David Lowenthal (1975) uses the terms tangible and intangible properties of place as interrelated immaterial and material factors. He conveys that "[...] landscapes and artifacts come into being at particular moments but may endure for eternity. Erosion and decay erase some landmarks, but the cumulations of time mostly surpass its dissolutions." (Lowenthal, 1975, p. 10).

Conditions for social activities

In an attempt to explain how humans use public space and interact, Gehl (2011) separates activities that occur outdoors into three categories: *necessary, optional*, and *social*. Necessary activities consist of daily undertakings that most people are required to do, such as traveling back and forth from work or school, waiting for public transport, running errands or shopping. Since the necessary activities are more or less compulsory their occurrence is only slightly affected by the physical surroundings. Optional activities consist of those actions people participate in only if there is a wish to do so, such as going for a walk, sitting down to enjoy the streetscape or sunbathing. Social activities depend on the presence of other people in public spaces, and can therefore be deemed *resultant activities* since they are indirectly supported if good conditions are provided for the necessary and optional activities. Social activities include, for example, conversations, various group events, or children playing, but also passive contacts of hearing and observing other people around you (Gehl, 2011, pp. 9-13).

Accordingly, Gehl argues that a primary role for architects and planners is to create opportunities for daily activities and social encounters in the public spaces of a city. These opportunities for social interaction or simply being among and hearing other people are important on their own but also as a foundation for other forms of contact. Gehl (2011) explains that "people are attracted to other people"(p. 23), meaning that an area of human activity generally attracts additional people in a self-perpetuating manner. An important explanation for this is that the act of experiencing other people offers a sensual variation which is essential for human psychology. New human activities often begin close to events that are already in progress. As an example, Gehl (2011) states that benches that offer a good view of surrounding activities are more frequently used than benches with restricted or no view of other people. The particular importance of social factors is further emphasized in Gehl's (2011) statement that "Life in buildings and between buildings seems in nearly all situations to rank as more essential and more relevant than the spaces and buildings themselves" (p.29).

The quality of public space and street life is closely connected to the scale of the urban environment, such as the sizes of buildings, the distance between blocks, or the space designated for pedestrian traffic in relation to car traffic. Hence, planning and design can influence patterns of human activity in order to create lively cities and vibrant public space. Studies show that in city districts of moderate dimensions, with narrow streets and small spaces, people interact and observe each other at close range and with considerable intensity. As a consequence, these spaces are perceived as comparatively intimate and personal, compared to city districts with tall buildings, broad linear streets and vast spaces. As an example, Gehl (2011, p.38) mentions that the spatial qualities of European medieval urban spaces are very well suited for outdoor social activity.

Knowledge of the senses and human psychology is essential in order to understand human perception of spatial conditions and dimensions in the city. For example, since human motion by nature is predominantly limited to horizontal movement, the horizontal field of vision is considerably wider than the vertical. Therefore, a person walking down a street primarily registers things at the ground level, the ground surface and the street space itself. Whyte (1980, p.58) asserts that "[s]ight lines are important. If people do not see a space, they will not use it." Likewise, the speed of movement also affects the ability of processing social information and details. Unsurprisingly, a car-oriented area and a pedestrian oriented area have rather different spatial dimensions (Gehl, 2011, p.63-71). As described by for example Jacobs (1961), Gehl (2010, 2011), and Whyte (2012) the vitality of the streets has diminished as pedestrians are forced off it in favor of fast moving car traffic; it no longer caters for dwelling. Accordingly, slow traffic is a prerequisite for lively public space, which means that if cars and pedestrians are to coexist within the same space the speed of movement should be adapted to walking speed, roughly 6 kilometers per hour. However, the modern, car-oriented city planning has often resulted in scales and spatial dimensions that repel pedestrian and social life away from streets and public spaces. Based on the notion of such an urban planning approach which is inconsiderate of the human senses, Whyte states that "[i]t is difficult to design a space that will not attract people. What is remarkable is how often this has been accomplished." (Whyte, 2012, p.109).

Naturally, all outdoor city space can not attempt to assemble large crowds of people engaged simultaneously in different activities. Logically, there needs to be places where people are more dispersed (Gehl, 2010). For example, in order to establish an even distribution of human activities over large areas of the city, or as not to overcrowd certain areas, it is necessary to find a balance between assembling or dispersing people and events. Also, in contrast to lively spaces, it is important to create peaceful, quiet spaces that meet other human needs.

As mentioned, one of the essential components of public space is the social life that manifests itself there (Gehl, 2011; Jacobs, 1961; Whyte, 2012; Lefebvre, 1991). Gehl (2011, p. 75) describes lively public space as a self-reinforcing process; "something happens because something happens". In contrast, in a poorly designed public space, "nothing happens because nothing happens". Therefore, one of the key aspects of improving the vitality of city space is to improve conditions for outdoor stays. In order to function successfully overall, the quality of urban outdoor space must be considered at various scales of planning; at a large scale in regional planning, at a medium scale in site planning, and at a small scale in our immediate physical environment of which the human mind makes constant evaluations. Every stretch of facade,

pedestrian route, or public space should therefore be carefully planned; from a context of small scale but also in the broad context of a city scale (Gehl, 2011, pp. 81-83). Therefore, outdoor city space - streets and public space - should be designed with some essential principles in mind; the design should enable people and activities to assemble or disperse, integrate or segregate, invite or repel, and open up or close in (Gehl, 2011).

Public space as democracy

Like the ancient agoras in Greece birthed the public space as a democratic arena thousands of years ago, the need for a common place to voice opinions and values still resonates in our time, and will presumably still be a prerequisite for public expression and discourse in ages to come. Making public space a resource for different demographic groups is an essential democratic principle, with the ability to strengthen social cohesion and a sense of community (Jacobs, 1961; Gehl, 2011). Similarly, Memlük (2012) states that "urban open and green spaces possess the notion of democracy in their nature" (p. 283). Philosopher and sociologist Henri Lefebvre (1991), talks about public space as a social construct where the people make and shape space, appropriating it through freedom of expression, be it political or artistic. Lefebvre (1991) states that "...appropriation cannot be understood apart from the rhythms of time and of life" (p. 166), asserting that in order for public space to be democratic it has to be shaped through bottom-up actions rather than from top-down decisions by people in power. This is in turn influenced by the trends of time and the daily life of people.

One important aspect and fundamental starting point for democracy is the physical and public representation by citizens voicing their opinion on political matters. It has played an important role in shaping ideologies, and the public space arena will always be a relevant element in a well-functioning city. In times of digitizing and social media, the idea of public space has been raised and its definition started to be redefined. There is no denying the fast accessibility and immediacy of the internet and its content, however there is one major factor absent; the physical. More specifically, the physicality of a place and what it has to offer the social dimension. One essential part of social interaction, namely to see other people and interact in observational or conversational proximity, is deprived of on web platforms. As many have already suggested, (Gehl, 2011; Jacobs, 1961; Whyte, 2012; Mitchell, 2003) the life and social processes that inhabit urban space is a receipt on how well a site works. Thus the notion of public space exists in many levels simultaneously, whether planned or unplanned.



People dwelling at Scaniaplatsen in Västra hamnen, overlooking Öresund, where artificial land meets the sea. As the rest of Västra hamnen, this site was previously part of Malmö's ship building industry.

SITE EXPLORATION



SITE EXPLORATION

Hullkajen sits on the Nyhamnen pier and runs from south-east and diagonally upwards into the north-west, ending in a park, Hamnparken (see map on p. 14). The Nyhamnen city district will be built on man made land that holds not only potential for redevelopment but also an important part of Malmö city's history. A past that has shaped and advanced the land further and further out to sea.

History of Malmö's harbor development

Malmö's harbor got its first major expansion in the 1770's, and grew slowly but steadily thereafter, until after the Second World War when the harbor saw rapid industrial development. Early accounts of Malmö's harbor development reveal that storms, high water levels and ice repeatedly caused devastating damage to quays and jetties, which inevitably forced the need for more resilient and robust constructions (Edlund, 1922). Due to industrialization during the 19th century, Malmö grew to become Sweden's third largest city. Kockum's shipyard became a major factor in Malmö's growth, but the city's industries were also significant in textile production, packaging, and food industry. The industries, together with ferry traffic to Copenhagen and the European continent as well as transatlantic voyage, spurred the expansion of the harbor areas (Malmö stad, 2021a). Harbor expansion during the 19th and 20th century was usually carried out by dredging the shallow seabed and filling out new land areas, allowing for larger ships to moor (Edlund, 1922). Work on the basin of Nyhamnen, *Nyhamnsbassängen*, began in 1897, which was excavated to a depth of 7,25 meters (Edlund, 1922).

Year after year, the distance grew between the city center and the sea. In fact, already in the 1890's, complaints were raised that the city had been cut off from the open water by the cluttered harbor activity. As a remedy a pavilion, *Strandpaviljongen*, was built where the end of the Nyhamnen pier is now located, and a lush park was landscaped around it. From the pavilion the open waters of the Öresund strait could be observed, including the ferry traffic and views towards Copenhagen, while eating and listening to music. A new open-air bath house was constructed adjacent to the pavilion. When Nyhamnen harbor was expanded, the land where the pavilion and bath house was located was cut off to form a small island. The island was serviced by small passenger ferries in connection to a tram line during the early years of the last century. A sailing club, including mooring for sailing boats and motorboats, was established next to the pavilion, making the small island an even more flourishing place for leisure. However, during the Second World War the pavilion, bath house and sailing club fell into disrepair due to being used as a military base. The bath house was destroyed by a storm in 1946, and the pavilion was eventually demolished in 1950 (Andersson, 2018). In the 1970s and the following decades, oil crisis and increased competition hit the cities of the western world, including Malmö, and in 1986 Kockum's civilian ship production ceased (Malmö stad, 2021a).

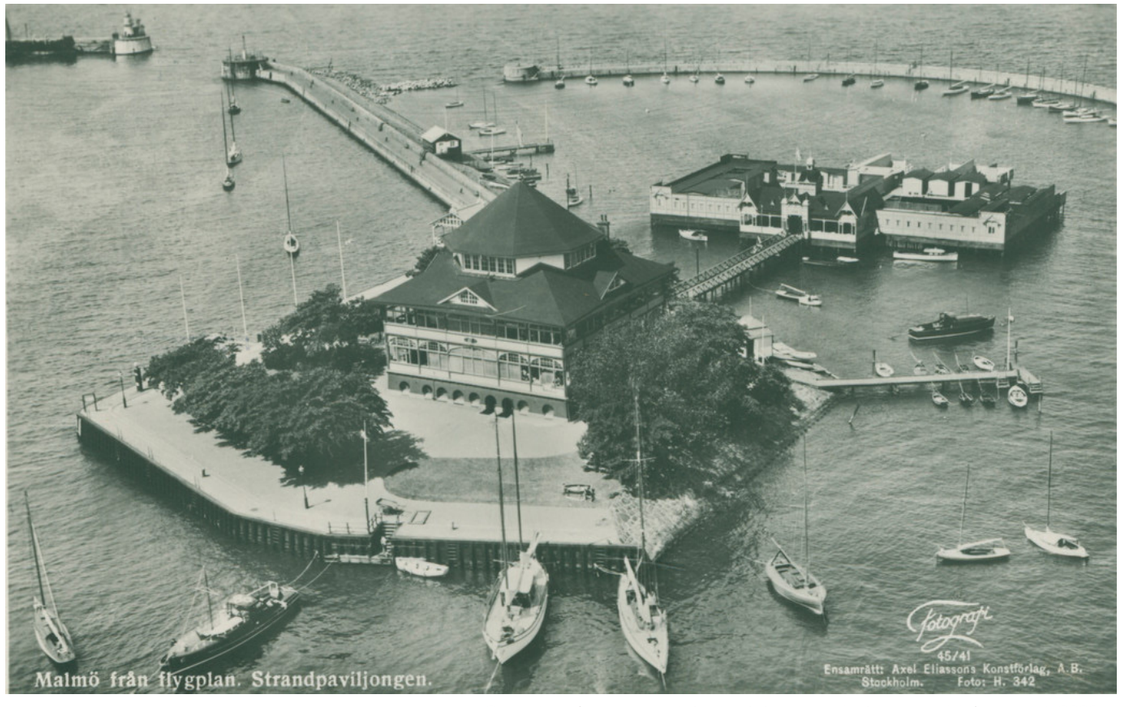
Although Malmö's industrial prime may have faded and, as with the case of Västra hamnen, port structures have been replaced by new residential buildings and offices, several features from the past centuries of Nyhamnen's harbor activity still exist today. For example, the rounded sea wall from 1901, built to protect the pavilion and bath house, now forms the western end of Nyhamnen pier, and part of the sailing club house from the end of the 19th century now constitutes the building known as *Hamnpaviljongen*, which throughout the years has served as restaurant, pub, and dance venue (Andersson, 2018). Silos, quays, warehouses, rail tracks, ramps and cranes from various time periods and in different conditions contribute to the layers of Nyhamnen's past lives. As history shows, Malmö's harbor area is a result of gradual expansion driven by ever-changing needs.



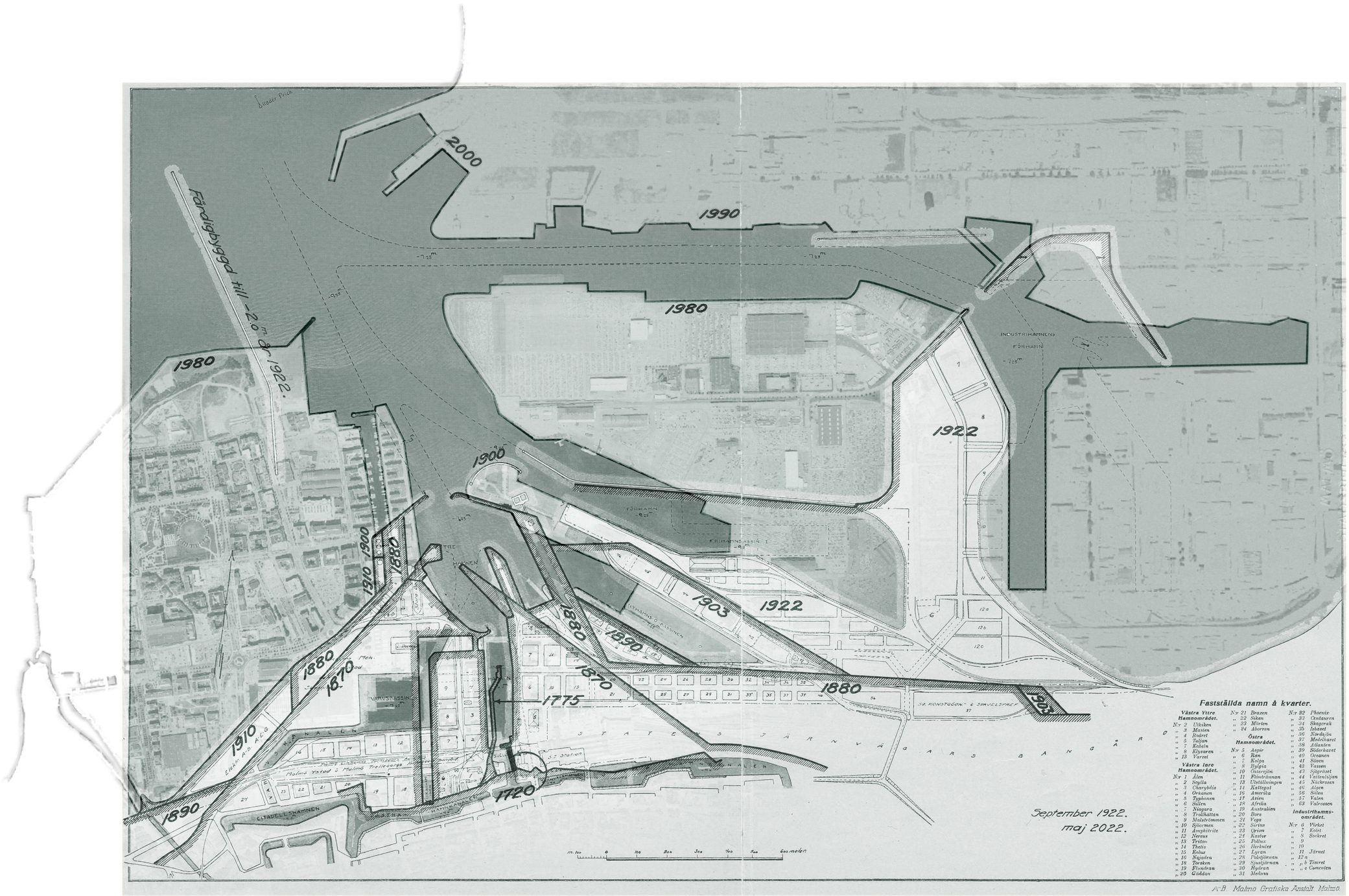
Steamboat and Strandpaviljongen (Malmö stad, 2022a).



Harbor activity at Hullkajen in 1934 (Malmö stad, 2022b).



Strandpaviljongen and the bath house in Nyhamnen (Malmö stad, 2022c).



Collage of the development of Malmö harbor based on Edlund (1922) and Malmö stad (2021d).

Today & future

Comprehensive plan & interview; aim & main features

Nyhamnen today is part a remnant of the old industrial harbor and part a place on the cusp of change. Plans to develop Nyhamnen have been in process for decades already and the time frame of the entire Nyhamnen redevelopment project is expected to take 32 years; from 2018 to 2050, with some areas already being close to finished. It is one of the latest in Malmö city's line of redevelopment sites, and will go from being solely an industrial production and harbor connection to make place for new housing, commerce, service, offices, schools, and recreational possibilities. The latest version of the plan was accepted in 2019 by the municipal council and is available to download on Malmö city's website. In it, the driving core values for Nyhamnen are accounted for. First and foremost is the idea of the city center and how it will grow together with the new developments. In fact, Malmö central station is situated at the southwest corner of what counts as Nyhamnen, which cements it even more as a natural continuation of the most central part of Malmö. There is however a notion of identity building, that Nyhamnen will provide a uniqueness through its postindustrial harborscape that once upon a time hosted a plethora of production and refining, while at the same time fit into the fabric of the contemporary city Malmö is today. This legacy extends into the idea of bridging land and sea, and how this relationship can be honored and enhanced (Malmö stad, 2019). Seven key goals are also specified in the plan:

- A city center meets the sea: the closeness to the sea will be an important component in the expansion of the city center and cementing Malmö's identity as a coastal city.
- Focus on the people: Nyhamnen will function as a creative and inclusive complement to the already existing Malmö, that has a strong focus on people.
- A place where commerce will thrive and provide a lot of work: Nyhamnen will be a place that caters to both Malmö and the region's housing and job market.
- A place with good living conditions: here there will be several types of living alternatives of high quality.
- One identity created by many: through innovation and inclusiveness, Nyhamnen's identity will successively be built.
- One part of Malmö, for the whole of Malmö: employment rate will increase and citizen health will be improved. Physical and social links with the rest of Malmö shall also be created and strengthened.
- Sustainable city development that challenges: sustainable building, easily accessible public transport, and bike and pedestrian friendly structures.

Climate change issues are also addressed, in both the global and local sense. But also how these are interdependent on each other and that Nyhamnen is to grow into being a part of Malmö that responds to global-local environment issues and promotes a positive city development. The city of Malmö has declared that UN's sustainable development goals (SDGs) and Agenda 2030 are to be incorporated into the project planning, and specifically mentions inclusive, safe, and resilient cities; economic growth; citizen health and wellbeing; preservation of marine resources; and mitigate biodiversity loss. For Nyhamnen, this means to create a dense city district where function is varied with efficient land use, as well as an environmentally friendly transport system. The social aspect is also an important factor for Nyhamnen. The comprehensive plan states that Nyhamnen should be a safe and inclusive place to visit and live in, and a place for citizens to have agency over and shape together. This notion is further repeated when stating that Nyhamnen faces challenges in regards to reaching all the social, economical, and environmental goals. Here conventional methods for city development are brought up as something that needs to be addressed and questioned (Malmö stad, 2019).

The development of Nyhamnen will be realized in different stages that overlap or successively take over after each other. These stages are geographically divided. In order to activate the different stages, unconventional means are proposed as a tool to work horizontally with stakeholders, including citizens and small businesses, and not hierarchically. This includes temporary use that can help unlock potential and add to the understanding of what the site has to offer in regards to social values and small businesses. Lessons learned from such temporary activities can then be used to further influence the following exploitation of the site. Experimentation and networks are words used to describe this approach to alternative development methods (Malmö stad, 2019).



Visualization of Nyhamnen (Malmö stad/Mandaworks, 2019) .

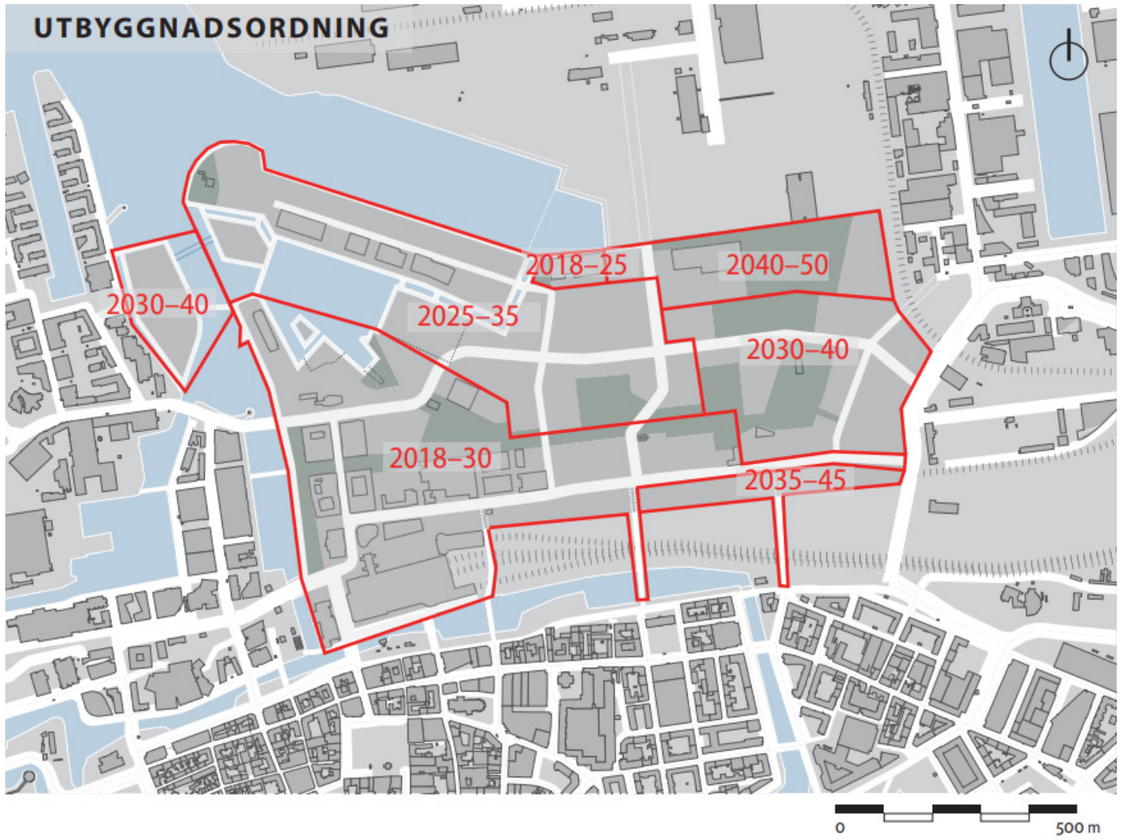
In order to increase accessibility between Nyhamnen and the rest of Malmö, and expand the amount of building space, the basin of Nyhamnen is going to be reduced through added land and two new islands amounting to 6,5 hectares. The total area then amounts to roughly 93 hectares, excluding the railway yard (Malmö stad, 2019 p. 11). Pedestrian and bike paths will bridge the basin and connect the pier to surrounding city parts. Main infrastructural elements stretching east-west will be kept and added to in a north-south direction. Hans Michelsensgatan and Carlsgatan will play a vital part in the public transport network and will be central in Nyhamnen. Also, by opening up Nyhamnen through redevelopment, the north side of the central station is expected to be strengthened as an important travel node. Visual connections are identified as well, and are taken into account in order to further strengthen the inter-city-contact. This is made note of in the plan for the future blocks. Diversity in size and shapes is going to reflect and extend the historical and cultural heritage of Malmö. A blue-green 'loop' is going to circulate inside Nyhamnen, passing through blocks and along the quays, particularly Hullkajen, and connects to the planned parks throughout the area. This loop will in turn enable a concentration of cultural and leisure activities (Mamö stad, 2019).

The quays are going to play a vital part for future social and recreational activities both on land and on water. Through the already existing quays and the ones taking shape after the new land is in place, they will support for instance the connection with the water, bathing possibilities, and potential public transport on water, while also adding protection from rising sea levels when fortified. This reinforcement will be done on the already existing quays with building structures. The combination of securing these urban elements as vital public spaces while also ensuring protection from an increasing sea level rise, there is an opportunity for many different designs in levels and connecting features (Malmö stad, 2019).

According to the plan (Malmö stad, 2019), common ground for all public spaces, and for all citizens of Malmö, is strongly advocated and will be part of the value foundation upon which Nyhamnen is to be built. Safety is to be achieved through accessibility and easy wayfinding, accompanied by socially stimulating design of public space and housing environments. This is also stressed through the idea of a strong community where everyone is equal and included; young as well as old, and with any needs (Malmö stad, 2019). Emphasis also lies with the importance of integrating vital pedestrian pathways alongside trafficked roads that will primarily promote public transport; coined as shared space (Malmö stad 2019, p 20). Car traffic will be possible but there will also be car free blocks, thus directing more focus on pedestrian and bicycle use.

Reflecting on how certain ideas and buzzwords have changed since the initial redevelopment of Västra hamnen at the turn of the millennium, Elin Einarsson at the Malmö City Planning Department mentions:

"***But there's that word resilience that has been coming up all the time now. It was only a few years ago that I heard it for the first time. It happens very quickly, or new stuff comes into our processes all the time. At the same time, I think that building a city is still a slow process. And that it must not drift away in just one direction, but rather it is a matter of maintaining a stable foundation somewhere. And we're still building something here that will hopefully be here for 100 years, maybe even longer.***" (E. Einarsson, Malmö City Planning Department, interview, March 8, 2022. Translated from Swedish by the authors).



Order of redevelopment in Nyhamnen (Malmö stad, 2019).

Strengthening Malmö's role as a coastal city

Malmö municipality has developed an action plan for 2019–2023 to strengthen Malmö's role as a coastal city of the future (*Handlingsplan för arbetet 2019–2023 med att stärka Malmös roll som framtidens kuststad*). The plan, which has been developed in close collaboration between various city departments, functions partly as a follow-up tool for the implementation of measures and activities, and partly as a planning tool for the work ahead. The plan specifies on coastal and marine-related issues in the following areas: natural values and ecosystems; cleaner sea and coast; ocean literacy; recreation and experiences; urban and port development; climate adaptation; and external collaboration. The plan and its activities are also a tool in the city's work with the sustainable development goals (Malmö stad, 2021c).

On the list of 41 ongoing activities of the plan, the following has particular relevance for this thesis project: (7) restoration of shallow areas in older industrial port basins; (26) investigate leases along the coast and by the water; (28) investigate possible locations for a city bath; (31) investigate bridges and other connections between areas close to the sea; (33) investigate the urban development opportunities in connection with coastal protection measures, for example between Nyhamnen and Västra hamnen, which can strengthen Malmö's identity as a coastal city; (35) develop a strategy for coastal protection (Malmö stad, 2021c, pp. 7-8). The plan presents several subjects that are considered in the design concept of this thesis project, such as the following:

Natural values and ecosystems
More than 50% of Malmö municipality's area consists of sea (Malmö stad, 2021c, p. 10). Malmö's sea area, together with the rest of the Öresund, is a unique and sensitive area. The diverse habitat on the coast and in the sea creates conditions for important natural values, which the city aims to protect for example by strengthening the resilience of these habitats. Restoration of shallow areas in Nyhamnen's deep and possibly polluted industrial port basins are a part of this solution. This would create better conditions for marine life by encapsulating pollution and recreating shallower waters, but also provide increased safety when swimming (Malmö stad, 2021c).

Recreation and experiences
The City of Malmö aims for the coastline to be a natural and attractive destination with great qualities for both residents and visitors. One of the objectives is to utilize and develop Malmö's potential for recreation and outdoor life in connection with the sea. This includes encouraging a diversified use of the coast, and safeguarding accessibility, while protecting natural values. The sea and the coast offer opportunities for a wide range of leisure and recreation activities: sailing and other boating, fishing, swimming, diving, canoeing, windsurfing, kitesurfing, water skiing and more. Opportunities for recreation can mean nature experiences in the form of contemplation, bird watching, walking, jogging and more. Marine outdoor life can also include visits to various cultural environments such as lighthouses, fishing villages or wreck diving. The action plan states that coastal areas must enable an active outdoor life where a number of interests can coexist, meaning that willingness to compromise and prioritize between interests is required (Malmö stad, 2021c).

According to the plan document, Malmö's coast, including its beaches, harbor basins and canals, have the potential to be developed and used more. The canal and the quaysides are still partially inaccessible; therefore improved accessibility to canal and quaysides is an important goal in strengthening the connection to water in central Malmö. New destinations and



Suggested adaptations for coastal protection and rising sea levels in Nyhamnen (Malmö stad, 2019).

continuous footpaths along the coast and canals can give Malmö residents and visitors access to new attractive outdoor environments in the city center. Working with connections in different ways such as pedestrian and bicycle paths, public transport, parking lots, hiking trails and more can be a way to make places of interest on the coast available. Proposals from the list of actions with specific relevance for this thesis project include new bridges and other connections between areas close to the sea, and canals and construction of new land in the sea. Other relevant proposals include Nyhamnen's potential as a new location for swimming, water sports, houseboats, marinas, restaurant boats, pedal boats and fishing (Malmö stad, 2021c).

Urban and harbor development
In recent decades Malmö has turned its gaze towards the sea. With a focus on sustainable urban development, new urban districts have been built in several coastal locations. About 9,000 homes have been completed along the coast over a 15-year period (Malmö stad, 2021c, p. 22). Planning and construction of mixed urban districts continues along the coast in Limhamn, Västra hamnen and Nyhamnen. Nyhamnen's transformation is specified as an important part of expanding the city center and strengthening Malmö's identity as a coastal city. Based on the central location of Nyhamnen, a more urban character of seaside activities is to be expected, compared to, for example, the more natural landscapes of Ribersborg beach or Sibbarp (Malmö stad, 2021c).

The plan document recognizes a challenge in combining exploitation pressures and business activities with recreation, environmental aspects and natural values in a changing climate with future sea level rise. Especially so since the qualities of Malmös coastal areas depend on the natural and cultural values of the marine and coastal environment being preserved. This includes the identity, history and future of Malmö's harbor area. The coastal landscape is a subject of interest from many actors. Not only sea and land meet here, but also a variety of ideas about what characterizes a desired development. The oceans also form a link with other countries and therefore require a cross-border perspective. The plan document suggests that one way of activating coastal areas can be by opening up for certain temporary activities during exploitation (Malmö stad, 2021c).

Climate adaptation
Malmö municipality (Malmö stad, 2021c) acknowledges that a necessity for coastal cities of the future is to implement climate adaptation measures to reduce the risk of damage to buildings, infrastructure and natural and cultural environments caused by floods and erosion. Malmö's 43 kilometer coastline will inevitably be affected by rising sea levels, and therefore the comprehensive plan's guideline of +3.0 meters as the lowest level for new construction aims to gradually adapt the city to higher sea levels (Malmö stad, 2021c, p. 25). Planning coastal protection is an extensive and long-term work and the City of Malmö has produced a number of feasibility studies based on forecasted sea levels. The prediction for how fast and how much the sea rises grow more uncertain when looking further and further into the future. The development of Nyhamnen will have to be conducted in connection to a strategy for coastal protection, which can also contribute to Malmö's identity as a coastal city (Malmö stad, 2021c).



High water levels during storm Malik in January 2022, Malmö.

Site reading; transecting Nyhamnen

The following episode is based on our own perceptions and ideas about the site related to our subject and research question. Through walks and visits we intend to read and record Nyhamnen, using notes, sketches and photos.

If standardization within planning and design is to be challenged, then the methods of familiarizing with a site also have to be. One such method is Travelling transect, as defined by Lee and Diedrich (2019). It is an artistic and iterative approach to design research where bodily immersion and perception guides the findings. It brings the designer closer and more intimate with the site as opposed to the generic top-down perspective.

The Travelling transect method can be divided in 4 consecutive sequences (Lee & Diedrich, 2019, pp. 95-96) and formulates our site reading process:

1. Get a basic initial understanding of the site through maps, official documents, and web search information.
2. Based on the gathered information an intentional itinerary is drawn up for one or more transects.
3. Go through with walking along the previously drawn up itinerary but being receptive for chances to deviate from said itinerary. This is where the essence of the transect is demonstrated. In this phase, the walk is recorded via photos, sketches, notes, or whichever type of media the traveler chooses to capture different qualities and aspects.
4. In the last phase, the researcher/designer compiles all the gathered material from the transects and identifies relations between the deviations and the collected material. This allows for new revelations about the site to present themselves, situations that most likely would have gone unnoticed otherwise. These occurrences are described as prompts. It is important to not look at each finding as an isolated object or element, but rather as a part in the relational intricacy that make up the site.

While this method pushes for challenging standardization and generalization within site exploration, it also challenges the designer in their praxis and paradigms to reconsider the different aspects and qualities inherent within a site. The purpose of Travelling transect is to reveal what can't be read through maps and official documents, but to realize the dynamics and temporalities that make a site, such as relations, atmosphere, and ephemeral features. Based on this, a more site-responsive design can be developed.



Our Travelling transects

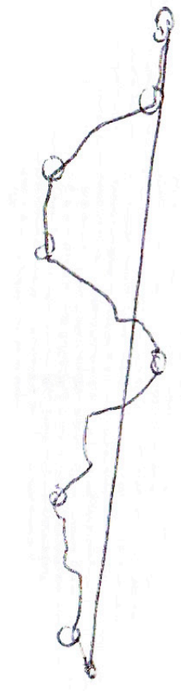
Hullkajen offers a panorama over the basin of Nyhamnen, a water space enclosed by quays, generally appearing to be disused or having only sparse activity. Looking south and west, the skyline of Malmö city center and Västra hamnen acts as a backdrop. A mix of old and obsolete harbor and ferry traffic features, including jettys, quays, a car ramp, characterizes the area around the basin of Nyhamnen. History is visible in the area, like layers of site evolution, such as quays in stone, concrete and iron.

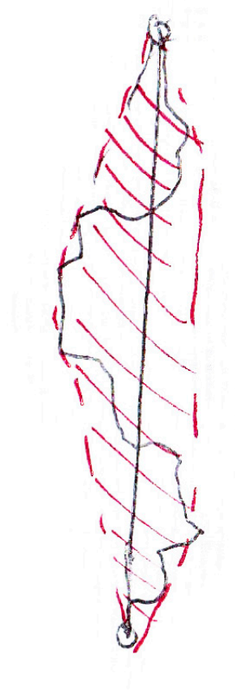
The northern end of Ångbåtsbron has a visual connection to Malmö city center, Västra hamnen and Nyhamnen (Hullkajen). The clear line of sight and the water edge location are important features for strengthening a future path here. However, several obstacles currently exist for this "path" to be well functioning for pedestrians; the continuation of Skeppsbron is intersected by by Hans Michelsengatan at Universitetsbron and Neptunigatan, which are both major throughways for motor traffic. The west side of Ångbåtsbron is for the most part inaccessible, and the demolition of the old ferry traffic terminal, Svävarterminalen, has been conducted during the work of this masters project.

When walking along the drawn out path, the first thing that comes to mind is contrast. An urban spectrum on which the ends meet in a continuative relation. The street that both connects and divides, the park that ends abruptly in a busy bicycle path, and the changing of scenery and perspective as you walk from a vast open space into crammed alleys. This ever changing experience of shifting atmospheres is what permeates walking through the city to the pier in Nyhamnen, and ultimately, Hullkajen. Along the way there are several obstacles, minor and major, that affect where the path is staked out. Many of them are infrastructural, such as a road scarce in crossings or a bicycle path cutting off a walk path. Others are architectural, where obstruction in line of sight might be the main cause. This can be seen as a barrier if there is a goal destination in mind, as is the case here, but it might be seen as yet another guiding element, steering the course. Either way, a common notion is that pedestrians often fall in the last tier of the hierarchy. One of the transects reveal how we favor green areas more than the busy gray asphalt roads. One reason is to avoid the busy streets with the noise and barriers.

Stockholmskajen, overviewing the basin of Nyhamnen. The sea is calm today. Still an icy wind blowing steadily. I realize it has suddenly become quiet, at least the traffic sound is way more distant now. It feels calming. Birds rest on the water surface. The place is more active than I anticipated. It's now 12.15, and I see joggers, cyclists, people walking in groups or alone. Steady flow of pedestrians, mainly moving in the direction of Hullkajen, presumably to have lunch at Saltimporten Canteen.

Arrived at Hullkajen 12.30. I find myself at a comparatively serene spot compared to the city center I just left behind. The lack of car traffic on the southern side of Hullkajen contributes to the calmness and reinforces the sensual contact with the water. Sitting down for a moment against the wall of Saltimporten makes a good resting spot. The sun is even slightly warm, though the cold wind blows from the east at this time.
1 March 2022, 10.15. Sunny sky. +3 degrees celsius.





Spatial relation of intended and deviant paths.


N 6166199
E 370705
N
E 375830
N 6162924
0
500
1000
1500 m
LANTMÄTERIET
Intended transect
Deviant path

Static & ephemeral

Temporal qualities such as harsh and fluctuating weather conditions are present here. The contrast between an unpleasantly strong wind, and a calm leeward side is a common feature. Yet, on a sunny and calm day the heat along the southern facing facades can be pressingly hot. Swans and other birds passing by, as well as the occasional boat can be observed. When standing at the tip of the Nyhamnen pier, away from the noises of trucks and cars by the grain industry facilities, the sounds of the city become deaf and muted, like a faded background buzz. Instead, the sound of the sea emerges, and calmness is instilled.



The water rises high at Nyhamnen pier during the storm Malik in January 2022.



A calm sea view at Nyhamnen pier.

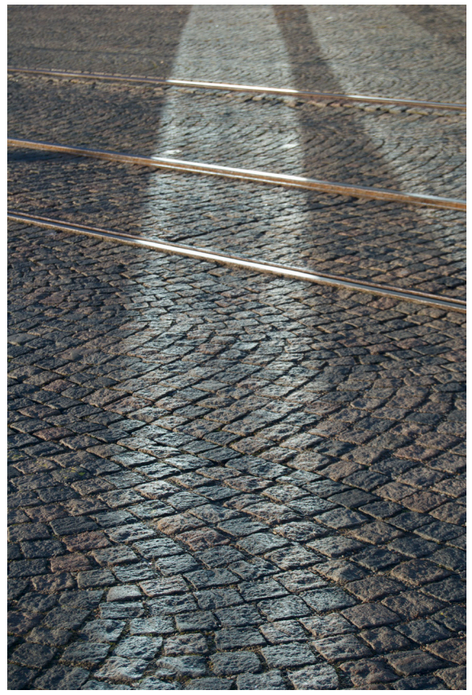


Malmö outer lighthouse (Malmö yttre fyr) stand firm during a storm surge.



A pilot boat enters the Nyhamnen basin.

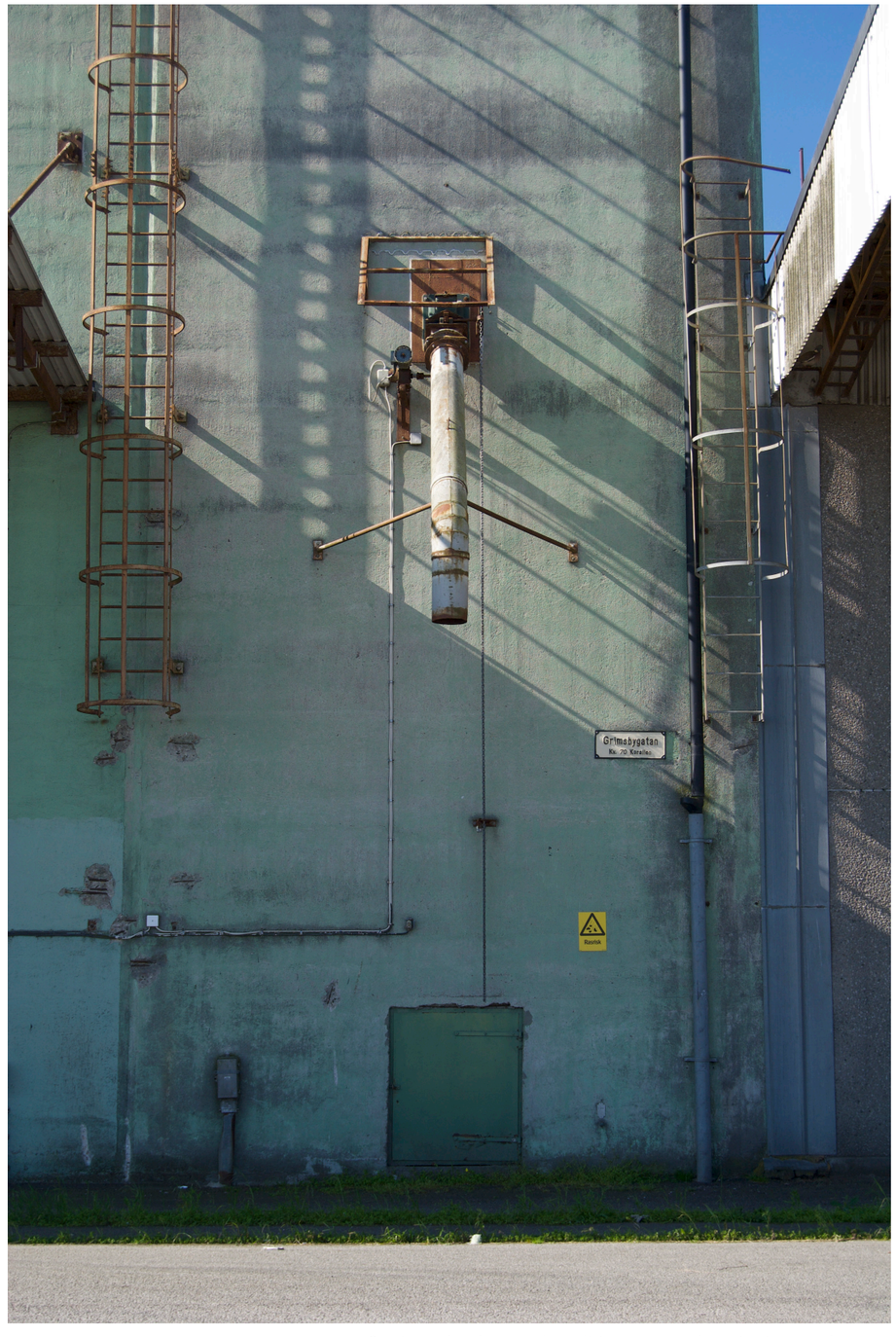
Static & ephemeral







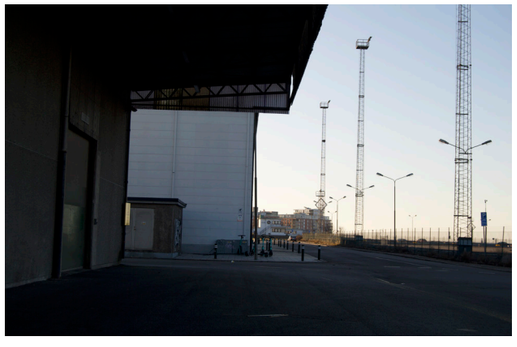




Static and ephemeral qualities as snapshots in time and space.

Space & scale

Towering silos, wide quays made to facilitate large transports of trucks and containers, and the sizable harbor basin stand in sharp contrast to the dimensions of the human body, or the occasional tree, bush or grass turf. The scale is both intimidating and fascinating. The vast spaces and grand building dimensions convey a feeling of being exposed and small when moving through the area.



Embraced by the overhanging roof and the shadow.



Silos rising high above the ground catch our attention.

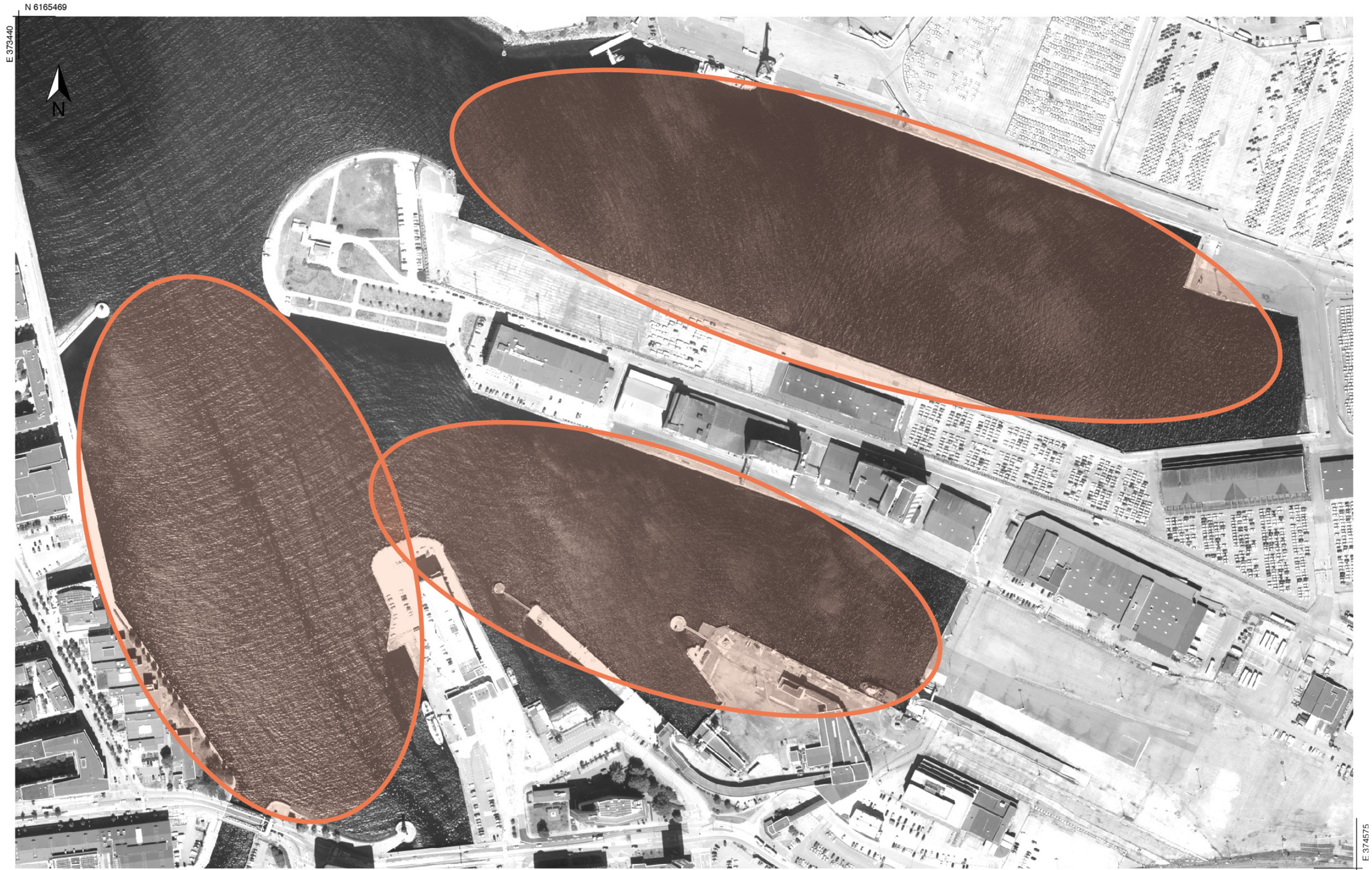


The 24 meter wide quay offers extensive space between the edge of buildings and the water.



Without human presence, the scale of the buildings is sometimes deceptive.

Space & scale



Vast enclosed waterscapes characterize Nyhamnen.

Connections & barriers

When walking towards Hullkajen, whether from Västra hamnen in the west, the city center in the south, or Värnhem in the east, there are several perceived obstacles to an imagined straight path. From a walkability perspective, access is cumbersome and the available paths generally uninviting and non-intuitive. Bridging the water and creating more suitable paths and environments for moving to and around the area at walking pace is clearly a necessity.



Large fenced off areas characterize Nyhamnen.



The narrow pedestrian and bicycle path acts as makeshift transport way between Hullkajen and central Malmö.



The vast waterspace at the basin of Nyhamnen acts both as breathing space in the dense urban fabric and a perceived barrier.



Visual connection but physical barrier at Jörgen Kocksgatan.

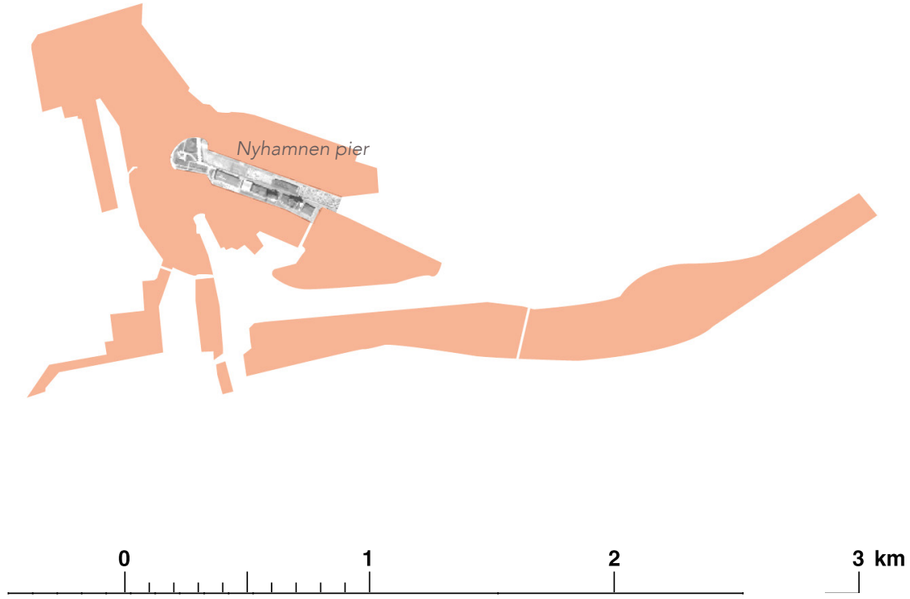
Connections & barriers



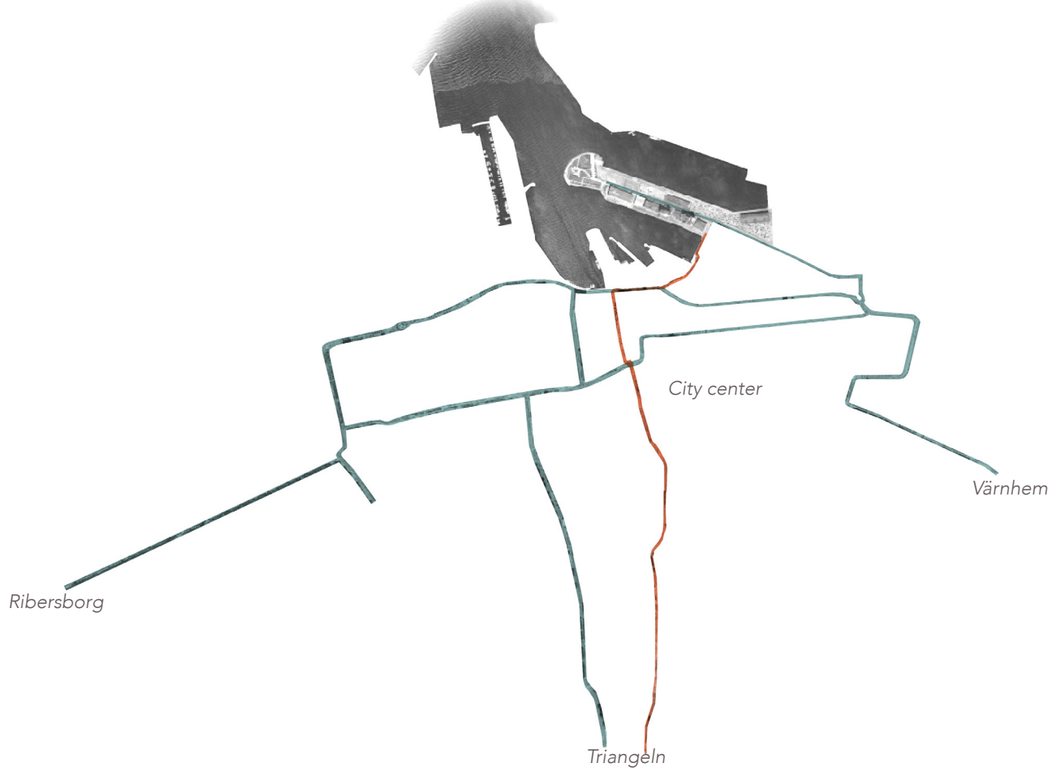
Existing and possible future connections (dashed lines), where Nyhamnen is incorporated into an accessible coastal landscape.



Connections for pedestrian and bicycle traffic between Hullkajen and other parts of Malmö could potentially be strengthened in several directions.



Perceived barriers (orange fields) of, and bottle neck accessibility to, the Nyhamnen pier.



Roads to Nyhamnen predominantly accomodates cars and trucks (green). A pedestrian path connects Hullkajen to central Malmö (orange).

Materials & elements

Layers of green paint, in oddly shifting nuances, together with rusty ladders, vents, pipes, and other industrial features characterizes several buildings. Crumbling, dirty concrete, brick facades, stone paving, individual trees and the sea water add tactile elements. Asphalt and overall hard surfaces make softer elements, such as vegetation, a rarity.



Similarities between elements, and subtle changes of colors and materials.



Materials & elements

















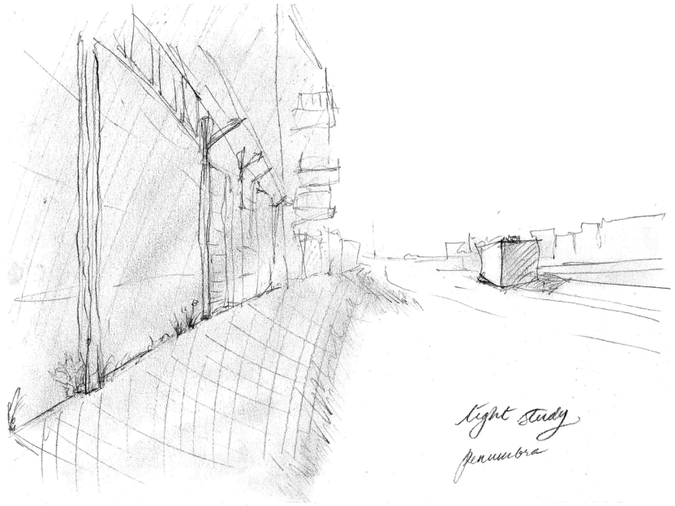
Rugged industrial atmosphere, layers of history, and the wear and tear of long usage is present.

Light

One of the most striking things about Hullkajen is its southern facing location overviewing the harbor basin. On a sunny day, sunbeams glitter on the water surface, making moving reflections on facades and windows. In contrast, the northern facing side along Grimsbygatan, with several tall buildings, is generally cast in shadows throughout most of the day, making it appear as the dark backside of Hullkajen. The industrial structures forms the light into pillars that wander across the site throughout the day, marking a distinct contrast between light and shadow.



Looking south between buildings toward central Malmö.



Light study at Hullkajen 11, Spring 2022 at noon.

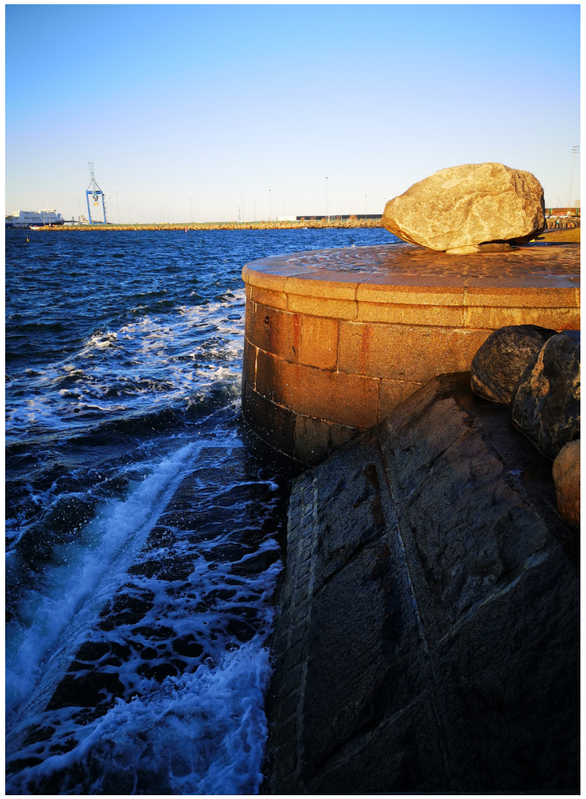


Looking east along Grimsbygatan.



Looking east along Hullkajen.

Light











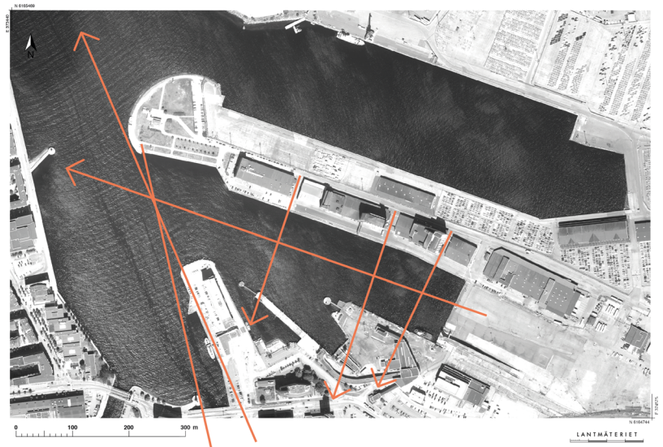




The quality of light shifts throughout the day.

Line of sights

Open water space, and long sightlines distinguish much of the area. The long stretch of Hullkajen is a distinct line that draws you in. It is almost impossible to discern the end of it, or where it bends further. Because of the massive open spaces due to the industrial scale, we can gaze out and assume other lines of sight that might connect to the ones we're standing in. This leaves mental images of how the visual connection continues on from where we are and hints the build up of an internal map. The feeling of being drawn in is guided by this imaginative map and spurs the curiosity within to keep going. For each step, the vistas are slowly changing, revealing more and more of Malmö on the other side of the basin, and giving snippets of the dark side of Nyhamnspiren behind the buildings where the light doesn't reach, when we pass the gaps between the structures.



Distinct sight lines identified during transects.





Looking toward Ångbåtsbron and the center of Malmö, standing on the pier of Nyhamnen.

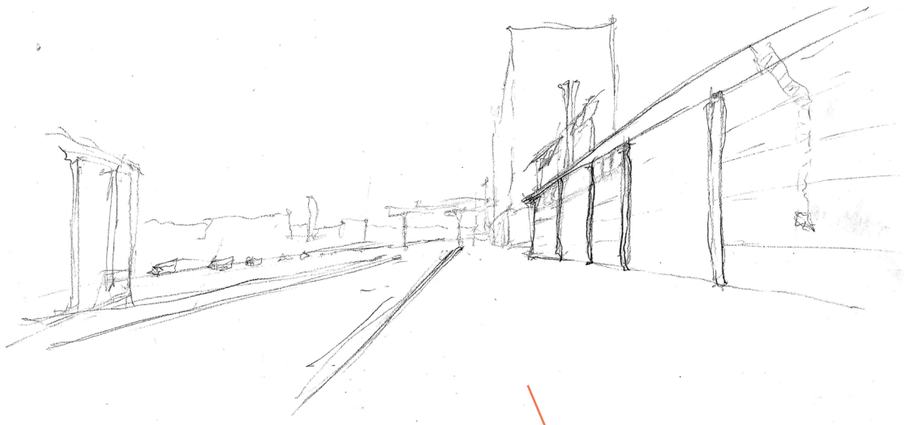


Hullkajen, looking west .

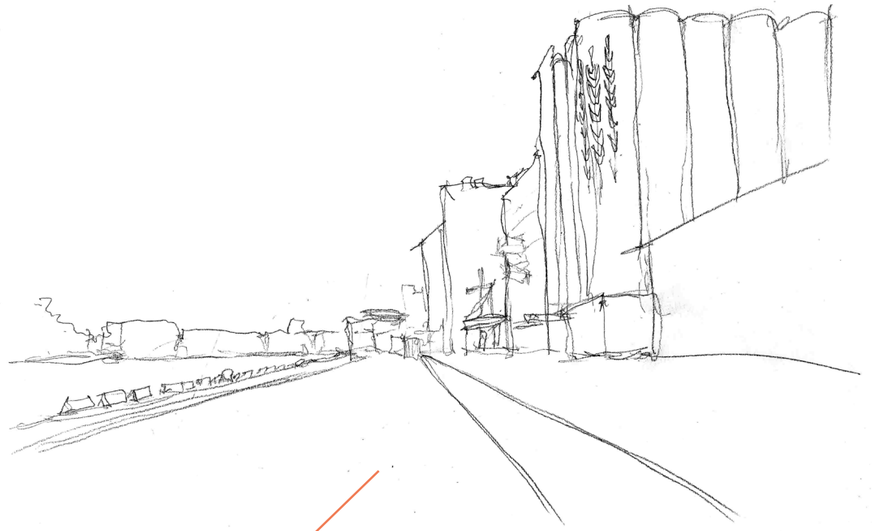


Hullkajen, looking east.

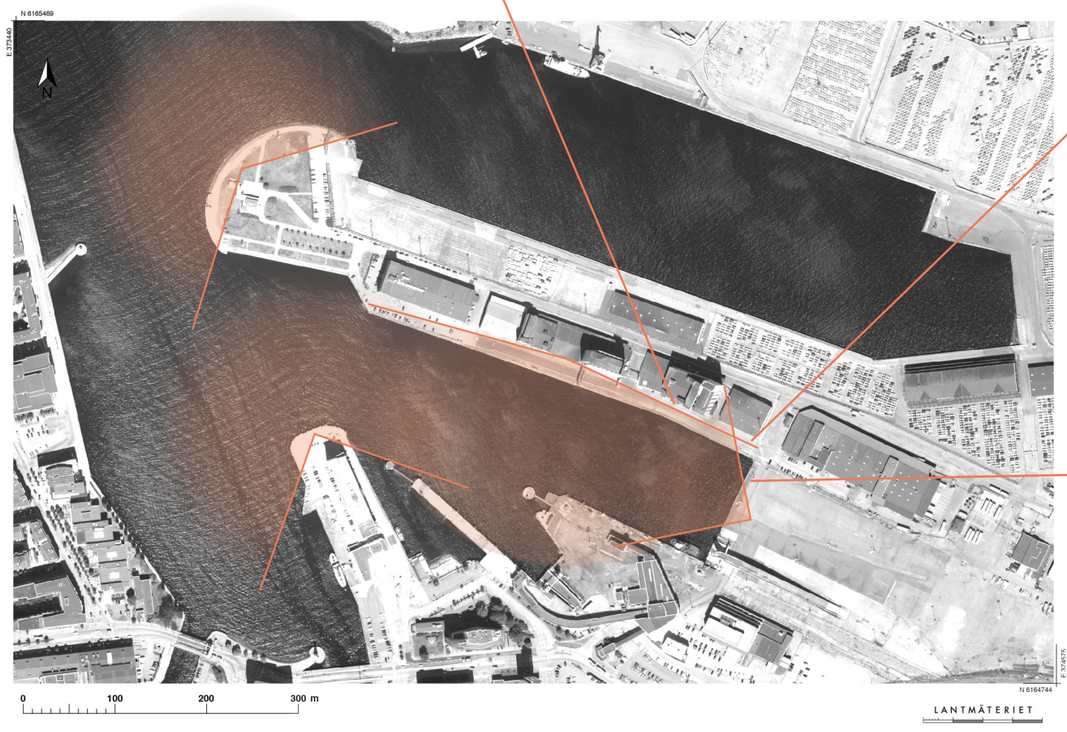
Line of sights



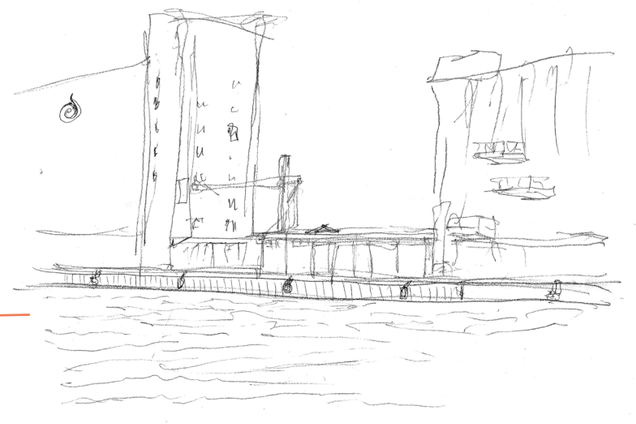
Hullkajen, looking west.



Hullkajen, looking west.



Panorama views.



View towards Hullkajen 11.

Human presence

The grain industry and the small businesses dominate much of the daily human activity. However, a popular lunch restaurant, Saltimporten, attracts people from nearby parts of the city. People fishing is another regular occurrence. During nights and weekends, the area is typically abandoned, only attracting a few sporadic visitors presumably seeking privacy and seclusion. When overviewing the basin towards the city center at night, the feeling of detachment from the rest of Malmö becomes more prominent. Trails of human activity can be seen in disposable remnants all over the place. Almost as if the wind that grazes and rips at Hullkajen carried trash from all around the city. Other signs of intent are spelled on objects through graffiti or stickers. Years of collected cigarette butts rest in a cement bowl outside the office building, and a lonely electric kick bike stands stranded in the middle of the vast asphalt landscape.



Objects used as a canvas for human expression.



The grain industry characterizes much of the daily human activities at Hullkajen.



A bench and table has been moved close to the water edge.



A public space? The benches on the open asphalt plane are fully exposed to the weather elements and look randomly placed.

Human presence



Grain storage in sizable warehouse.



Public access to Hullkajen is generally restricted during daytime.



Unoading grain.



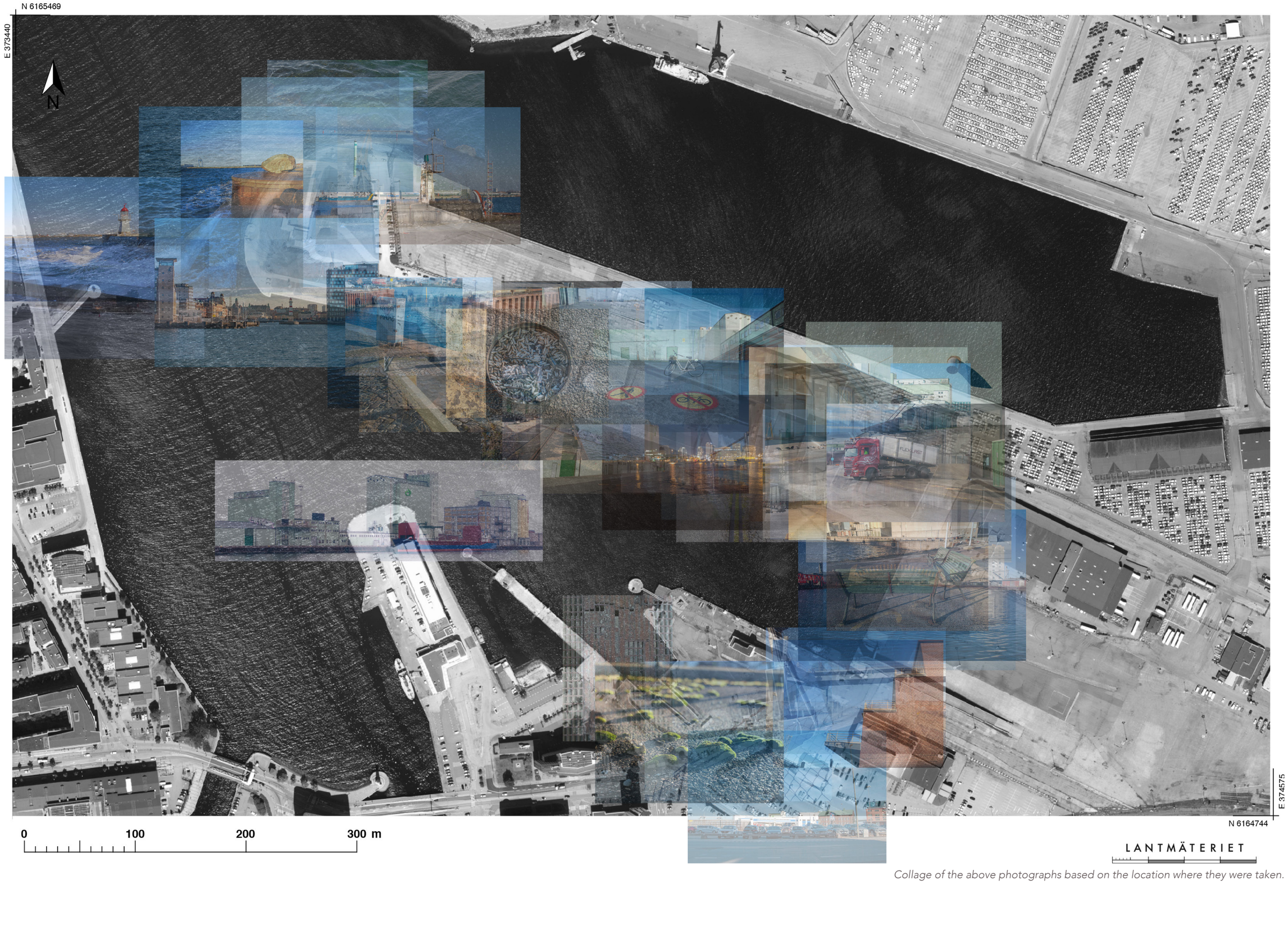
Traces of human presence.



Gates for loading and unloading along Grimsbygatan.



...and human habits.



Collage of the above photographs based on the location where they were taken.



PRECEDENT STUDIES

PRECEDENT STUDIES

To gain further inspiration for the design process we've studied a few precedent projects with relevance to our subject and research question. These precedent projects are chosen based on their differences in connection to various key points in the framework of this work, and are briefly described in this chapter. Together they are intended to indicate certain principles and inspiration relevant to the design of Hullkajen in general, and Hullkajen 11 in particular. Apart from these examples there exist numerous notable projects throughout the world which could resonate equally well with the nature of this work, and while these are viable for well-founded inspiration, the following examples are a delimitation.

Landscape Park Duisburg Nord

Landscape Park Duisburg Nord is a popular natural and cultural landscape in North Rhine-Westphalia, Germany. Discontinued industrial buildings have in an area of about 180 hectares been remodeled to host commercial and cultural events. For example, an old gasometer has been turned into an artificial diving center, ore storage bunkers have been transformed into an alpine climbing garden, a high ropes course has been constructed in a casthouse, and a viewing tower has been placed in a former blast furnace. The landscape park forms an industrial heritage circuit which focuses on leisure, recreation and activities. Besides the range of activities accomodated in the old industrial constructions, visitors can walk through the landscape park on foot or explore by bike. For children, the entire park functions as a huge adventure playground, which also includes a Children's Farm (Duisburg Kontor Hallenmanagement, 2022).

The site reveals information about the past and the present, as stories of the old production are told and nature has grown back, reclaiming its terrain from industry. Railroad tracks are preserved and serve an infrastructural function for the park's service equipment. Trees, herbs and mosses line the tracks, which adds aesthetic quality (Braae, 2015). The role of landscape architecture in the reconstruction of the site is prominent, as the Landscape Park functions on the principles of urban development with regard to ecological, social and cultural factors. As a general principle, a balanced relationship in major cities between residential areas and open spaces is pursued with the realization of the project. In seeking to create living space, landscape architecture relies on the use of dynamic means – often natural components such as vegetation, ground cover or water elements. The reconstruction of the landscape is described not as a return to a previous state, but rather as making use of what's already there, creating space and letting nature and culture be developed. Through ecological remodeling of the site, nature has been allowed to reclaim space from industry, at places growing back wild (Duisburg Kontor Hallenmanagement, 2022).

Landscape Park Duisburg Nord is an inspiring example of how discontinued industrial sites can be transformed into public space and incorporated into the urban landscape, manifesting continuity of the site while offering unique environments for people. The design approach of Landscape Park Duisburg Nord, where past and present are interwoven, is an appropriate example of how the concept of radicant design can be applied to postindustrial transformation. Maximizing the reuse of materials is a starting point for what Braae (2015) calls *cultural recycling*. It addresses the challenges of structural change by encouraging a perspective on postindustrial transformation inspired by natural processes. At the core of the site's redevelopment is the principle that a landscape architecture project is never truly finished, but a concept in development.











The landscape park offers event venues, climbing, light shows, and a park in a postindustrial setting (NRW-tourism, 2022).

Reffen

This cultural hub sits on one of the old quays of Refshaleøen by the water north-east of Copenhagen city center in Denmark. This artificial island holds a long history of industrial activity, and specifically as a long-operating shipyard that started in 1871 and closed down in 1996 (Christianshavnernet, 2022). Today Refshaleøen is a place for cultural events and recreational uses, along with crafts and arts collectives, and flea markets. Reffen is a fusion of street food from all over the world (with as many as 40 different stalls), workshops, and small stores. The food is organic and the food market is open everyday during the week. During the course of a year they host about 100 events, and with the possibility to seat 2500 people (Reffen, 2022), Reffen has become a well-visited area that puts alternative and innovative uses of postindustrial harbor to the forefront. However, plans for urban redevelopment in Refshaleøen are expected to commence in a few years time, and the addition of another artificial island, Lynetteholmen, is underway, which has raised questions on participatory and environmental issues in new city exploitation (Arbejderen, 2022). This would position Reffen in the midst of a changing urban fabric that raises questions of site history, contemporality, and integrity.

Reffen offers an example of how a historically postindustrial space can be advocated with non-standardized means and still result in an appreciated and genuine place. Therefore it is interesting to have this complex case of urban use and design when we move on to our own radicant design of Hullkajen.



Beer garden.



Reused containers, and seating area.



Old industrial building turned into a cultural venue.

Västra hamnen

In 2001, a European housing fair, Bo01, was held on the old wharf stretching north-west of Malmö city center. It would instigate what would soon be the scene of massive redevelopment plans for Malmö's harbor and coastline. Västra hamnen has a stronghold in the history of Malmö as it cemented the industrial city identity, providing jobs and a node in the global economic communications. During a period of roughly 300 years, the harbor of Malmö has undergone several changes due to new artificial land and industrial uses. The land that would ultimately result in Västra hamnen saw its beginning after 1870 (Edlund, 1922), but grew most significantly between 1910 and 1980 (Lantmäteriet, 2022a; Lantmäteriet, 2022b; Malmö stad, 2021d). The most prominent industry was the shipyard which was successively discontinued during the 1970s-80s, with 1986 marking the final year of its large-scale civilian ship production (Malmö stad, 2021d). This resulted in derelict industrial spaces, of which many have already been demolished to make space for housing, offices and shops, with only a few blocks left to be exploited. Inspiration for the reshaping of Västra hamnen uses cherry-picking of its own history aesthetic where occasionally new buildings adopt brick facades with rusty metal accents. However, standardization is frequent both architecturally, and in the way the landscape is designed. Blocks are ordered by an infrastructural grid structure, and this creates a deterministic division in use and function.

The focus highlighted in the Bo01 fair was sustainable city development and that Västra hamnen would act in the forefront as an international example in this feat; renewable energy, biological diversity, and accommodating to the human scale. The flagship area, also called Bo01, was meticulously planned to favor pedestrian life. However, this is not true for the entirety of Västra hamnen, where there is a heavy prioritizing of roads throughout most of the area, that still promotes vehicular transportation, while also disrupting whatever green structures that exist in the area. The sea is brought closer to visitors, but is also inaccessible at times due to variations in the waterfront walk design. There are possibilities to go swimming and open grass areas for other forms of recreation. Volleyball courts are also available near the water. All this has made the coast of Västra hamnen an attractive refuge during hot summer days, but also for the everyday jogger or daily commuter seeking to choose a path near the sea. There are lessons to be learned by studying Västra hamnen and its developmental course, especially when it comes to visionary plans and the factual execution and results of said plans.



Integration of built structures and sea at Sundspromenaden, Malmö.

NGBG

Founded as a local cultural association, NGBG supports access to public places, promotes cultural expression and creates new opportunities for residents and visitors in the neighborhood on and around Norra Grängesbergsgatan in Malmö. Annually since 2016, with the exception of the pandemic years of 2020 and 2021, a street festival has been organized by NGBG on Norra Grängesbergsgatan. The festival is a joint creation of thousands of local individuals and businesses, and in 2019 the street festival had 25 stages for music and culture, and 14,500 visitors. The street where the festival is held consists of car repair shops and small businesses that lend their premises for the purpose of the event. Following the hiatus of the pandemic, the association describes this year's festival as a phoenix bird, which rises from the ashes to provide events and activities for Malmö's inhabitants (NGBG, 2022a).

Apart from the street festival, NGBG organizes projects and events for the community, as well as making advocacy work for changes in Malmö municipality's detailed plans for the area. For example, the advocacy work has led Malmö municipality to grant a 'culture sound zone' in the area which prompts activities, such as concerts that generate high sound, to be allowed. Through local, bottom-up initiatives and questioning of the current detailed plan, NGBG wants to make the area a significant and dynamic cultural, leisure and business center. At the same time, they advocate consideration of the area's industrial architecture and other historical traces. Describing traditional retail-based city centers as unsustainable, NGBG wants to gather artisans and cultural producers and try to find common ground with other industries to form a neighborhood based on a win-win symbiosis between sport, culture, transport, baking and brewing, education, recycling and retail (NGBG, 2022b).

Initiatives and ideas similar to those of NGBG are of interest when planning and designing the future of Nyhamnen, and especially Hullkajen with its potential to house cultural venues and leisure activities. With local bottom-up initiatives and co-creation as a driving force, public space can be designed in a way that challenges the standard planning and building process. In addition, such initiatives may strengthen the sense of community, as well as its resilience.



NGBG street festival at Norra Grängesbergsgatan in Malmö (NGBG, 2022a).



NGBG street festival at Norra Grängesbergsgatan in Malmö (NGBG, 2022b).

Inspiration for design principles

The following principles are extracted from the precedent studies according to their relevance to Hullkajen 11, and contribute to the overall design concept and edits.

Landscape Park Duisburg Nord

- The overall approach of integrating the postindustrial with the urban structure. Past and present are interwoven by means of cultural recycling.
- The concept of a landscape park which forms an industrial heritage with focus on leisure, recreation and activities.
- The esthetic concept: ecological remodeling of the site, where nature is allowed to reclaim terrain from industry, wild character.

Reffen

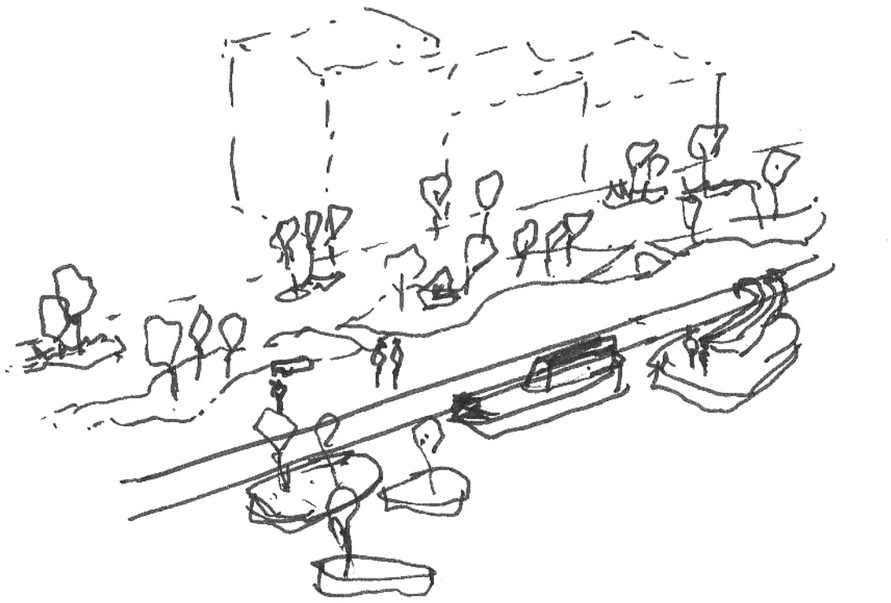
- Alternative and innovative use of a postindustrial harbor with focus on cultural events.
- Non-standardized measures can, through relatively simple means, result in an appreciated and genuine place.

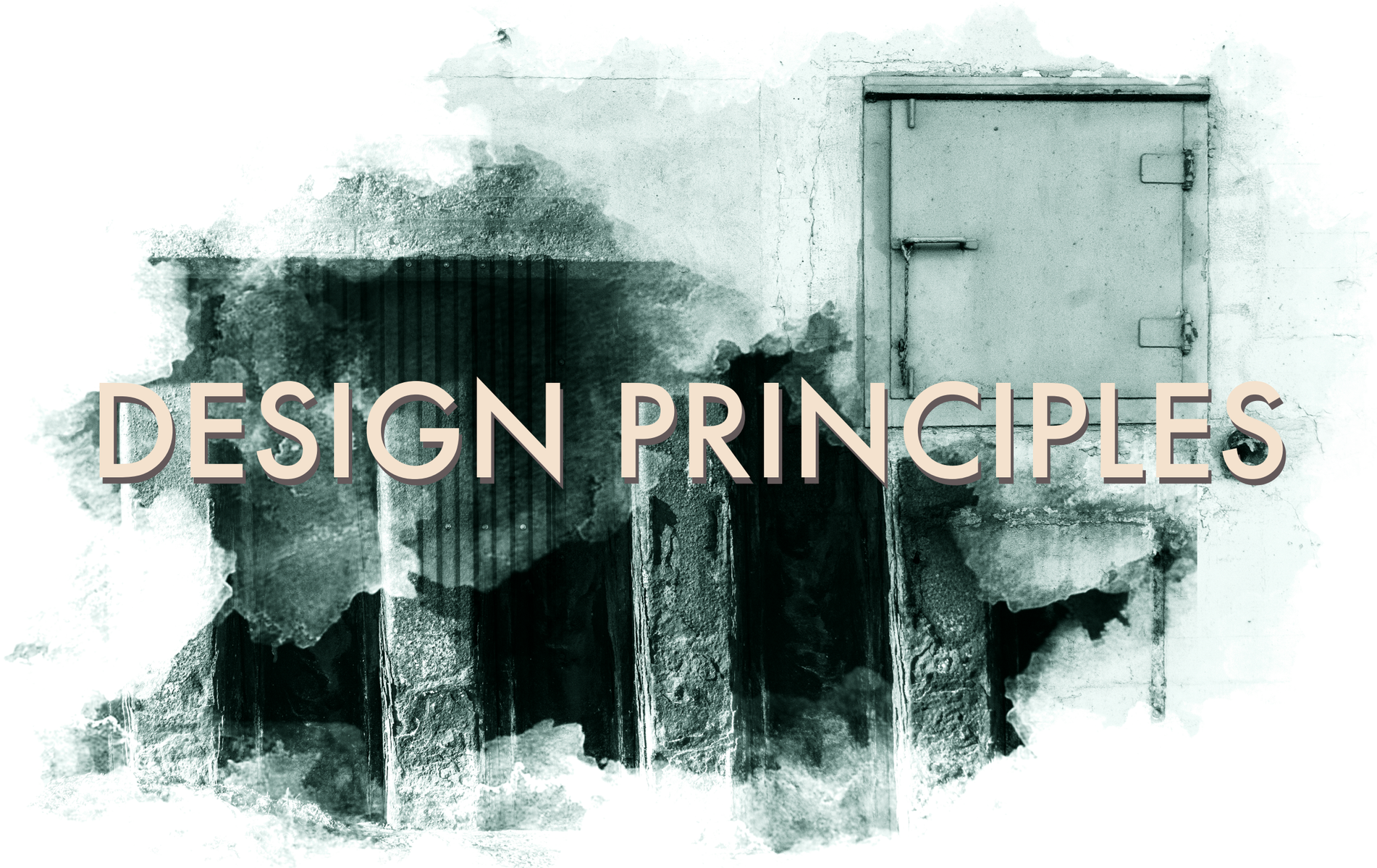
Västra hamnen

- Although certain aspects of Västra hamnen have been hailed a success and gained international recognition, such as the scale and architectural complexity of the Bo01 area, the overall structural approach has largely been that of a tabula rasa approach. The design principles for our work will pay attention to both the pros and cons of the redevelopment of Västra hamnen, and especially attempt a less conventional structural approach in line with the ideas of interweaving the past and the present.

NGBG

- Dynamic coexistence of culture, businesses, housing, as well as values for both the local community and visitors.
- Making space for community strengthening activities and bottom-up initiatives.





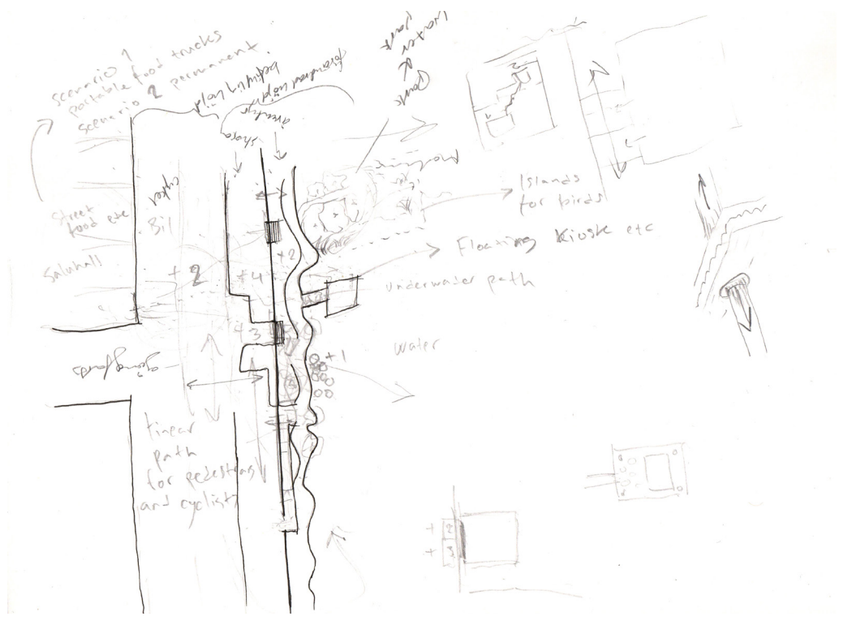
DESIGN PRINCIPLES

DESIGN PRINCIPLES

Concept

As a way to challenge the conventional planning strategy, site editing will begin by using an old warehouse and the adjacent quay as an activator in order to initiate an alternative approach to Nyhamnen's re/development. Our design process is based on the concept that major parts of the disused industrial harbor structure along Hullkajen can be adapted in a foreignizing way into the new urban structure. Hence, the upcoming residential development will be integrated into what might be called an industrial landscape park, drawing its overall inspiration partly from Duisburg Nord in Germany. Vegetation is allowed to accentuate the former industrial structures, thereby adding aesthetic quality. The intimidating industrial scale and its austerity is mitigated by adding softer elements of lush vegetation, such as trees, bushes and tall grass. The existing structures - including warehouses, silos and the quay - have potential to host a great variety of cultural and leisure activities, which will form the basis of the industrial landscape park. The outdoor quay park will form a year round, free for all public space, whereas the indoor areas feature a variety of both commercial and non-commercial leisure activities. In this way Hullkajen will function both as a natural and cultural neighborhood park for local residents and a destination for visitors from other parts of Malmö and beyond. By extension, this can contribute to establishing Malmö as an avant-garde coastal city.

By allowing for public space to take place and be a central principle at Hullkajen, the site is safe-guarded against gentrification and other forms of market-driven development. As a consequence of prioritizing public space, the design concept enables a foundation for harboring a sense of community which strengthens social cohesion. The transformation process of the site will be a constant oscillating relation between design, social parameters, and temporal contingencies.



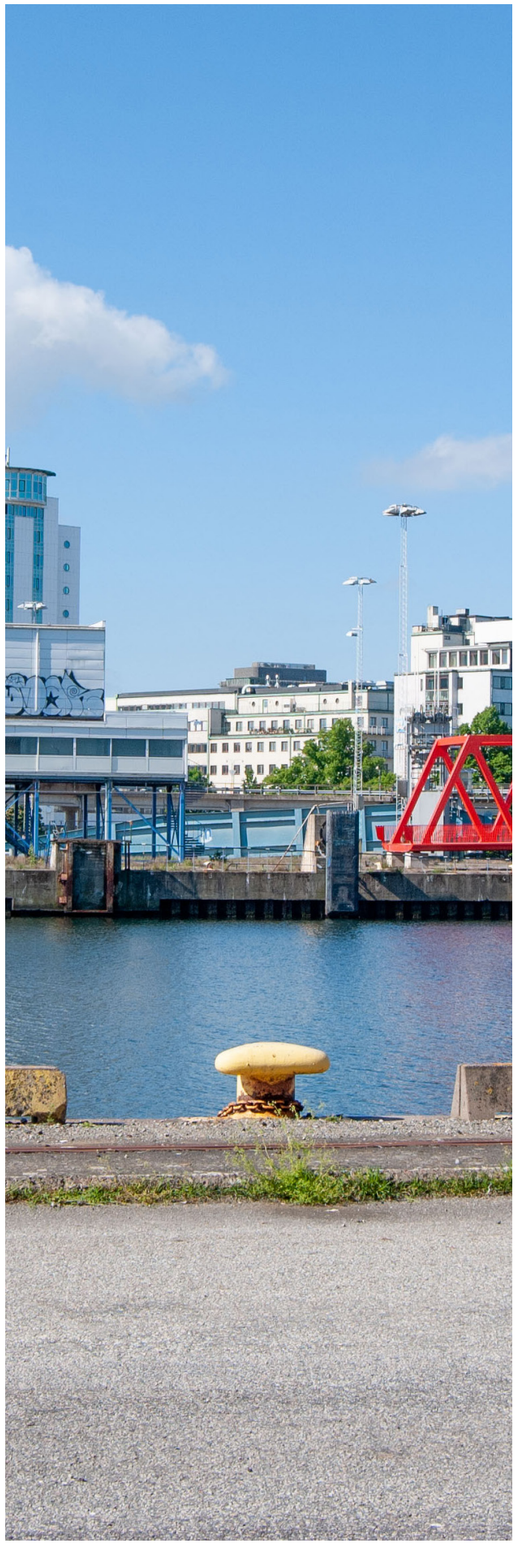
Process sketch of design interventions at Hullkajen.



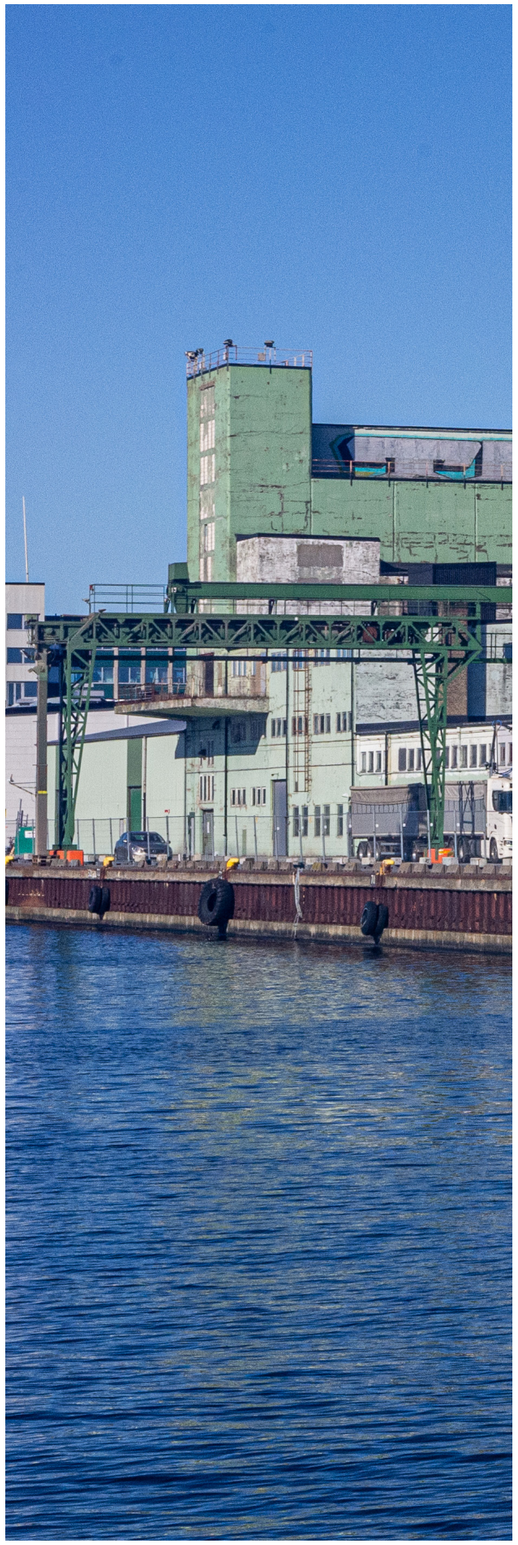
Street sign and facade elements.



Warehouse at Hullkajen 11 in March 2022.







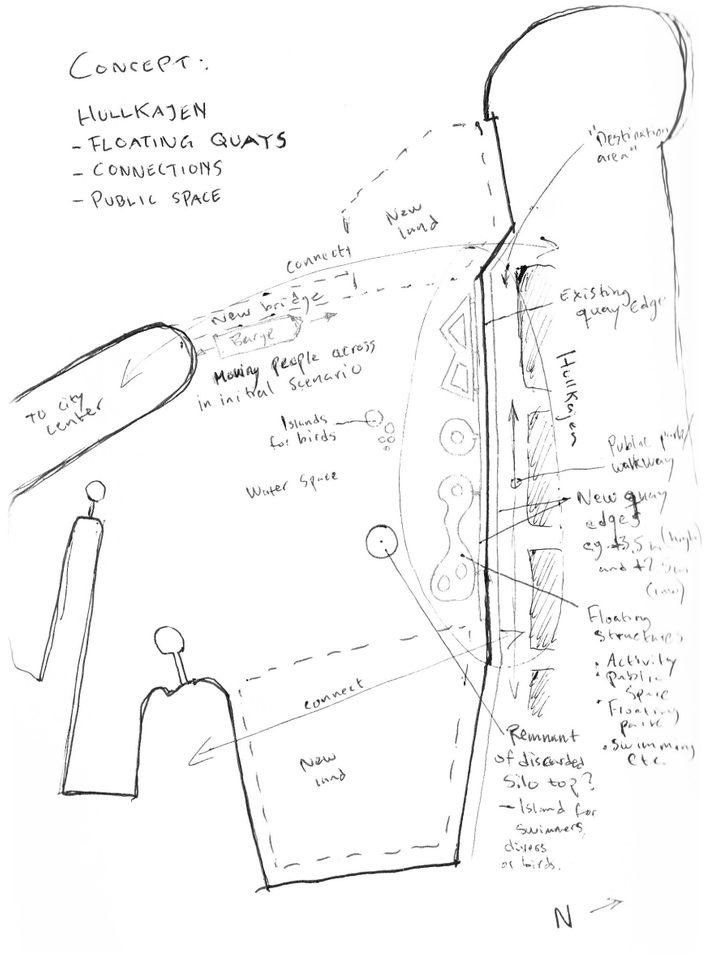


Views over the basin of Nyhamnen.

Radicant & resilient public space

Transforming Hullkajen into an industrial landscape park integrated within the residential urban structure could result in a vibrant urban district which is rooted in an approach that is both radicant and resilient, drawing primarily from the thoughts of Diedrich. The design process is radicant mainly because it integrates the old industrial harbor structure with new public space and residential development in a foreignizing manner. It is resilient mainly because it includes reinforcements and raising of the quay to cope with elevated water levels induced by climate change. But, it is also resilient because it conserves resources and reuses a large part of the materials and buildings on site. By laying this resilient foundation in the physical attributes, the life that takes place there is encouraged to follow suit and result in a resilient public place. The design concept contributes to a vibrant city life and social benefits since it transforms major parts of Hullkajen into spaces for leisure and cultural activity; indoor as well as outdoor. The concept makes use of the site's unique qualities; the waterfront location and unconventional use of industrial structures for new purposes. In this way a "tabula rasa" approach is largely avoided. Hullkajen's industrial landscape park opens up the site as accessible and a resource for both residents and visitors alike. The site becomes a concept for radicant development of Nyhamnen, which ultimately can strengthen Malmö as a role model for postindustrial harbor development. Influenced by the ideas of Gehl, Jacobs, and Whyte, the industrial scale of Hullkajen is mitigated principally by adding new elements in the human dimension, and creating active edges between indoor and outdoor space, in order to accommodate functioning social life at street level. The idea that slow traffic is a prerequisite for lively public space forms the basis for pedestrian priority at Hullkajen, making it largely a car-free zone. Making and maintaining Hullkajen as an evolving public space could entail various flexible edits to the site; for example, floating structures or platforms that could be moved around within the site as the work of transforming Hullkajen to a more resilient and suitable public place goes on. Chairs, tables, vegetation and wind protection can be made portable to let Hullkajen be a vibrant public space throughout the transformation process and onward as the site continues to change.

Ultimately, the design concept for this project is an industrial landscape park, integrated into the new urban structure of Hullkajen. However, for the scope of this project the focus will be on the initial process of transforming Hullkajen, presented as a cultural venue housed in a former warehouse which will function as an activator for the site. What then follows are speculative phases that Hullkajen might undergo as time progresses.



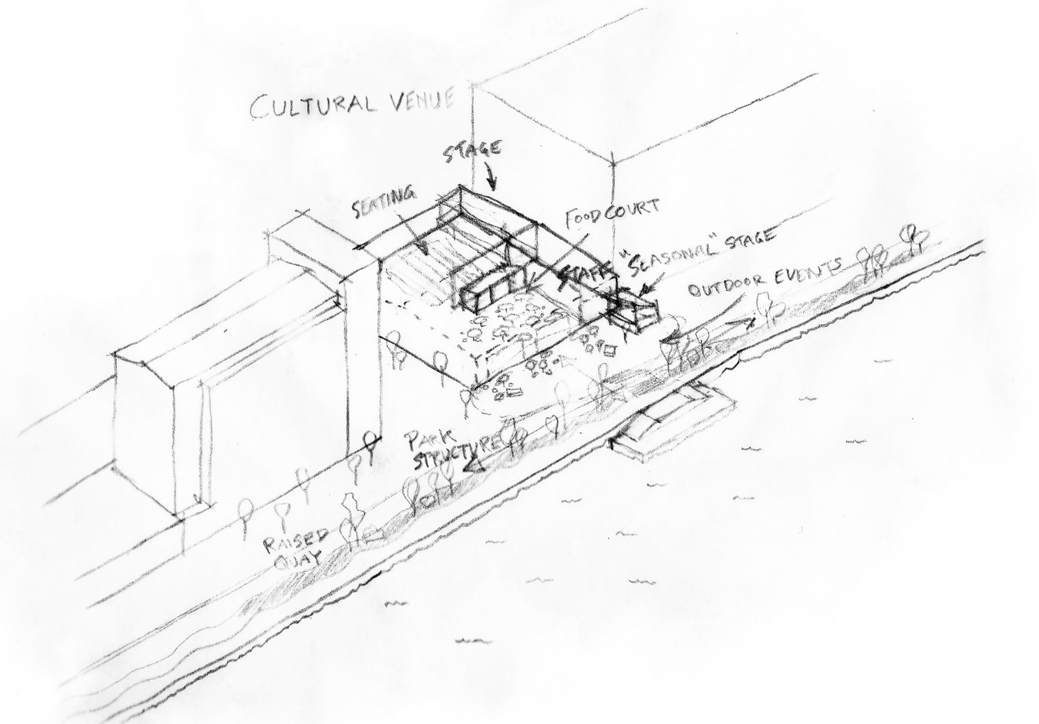
Process sketch of potential design edits at Hullkajen.

A cultural venue at Hullkajen 11

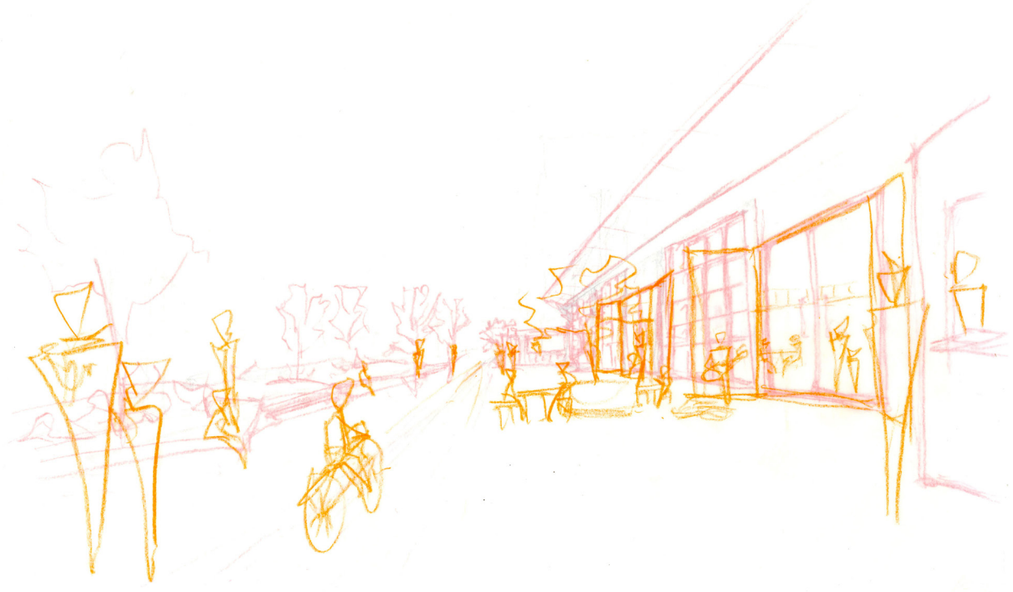
The activator takes the shape of a cultural venue in and around a former warehouse where the initial events take place. The activator will function as a kickstarter for the area on the brink of re/development. Initially the purpose of the activator is to attract the public to Hullkajen as a transparent gesture to include citizen agency. Then, gradually, site activation will transition the long stretch of Hullkajen into a public space based on the wants and needs of diverse groups of people in a site-responsive, foreignizing manner. The main idea of the activator is to introduce the site and the upcoming development by inviting the citizens, while also presenting the idea that the industrial harbor structure has the potential to accommodate and facilitate unconventional - in other words radicant - urban development.

This act of foreignization takes place as an initial eye-opening happening that starts the dialogue between decision-makers, stakeholders, and site. Even more so it starts the negotiation between what the site *is* and what it *can* be by introducing site editing in accordance with the ideas of radicantity, foreignization and collected material from the Travelling transects.

The cultural venue specifically features a food court with several restaurants including indoor and outdoor seating areas, and a stage for cultural performances including a seating area that is adjustable in size. Additional supporting functions would be toilet facilities, staff area and storage space. The outdoor space towards Hullkajen can be appropriated for larger seasonal events.

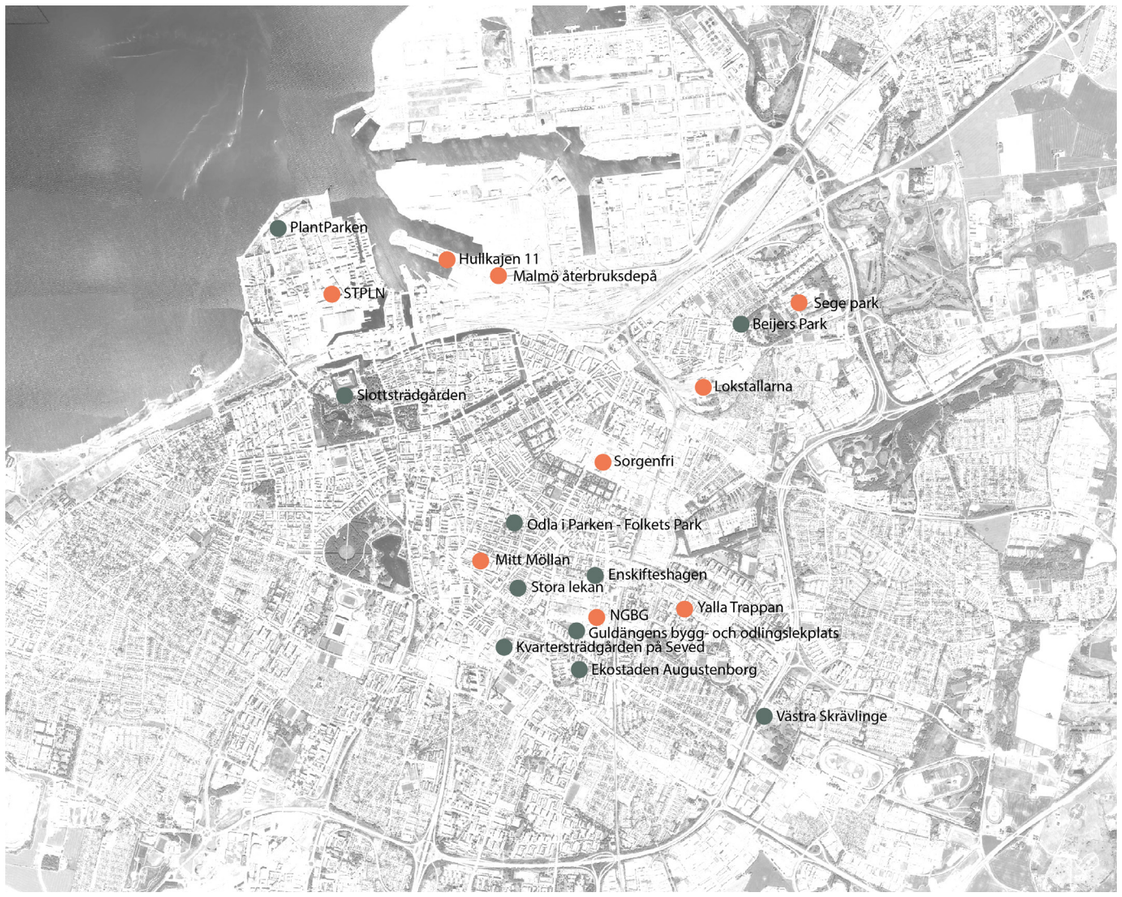


Process sketch of cultural venue in former warehouse and connecting exterior.



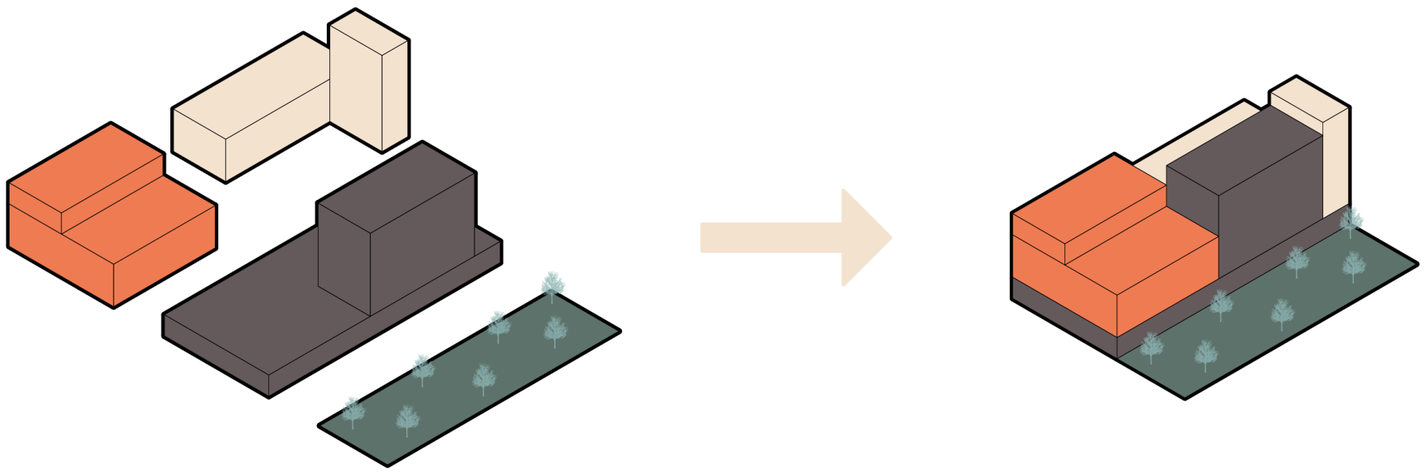
Visualized cultural venue at Hullkajen 11.

Organization of the activator at Hullkajen 11
Malmö municipality owns the premises and coordinates the overall organization of the cultural venue, whereas management can be outsourced to private actors. Restaurant, café and bar keepers rent space at the venue, and the organization also facilitates a ground for local initiatives to host additional events. These rents could be mainly symbolic and should not compromise the financial ability of smaller businesses to acquire a space. This type of spatial and organizational dynamics is influenced by Reffen in Copenhagen (Reffen, 2022), and the Metropolenhaus in Berlin (Metropolenhaus, 2021). The management of the venue would beneficially be financed partly by EU means, as offered for example by Tillväxtverkets program for regional growth, and partly by Malmö municipality through tax revenue (Tillväxtverket, 2021). Potentially, Hullkajen 11 could act as a new addition in an already existing network of community initiative organizations. Such a network would extend connections in Malmö on a social and organizational level and make Hullkajen a part of ever growing community relations. Inspired by organizations like NGBG, this can in turn influence grass-root engagement and bottom-up change.



Example of urban agriculture organizations (green) and initiatives for resource sharing (orange) that could be part of a larger network where Hullkajen 11 would be the latest addition.

Conceptual building typology

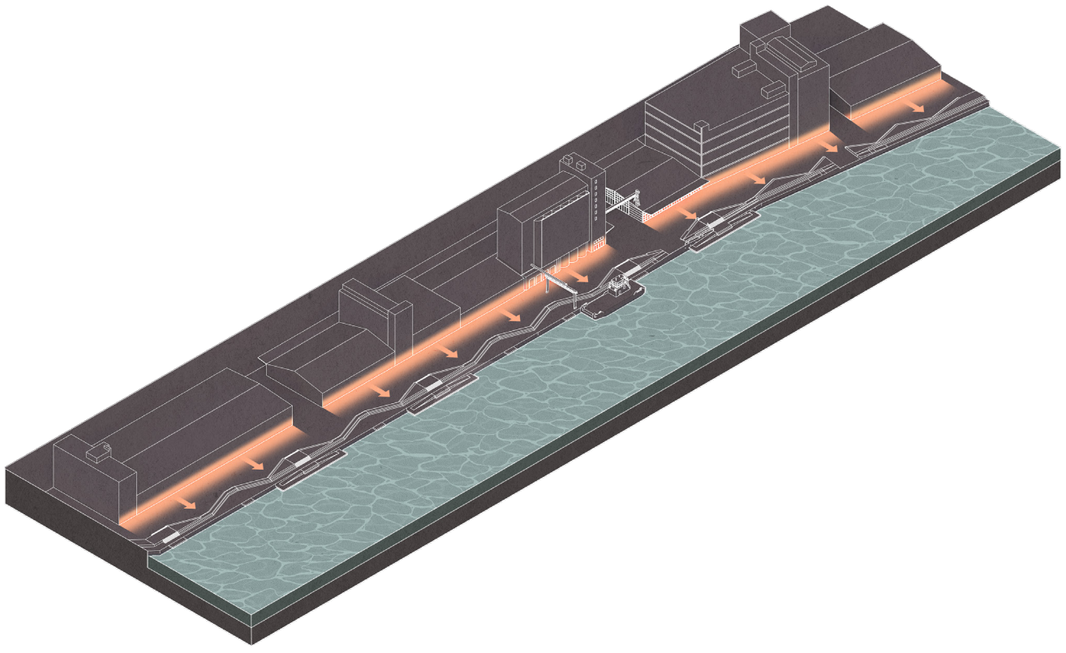


Giving new functions to the industrial harbor buildings, while adding and combining existing structures with new ones, results in unconventional building typologies.

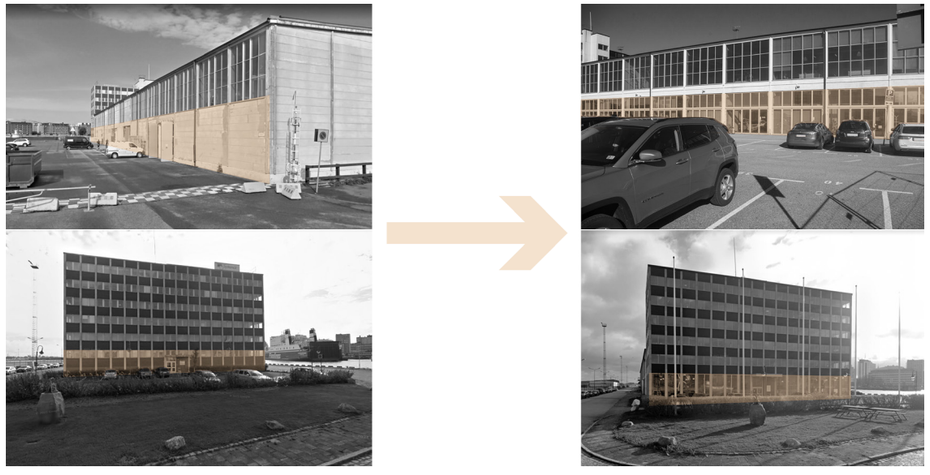
Legend

- Residential
- Public space
- Work space
- Culture & service

Conceptual active ground floors



Active ground floors. Transparency and active edges between indoor and outdoor space.



Redesign of facades at Saltimporten has been made to allow for open and active indoor/outdoor relations. This is a feature that can be adopted to the transformation of Hullkajen.

PHASE 1

Phase 1

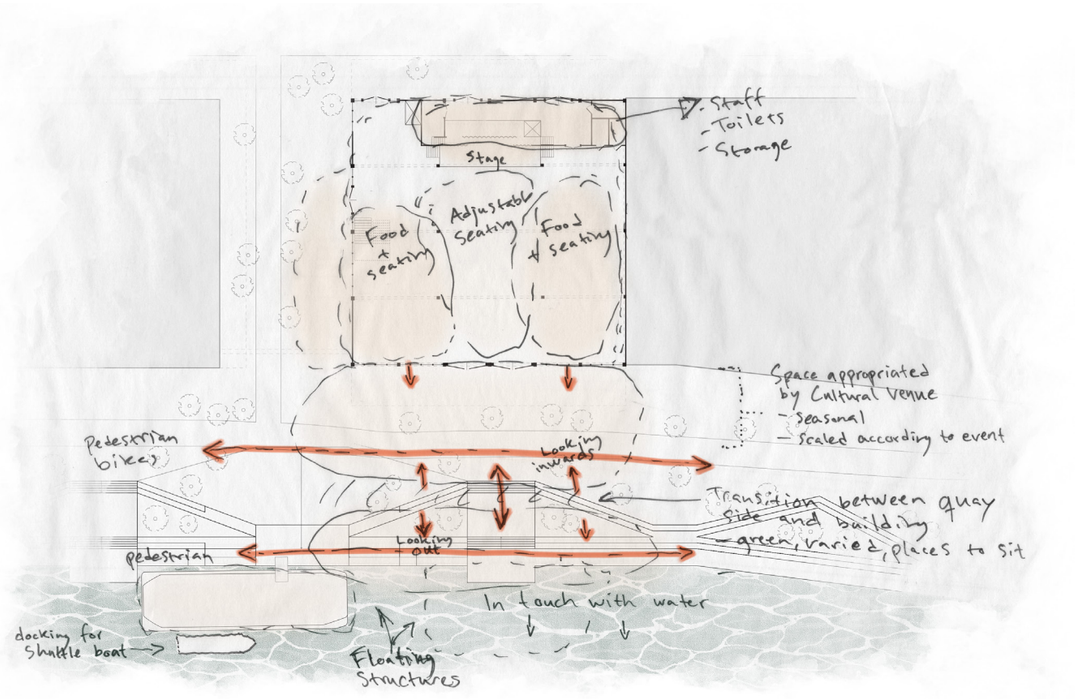
Year 2025: *Activation*

The first goal is to activate the site and warehouse through attracting people. By means of foreignization, and the recorded material from the site, we have made sure to maintain factors that highlight the historic and contemporary values while adding new structures to the quay as a way to meet the inevitable sea level rise. The old warehouse will be intact, with the exception of opening up the south and north-west-facing facades through removing wall segments and adding glass panels and doors. These can then be customized in the way they open, so that the interface between indoor and outdoor is blurred and continued. The activator will take shape in the form of a kickstarter event that takes place inside the old warehouse at Hullkajen 11 and outside on the adjacent quay. The warehouse has been transformed to host cultural events. This includes a stage for small and medium sized events, with an indoor seating area which can be adjusted in size and according to different functions, as well as food court, café and bar services inside accommodated shipping containers. The removed wall segments are reused and remodeled for building the stage and the new interior dividing walls. For the quay, the same principle is used. Parts of the old quay, for example sheet metal and fender tires, are reused for the construction of the new quay fortification and flower beds. Vegetation is planted on the new quay element as well as scattered around the site to spur natural reclamation of industrial terrain. The electricity of the building could be powered by solar panels, and exterior lighting could partly be powered by kinetic wave energy generated from the floating pontoons.

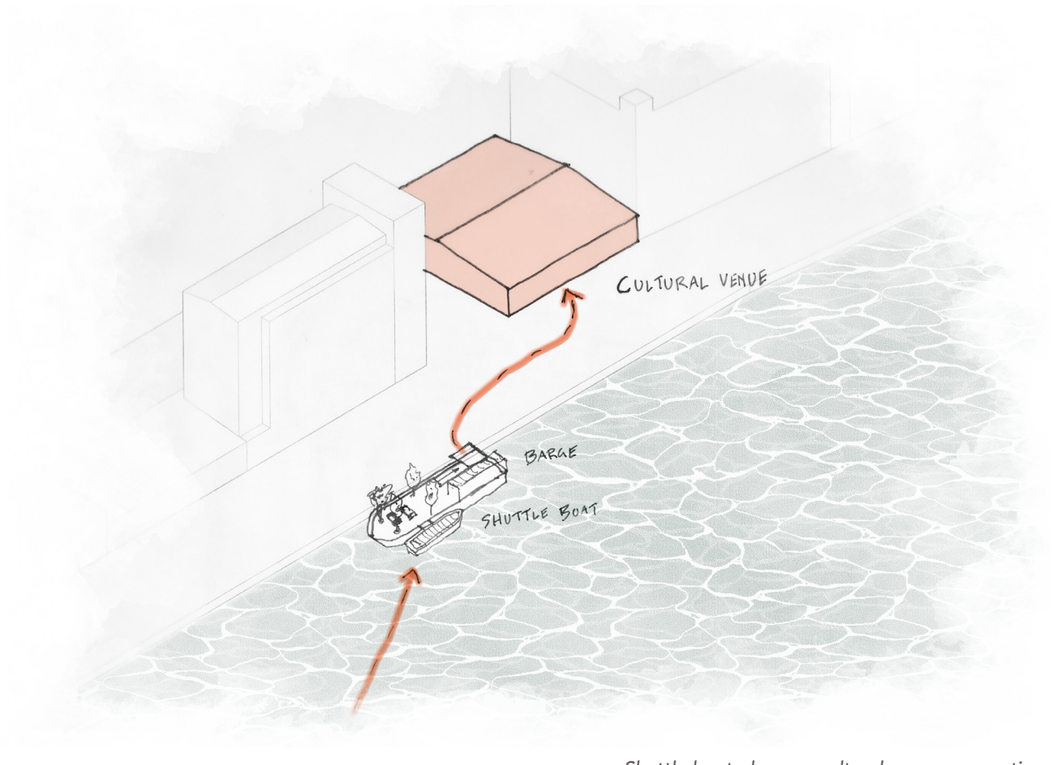
Also, to strengthen the kickstarter event and consequently the initial connection with the venue site, a shuttle boat will be in service, ranging from central Malmö to Hullkajen. A suggested path could be routed on the existing canal system in central Malmö, with several stops along the way. This will attract people's attention, thus also functioning as a sort of a floating and moving advertisement. It will be active during the entire week of the event. As a way to connect and explore the water-land relationship, a barge will be stationed in front of the quay. The barge features benches and vegetation in a park-like manner, and offers a place to linger in close contact with the water. The barge will also act as a transition between the shuttle boat and Hullkajen.



Inspiration for shuttle boat traffic. Tourist boat at Malmö Central (Stromma, 2022).



Spatial organization of Hullkajen 11.



Shuttle boat - barge - cultural venue connection.

Phase 1

Collaboration with several restaurants in Malmö is initiated with the kickstarter event and then maintained as a permanent arrangement. This opens up opportunities also for smaller businesses to participate and grow. To also meet the expected sea level rise, a quay fortification is built on top of the old quay. The new structure will, whenever possible, consist of reused materials from the site, for example concrete rubble for planting beds, metal elements for seating, or bricks. The design of the fortification will allow the old quay to be largely intact and accessible for use while bringing the history of the site to the forefront; yet another edit on the site that's been done through time.

The kickstart event would function as a "grand opening" lasting for roughly a week, and would coincide with the annual Malmö Festival. The music and entertainment events would be free of charge, with food and drinks available for purchase. During the week, the warehouse would be open all day and long into the night.

After the kickstart event
Following the initial kickstart event, the warehouse would be open mainly evenings, weekends and during lunch time, and host a mix of cultural events, for example live music, stand-up, public lectures, or theme happenings. A broad variation of events is desirable in order to tend to the interests of diverse groups of people. Ideally the venue would also be a platform for local and private initiatives to host various events, all with a cultural agenda and the condition that it is open for everyone. A weekly program would attract different visitors, while the food court remains open even during hours when there is no special event taking place. Keeping the food court open on a daily or weekly basis ensures that the venue is maintained active, and that the site functions as a basis for subsequent development of the surrounding public space. Shuttle boats will continue to connect Hullkajen with the inner city and maintain the water link, especially until sufficient bridges are in place. The idea is to keep the shuttle running during evenings and weekends when there are scheduled shows, acts, or other cultural events.



Conceptual visualization of a radicant design of public space along the quay.

Phase 1

Elevation A - A



Cultural venue at Hullkajen 11
Food & music



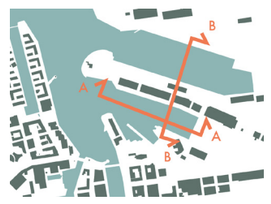
Barge:
Docking for shuttle boat

Quay edits:
Strengthening and elevation of quay
Added vegetation and park structure

Elevation color coding

Site edits

Industrial landscape park



Phase 1

Section B - B

Cultural venue at Hullkajen 11
Food & music



Frihamnsbassängen

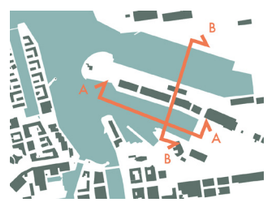
Nyhamnsbassängen

Quay edits:
Strengthening and elevation of quay
Added vegetation and park structure

Section color coding

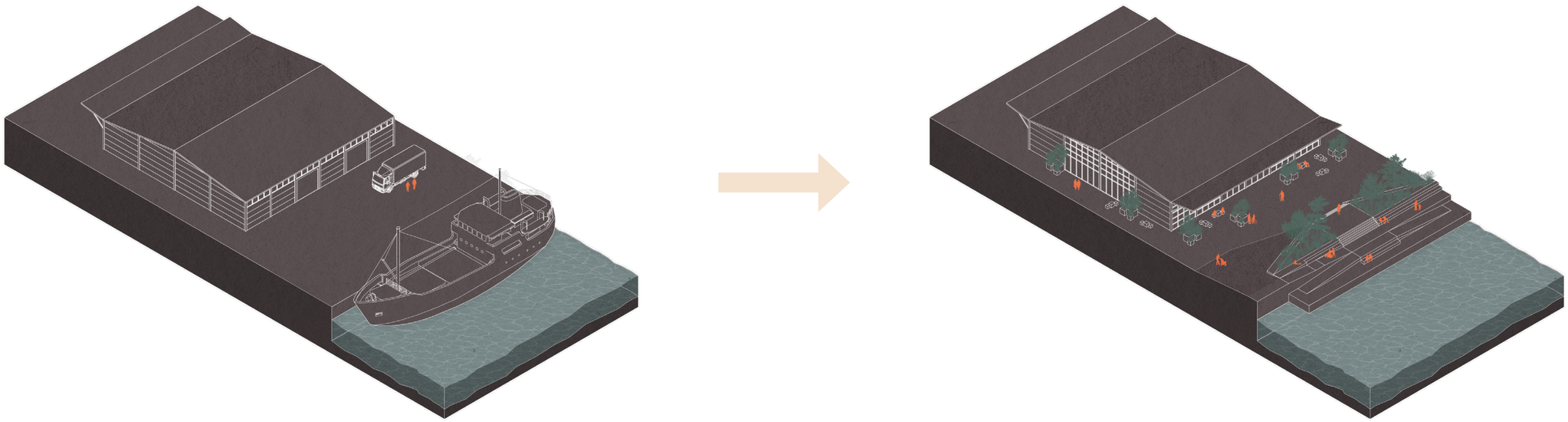
Site edits

Industrial landscape park



Phase 1

From industrial harbor to public space



Built to facilitate the grain industry, Hullkajen 11 is transformed to cater for continuous public space, while preserving much of the old warehouse and many of its qualities.

Phase 1

From industrial harbor to public space

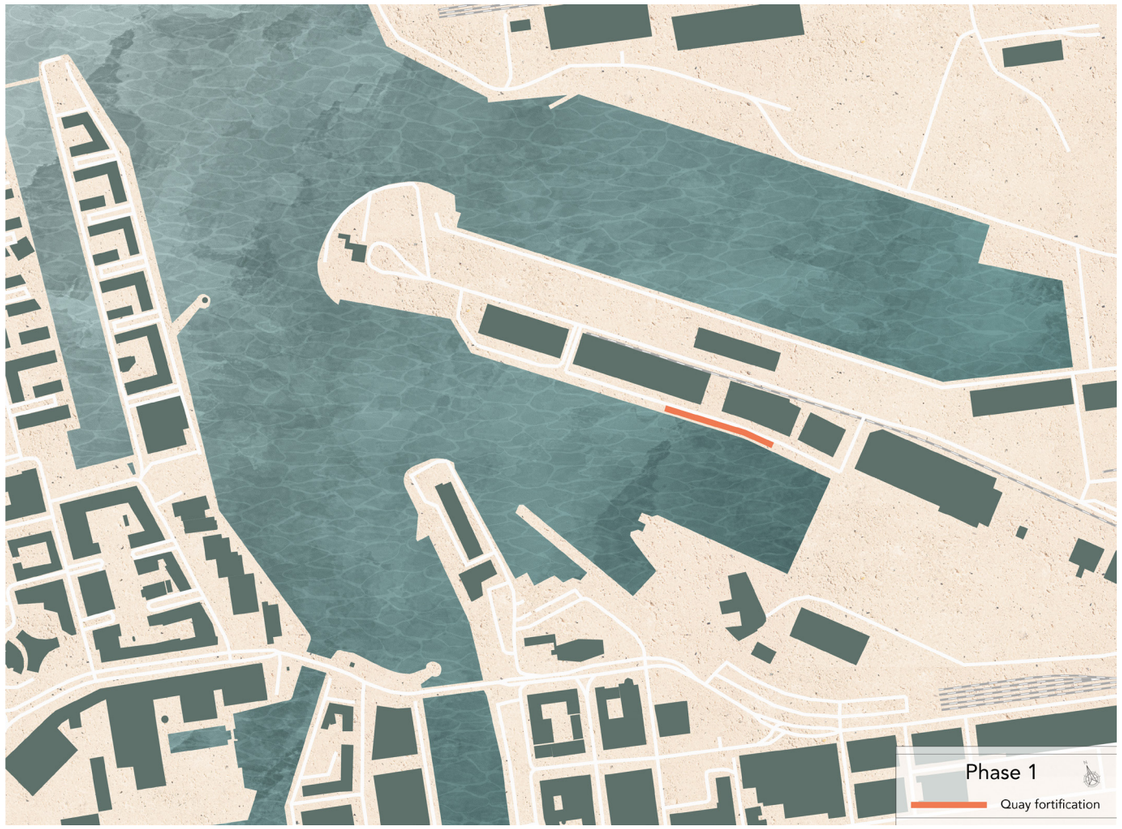
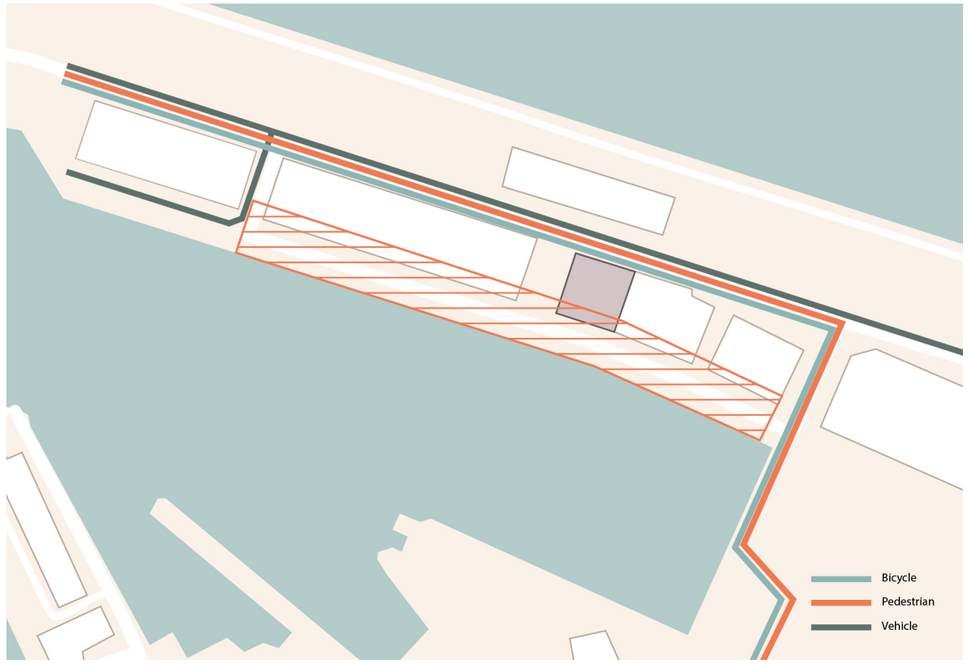
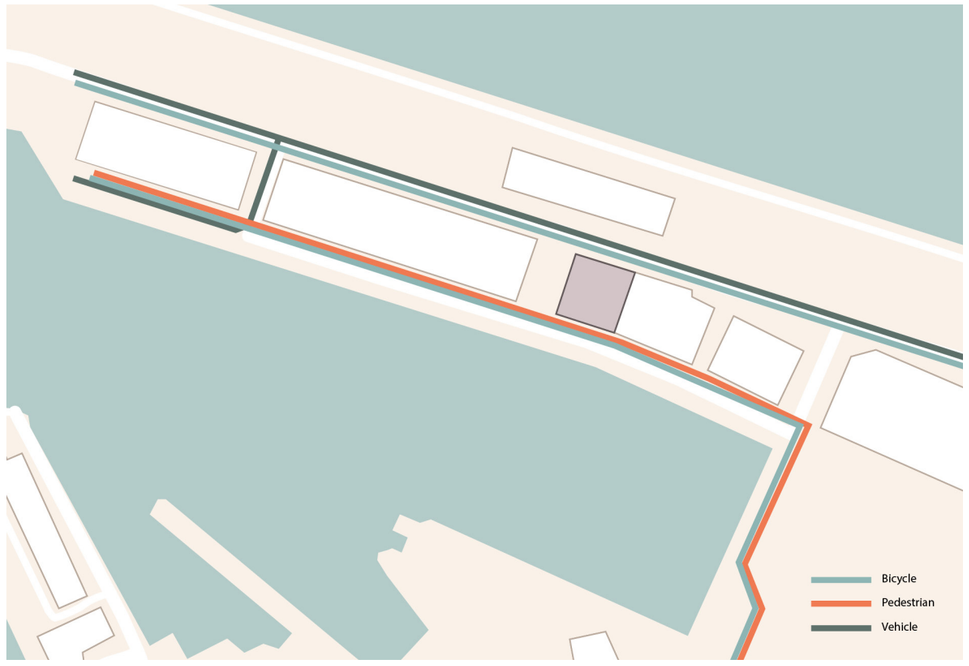


Illustration showing where the quay fortification is initiated outside of Hullkajen 11.



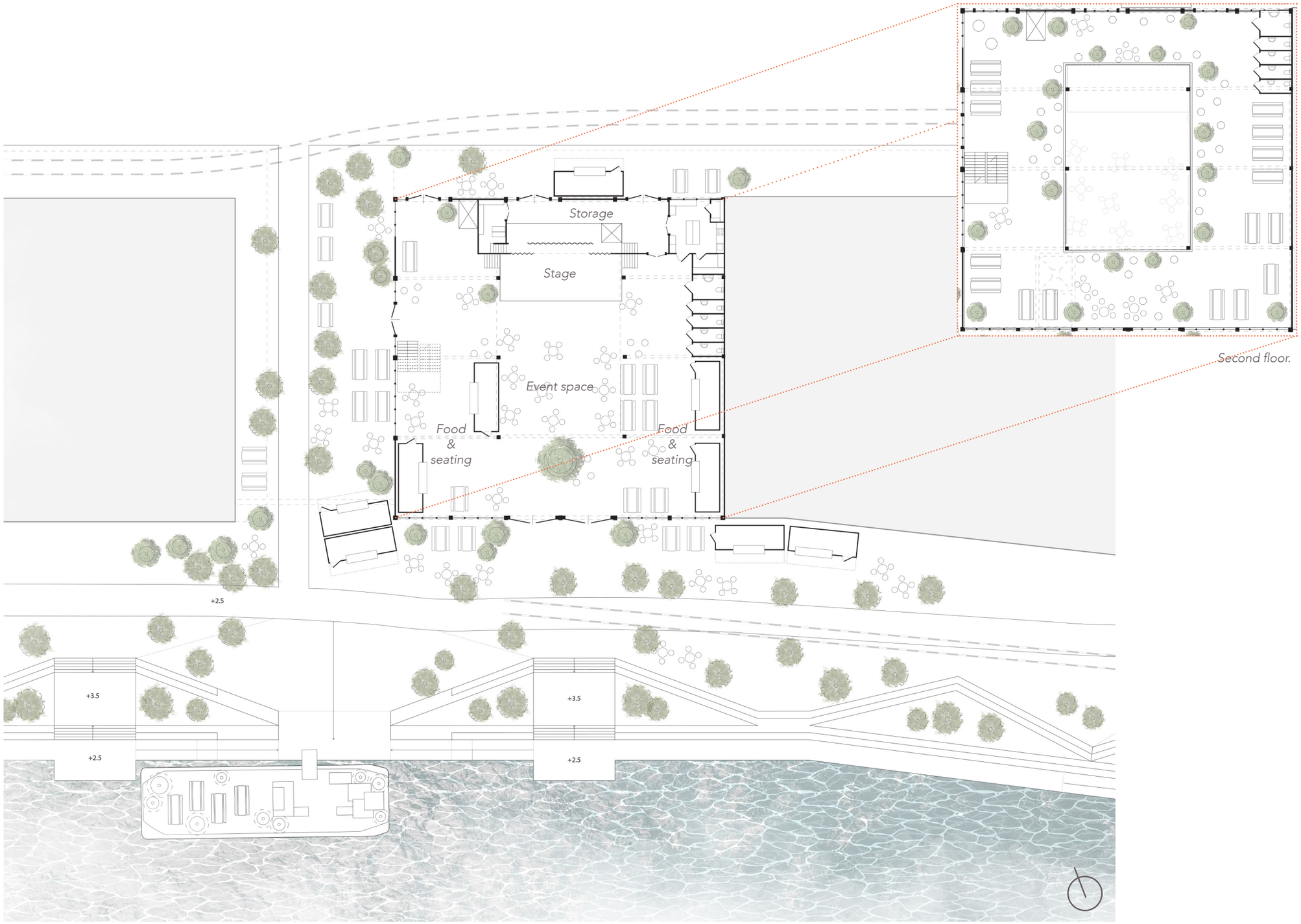
A major part of Hullkajen is today used for grain industry. Some areas are restricted (striped area) for public access during weekdays. Pedestrian and traffic flows mainly use Grimsbygatan.



After first edits of the site, bicycle and pedestrian flows have full access to the previously restricted area.

Phase 1

Site plan

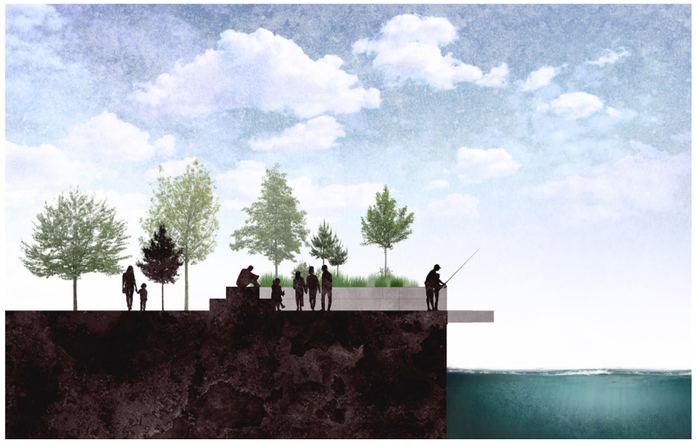


Site plan of Phase 1, 1:400.

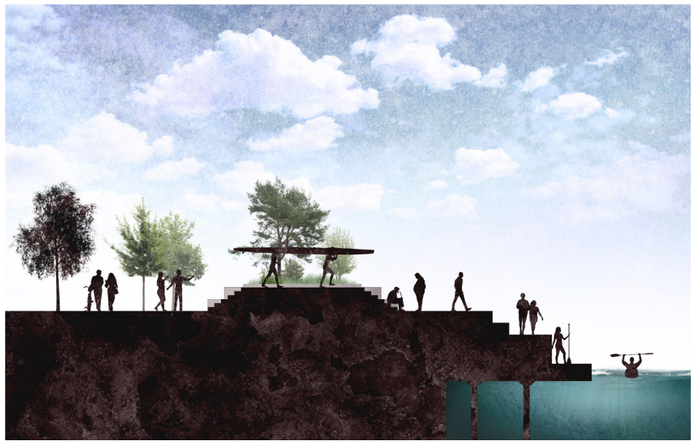
Phase 1

Quay sections; examples

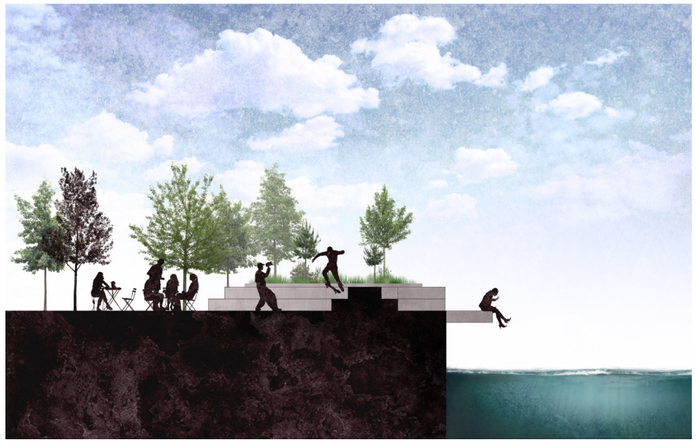
Diagrammatic examples of quay sections at Hullkajen. The quay offers a variety of functions along the water edge, and dynamic ways of interacting with the waterscape.



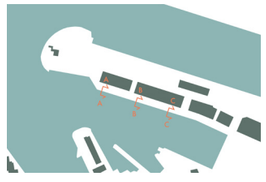
Quay section A - A.



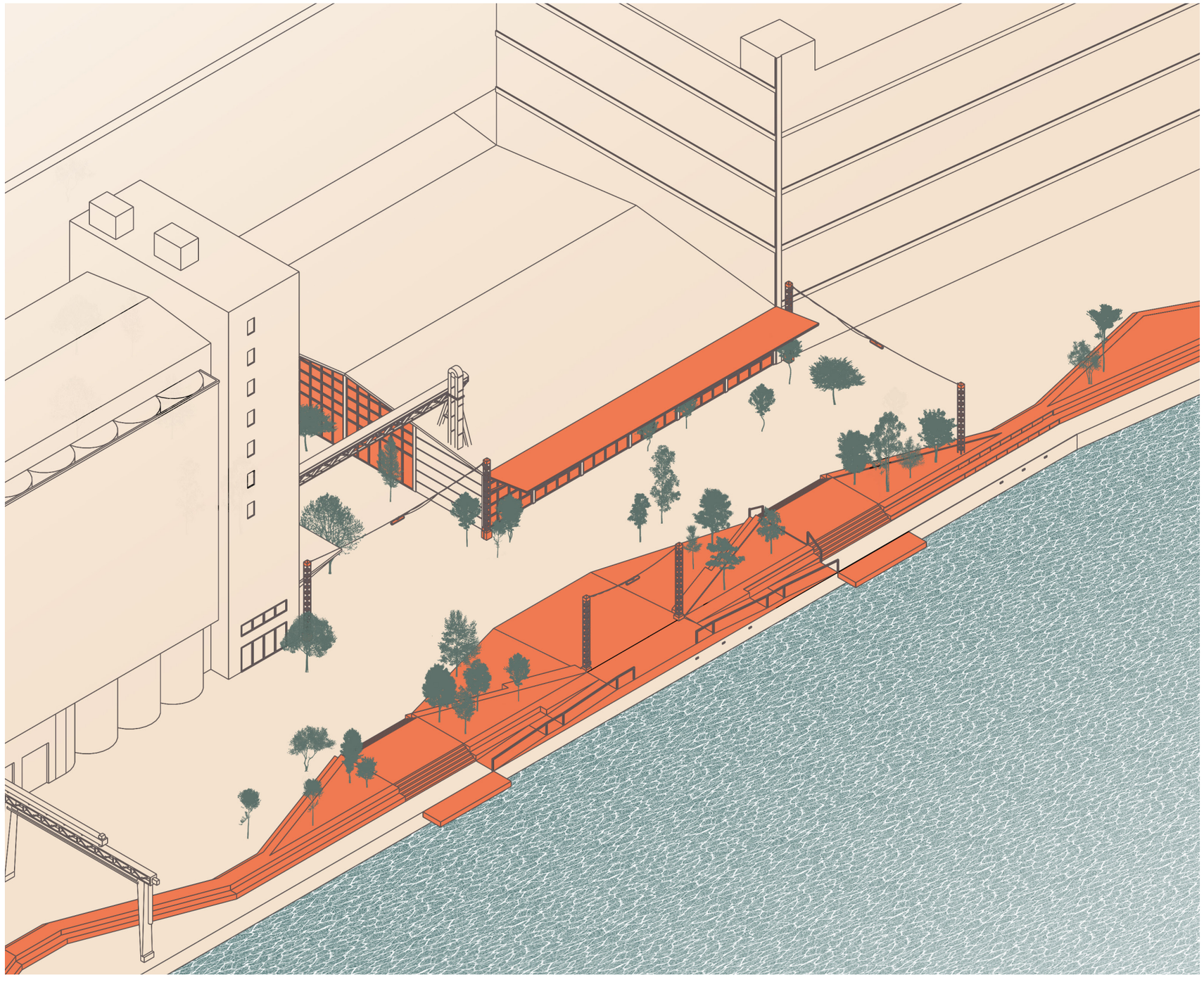
Quay section B - B.



Quay section C - C.



Phase 1



Conceptual integration of new edits (orange) with existing stuctures (beige).



Music and culture event at Hullkajen 11, making use of the unique waterfront qualities at the south facing quay.



Evening concert at Hullkajen 11.

PHASE 2

Phase 2

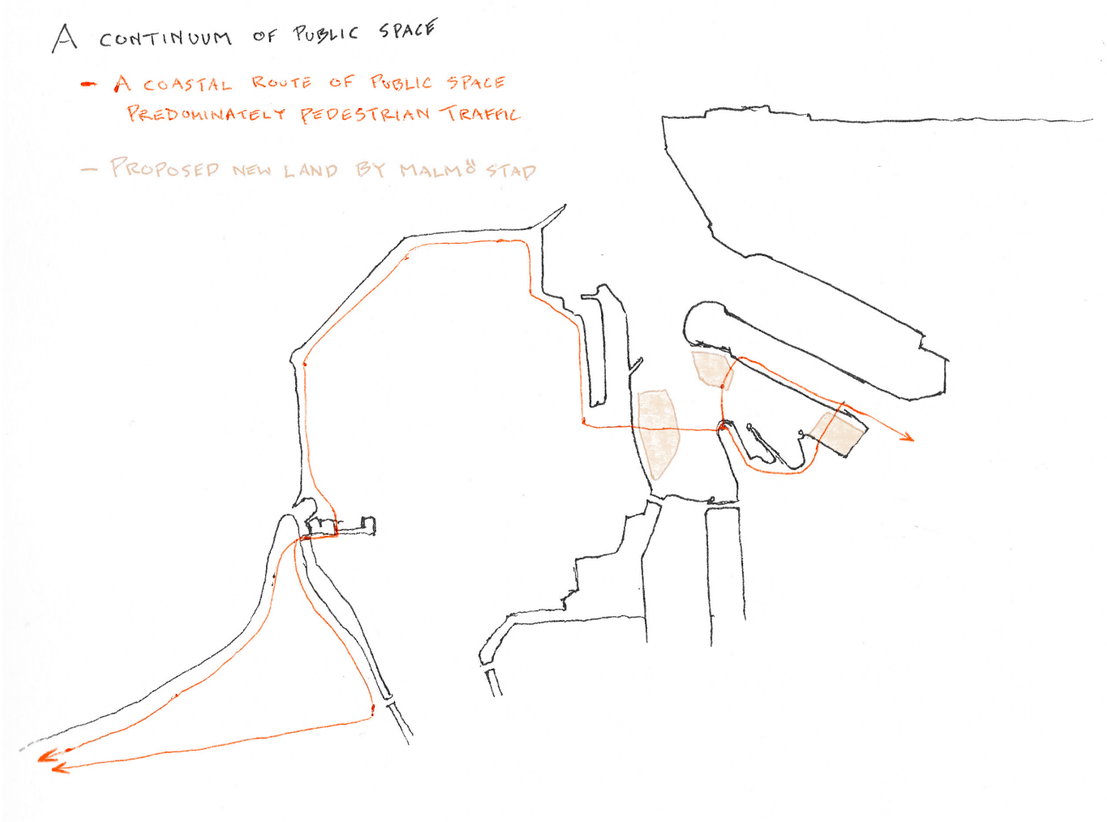
Year 2035: *Water activities*

Ten years have passed and Nyhamnen is slowly starting to gain new structures through buildings, new land, and quay fortifications. The function of the cultural venue as an activator for the site has served its purpose, and now new needs and uses in the area call for a repurpose of the site. The activator has facilitated a basis for public space to emerge along Hullkajen. Within the concept of establishing an industrial landscape park, public space is regarded as a prerequisite for shaping the identity of the area, and should be something that is constantly evolving with the ongoing site editing. More vegetation growth has been added, and planted trees are carefully scattered throughout the area to give off the impression of a natural succession, much like that of nature taking over old industrial sites. It is now integrated as a continuous public space within the larger blue-green loop that runs through Nyhamnen. With the addition of the new bridges to improve the connection between Hullkajen and other areas of Malmö, the quay path has also become a passage route for pedestrians and cyclists.

As new buildings with, presumably, mixed use start to pop up, the former warehouse is going to play a vital role for the people that will reside there, either through work, or as residents. Not only will it affect the people dwelling in Nyhamnen, but it will also start to further take shape through whatever needs and wishes these people have. The public space inside and outside is enhanced and extended, claiming more surrounding area to facilitate the events that take place. The shuttle boats will still run and continue to hold the fast track water link between the central parts of the city and Nyhamnen. The shuttle boats may even become a part of the city's public transport system.

In the year 2035, we imagine that Hullkajen 11 facilitates possibilities for water sports and recreational activities. For instance, kayaking, boat rental, and scuba diving excursions. This explores the site's relationship with the water even more than the previous phase and will imprint on the public space through a continuity on water as well as on land. The immediate surrounding of Hullkajen 11 acts as a link between the public space and the interior functions of the building, where the edge effect of the southern facing facade and the overhanging sun roof creates possibilities for seasonal activities. The southern end of the second floor has been dismantled to allow for a brighter and more spacious seating area at ground level, and a transparent edge effect between indoor and outdoor areas.

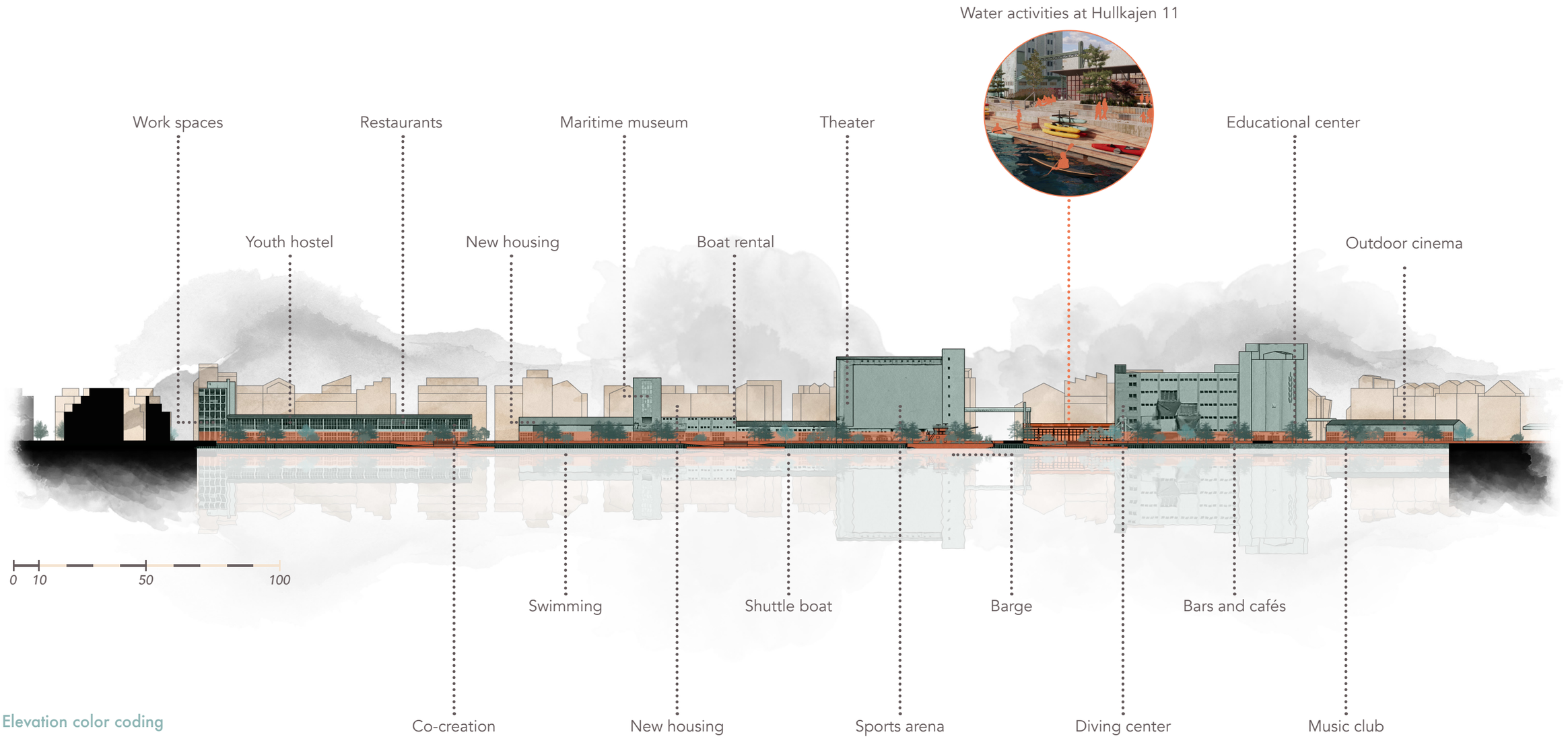
Minor edits have been made to the exterior of Hullkajen 11, for example more bicycle stands and new kayak racks while the interior of the warehouse is made to accommodate these new water activities; a kayak rental stall and storage, repair shop, and space for educational purposes regarding sea life. As a general principle, reuse is a constant way of reconstructing and reimagining the site, and so the materials already in place are to be used for repurposing. The racks for kayaks and paddleboards can be built out of remnants from the stage, and the classroom and repair shop can consist of old wall segments. Beyond the reuse of on-site materials, other components can be salvaged from different demolished buildings in Nyhamnen.



Hullkajen becomes part of a continuum of public space along Malmö's coast line.

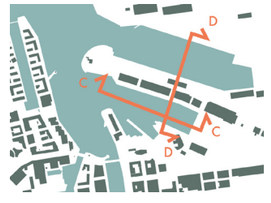
Phase 2

Elevation C - C



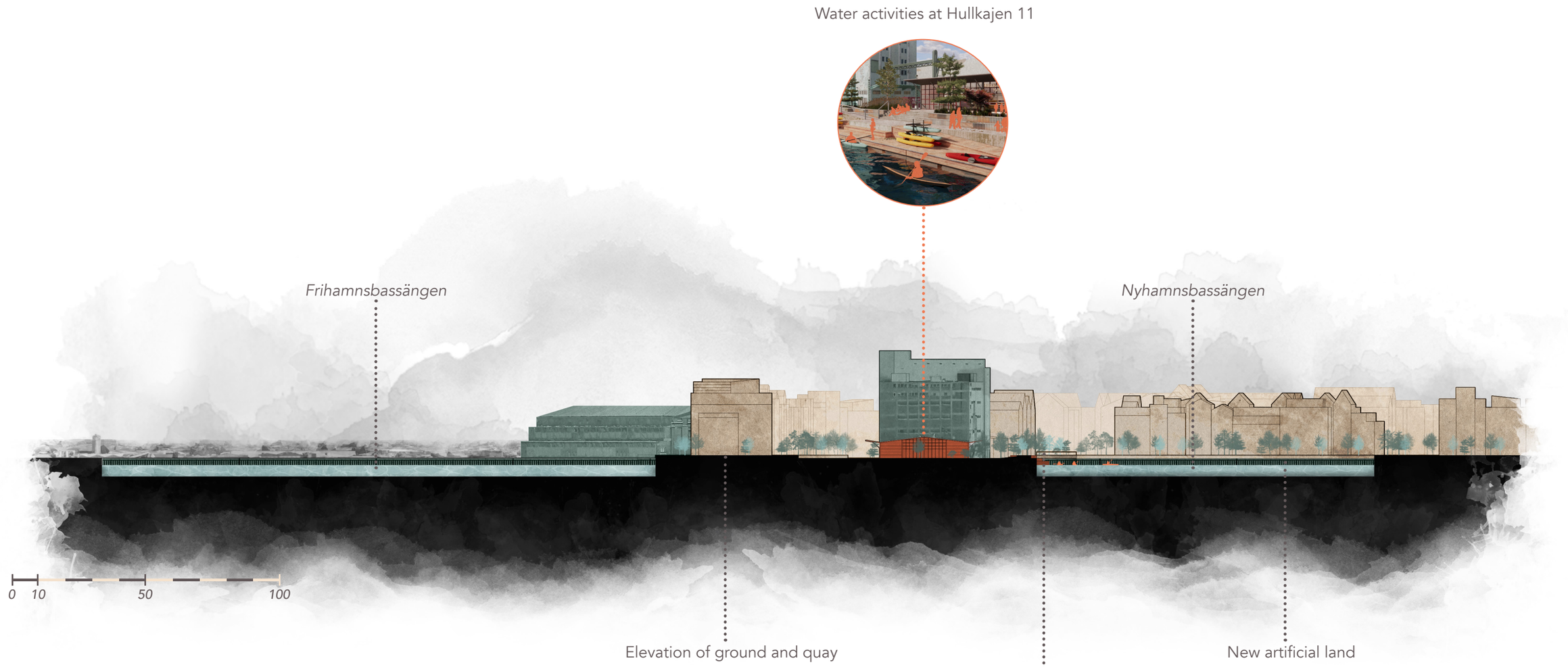
Elevation color coding

- Site edits
- Industrial landscape park
- New residential structure



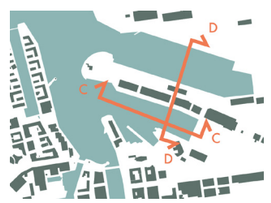
Phase 2

Section D - D

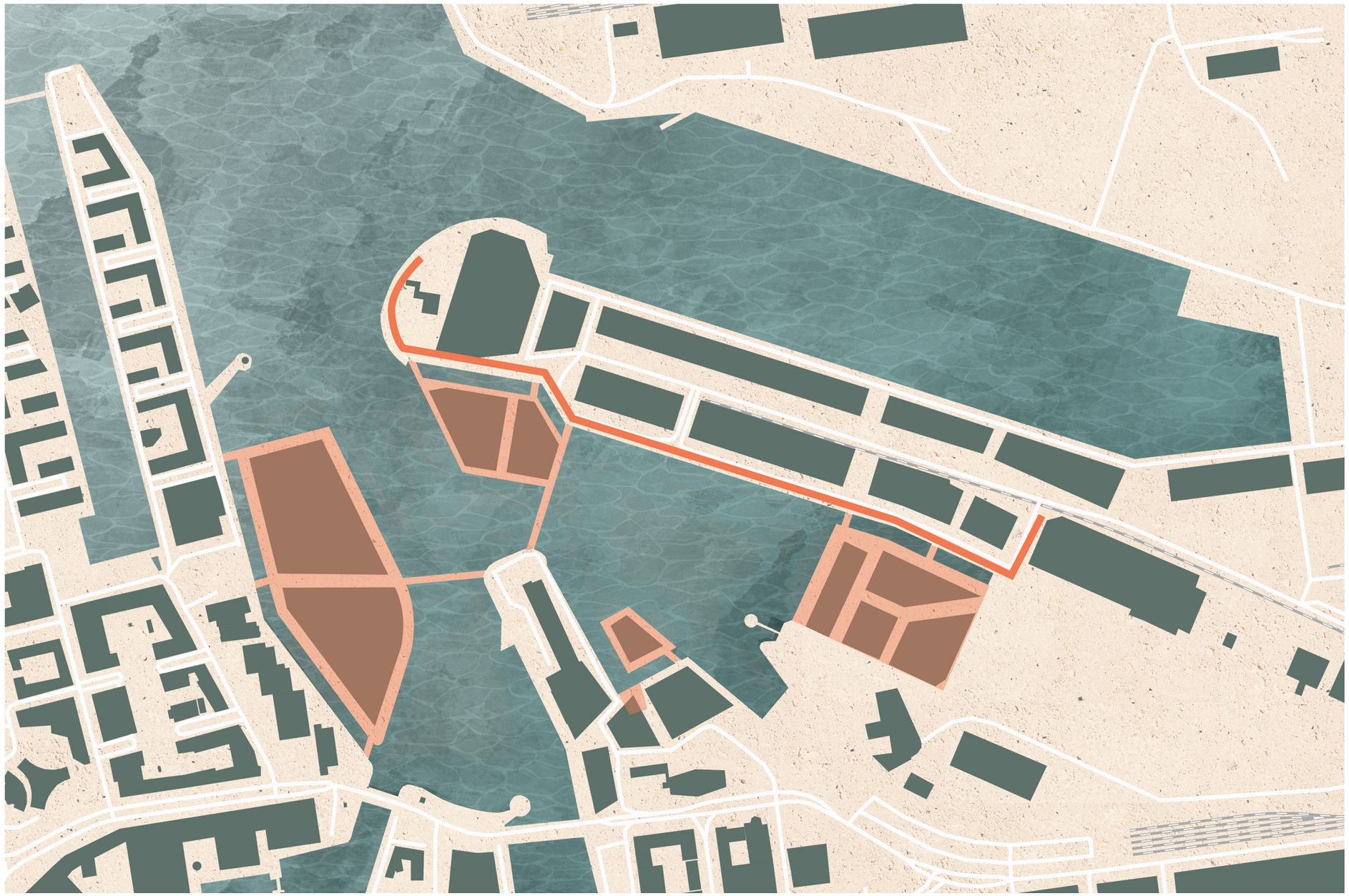


Section color coding

- Site edits
- Industrial landscape park
- New residential structure



Phase 2



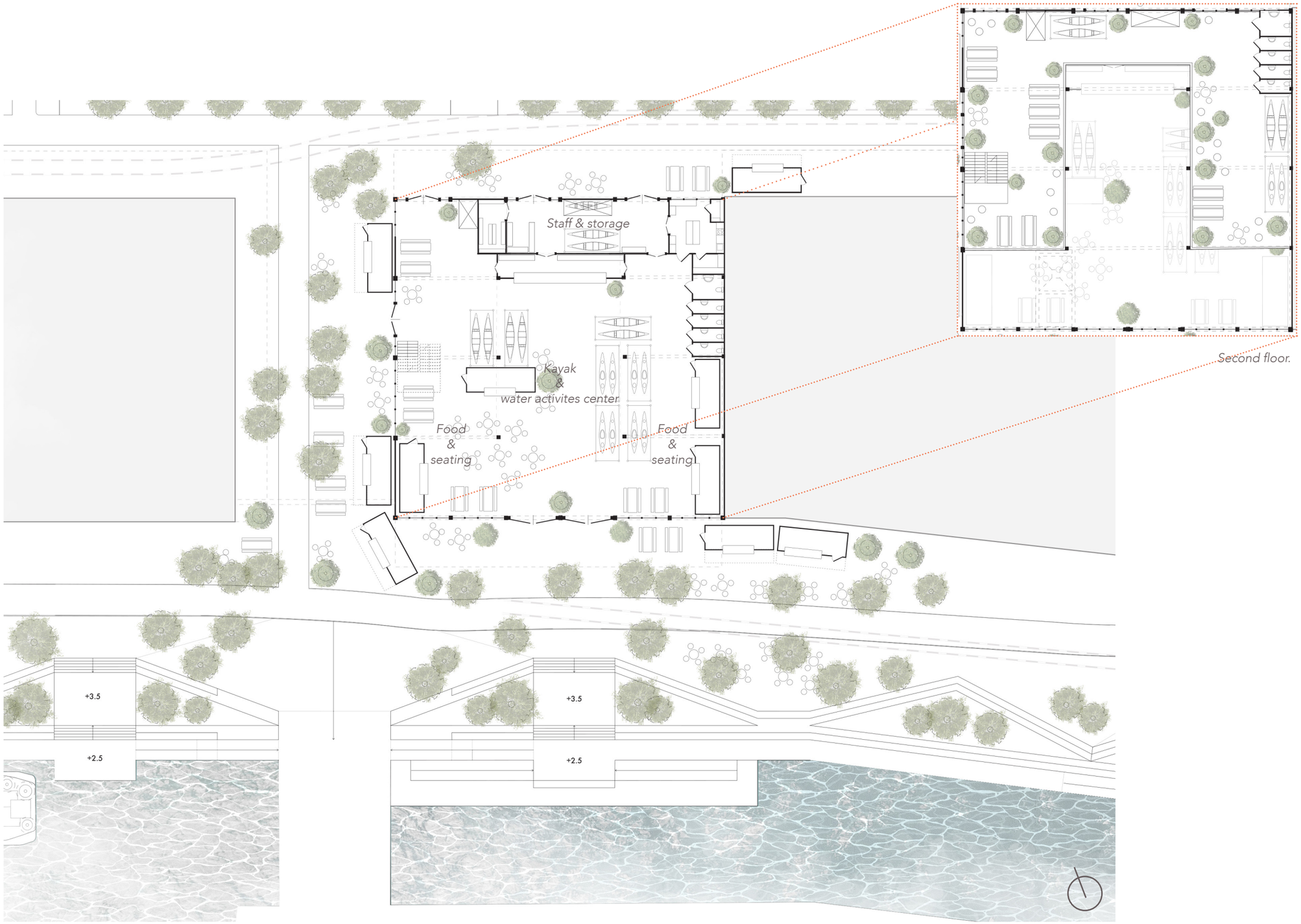
Site map color coding

Continuation of quay fortification

Proposed new land and bridges
by Malmö municipality

Phase 2

Site plan



Site plan of Phase 2, 1:400.



Hullkajen is emerging as an industrial landscape park where the former industrial harbor forms the basis for public space, both inside and outside of the buildings. Hullkajen 11 features facilites for water sports, places to linger at, eat and socialize.

PHASE 3

Phase 3

Year 2050: *Circular living*

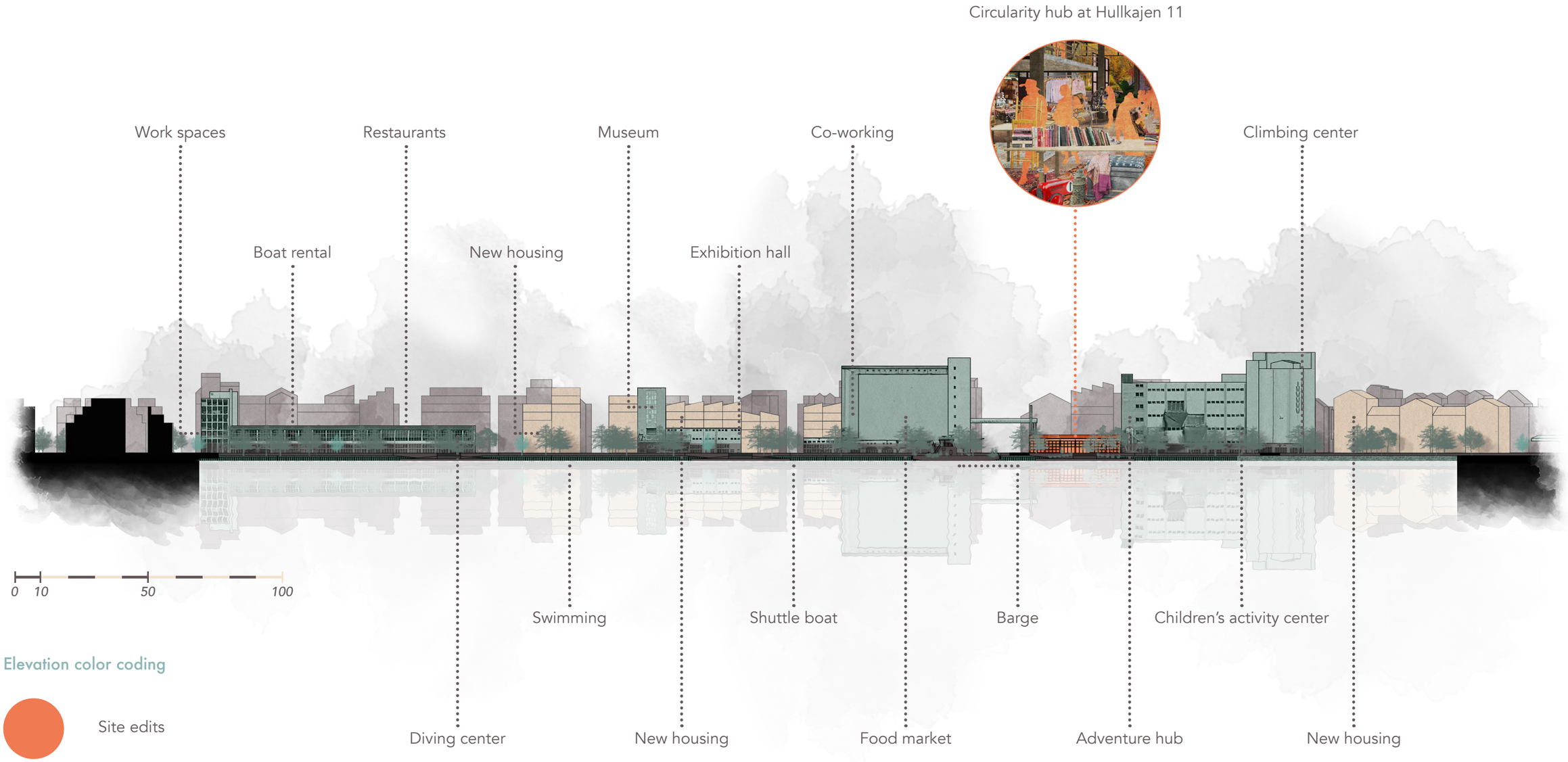
By the year 2050, the public space has developed even more and is now a strong feature of Hullkajen and in Nyhamnen. Citizen engagement and initiatives have shaped Hullkajen 11 and the site into a place for the locals by the locals; a place where the citizens of Malmö are given space to express their identity and culture. This phase features Hullkajen 11 as a community circularity hub, where focus lies on reuse and recycling. The circularity hub facilitates a flea market, repair-workshops, craftsmanship, art made from recycled materials, and other community strengthening activities. The premise makes it possible to claim, and keep, the space inside and outside the former warehouse as open public space where activities and events are still arranged. It is no longer just a destination but a site that is integrated into the rhythm and flow of everyday movement and daily events. Putting public space first has allowed it to gain a stronghold, both physically within the structures that facilitate it, but also intangibly through the important social and cultural ties. All around Hullkajen 11, the new Nyhamnen is in the final stages of taking shape. Hopefully, the concept of Hullkajen has been adapted to other existing or new buildings, extending the network further into new re/development sites in the city. By now the shuttle boat has become part of the regular public transport. Lush and wild-like vegetation now grazes the landscape around the warehouse and billows into the blue-green loop, offering new and interesting spaces beneath and around the canopy that in turn provides different ecosystem services. This offers more opportunity to reside outside during hot sunny days which allows for the activity of the building to take place outside in the shade of the trees. If need arises to add more shade, then fabric canopies with metal structures can be fashioned using, again, repurposed materials. New interesting spaces emerge as the furniture is brought out and utilized in the flea market activity, nestled between tree trunks and seating.

The original idea of Hullkajen as an evolving construct, where resources of the site form the basis of urban transformation, now permeates the entire urban development of Nyhamnen. Hullkajen's landscape park constitutes a framework and a role model for circular living, which can inspire new methods and conventions. These ideas also serve as an example for the development of new areas in Malmö, such as the transformation of Norra hamnen. Circular economy has now become default in Malmö's further urban development. The scale of this connects to both global and local perspectives on circular living, where resilient processes are a basis of city life. An example of working with circularity on the city scale could be an extended network of community initiative organizations. By strengthening connections in Malmö on a social and community level, circularity and resilience becomes a prominent element in the cityscape.



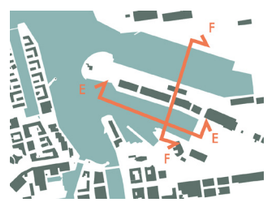
Phase 3

Elevation E - E



Elevation color coding

- Site edits
- Industrial landscape park
- New residential structure
- Residential structure



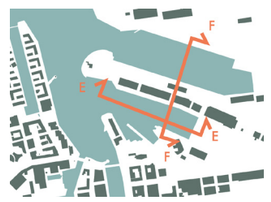
Phase 3

Section F - F



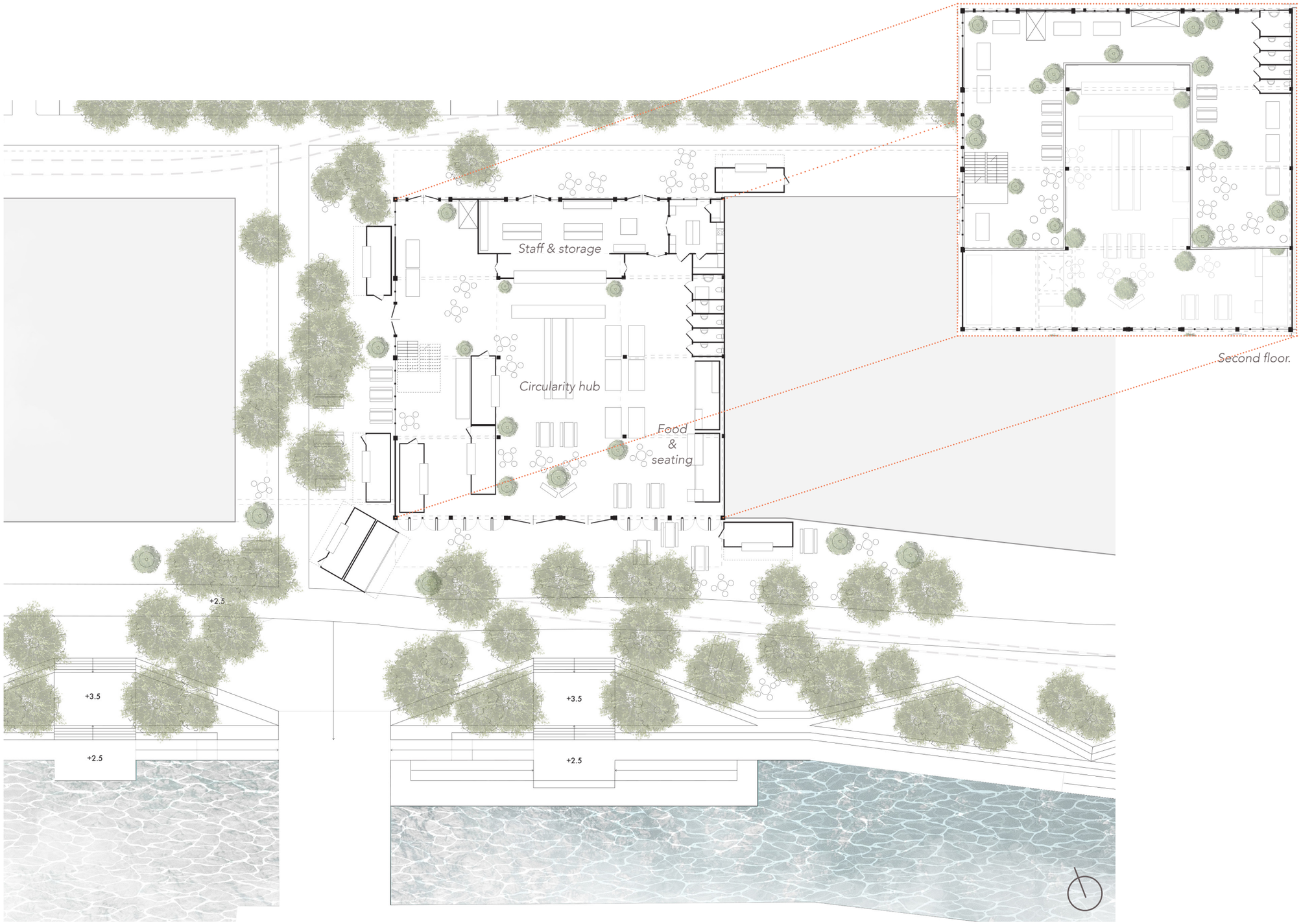
Section color coding

- Site edits
- Industrial landscape park
- Residential structure



Phase 3

Site plan



Site plan of Phase 3, 1:400.



With the increasing need for environmentally conscious choices, Hullkajen 11 is a reflection of a changing contemporary mindset toward finite resources. Reuse and reoptmization of goods and materials is a driving force in citizen engagement and participation. Circular living is now a cornerstone in society and guides city development.

PHASE 4

Phase 4

Year 2100: *Living with change*

As the years progress, the more speculative the design and uses of the site becomes. Circular living has laid a foundation for the site to evolve further, and still advocates for reuse. While the future of technological advances and innovation is difficult to anticipate, climate change is continuing and is expected to have caused overwhelming consequences for human existence by now. This is something that we simply have to adapt to and live with. This phase takes this into account and builds around the fact that it will get extreme both in weather, temperature and sea level rise. The threat of high temperatures, much worse than seen as of year 2022, is juxtaposed with the possibility of the Gulf Stream coming to a halt due to disruption in the global oceanic circulation. Both scenarios implicate extremes in temperature and weather. With this as background, the site is turned into a place for people to enjoy the water in all its forms and conditions. As a sauna and bath house, the building can respond to either of the extreme climate scenarios.

In the first scenario, with high temperatures, the site has been facilitated to accommodate an escape from the heat. The vegetation has evolved through natural selection and where some individuals have been removed, new ones have been planted to ensure the succession and continuation of trees and bushes population. By now the ecosystem services, such as shade, wind mitigation, and interception of rain water, would be even more prominent, which help for when the extremes hit.

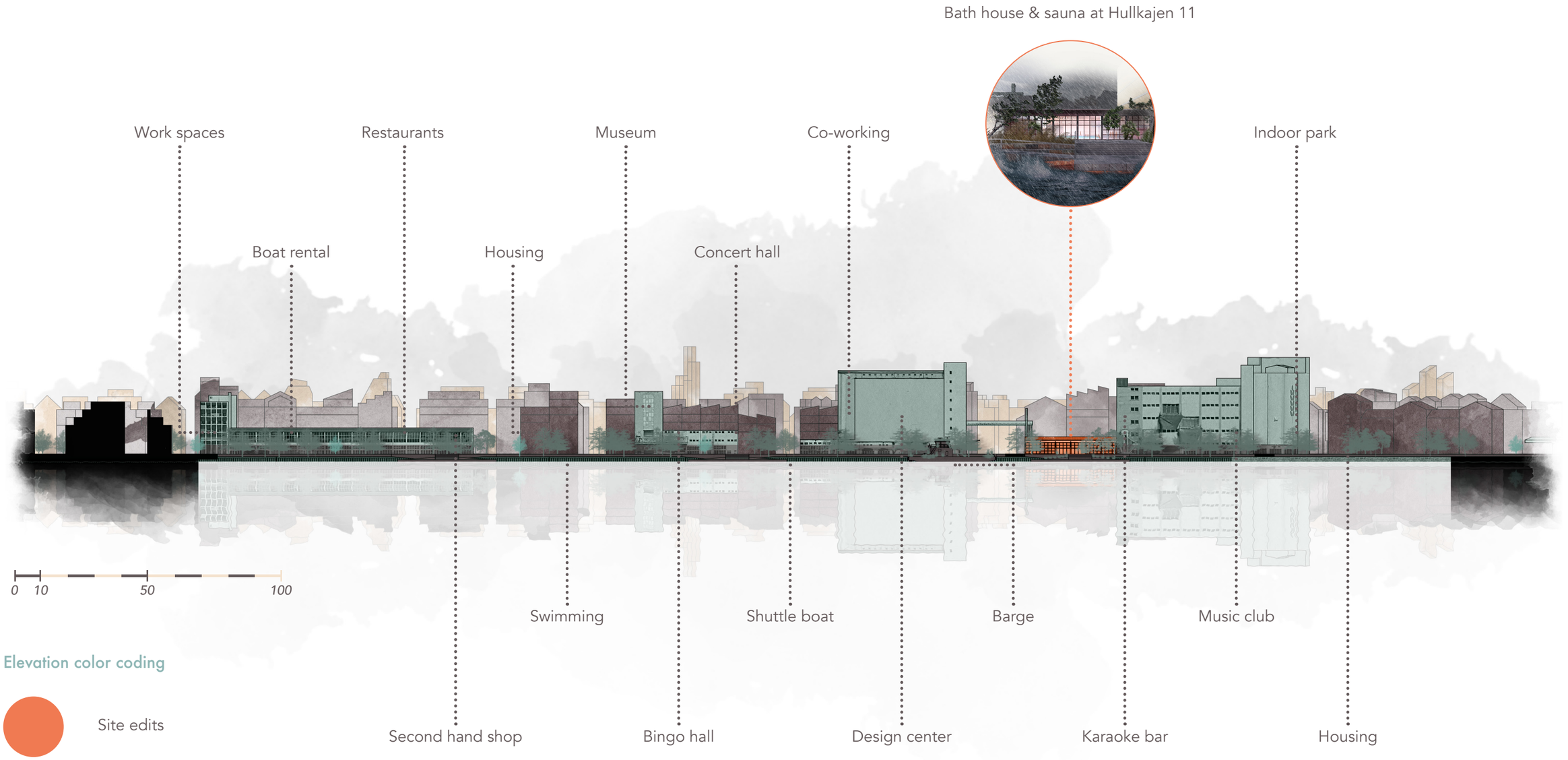
In the latter scenario, cold temperatures orchestrate the way people live and interact with the built environment. In this case, the sauna inside the building and on the floating pontoon will accommodate for cold bathing, an activity that has a long-standing history in Malmö, as well as a specific historical connection to the old bath house that once stood at the end of the pier.

To address the rising sea level and extreme weather, Malmö has presumably built a coastal protection just north-west of Nyhamnen by now. However, Hullkajen does have the ability to integrate fluctuating water levels with public space. As the sea rises, this perpetually moving element begins to shape and articulate the static forms of the quay in new ways, composing new space with each wave that could change from day to day. The public space will move to this rhythm and daily life will evolve mutually with the environmental and temporal conditions.



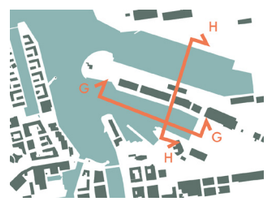
Phase 4

Elevation G - G



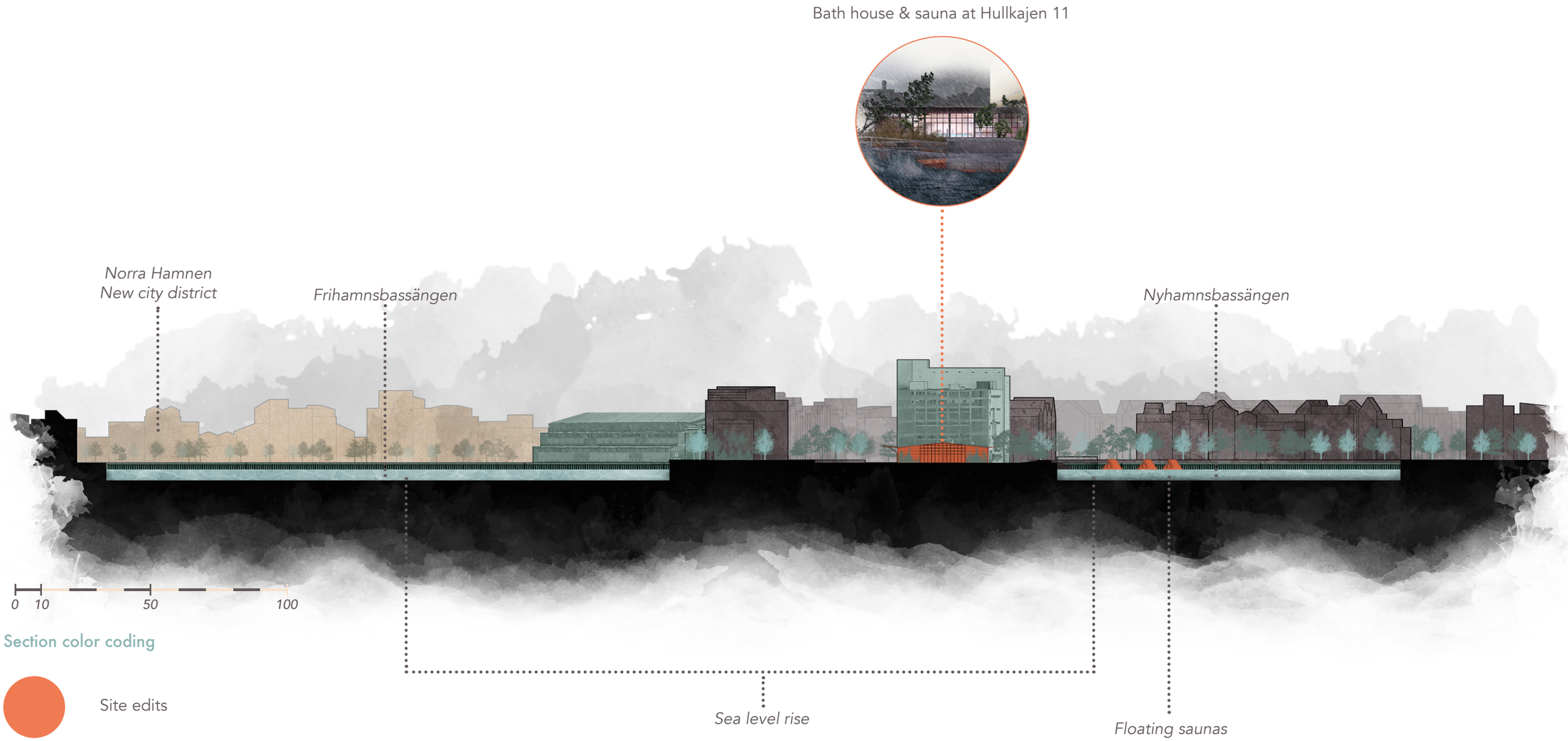
Elevation color coding

- Site edits
- Industrial landscape park
- New city district
- Residential structure



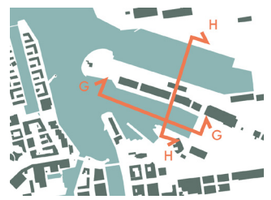
Phase 4

Section H - H



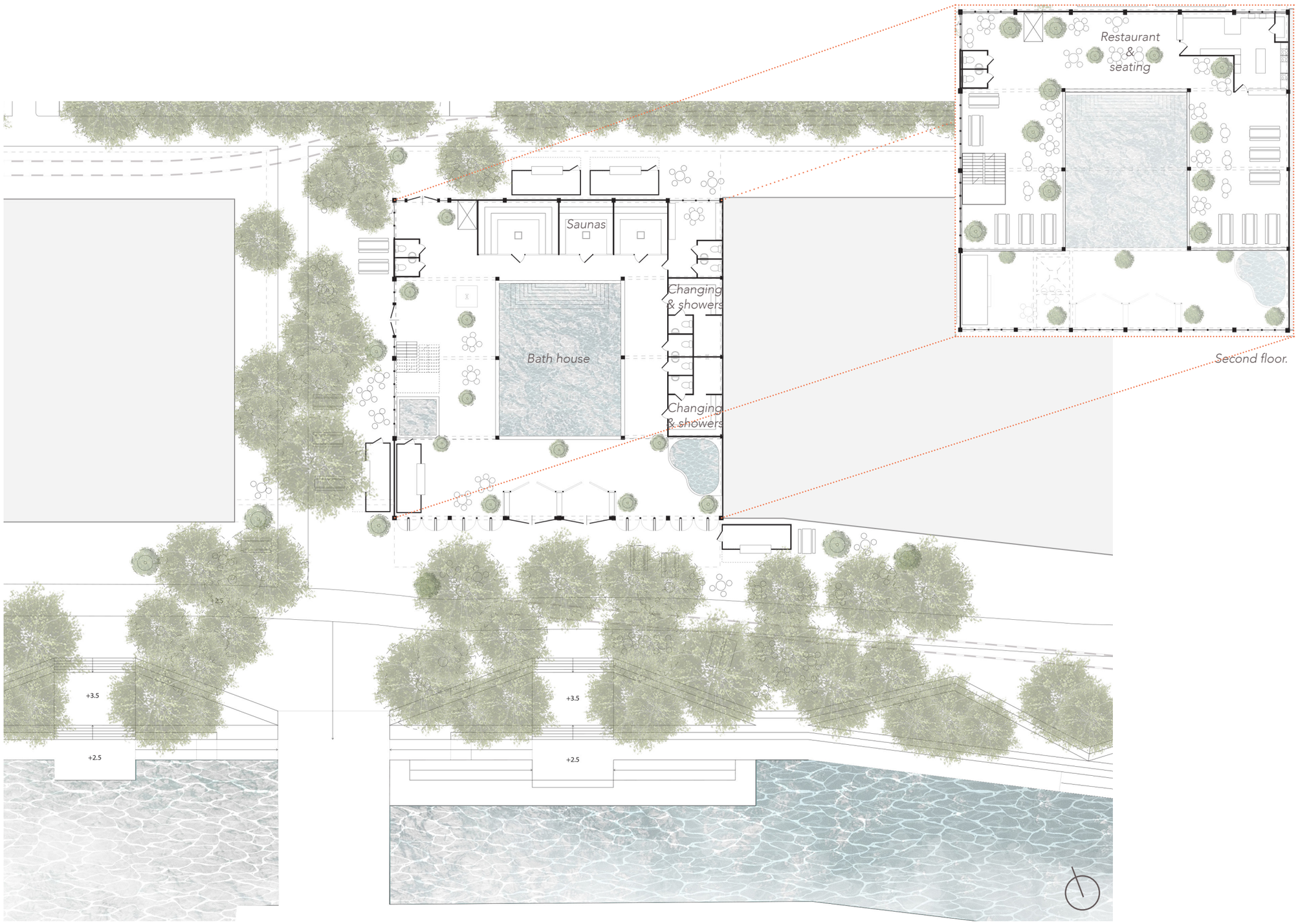
Section color coding

- Site edits
- Industrial landscape park
- New city district
- Residential structure

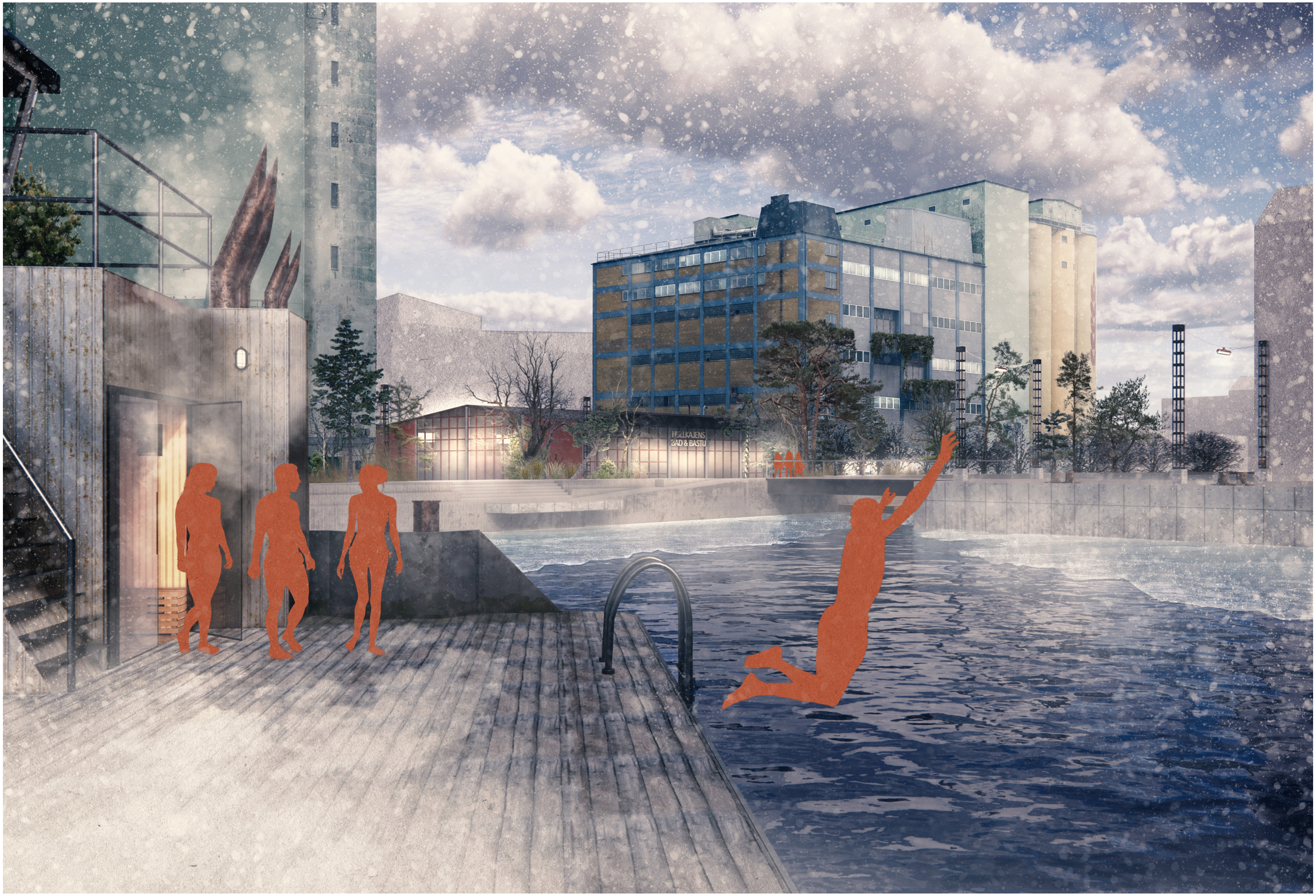


Phase 4

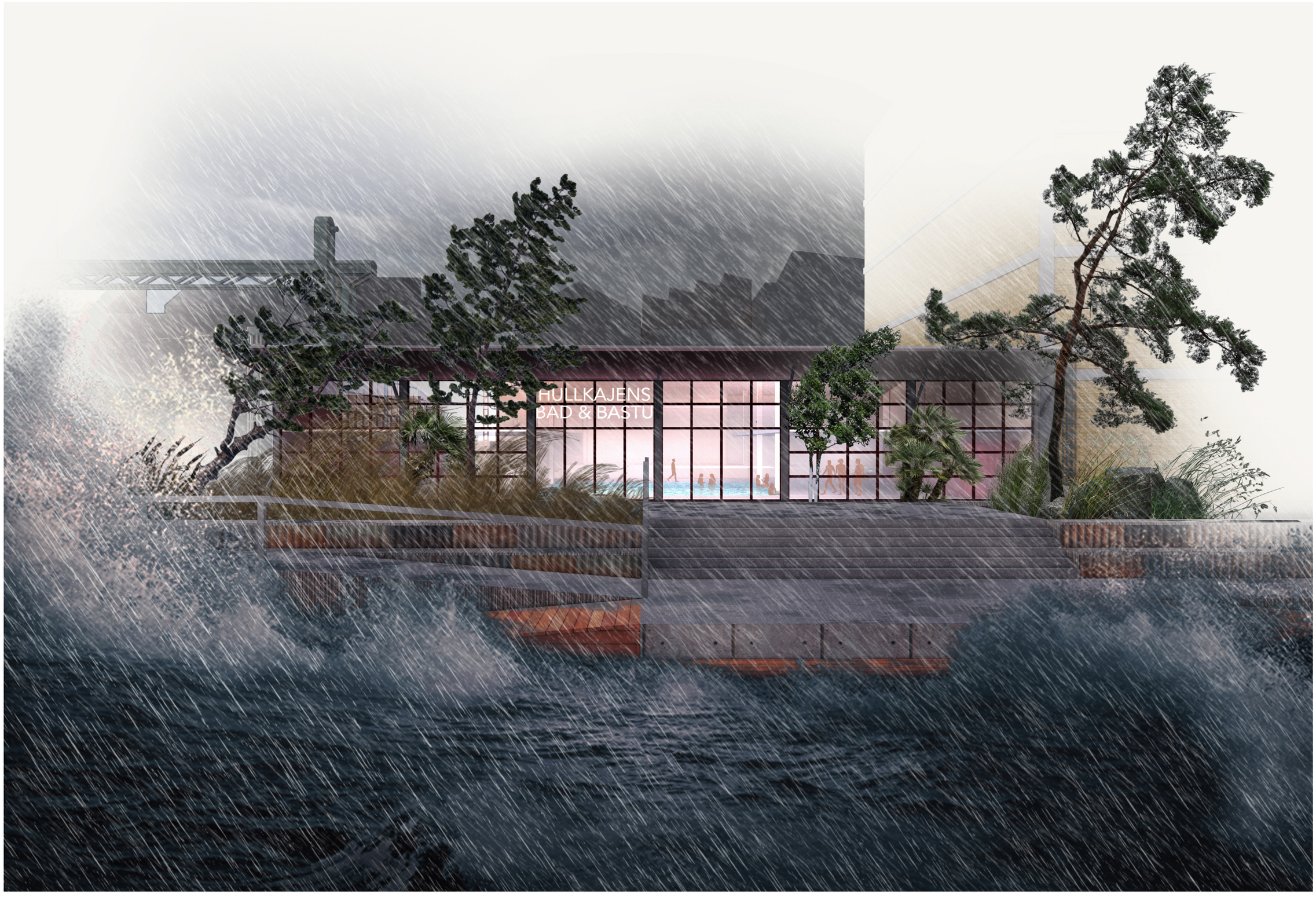
Site plan



Site plan of Phase 4, 1:400.



In case of a weakened Gulf stream, Hullkajen allows for an invigorating cold bathing culture to ensue.



A summer storm rages at Hullkajen as climate change increases the frequency of extreme weather events. Hullkajen 11 still offers refuge from the harsh environment.


REFLECTION
Hullkaja

REFLECTION

Our research question for this project is as follows:
How can radicant design of public space support resilience within the development of the postindustrial harbor at Hullkajen?

Throughout the entire process of working on this project, we have acquainted ourselves with many complex discussions, questions, and new ways of approaching site understanding. Some of these discussions have led us to more questions than answers, which we now in retrospect can view as a metaphor for this project itself; that the focus should be on the process rather than arriving at a correct answer or a finished universal result.

This master project realizes the fact that the transformation of Nyhamnen, like all city development, is subject to dilemmas of conflicting interests and necessary compromises, sometimes called a wicked problem of urban planning. Some examples of the reality that planners must relate to are the conflicting visions and views on what a successful urban landscape should entail, including trends, new innovation, and market forces. As found in this masters project, there is dissonance between the comprehensive plan and dynamic development processes, such as the radicant design approach. Arguably, there is even dissonance between the goals of the comprehensive plan and the reality it's operating in. The structure of our socio-economic system sets the framework for what can be achieved in the planning process and to what extent new ideas and values can be implemented. However, it is important to acknowledge that criticizing conventional methods is easy, but changing them is difficult. In reality, new creative thinking and change of established routines is not only in the hands of the planner, or a single political entity, but part of complex global processes.

Why Hullkajen?
The interest in choosing Hullkajen 11 as the site for our design project lies in its location and inherent qualities. Though at first glance the old warehouse at Hullkajen 11 may seem inconspicuous and rather anonymous, this project intends to view the site's qualities within a larger scope of a site-responsive approach, thereby elevating otherwise disregarded aspects. Hullkajen 11 has a strong connection to the rest of the quay, with Saltimporten at the very end, and also the rest of Nyhamnen. The closeness to the water is an important factor as it too acts a connector to, not only the direct proximities of Nyhamnen, but to the whole of Malmö through the coast and canals. These are connections that already exist, but also that are waiting to be further explored. From what can be interpreted in Malmö municipality's plans for this area, Hullkajen 11 is one of the buildings projected to be demolished. This was also a prompt to choose this particular location and building, thereby inquiring the legitimacy of the plans. Since there is no detailed plan for the Hullkajen area as of this moment, the fate of the old warehouse is still to be determined. What then becomes interesting is highlighting the question of how large-scale purchase of plots by developers, to finance the raising of the quays and vast parts of Nyhamnen to secure it from rising sea levels, that predetermines the use and prerequisite of the site transformation. For these reasons, we need to explore more alternative modes of planning and design, to challenge the conventional methods. Radicant design could be such a method as it respects the site's inherent and relational qualities. This also leads to further discussion on the postindustrial character and legacy of the site. In Malmö, just like harbor cities all over the world, and postindustrial areas in general, the winds of change are resulting in exhaustive and spacious transformation, often with huge investments and a tabula rasa approach. Drastic conversion like this completely disregards the essence of the existing site and risks eliminating the links with said legacy. Instead there should be an evaluation of innate qualities and a conscious integration of these, bridging inherited factors with current ones. This makes Hullkajen 11 an interesting choice of site to work with these questions, among others.

Why radicant design?
The notion of putting site first can result in lifting qualities otherwise unseen and eradicated in standardized measures. It is a way of responding to and respecting what the site has to offer. In such an open-ended dialogue with the site, designer, and users, mutual negotiations can be sought. Using temporality, radicant design counters international trends of generic solutions and instead makes use of local qualities, which can lead to unconventional solutions and perhaps an unexpected mix of uses of the place. By introducing more alternative design methods, inviting citizens through foreignization, literacy of site and site-reading can be something shared, not only among professionals but also, among urban dwellers. Radicant design could then serve as a way to foster a behavioral change; understanding and respect of the site through participation, since site reading and site editing is one oscillating process. The comprehensive plan for Nyhamnen has the potential to make use of alternative methods like this, which in turn could influence the pending detailed plans for the area.

Issues that should be pointed out when transforming a site, however, is that of subjectivity and personal views, and the fact that the designer acts inseparable from and in relation to societal and cultural norms, or economic and political conditions. One could ask, to what extent is the design merely a manifestation of a top-down decision, determined by the client or enforced by the economic and political system, where the designer or planner only has limited possibility to control the design process? This could pose a problem when reading and editing the site. A way to confront this is to make note of the implicit subjectivity in the very method of Travelling transect as it dictates the way the traveler perceives and experiences a site. It embraces the subjective perspective instead of dismissing it, and by doing so also increases the transparency and accountability of planning and design.

A problem working with radicantity as a concept could be that it may not be viewed as a hands-on concept, and could be difficult to convey to citizens and users in general. As such the concept is oriented towards professionals in the field of landscape architecture, and the discrepancy between theoretical and practical application needs to be bridged. In doing so, the concept of foreignization could be part of such a bridging, since it offers possibility of uncomplicated explanations, hence making it more practically operational in a transdisciplinary context, as well as with citizen engagement. The concept of foreignization can also conveniently be complemented with visual material to enable concrete discussions on design and future visions.

Why resilience?
Typical planning and development practices have for decades, if not centuries, been a contributing factor in draining natural resources all around the globe. This motivates yet again the call for change within this sphere. Sustainability is a well-used term that many policy and decision makers apply to their visions and propositions, and it has become almost synonymous with mitigating climate change. However, often it is used as a crutch, a fancy word, that is overused and runs the risk of green-washing foundational planning directives. To counter this, resilience could proffer values of a different capacity. In and of itself, resilience denotes a constant flux of interrelated processes which resonates with the continual shift a city undergoes. It defines an action to internal and external change, and to employ resilience as an approach and a mode to work in, the scope that sustainability calculations usually rely on, could be transcended and redefined. However, it might be a term to safeguard, as to not compromise the essence of it. Resilience should not act as green-washing of policies and promises, but used respectfully and on the grounds of site- socio- and environmental consciousness, as its etymological journey continues to be explored. Like Alexander (2013) notes on the bridge between the dynamic and static, the potential of unifying this view on city development in general could have interesting outcomes, with the static of the built environment and what is already in place, and the shifting rhythm of society and culture. When applied in a broader context to the urban development process, the concept of resilience can assist in planning for the unforeseen. The recent Covid-19 pandemic, or the unfolding energy crisis in Europe with possible housing market crash, and the war in Ukraine teaches us the importance of coping mechanisms, both on individual and on societal level. Creating human environments that can endure such hardships, as well as future ones yet unknown to us, is a necessity we need to prioritize. Having public space as a central factor could then influence resilience not only environmentally, but also socially.

Why public space?
It has been argued time and time again that people make space. Our appropriation of, and activities in, the urban environment is a manifestation of how well the design works. However the trend of superseding pedestrian life in lieu of favoring infrastructural and economic interests has resulted in insufficient places for dwelling. As described by Jacobs (1961), Gehl (2010; 2011), and Whyte (2012), the vitality of street life has diminished as people are forced off it in favor of fast moving and loud traffic. This trend can still be seen in modern urban development, like that of Västra hamnen, where the priorities of pedestrian life are not adequately considered other than in the flagship area of Bo01. Therefore, the design concept for our project adds and adapts spatial qualities in the human scale, as well as rhythms and soundscapes suited for the human body and mind. The human scale and the industrial scale are merged in a foreignizing manner, since the immense gap between these scales that today characterize Hullkajen will successively be bridged. This then begs the question of how such a transformation affects the existing dynamics of scales. Part of what makes up the foreign perception of Hullkajen specifically, and Nyhamen in general, is that gap. There is the feeling of treading on unexplored land, distancing oneself from society; getting away from the city but still being close to it. Due to the lack of inhabitants, there is a tranquility that resides here. As the development of Nyhamnen progresses, these qualities might reappear elsewhere. Transformation entails negotiations of the site, and thus some qualities might be lost while some are gained.

Current plans that Malmö municipality has drawn up illustrate proposals for how public space can be incorporated in the overall urban design, for example the green-blue loop, possibilities for city baths, and active ground floors. Temporary use during exploitation is also promoted and encouraged by the municipality, both in plan and in current usage. However the way Malmö municipality presents the concept of temporary use highlights a problematic view on resilient public space. This view advocates for local initiatives to become established and appreciated, only to be erased or exchanged years later through predetermined agendas and tabula rasa. We believe that the comprehensive plan presents only limited opportunities for redefining site in terms of social and economic values, and is also in need of a more open interpretation of public space and how site is defined. Through inviting the citizens to participate in creating an arena for democratic processes and expression to take place, it will foster a sense of community, and respect between the bottom-up and top-down. By allowing the site and people's use of it to evolve as a simultaneous process, public space and redevelopment forms one continuous thread.

Transforming Hullkajen into a landscape park raises the potential of manifesting continuity of site and cultural recycling, while offering unique environments for people. Past and present can be interwoven to form a continuum by incorporating the old industrial structures into the emerging modern urban landscape. A sequence of public space in connection to the water integrates Hullkajen as part of a continuous accessible public space and predominantly pedestrian oriented path along the coastal urban landscape. Hence, the design of Hullkajen is part of the aim of connecting the people, and the identity of Malmö, closer to the sea, including various waterscapes. A radicant design approach does not view a site as a geographically boxed space, but rather a sequence of interrelated spaces and mental constructs. This could prove to be problematic due to the judicial division of property and the agendas of the property owners. Perceived continuous space can thus, in fact, risk being broken if consensus of said continuity is not preserved, creating spatial dissonance in the wake of fragmentation.

The role of landscape architecture
As a general principle, a balanced relationship in major cities between residential areas and public spaces is fundamental for successful living environments. In seeking to create living space, landscape architecture relies on the use of dynamic means – often natural components such as vegetation, ground cover or water and wind. When applied to the built environment to a broader extent, the notion of the dynamic can add qualities and meaning beyond today's established methods. The reconstruction of the postindustrial landscape should not be attempted as a return to a previous state, but rather as a resource for making use of what's already there, creating space and letting nature and culture be developed. In this regard, the flux of natural processes may serve as an inspiration concerning the challenges of urban development. Fundamentally, a landscape architecture project is never truly finished, but a continuously evolving concept in development. In the case of postindustrial transformation, landscape architecture addresses the challenges of structural change by encouraging a perspective inspired by natural processes. Moreover, a landscape perspective can bridge the gap between different disciplines since it encompasses both human and natural systems. This ability highlights the importance of including a landscape perspective more in the initial planning. By using a framework based on radicant design, resilience, and public space, this masters project embraces the idea of how a transdisciplinary approach to urban development can be exemplified. Within all of the employed concepts there are disciplines connected to them, and by unifying these a common understanding is sought in discourse and, ultimately, praxis. In essence, working transdisciplinary entails several other perspectives as well: political, infrastructural, social, ecological, economical, and more. To share a common ground for

discussion, radicantity, resilience, and public space are, and could, all be catered by several different professions, thus supporting better transdisciplinary communication among them. In this thesis we bring forward the landscape perspective that engages these concepts, and that is the angle through which we deliver our reasoning and design. This should be kept in mind when considering our proceedings, delimitations, and propositions. In order to gain a deeper understanding of how this project would function and situate in real-life instances, further explorations in accordance with other fields of work is necessary. What should not be compromised, however, is the role of landscape architecture as a vital part in the initial planning and site evaluation.

A reason for choosing to combine the concepts of radicant design and resilience and applying them to ideas on public space is that they all have several common denominators: dynamism, adaptability, and the notion of a constant flux, for example. Ultimately, the link between radicant design, resilience and public space is temporal processes and peoples dynamic practices. Working with these concepts as a combined framework can have mutual benefits for the quality of urban life. The design concept is harboring public space in the sense that it safe-guards it against gentrification and other traits of market-driven, or conventional forms of urban development. The dynamic aspects, or the idea of urban design as a constantly evolving construct, that this work promotes, can have augmented effects for landscape architecture and for the urban planning process. However, the dynamic processes that are presented here in a conceptual manner need to be supplemented with thorough ideas on practical application. This could be a subject for further studies on alternative approaches to site exploration and transformation within the field of landscape architecture.

Our process

The method and theoretical framework used in this project have presented us with both advantages and limitations in the work process and its outcomes. The intention of adding to the discussion on the structural approach to postindustrial harbor development in general, and the development of Nyhamnen in particular, was the principal factor behind the choice of employing the radicant design and Travelling transect methods. Since these methods are alternative ways of exploring and conceiving site in an intuitive way, the inherent qualities and values residing there could be acknowledged and respected. That is not to say that we managed to capture all these qualities, however. To truly know the essence of a particular site might prove to be impossible. Even so, considering the time frame of this thesis and the condition of the site during its process, we have tried to explore and edit based on the material and factors found at that time. This implies that qualities that could have been presented during other times of the year were not available to us. With this in mind, we are aware that this project only shows part of the truth, which adds to the fact that this is purely speculative scenarios of a site that is underway of being redeveloped into something it is not today. The Travelling transect method is a good way to bring the site's overlooked traits to the surface and take them into serious account, yet a weakness might lie in that notion of time. To do a site more justice would then be to conduct several transects over a longer period of time as it could help reveal previously hidden aspects. Seeing that we did eight transects altogether could be sufficient for the scope of the project, even so, we do recognize that a deeper site reading could have contributed to an even more rooted concept for the following design process. And so the meaning of radicant design comes into play. It is likened to the rooting of an ivy plant that seeks to spread by enrooting. In that way, the rooted understanding of a site very much depends on the method; the intuitive Travelling transect, and the iterative radicantity both set the scene for the design to unfold. One way to further discuss these interrelated terms in regards to the different phases in time, would be in their continuous relationship and their employment after the first phase. Would Travelling transect once again serve as a way to explore the new dynamics and qualities of the site after it has been edited? Since radicant design is used to continue to alter Hullkajen 11 throughout all of the phases, transects could also be a founding component in the continual development. With that said, it should be noted that even though we have taken the stance of choosing radicant design for all four phases, and maybe also the Travelling transect, the instrumental and intrinsic value of these methods in regards to the specific site should also be examined, preferably transdisciplinary so. Transparency, such as this, should always be aimed for. Because, just like generic solutions are an answer to global trends, a response to challenge this is called for. Therefore, these methods are brought on as a contemporary way to transform site in an alternative way. Perhaps the urgency for other approaches will manifest themselves in the future where different trends start to alter the urban landscape.

Discussions on design choices have characterized much of our daily work process. The transparency of how we discussed and reasoned our way to design decisions, however, is unfortunately less visible in our final product. In retrospect, we wish that we had been more transparent about our discussions and decision process, on the one hand because it entailed such a substantial factor of how this work came about, and on the other hand for the sake of honesty towards the reader. In this way our work could have strengthened its speculative character and shown more clearly that the design principles should be interpreted conceptually as examples of an evolving construct rather than fixed form. A more transparent approach could also have added further relevant points on how a speculative design process may be conducted constructively.

Our chosen approach proved to be challenging especially when applied to more detailed levels of design, such as the changes over time in the interior design of Hullkajen 11, as it got us caught up in a continuously evolving discussion of possible design choices. We attempted to find a level of conceptual design that was coherent over time, within an overall structural approach, while also being realistically adapted to the functions of each of the four phases. Proposing a concept with balance between being open-ended yet specific proved to be a constant challenge, and we are aware of the fact that our way of imagining the future of Hullkajen is just one example of how to approach design based on our theoretical framework and method. Our intention of being more specific in the scale of Hullkajen 11, compared to the scale of the entire stretch of Hullkajen, led us to designing at a fairly detailed level in the site plans. However, this inevitably pushed us in the direction of drawing the site plans at a level of realism in which the conceptual ideas developed into precise measurements. The choice of doing so also means that the site plans may be subject to close scrutiny, and at the risk of being criticized on a more detailed level than they were intended to be interpreted.

Applying radicantity and ideas of resilience to the structural design of Hullkajen prompted us to show the site over an extended period of time as well as with different usages, hence the four phases. Showing the site as four phases, and not three or five for example, was mainly a matter of scope and delimitation, and was not an obvious decision. The extent of written and visual material for each of them was limited by time constraints, and a deeper dive into each of the four phases would have brought more clarity and substance to the relevance of the design principles. Alternatively, presenting the design in fewer phases would have given us an opportunity to dig deeper into each one respectively. Also, the particular points in time - year 2025, 2035, 2050 and 2100 - was mainly chosen to exemplify certain aspects of resilience and

dynamism inherent in the theoretical approach. The symbolic meaning of these exact years, or the precise time intervals, should therefore not be overstated, but rather viewed as a way of illustrating the overall reasoning. Nonetheless, throughout our work process a certain amount of ambiguity persisted around how to relate to long time perspectives in a realistic yet open-ended way. Perhaps, being less precise about actual years would have brought the focus more on the conceptual ideas rather than exact points in time.

The conceptual and speculative nature of the method and framework of this project poses several challenges, especially in combination with our intention to be relevant at a structural level while also specific about a particular building. The scope of this project puts constraints on designing with the intention of being relevant in different scales simultaneously. Hence, the local, urban, regional and global scales are addressed in general terms, meaning that none of them are addressed in great detail. Consequently, the relevance of this work could arguably add to a general discussion on postindustrial development, and act as a background for more in-depth studies.

As mentioned in the beginning of this reflection, there have been many discussions and questions raised during our work process, many of which we still do not know the answers to. In that way, we realize that this project is rather a way to contribute to the ever ongoing discourse of urban planning and design, specifically concerning postindustrial harbor development. Hopefully it shows the possibility of using alternative design processes and to challenge the way things are being done. The scale of this connects to both global and local perspectives, where resilient processes are a basis for urban human existence. If our society is going to face the future not in blindness, but with the ability and preparation for adaptability, then it is important to plan with and for change. Otherwise we might end up in a standstill gripping onto established routines for dear life as the ship is slowly sinking. The responsibility lies, then, within all of us, but specifically with those in power to make structural decisions for change. Just like the dialogue about resilient planning and design should keep evolving, so should the practical application. Thus, it is with anticipation and visionary eyes we direct the light upon upcoming urban expansion plans, such as Norra hamnen, which will follow Nyhamnen in the chronology of city planning in Malmö. The bottom line is; nothing is constant, therefore the way we plan, build, and design should not be either. Only when we accept constant change can public spaces, and cities in general, become more resilient and dynamic. Hence, the journey of Hullkajen, Nyhamnen, and Malmö continues…





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HARBORING PUBLIC SPACE

Radicant design for Malmö as a resilient harbor city: the case of Hullkajen

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