URBAN COEXISTENCE

PROCESSUAL TRANSFORMATION OF A POST-INDUSTRIAL LANDSCAPE

MASTER THESIS | URBAN DESIGN | MSC URB 04 SPRING 2016 | AALBORG UNIVERSITY
ANNE SCHLOSSER DEHN | ANNE REMME JAKOBSGAARD | CHRISTOFFER GADE OLESEN

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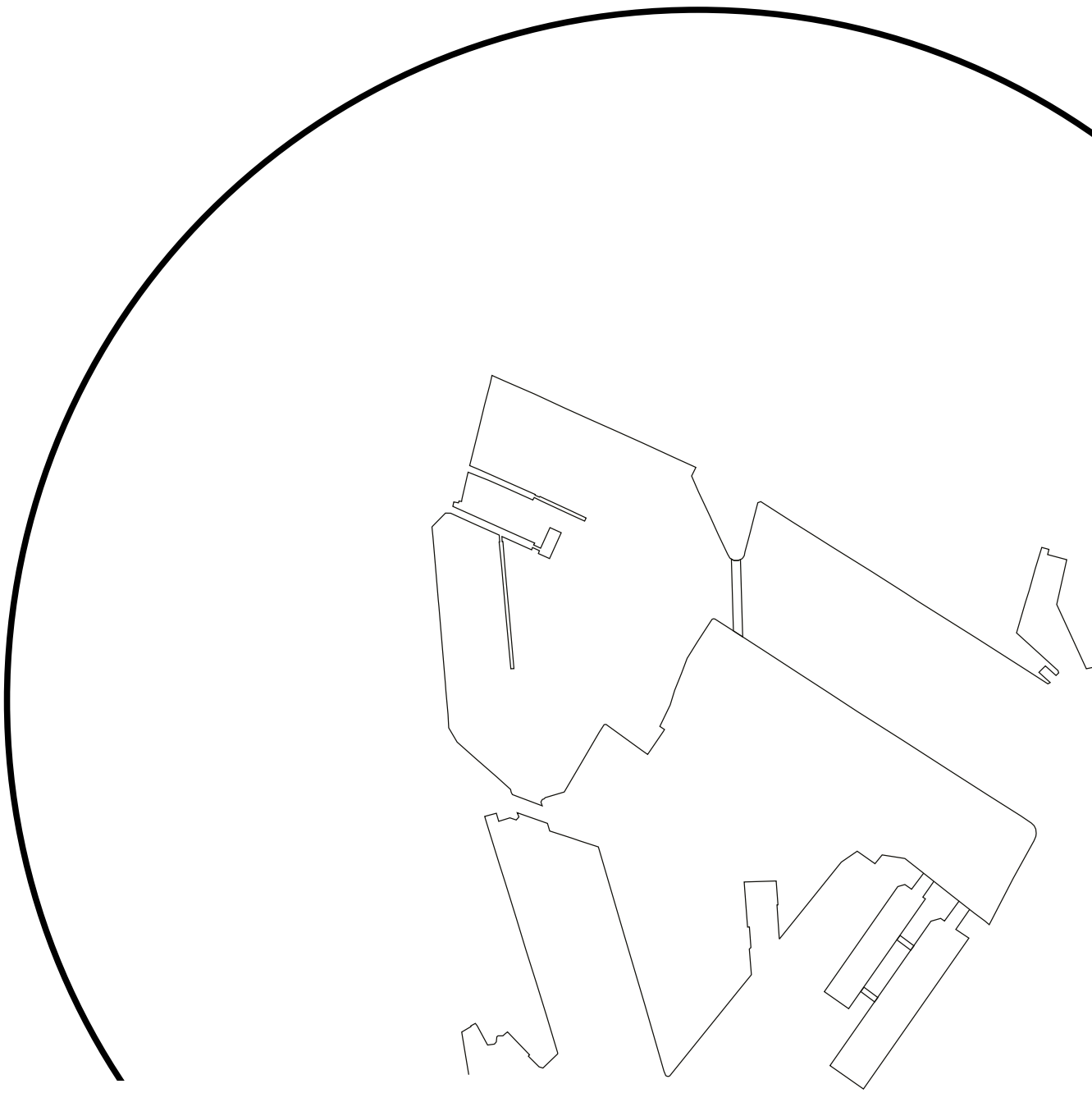

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ABSTRACT

The master thesis "URBAN COEXISTENCE – Processual Transformation Of A Post-Industrial Landscape" deals with a transformation of the harbour front of Svendborg, located in the South Funen Archipelago. Today the harbour is still dominated by heavy industries, but they are on a fast retreat, leaving empty structures and wasteland behind.

The theoretical framework focuses on sustaining the industrial heritage and implementing social coexistence in urban planning and design. Furthermore, it looks into processual development as an alternative to the classical top-down approach with a fixed masterplan.

The vision is to promote social coexistence and sustain and further develop the characteristics of the harbour front through urban design. To transform the vision into design, strategies for working with the industrial heritage and social coexistence have been made and implemented in a processual development plan divided into several phases. The design proposal is presented in an enclosed booklet.

PREFACE

This master thesis "URBAN COEXISTENCE – Processual Transformation Of A Post-Industrial Landscape" sets out to investigate a processual urban development with point of departure in the harbour front and Frederiksø in Svendborg, Denmark. The project focuses on social coexistence as a tool and design parameter to secure that the site develops into a diverse part of the city. Furthermore, it looks into the qualities of the post-industrial landscape and how these can be preserved in a future development.

"URBAN COEXISTENCE – Processual Transformation Of A Post-Industrial Landscape" is made by Anne Schlosser Dehn, Anne Remme Jakobsgaard and Christoffer Gade Olesen from the 1st of February to the 25th of May 2016 as the final Master's Thesis in Urban Design at the Faculty of Architecture, Design and Media Technology at Aalborg University.

The project consists of six sections divided into two booklets. The first booklet is an academic booklet, consisting of the theoretical and analytical research that build the starting point for the design proposal and sums up the design in a reflection and conclusion. The second booklet is the design booklet, presenting the design proposal in depth.

The first section of the academic booklet clarifies the framework of the thesis, briefly introducing the site and the problems relating to it and lastly explains methods used throughout the project.
The second section presents the theoretical field the project operates within. The third section provides the reader with a more in-depth knowledge of the site through registrations and analyses to uncover the problems and potentials which will be the starting point for the design proposal. The section will be summed up in a vision statement from which further work will take point of departure.

The fourth section is the design booklet. This part will elaborate on the design proposal, explaining the development in details along with a suggestion of how the harbour front of Svendborg may look in 2040. This will be followed by a suggestive local plan for Frederiksø, visualizations and detailed drawings of chosen points of impact, and finally a variety of technical drawings to explain the project in detail.

The fifth section completes the thesis with a reflection and discussion of the addressed issues and design proposal of the thesis. This section is found in the academic booklet along with the appendix, which is the last section of the thesis.

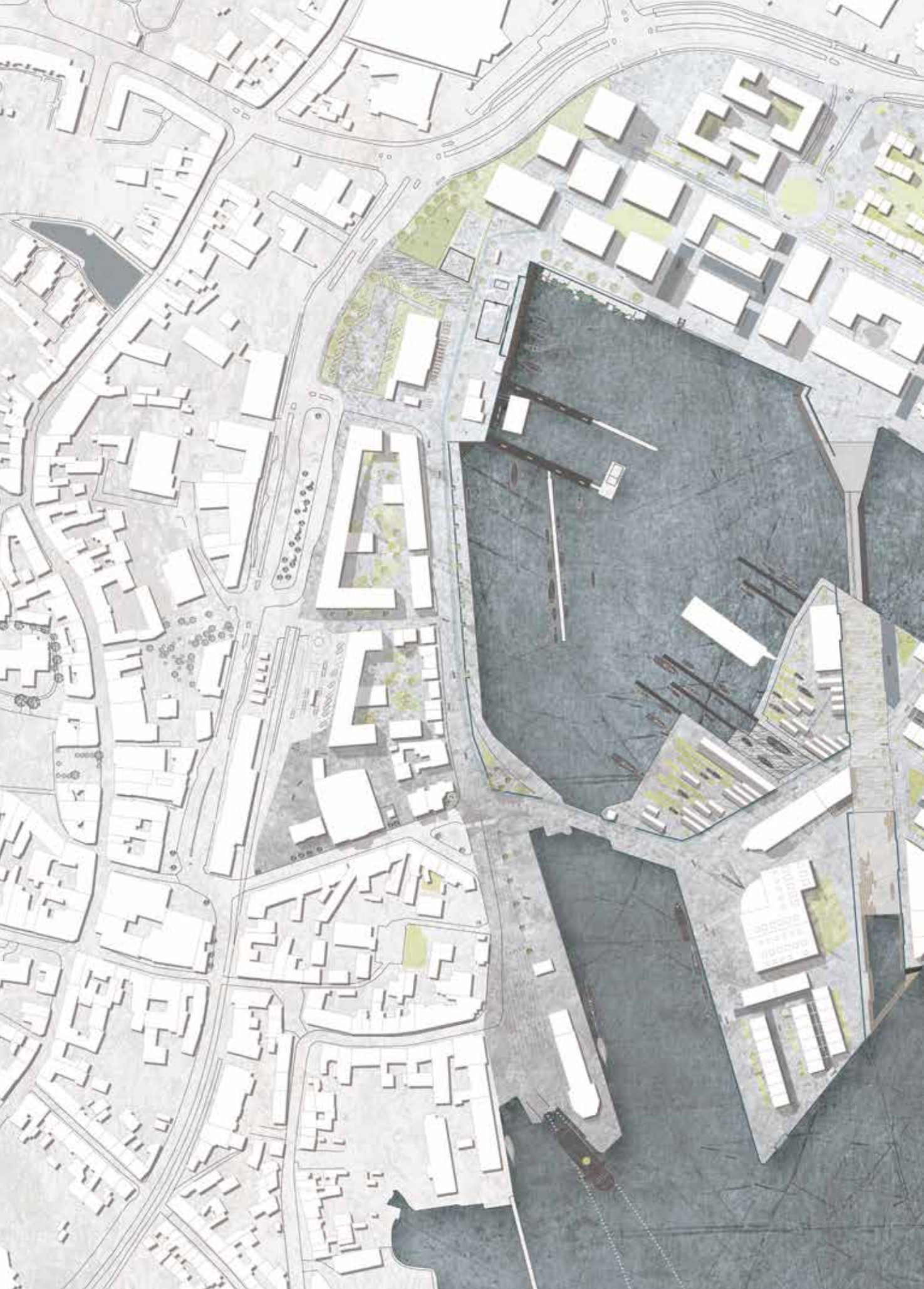
References are indicated by the Harvard method and a complete list of the used references and illustrations can be found after the appendix.

We wish you good reading!


dlg

Ill. 1 - Site photo of the wooden shipyard with silos in the background

CONTENT



THE BLUE NEIGHBOURHOOD

Today the layout of the industrial landscape of Svendborg harbour front is characterized by a rim along the wharf attached to Frederiksø – an island and shipyard in the sound of Svendborg, situated in the midst of the picturesque South Funen Archipelago.

This area contains a strong connection with the cultural heritage of Svendborg, not only industrial but also maritime identity of the city, which is important to preserve in all aspects of the urban transformation process.

The industrial heritage together with the local urban waterfront and plans for a future public network of urban spaces contain great recreational potentials in regards to establishing explicit, diverse, and well-defined public spaces in the post-industrial landscape of Svendborg harbour front.

Access to the surrounding nature of the archipelago is highly prioritized through the design and development plan of Svendborg quay area that constitute the opportunity for 1.500 inhabitants to live on the thriving harbour front with direct contact to Svendborg Sound.

Social sustainability is an equal part of the processual urban transformation, which is a token of the intention of facilitating a strong image for Svendborg in a regional setting.

Envisioning Svendborg as a place for social diversity with multiple spaces of common grounds leads to the possibility of strengthening the fellowship and togetherness within the community.

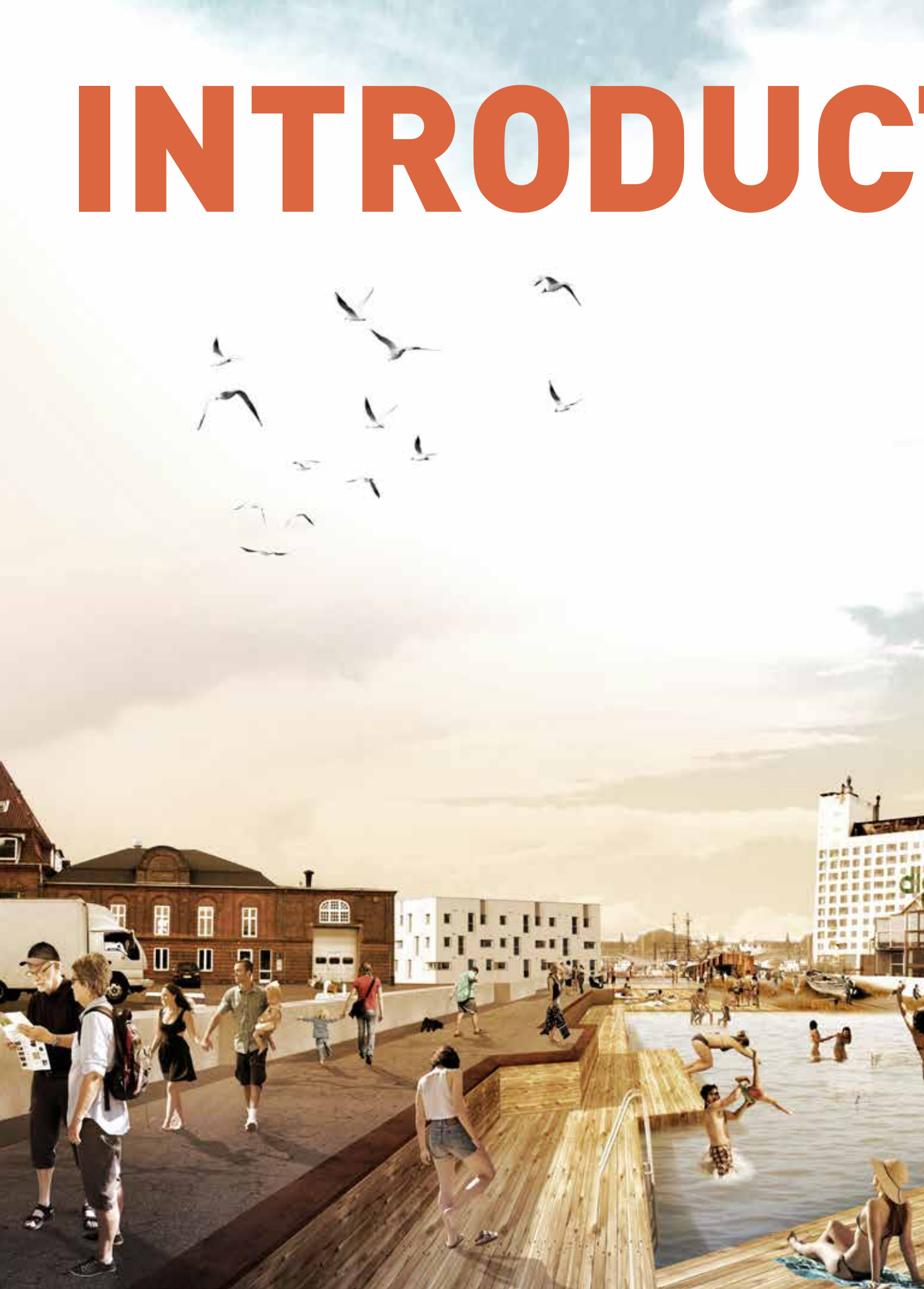
When developed, the harbour front will become a new district of Svendborg, coherently tied together by its public spaces, which emerge as an urban archipelago on the densified waterfront.

The goal is to envision a new neighbourhood that positions itself in a post-industrial context with respect for the cultural heritage and integrating sustainable principles of social coexistence. And to create a city with a phenomenal maritime recreational landscape, a great variety of cultural activities and public spaces as destinations for the people of Svendborg.

The extensions of Frederiksø over time and the different urban historic layers of the harbour front are evidence of a wharf in continuos change, and the Blue Neighbourhood will be an addition to this evolution, becoming a strong urban plateau that enriches and attracts people in a local as well as regional scale.

Ill. 2 - Illustration plan of the project site

INTRODUCT



TION

FRAMEWORK OF THE THESIS

The following section sets out to clarify the scope of the thesis. It will describe the theoretical and societal discussions in which the project engages and introduce the choice of site.
Finally, it will pin-point the problem statement and task description of the project.

Ill. 3 - Visualization of the former berth at Frederiksø, which is turned into a new public space

OPENING

HOW INDUSTRY LEFT ITS MARK ON CITIES

Since the beginning of the industrialization, the production and distribution of goods have changed and shaped the society and cities we live in today. The industrialization was the main cause of the creation of bigger cities and has continued to influence the layout of these. Changes in the industrial business in temporary society caused the manufacturing and storage of goods to relocate. In the past, these industries were often found centrally placed in middle-sized and larger cities close to infrastructural nodes, recipients and labourers to optimize the logistics. But developments in the logistic field strengthened by truck transport enabled these industries to move out of the cities. This was a welcomed movement in many cities, as they saw potentials in trading the often noisy, smelly, messy and inaccessible industrial areas with new attractive sites for housing, retail, or cultural programs. A construction boom quickly transformed former industrial harbour fronts and inland industrial neighbourhoods into brand new parts of the cities without much consideration of the former history and identity of the sites. A shift in the urban identity from industrial city to cultural or knowledge based city became a general tendency. But what about the history and atmosphere of the site? By erasing these areas, the city neglects a part of its own identity and history; qualities which are important to preserve as there are stories and affiliations bound to these places (Douet, 2012)

POTENTIALS OF THE POST-INDUSTRIAL LANDSCAPE

Due to the financial crisis, the development of such places suddenly stalled and left empty and unused plots in the city. A new tendency occurred; people with a need for a space to perform their activities or explore their creative capabilities and a limited economic capacity occupied the empty areas with or without permission. People began to see a value in the old industrial buildings, and developers and land owners became aware of how temporary use could cause a shift in the mental perception of the site which helped to increase the attractiveness and kick-start the stalled progress. At the same time, developers and urban planners realized that they could not predict the future needs or development of the city and a need to create more flexible plans arose. All together, these changes lead to a new optic at urban renewal and design – a processual and flexible development which allows for maximum use of the spaces and more attention to the enthusiasts and potentials found in the local community (Kamvasinou, 2015).

URBAN SPACES AS A STARTING POINT FOR SOCIAL COEXISTENCE

This thesis writes itself into the ongoing debate of public spaces and what these should facilitate. Societal challenges affect urban planning and demand for urban spaces to accommodate a diverse demographic composition. A city should be able to accommodate all groups within the community and that diversity adds more value to the society. The cross field between different programs, groups, or communities facilitate the possibility of spontaneous meetings across borders causing barriers to break down and new relations to arise. All the differences are what makes the city attractive and must be an incorporated part of an urban development strategy (Hajer & Reijndorp, 2001)

PROBLEM STATEMENT

*How can we secure a **processual urban transformation** of the harbour front of Svendborg, which both creates diverse spaces for **social coexistence** and sustains the **industrial heritage**?*

TRANSFORMING THE HARBOUR FRONT OF SVENDBORG

The harbour of Svendborg is one of the last remaining active industrial harbours in Denmark. The island of Frederiksø has a five generation long history of ship-yarding and the northern part of the harbour is dominated by the former Kellogg's and DLG silos. (Svendborg Kommune I) For decades, the harbour has been a symbol of an active, maritime industry and filled the waters with ships in all sizes. But as many others before, the harbour faces new challenges as well. Industries are closing or relocating, and huge parts of the harbour front will soon be vacated. The area calls for development and a new change to seize the many potentials and qualities. The harbour will inevitably change identity and become a part of and relate to the city in a new way. But because the industrial identity is such a huge part of Svendborg's self-perception, it is important to work with the industrial and maritime heritage and stories when developing the area and incorporate the former qualities in a future design proposal.

URBAN DESIGN METHODOLOGY

The urban design methodology and techniques applied in this thesis are a combination of theoretically anchored approaches that support the design practice of an urban processual development plan. The methods are all inscribed in problem-based learning that seeks to establish a set of initial guidelines of which the most important is to formulate a problem. Through analysis, conceptualization and design the problem can be solved and evaluated according to the problem statement. The method affords an active learning process that generates flexible knowledge in the pursuit of solving problems.

The thesis is based on the Integrated Design Process, which is intertwined with problem-based learning. The learning technique of IDP consists of five phases, (problem formulation, analysis, sketching, synthesis and presentation) and they all interfere with each other, meaning that analysis leads to designing, and a synthesis from the design will occur, leading to an evaluation that can be compared to the problem statement and another iteration might take place in the design (Knudstrup, 2004).

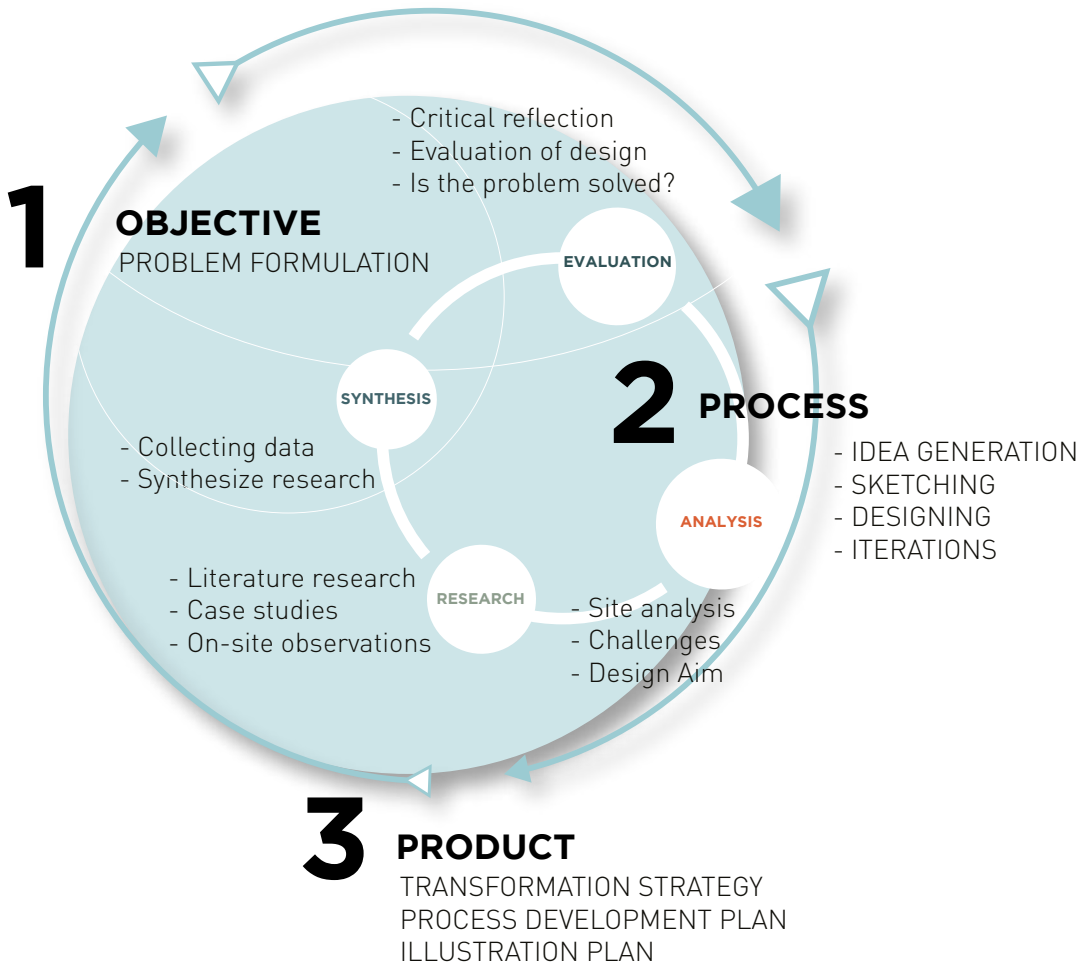
As seen in the methodology diagram, the project takes point of departure in the integrated design process based on three overall phases. Starting with the objective, a problem is formulated. The process continues with analysis of the problem, research, and enters into a design phase. Ideas are developed and a design is produced, which has to take the synthesis of the research into consideration in order to finally evaluate critically upon the proposed design. This process can continue in a continous loop, and is at some point finalized to be able to move on to the third phase - producing a product. (However, the process is never ending, and the product may be altered due to new evaluations).

The research of urban design theories and theoretical knowledge gained within social sciences is the foundation of which the design is based. It relates to social sustainability and social coexistence, post-industrial aesthetics combined with theory of transformation processes and urban development strategies.

Collecting empirical data has been made through on-site study trips to Svendborg, interviews with local architects and stakeholders, research of municipal and local plans, and urban design proposals for the future of Svendborg harbour front. The structural analysis is based on pre-existing maps showing structural relationships of the city.

The design technique has given opportunity to gain insight into value-based processual urban developments and transformation processes as a method. When working with a post-industrial landscape transformation and processual thinking in Svendborg, has been necessary to plan according to strategies of 1) gaining access to areas that were previously inaccessible, 2) then bringing new life into the areas through 3) re-programming the former industrial production spaces (Braae, 2015).

The design has to consider amounts of flexibility in the urban interface, and the actual physical design is based on strategies and principles, namely holistic strategies of industrial heritage combined with strategies for social coexistence.



Ill. 4 - Methodology diagram

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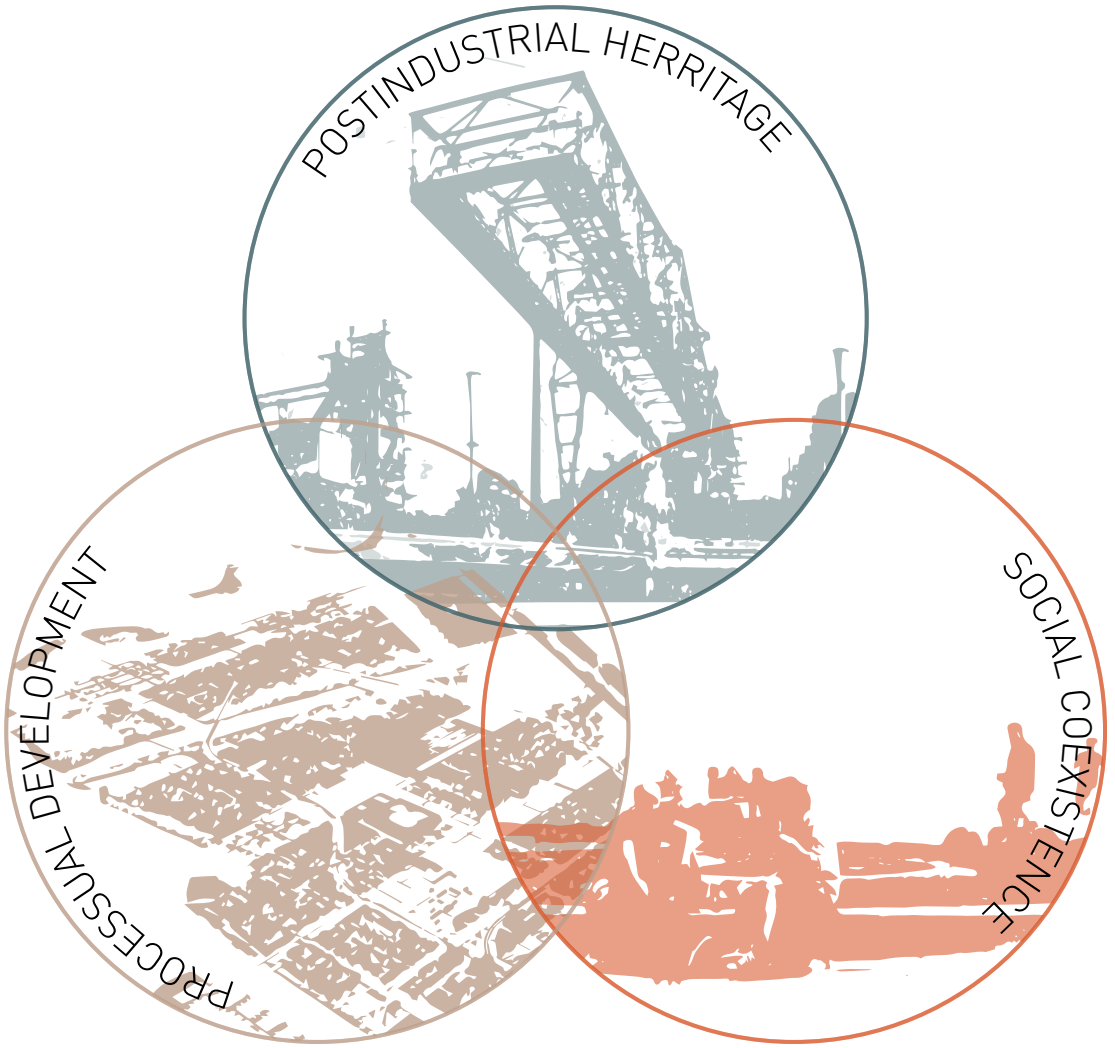


Ill. 5 - Diagram of used urban theory

EORY

THEORETICAL FRAME

The following texts shape the theoretical framework on which this thesis is built, consisting of a discussion in three parts; coexistence in the public space, aesthetics of the postindustrial landscape and process development as a contrary to the masterplan. Each text engages and elaborates on an urban topic, which is found highly interesting and relevant for this project. Several reference projects are included to support and clarify the take at the topics discussed.

A full list of references can be found in the appendix.

COEXISTENCE IN THE PUBLIC SPACE

Sustainability is a term often used in relation with environmental developments. When working with architecture and urban design it often focuses on energy sufficient materials, green roofs, energy saving windows etc. Economical sustainability is also a well used term in urban development, but what about social sustainability? The three types of sustainability makes up the sustainability triangle (Ill. 6) which is the basic tool for creating sustainable designs. Often social sustainability is underprioritized and in some cases overlooked in the process of designing the urban area, which results in a design that lacks a social awareness. These areas often has a higher crime rate and houses socially vulnerrable groups of people (Bjørn, 2013).

The socially sustainable design relies on accomodating diversity. Diversity is reached through designing spaces that attract different kinds of people, where safety and comfort is sustained (Bjørn, 2013).

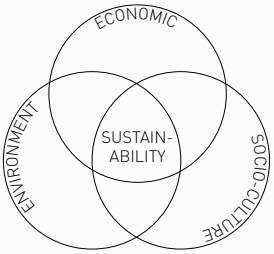
In the following, the issue of diversity and what it does to public spaces and the city, (and how to design for it), is going to be displayed through different theoretical standpoints. Finally, a view on social coexistence and how it addresses diversity and the design of public space will be explored.

THE CHALLENGE OF THE PUBLIC SPACE

"Inhabitants of the city come from all over the world, and they are welcome. It is the characteristic of the city. Otherwise, it is not a city. The city should allow the meeting between strangers" (Laborey, 2015).

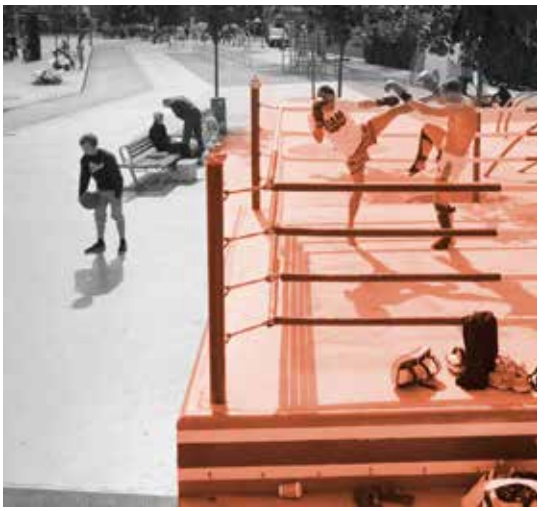
The public space in the city is supposed to be a space for everyone to use. But recently the public space has been subject for commercialization and economic pressure, and cities has started to invest in designs that addresses only a narrow target group, often tourists and middle class consumers, to make a profit (Conn et al., 2009: 1). This tendency is excluding a large group of citizens who who were former users of these spaces, and who secured diversity in the area. The lack of different users and diversity is creating homogeneous spaces, which complicates social interactions between different groups of people which leads to impersonal and vacant spaces, threatening the feeling of comfort and safety (Jacobs, 1961: 112) (Hajer and Reijndorp,2001: 7).

The exclusion of groups of people and the homogenization of the public space is in violation with the concept of the city, which builds on openness for everyone and securing safety through diversity (Hajer & Reijndorp, 2001: 25). To fight this tendency a focus needs to be put on the qualities of the public space that creates the foundation for interactions across different social groups. This will help develop social intelligence and judgement, and by that be an active antidote against stereotyping and stigmatizing (Hajer and Reijndorp, 2001: 9). Earlier, challenges for the city planner and the urban designer were to create public spaces that were attractive for the public to use. Planners like Jan Gehl and William H. Whyte came up with design parameters that would secure active public spaces (Conn et al. 577, 2009: 1). Today, the challenge is not to create public spaces that will be used, but to create public spaces that will be used by everyone.



Ill. 6 - Sustainability triangle

Ill. 7 - "Den Røde Plads" at Superkilen, Nørrebro, Copenhagen



Ill. 8 - Boxing ring at "Den Røde Plads" at Superkilen, Nørrebro

Ill. 9 - Chess tables at "Det Sorte Marked" at Superkilen, Nørrebro

CITY, PUBLIC SPACE AND DIVERSITY

In Louis Wirth's definition of the city as *"a relatively large, dense and permanent settlement of heterogeneous individuals"*, (Wirth, 1938: 2), the subject of diversity is a central concept. He argues that the city is the place for dwelling and work for the modern man, but also the controlling center for economic, political and cultural life, creating demands for different opinions and mindsets. Historically, the city has always been able to attract people with different cultural backgrounds from all parts of the world, to secure a diverse mix creating social relations across communities and breaking down barriers and stigmatizations. The city is a place that attracts people from all layers within society, and because people come with different backgrounds, they are a resource for the heterogeneous space (Wirth 1-24, 1938).

In Jane Jacobs' vision of the city, she focuses on the public space and the streets. The city is read through its streets, she states: *"If a city's streets look dull, the city looks dull"* (Jacobs, 1961: 111). She looks at the city from the pedestrian's perspective, where the fundamental concept in creating successful districts and cities is to make the pedestrian feel safe and comfortable. She states three parameters that the city needs to accomplish to secure the feeling of safety; 1) a clear demarcation between private and public space, 2) eyes on the street, being the local protectors and people who you can call for help, and 3) the street must have users in it fairly continuously throughout the day. The greater and more plentiful the range of all legitimate interests that city streets and their enterprises can satisfy, the better for the streets and for the safety and civilization of the city (Jacobs, 1961: 116)

DESIGNING DIVERSITY

The typology of the public space varies from squares to boulevards, public buildings, streets, avenues, parks and alleys etc. They all relate to various activities where people can associate with the differences, making the city readable. The planner uses these affiliations between the people and the public space to stage an atmosphere and design the city (Hajer and Reijndorp, 2001: 110). To design a public space that allows and invites for diversity and social interaction across borders, it must be understood as a public domain. The public domain occurs when different activities and groups of people meets and interact, like on the Ramblas of Barcelona where slow traffic meets busy traffic, history meets modernity, and tourists meet the residents. The public domain occurs on the border between friction and freedom, on the one side there is a tension when confronting foreigners and the unknown, but on the other side the possibility of meeting new people and getting a wider perspective (Hajer and Reijndorp, 2001: 114).

Hajer and Reijndorp have come up with three design parameters to accomplish a production

Ill. 10 - The rope forest, temporary urban space in Carlsbergbyen

Ill. 11- Parkour at a temporary urban space in Carlsbergbyen

of public domain when designing public space; *Theming, compressing and connecting*. *Theming* the space by creating a certain authenticity that addresses a certain group of people. This authenticity is created by introducing elements to the space which relates to certain people. Through theming, the designer can control what kind of people to address in the space. Compressing is about creating public domain by putting more objects in the space relating to other groups of people. Connecting is about linking the groups and activities and staging meetings and interactions across the groups. The design of the public space is able to afford interactions between people and make one comfortable with other people in different authenticities (Hajer and Reijndorp, 2001: 118).

Professor and planner Courtney Knapp has from scientific research come up with some examples on what kind of typologies of public spaces that work best as public domains. Public spaces that facilitate interactions between people with different cultural backgrounds help break down social barriers and generate safe public environments. A successful diverse public space is a space that invites for social interactions between people, but also is able to emphasize and celebrate the individual culture and group of people. Knapp states that the public spaces best at creating this kind of atmosphere are; public markets, playgrounds, boardwalks, streets and beaches (Knapp, 2009: 4).

DESIGNING SOCIAL COEXISTENCE

Louis Wirth states that diversity is essential to the city, and the mix of cultures and groups of people creates the foundation for innovation and creativity (Wirth, 1938). Jane Jacobs focuses on the sidewalk and the city in eye height. She states that to create successful cities, the public space should be a space where people feel safe and comfortable. To create the feeling of safety, the space has to facilitate a visual contact between the different groups of people (Jacobs, 1961).

To design the public space that facilitates diversity Hajer and Raindorp states that it needs to contain elements with different affiliations. The composition of these elements is bringing different groups of people together and social coexistence occurs when the unlike people start to interact in the space in-between (Hajer and Reijndorp, 2001).

When designing public spaces for social coexistence, the challenge lies in *"the third space"*, the space in-between, where the possibility of interaction between the different groups of people occurs. The space has to feel comfortable and safe to encourage interaction, but also be able to emphasize on the individual (Knapp, 2009).

CASE: CARLSBERGBYEN

The project Carlsbergbyen is a great example on how diversity and social coexistence can be reached through planning and designing of the public space. Diversity is reached through the programming by offering different housing possibilities and combining different public institutions and cultural offers. The public spaces are going to be established before the buildings to find its natural form and identity and to secure public life. The public spaces are going to be the foundation for the urban development and to help encode the architectural and functional form of the nearby area (Lomholt, 2010).

CASE: SUPERKILEN

Superkilen is a multicultural public space in Nørrebro, Copenhagen. The long and narrow space runs through a dense residential area and offers many recreational and active opportunities for the local resident or visitor. The space is divided into three very significant parts; the red space, the green park and the black market. The red space is dedicated to physical activities with a boxing ring, outdoor fitness equipment and space for team fitness. In the black market chess tables offer more thoughtful activities and in the weekends the space can be used for markets. The green park is a green landscape space with hills, playgrounds and recreational opportunities (Dansk Arkitektur Center, 2014") .

SOCIAL COEXISTENCE IN URBAN DESIGN

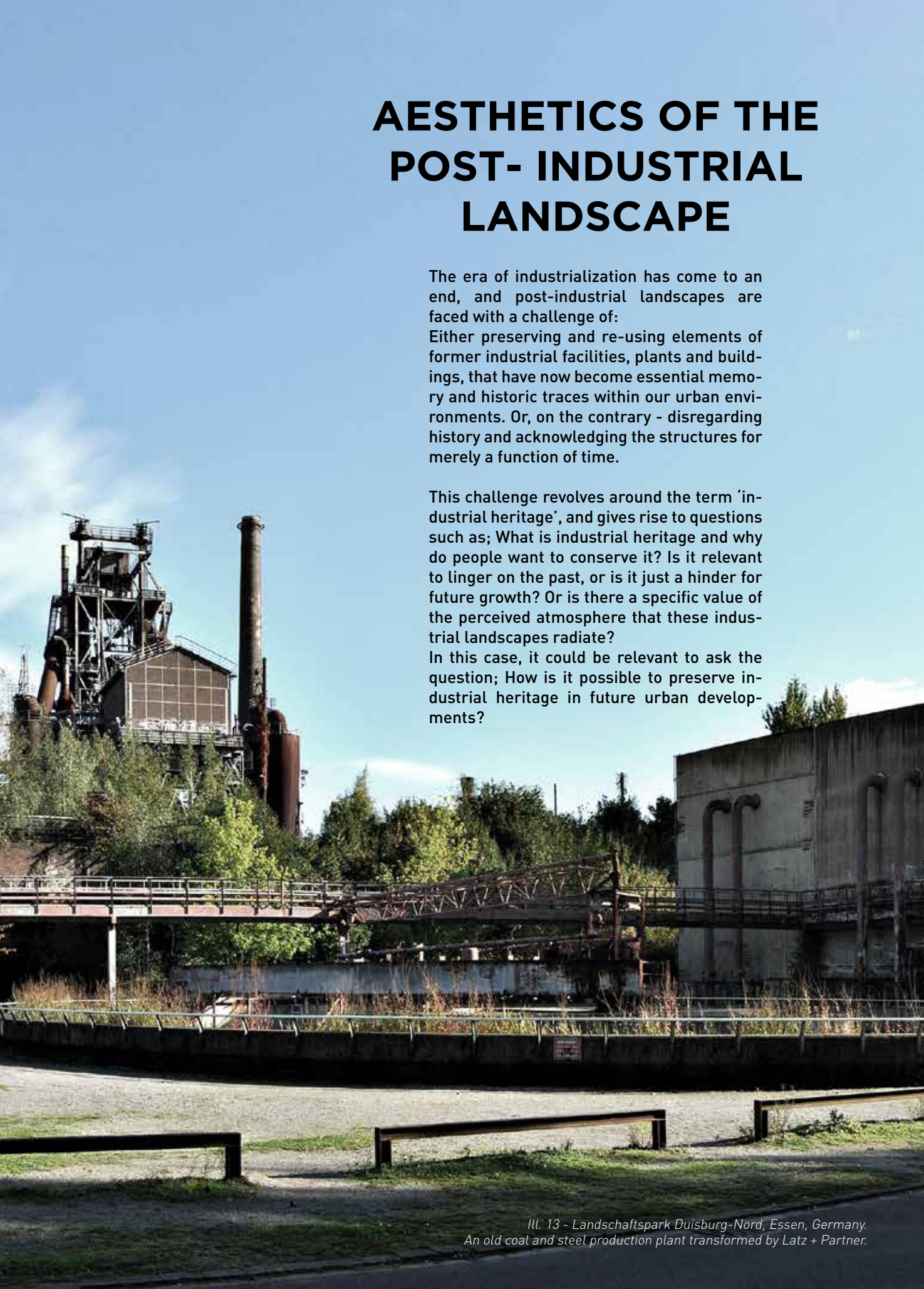
When designing for social coexistence in the public space, you have to focus on creating affiliations to different users and connect them in the *"third space"*. Superkilen relates to many different groups of people by compressing the public spaces with objects of different affiliations. The spaces in-between includes urban furniture for recreation and interaction. The design of the third space makes Superkilen a great space for social coexistence.
In the development process of a project, the public spaces should be prioritized and be the foudation for further development. The introduction of public spaces early in the process secures a user oriented design that promotes social coexistence. In the project for Carlsbergbyen the public spaces has been introduced early in the development process. This will result in a social sustainable urban district where the public spaces have been generators for the further development.

Ill. 12 - Superkilen, Nørrebro Copenhagen

AESTHETICS OF THE POST- INDUSTRIAL LANDSCAPE

The era of industrialization has come to an end, and post-industrial landscapes are faced with a challenge of:
Either preserving and re-using elements of former industrial facilities, plants and buildings, that have now become essential memory and historic traces within our urban environments. Or, on the contrary - disregarding history and acknowledging the structures for merely a function of time.

This challenge revolves around the term 'industrial heritage', and gives rise to questions such as; What is industrial heritage and why do people want to conserve it? Is it relevant to linger on the past, or is it just a hinder for future growth? Or is there a specific value of the perceived atmosphere that these industrial landscapes radiate?
In this case, it could be relevant to ask the question; How is it possible to preserve industrial heritage in future urban developments?



Ill. 13 - Landschaftspark Duisburg-Nord, Essen, Germany.
An old coal and steel production plant transformed by Latz + Partner.

Ill. 14 - Zollverein transformed with respect for the industrial heritage, Essen, Germany

Ill. 15 - Industrial landscape architecture in Landschaftspark Duisburg-Nord, Essen

INDUSTRIAL HERITAGE IN POST-INDUSTRIAL LANDSCAPES

Industrial heritage is the physical remains of industry manifested by factories, warehouses, natural resource excavation sites, workers housing areas etc. The Industrial heritage of a region is closely related to its cultural heritage, and it is rarely connected to a single location or site, but often a series of interrelated sites across a wide landscape that bears evidence of how production was organized, transformed into goods and transported to the market, leaving waste and landscape change (Douet, 2012: 48).

The industrial heritage is part of a dynamic and ever evolving cultural heritage and can be subdivided into three categories (Niras, 2013):
1) The material aspects
2) The immaterial aspects
3) Processes

The material aspects regard physical objects and the materiality of these (roads, buildings, trails, artifacts). The immaterial aspects are intangible and relate to people's social perception of the historic context, and affiliation with a certain place (stories, tales, knowledge and manufacture). The processes refer to the transformation itself, and the data which the transformation is based upon, such as analyses and on-site observations, which leads to the key to industrial preservation – that is to sustain rather than conserve the industrial heritage.

The well-known industrial landscape examples that during recent years have been transformed into cultural landscapes with focus on the industrial heritage can be found in the Ruhr District in Germany including; Emscher Park, Duisburg-Nord Landschaftspark, and the Zollverein Coal Mine Industrial Complex in Essen (North Rhine-Westphalia). The projects all draw on the temporality and memory of former production. The design and attitude towards the industrial heritage and the conservation of the built structures vary according to the intended program, and a landscape architectural preservation strategy revolves around materials, tactility and leftover structures that have fallen into decay, which suddenly gets a second life in the romanticized park of the industrial ruinous landscape. Another preservation strategy relies on a pure architectural scale, concerned with the complexes/ production units themselves. In the case of Zeche Zollverein Schacht XII built inbetween 1927-1932 (UNESCO Center, 2012), red brick facades and half-timbered constructions of steel draw attention to the built environment and a certain movement in the history of architecture, namely the Bauhaus movement. These characteristics have been chosen worthy of preservation, and the re-designed industrial complex has now been given new life, by re-programming the unit into accommodating a coal mine museum and recreational activities such as an outdoor swimming pool and a multi-functional aquatic basin that transforms into a skating rink in wintertime. This adaptive re-use of the industrial heritage has been successful, but relies on basic principles of acknowledging and respecting the historical references and qualities of the site and its cultural manifestation.

Ill. 16 - NDSM Wharf re-used, NDSM Docklands, Amsterdam

Ill. 17 - New program contrasts former purposes, Workspaces Kunststad NDSM Docklands, Amsterdam

REMAINS AS EVIDENCE

In the collection Industrial Heritage Re-tooled, historian and museum administrator Neil Cossons states that the basic principles of industrial heritage preservation derives from the fact that the material heritage has value as evidence of the past, and becomes an archaeological evidence based material. The remains are the understanding of a past and a people (Cossons, 2015: 8). He further elaborates on the cross field between material and immaterial aspects of industrial heritage:

"The industrial heritage is of wider social and cultural significance as part of the record of people's lives, and as such provides an important sense of history and identity. That may relate to an industry, a specific company, an industrial community, or a particular trade or skill. Or, the industrial heritage may have technological and scientific value in the history of manufacturing, engineering and construction, or have aesthetic qualities deriving from its architecture, design or planning." (Cossons, 2015: 9).

The cultural and social recordings of the urban landscape have the power to impact future transformation processes in a sustainable fashion, meaning that a community's affiliations with the former industry and its facilities are the main drivers for preservation of a certain industrial aesthetic. But what kind of industrial aesthetic is this actually?
The aesthetics of the post-industrial landscape is tied up and caused by the value of the industrial facilities' original functions. They were once places of production, and now it is an empty shell without any activity. The records of industry are to be contained within human memories, tied up with the location, traditions and customs, and the original production aesthetic of an active, pulsating machinery has to be replaced by a new aesthetic (Cossons, 2015: 9).
The former NDSM Amsterdam ship wharf is an interesting example of a post-industrial transformation that relies on the aesthetics of industrial production. NDSM is an abbreviation for Nederlandsche Dok en Scheepsbouw Maatschappij, and originally the NDSM was the largest ship building company in the world around 1937, and tank ships together with huge passenger ships, cargo and war ships were built at the NDSM (NDSM Amsterdam, 2014). The company shut down production in 1978, and functioned only as a repair dock until it finally closed in 1984.

The empty lands and buildings did not stay empty for long, since they turned into breeding grounds for grass-root initiators such as artists and craftsmen who saw potentials in the former industrial site with its large boat houses, terrain, scale, and berths.

Today, the area has been transformed and re-programmed with restaurants, bars, terraces, skateparks; mixing the architecture of the old ship wharf with new immitating urban design. Most of the buildings have been preserved and the large boathouse, Workspace Kunststad, contains work spaces for creative enterprises, some low budget start ups and artists (NDSM Amsterdam, 2014). The shift from closed-off industry to a publicly accessible wharf has turned the wasteland into a thriving creative post-industrial space, where the identity and the aesthetic of the active industry still remains in the storytelling of the built environment.

AESTHETICS IN RELATION TO INDUSTRIAL HERITAGE

Industrial heritage is a fact - it is a leftover and a physical, or in some cases, a mental trace within our cultural memory. The tendency has in recent time been to glorify the industrial remains, where rusty steel structures and decayed and dilapidated buildings are viewed upon as aesthetically pleasing. Aesthetics is here termed as the sensory apparatus of humans – (not the beautiful or visually pleasing), but the perception of space with all of our senses and all of our feelings according to professor, creative director and founding partner at SLA, Stig L. Andersson (Andersson, 2014). It is a question of perceiving atmosphere, both physically, sensuously, and aesthetically. Aesthetics can be interpreted as the German philosopher and phenomenologist Gernot Böhme described it in his Thesis Eleven, 'Atmosphere as the Fundamental Concept of a New Aesthetics':

"The new aesthetics is thus as regards the producers a general theory of aesthetic work, understood as the production of atmospheres. As regards reception it is a theory of perception in the full sense of the term, in which perception is understood as the experience of the presence of persons, objects and environments." (Böhme, 1993: 116).

In this way, the sublime of industrial landscapes can be perceived as aesthetically pleasing. The perception of the atmosphere and the environment of industrial sites may exude and evoke feelings within the perceiver, that either produce awe or curiosity. Objects in the landscape that were once elements with a function, have turned into fragmented pieces with reference to a whole, to a story that once existed, and this historical dimension also leads to another type of aesthetics defined by Ellen Braae, a landscape architect and professor at Copenhagen University, whose research concerns the recycling of post-industrial landscapes:

"Landscape aesthetics can also be understood as a way of communicating historical dimensions of the landscape and of the successive exchanges between the starting points given by the landscape and the way they have been built upon. It includes communicating the fluctuating nature of the urban landscape, whose dynamic is accentuated by the way we experience it through our movements." (Braae, 2015: 122-123).

Braae refers to the certain aesthetics of 'decay' in the ruin of industrial landscapes, and the 'ruin' as a theme has been studied since the Renaissance, where the Antique structures were glorified for their magnificence. The ruin is then seen with pride as a monument, and this is also present in the way industrial sites are faced today (Braae, 2015: 176).

Ruins are appealing in many ways. Size, materials and former functions may cause awe, dichotomy and unusual associations between the past and present use. The ruinous is the process of change and decay, and can be regarded as a modern aesthetic issue originating in its inherent dialectics of dissolution. The ruin is a part of a former unit, a fragment of a whole. It also represents eternity or timelessness (Braae, 2015: 180). The ruin is also interpreted as the sublime:

"The industrial sublime has effects comparable with memento mori motifs, since its overwhelming size and its otherness make us as humans feel small, ephemeral and subject to forces beyond our control." (Braae, 2015: 180).

Industrial leftovers belong to the category of unintentional monuments. Erected for other purposes than commemoration. Industrial ruins are enjoyed for their particular qualities and for cultural reasons. They have played a role in cultural history, and play a major role in the concept of 'ruinosity'. Industrial ruinous landscapes are formed by superficial characteristics of irregularity, diversity, chaos or coarseness.

"The aesthetic dimension is not an optional add-on to managing the town and landscape as dynamic systems but an integral aspect. Aesthetics is not a matter of ornamentation but of creating experiences and spaces for social routines and spatially anchored activities." (Braae, 2015: 122).

VALUES OF INDUSTRIAL HERITAGE

Cultural and industrial heritage is a contributor to the tendency within urban planning, where value is based upon the significance of cultural heritage as a driver for the development of a place. Using the cultural heritage as an asset and a resource for physical development can boost growth processes of cities, branding, and the economic situation.

According to Wolfgang Ebert, industrial monuments are not to be thought of as just cultural symbols, but parts of a cultural landscape. They have to be integrated in the approach of landscape conservation and urban development, where they should be regarded as resources to be enjoyed, instead of neglected (Ebert, 2012: 201).

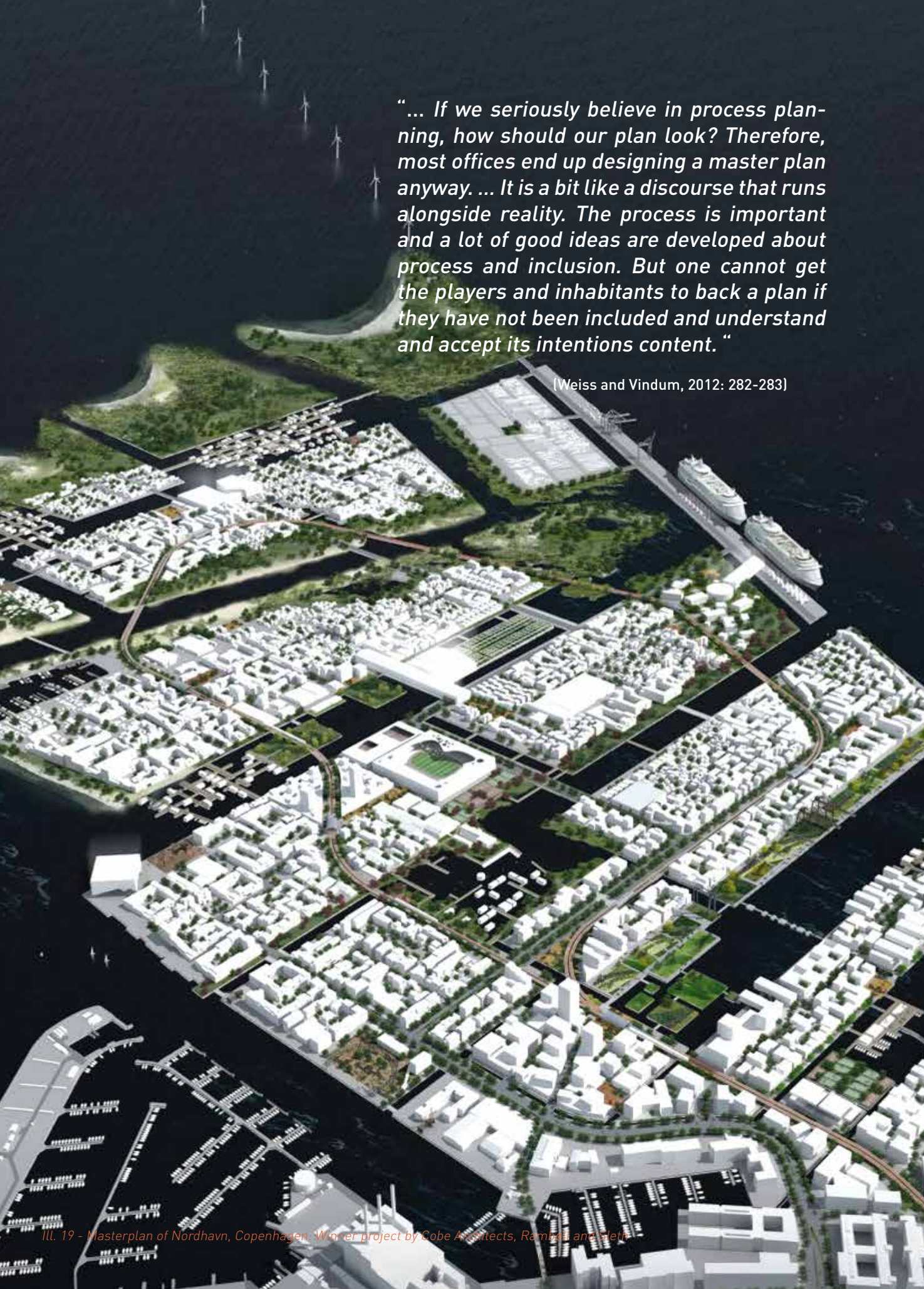
"These ruins (Ed. industrial ruins) are associated with the myth of industrialism and the power of industry, and open up phenomenological, aesthetic, and also political perception and meanings. All these aspects are embedded in the transformation of the former industrial areas, weaving relationships between past and present, myth, meaning and the narrative of the ruins in new design."

(Braae, 2015: 176).

Ill. 18 - An overgrown ruin

"... If we seriously believe in process planning, how should our plan look? Therefore, most offices end up designing a master plan anyway. ... It is a bit like a discourse that runs alongside reality. The process is important and a lot of good ideas are developed about process and inclusion. But one cannot get the players and inhabitants to back a plan if they have not been included and understand and accept its intentions content."

(Weiss and Vindum, 2012: 282-283)



Ill. 19 - Masterplan of Nordhavn, Copenhagen. Winner project by Cobe Architects, Rambøll and Sleth.

FROM MASTERPLANNING TO PROCESS DEVELOPMENT

This text sets out to investigate a possible paradigm shift in urban development from fixed masterplans to a processual orientated design approach. Furthermore, it looks into two approaches to urban development; Top-down and bottom-up. The qualities and challenges of each method will be discussed and followed up by a approach, seeking to combine the two to reach a more qualitative urban development method.

A PARADIGM SHIFT IN URBAN PLANNING?

The financial crisis which started in 2007 brought the highly active building industry to an abrupt stop. This slowdown meant that many city development projects were put on pause or even cancelled and spots of vacant land occurred in cities all over Europe (Boye, Olsen and Borchmann, 2009: 8). These vacant plots were quickly spotted by local actors and strengthened a trend which has been growing since the 1980-1990s. This trend articulated temporary use of empty urban spaces, also referred to as "lost spaces", "urban voids" or "wastelands". The discussion implied that *"vacant spaces offer possibilities for informal appropriation by people and nature, away from the highly controlled public spaces of the late twentieth century"* (Kamvasinou, 2015: 2). A change in the development of large-scale planning in Denmark in the 00s meant *"that planning progressed from being controlling to becoming an attempt to be initiating (...) and today most people view public planning as one of many players in the game we call the city producing system"* (Weiss and Vindum, 2012: 278). In recent years a showdown with the masterplan both on a national and international level started a movement towards a slower city development. This way of developing cities works both with the physical transformation, the story and the practice of the site at once. (Boye, Olsen and Borchmann, 2009: 76). Furthermore, this shift in attitude allowed landowners to opening up their stalled sites so that temporary activities of a more creative character could take place (Kamvasinou, 2015: 1), and make it possible for the development plan to adjust to new twists due to a changed economic or political situation. (Boye, Olsen and Borchmann, 2009: 77). Developers began to view the city as a net of components constantly affecting each other as opposed to the modernistic approach which believed in a uniform culture and sought to develop a solution for everyone. The understanding of urban development shifted into an understanding of the site as an area where many actors, forces, and cultures coexist (Weiss and Vindum, 2012: 282).

The transition from the fixed masterplan to a more flexible process plan opens up for new possibilities, but it also represents some new challenges for the urban planners and architects.

TOP-DOWN vs. BOTTOM-UP

TOP-DOWN

Top-down is a way of describing the structure of a process. When this process is an urban development process, top-down describes the hierarchical structure which is controlled, directed and organized from the top (ex. the municipality). A top-down design process starts with the highest and most pure form of the overall idea and works its way down to the lowest level of detail (The Free Dictionary, ("Top-Down")).

"A top-down approach is one where an executive decision maker or other person or body makes a decision. This approach is disseminated under their authority to lower levels in the hierarchy, who are, to a greater or lesser extent, bound by them" (The Free Dictionary ("Top-Down")).

Top-down development is characterized by a small number of people involved in the decision-making part of the process. The process is controlled by an overlying vision or strategy which is believed to lead to progress (Chitty, 2013).

The top-down approach summed up:

WHO IS TAKING PART IN THE PROCESS?
A top-down development team consists of a handful of people with great influence or power when it comes to take bigger decisions on behalf of the city. This is typically the municipality in the form of politicians, planners, architects, developers and investors.

WHAT ARE THE PURPOSE, GOAL AND OUTPUT?
A top-down development process is focused on long-term goals and governed by overall strategies and visions for the city. It is a holistic way of thinking about development and consists of both economical and strategical considerations. The output is often a visionary (and fixed) masterplan followed by local plans and regulations, all to make sure that the development process supports the overall wished progress of the city.

WHICH POTENTIAL PROBLEMS ARE LYING WITHIN THIS METHOD?
The top-down development process is dictated by few people who on one hand have to secure the greater good of the city and on the other hand represent the wishes of the citizens. If the decision-makers do not have a good feeling of and communication with these two actors, there will be an overhanging risk that the visions and output is not meeting their needs and thus becomes unsuccessful. Furthermore, it will often be quite demanding to adapt to changing needs during the development because the plan and regulations are fixed. Changes would require new plans and regulations, which can be a resource intensive task.

BOTTOM-UP

Bottom-up development is often described as antonym to top-down. This method is progressing from many smaller units coming together in a larger picture. It works from the grassroots – *"from a large number of people working together, causing a decision to arise from their joint involvement"* (The Free Dictionary, ("Top-Down And Bottom-Up Design")).

The bottom-up approach means that local actors participate in decision-making about the strategy and in the selection of the priorities to be pursued in their local area (ELARD, ("The Bottom Up Approach")). This causes the bottom-up method more likely to respond to and meet the needs of the citizens because the decisions are made by the many involved actors (The Free Dictionary, ("Top-Down And Bottom-Up Design")).

The local actors should include both large economic and social groups so that they represent the public in the best way. These local activists are characterized by a desire to develop their self-interests either on their own or in smaller groups (Chitty, 2013).

Bottom-up process represents the local qualities and opportunities and a strong affiliation with the site. They arise from a personal drive found with the activists engaging with the development. Where the top-down development builds on a holistic approach, the bottom-up development stems from an atomistic point of view.

The bottom-up approach is mostly implemented in the initial phases of a development process and often represents a temporary use of the site. However, it is not uncommon to see some of these temporary initiatives grow into permanent programs or installations.

TEMPORARY USE

Temporary use is a huge part of the bottom-up approach and can be useful both for the municipality, the land owner, and the local enthusiast/actor.

In temporary urban renewal processes the citizen becomes the supplier of visions and ideas. On one hand it provides the citizen with an opportunity to be part of the public space with personal initiatives. This creates affiliation with the space, local progress and innovation and invites to a more meaning-

ful process which can spread out to other groups or residents. On the other hand an accepting and creative culture is created which encourages different types of private use of the urban space (Boye, Olsen And Borchmann, 2009: 77).

A more in depth discussion of temporary use in urban development can be found in the following section "Temporary use and mental urban conversion".

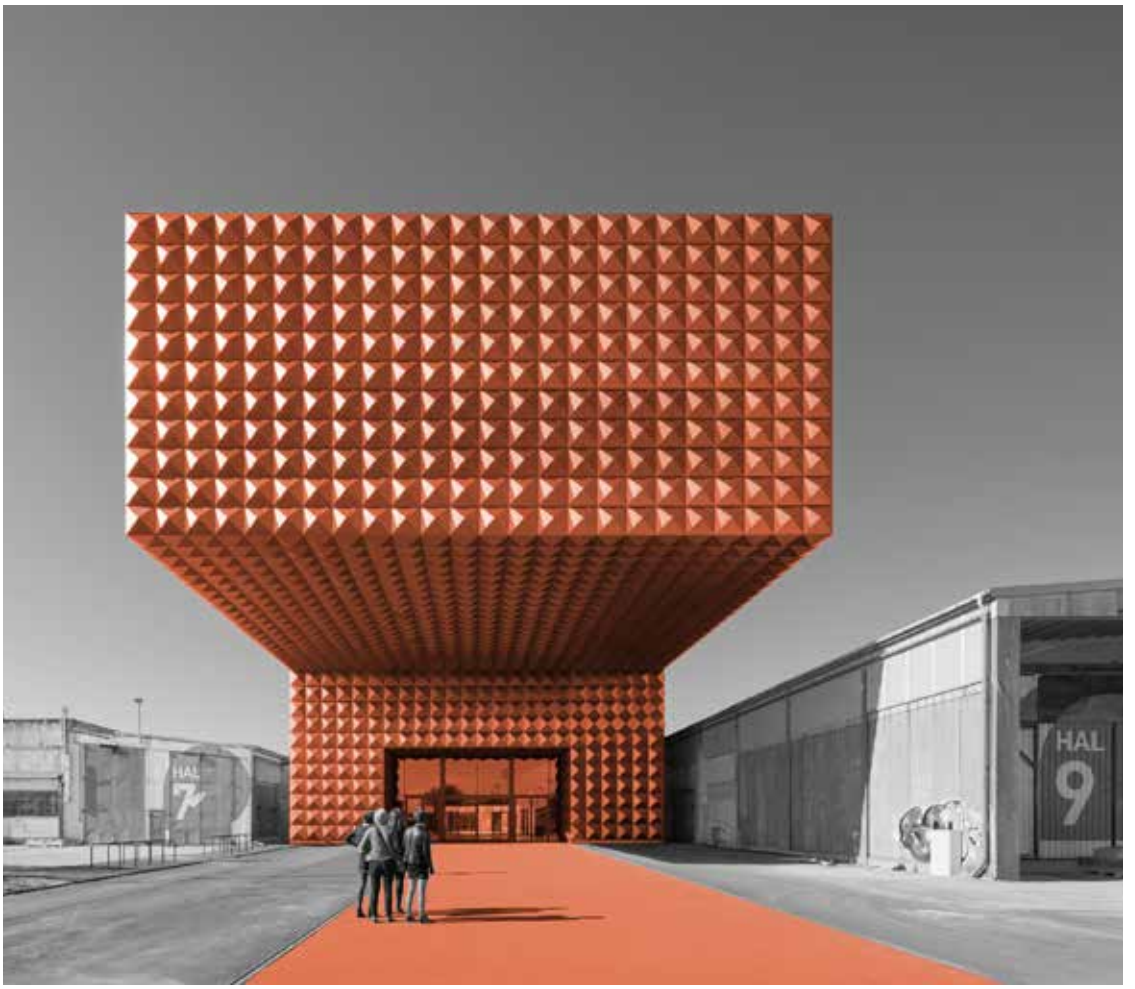
The bottom-up approach summed up:

WHO IS TAKING PART IN THE PROCESS?
The participants of a bottom-up development are a broad and diverse group. Local entrepreneurs and activists who are working in their own self-interests can be found side by side with smaller organizations, artists and members of different sub-cultures. Limited economical resources and a strong drive are their common denominators. These local enthusiasts can engage in collaboration with the landowners and/ or the municipality. In such a situation, the municipality and/or landowners will help facilitate the new use of the site.

WHAT ARE THE PURPOSE, GOAL AND OUTPUT?
A bottom-up development is created from a wish of using the urban space in a more experimental and flexible way. The local actors seek to take advantage of the free space and use the facilities to work with their own projects. The output is a development with a high involvement of the citizens, anchored in their needs and wishes. Local rules, if any, are made by common agreement.
When the bottom-up method is used early in a development process and is staged or facilitated by the municipality or the landowner, the purpose can also be attracting people and investors to the site and occupy the stalling site to prevent further decay or even to improve the site conditions. It can also be used as a mental tool to create awareness of future plans and change the identity of the site.

WHICH POTENTIAL PROBLEMS ARE LYING WITHIN THIS METHOD?
The main concern of the bottom-up approach is the lack of an overall coordinator or project manager with a long-term vision for the site. This approach does not consider the overall good for the city nor consider how the development fits in with the city's strategies and visions. As the local actors are the decision-makers, there is a risk that they make egoistic choices that does not benefit the rest of the city. Furthermore, it can take much more time to develop the site because more people have to come to a common agreement.

Ill. 20 - Top-down meeting Bottom-up



Ill. 21 - New structures meet the existing at Musicon, Roskilde by MVRDV, Cobe Architects and LIW Planning

PROCESSUAL DEVELOPMENT PROJECTS SHOW THE WAY

In recent years, several Danish urban development projects have excelled due to their ability to overcome the biggest challenges of process development – creating a fixed masterplan. The projects are characterized by having clear visions, but without presenting only one solution to fulfill the ambitions. Instead, the projects show the possibility of incorporating changes along the way and thus becomes much more flexible – both in programming and design.

Musicon in Roskilde by MVRDV, COBE Arkitekter and LIW Planning is a project proposing to transform a 45.000 m2 former industrial site into a new neighborhood ("MVRDV – Rockmagneten"). Musicon stands out from traditional urban planning projects because the development is done through close cooperation with actors from the cultural- and business community. The secretary of Musicon wishes for a high user involvement in the process, meaning that the users of the urban area shape the design through developing, strengthening, and maintaining the projects and activities that they initiate. This creates a dynamic and diverse urban area with a strong sense of ownership and affiliation with the space. The key to this development is temporary use. Temporary activities such as events, cultural projects, interventions or business projects can inhabit a building, sometimes for several years, until the structure will be demolished to make space for new development. These temporary activities attract people to the area and exhibit new ways to use structures and spaces. Through this, the temporary activities help change the perception of Musicon from an abandoned industrial plot to a creative new urban area. This project is inspired by bottom-up development, industrial heritage and processual development and a central office which carries the responsibilities of leading the project in the right direction. ("IDÉEN BAG MUSICON")

Ill. 22 - The old silos becomes an integrated part of the new urban area at Nordhavn

Nordholmene by Cobe Arkitekter is an urban development plan for Nordhavn in Copenhagen. This new urban area will, when finished, house 40.000 residents and function as an independent neighborhood with a diverse programming and a well-connected infrastructure. Nordholmene is created from a processual development strategy. The build area is divided into islets which can be developed one at the time, each with its own unique qualities, infrastructural connections and urban spaces. Each islet is then divided into building plots which can be adjusted to meet the economical, architectonical and societal tendencies. This secures a flexible and resilient plan that can facilitate a development which can handle both demographic and economic unknown tendencies of the future. This project is also inspired by the industrial heritage found at the site and makes suggestions to how to incorporate industrial trails in new urban development (Cobe Arkitekter, Rambøll And Sleth Modernism).

MERGING DEVELOPMENT APPROACHES

As mentioned above, both the top-down and bottom-up approach can be a part of a development strategy. Top-down as the classical and well-known example of urban development and bottom-up either as a way of engaging the local community or to activate a stalled site through temporary use while waiting for investors.

We believe that both the top-down and bottom-up approach are important in a successful development strategy. By combining the forces of the two methods, we end up with a strong development plan. The forces of top-down development include the efficiency and superb overview represented by specialists ("Top-Down And Bottom-Up Design") alongside with an overall vision and strategy that helps keep the progress on track and secures that the development embraces the city's present and future needs. The bottom-up approach secures involvement and engagement from the local community and activation of local enthusiasts which are a huge advantage for the development process. Furthermore, this approach secure a maximum use of the site through temporary use which can both attract investors and people to the site and help change the mental perception of the area. This is an extremely useful tool when developing former industrial sites which many citizens often see as "blank spaces" in the city with a negative or non-existing identity. The bottom-up method can bring life back to dead zones in the city and thus making them more attractive to possible investors and help the development process going faster.

An urban development plan which is realized in phases over time, without fixed programming or built form, provides a flexible output. This plan can adjust to changing needs during the development process and provides as much value as possible for the citizens and the city, both during the development phase and in the final urban outcome. Clear visions and strategies are important to keep the development on track and secure that the outcome reflects the needs of the city, thus making the urban development successful.

TEMPORARY USE & MENTAL URBAN CONVERSION

Ill. 23 - "Prøveparken" - a temporary park at the harbour front in Svendborg

Ill. 24 - A p hal

One of the first bottom-up movements to influence the modernistic city planning was the Situationists, who in the 1950-60's put a focus on citizen involvement and city planning in eye height. Their focus was a counteract to the modernistic way of planning where top-down planning created impersonal cities controlled by economy and bureaucracy (Boye, Olesen and Borchmann, 77).

The Situationists had a goal to create authentic cities, focusing on the individual resident and their wishes. They created temporary situations to understand the wishes and demands from the citizen through games and social activities. The temporary use would result in influencing the design of the city that reflected the practice of the citizen (Boye, Olesen and Borchmann, 77).

In the following text the aspect of temporary use and its role in mental urban conversion will be explored. The different stages of temporary use will be elaborated and viewed through different cases.

Today, temporary use is still active in the process of urban development. It may differ in timespan and the goal varies from one project to another, but they all have the same focus on involving the citizen in the process (Boye, Olesen and Borchmann, 77). Temporary activities can happen inside vacant buildings or outside in the empty spaces. NDSM in Amsterdam is a great example on how vacant structures create the foundation for temporary activities. The old shipyard area houses a mix of different programs and events initiated by local enthusiasts. NDSM offers spaces for residence, offices, workshops, events etc. for people to rent and exploit their creativity ("NDSM"). *Prøveparken* is an example on temporary use in the public space. The park is a project initiated by the municipality of Svendborg, where temporary installations are placed in an urban space. The goal is to try out different activities in the space, to understand what type of public space would be most popular (Jensen).

Temporality can be used in different ways to reach certain goals. If the goal is to attract people and create awareness of a project, short termed activities like one-day events or pop up installations will be the most preferable types of temporary activities. In these cases the actor often has an economic agenda and wishes to attract investors for the project. Raumlabor is a design company, located in Berlin, specializing in creating the framework for temporary activities e.g. by their installation Küchenmonument ("Raumlabor » Statement"). In cases with long development processes where the site is untouched for a long period of time, it is mostly a local enthusiast who will apply for creating temporary activities. The wish from the local is often to create a place for socializing and possibilities for realizing creative ideas. The vacant buildings offer authentic spaces at affordable expenses. Kultutten and Kammerateriet are great examples of how vacant buildings create the foundation for temporary activities made by the locale enthusiast. Kultutten offer spaces for local entrepreneurs to book and realize their ideas ("Kultutten"). In some cases, the temporary use will be part of the land development, as a tool for mental urban conversion. The temporary use will attract people and activate the space, transforming the mental perception of the area. The municipality and project developers use mental urban conversion to activate a site and increase its value to attract investors. In the urban development project in Køge, a range of different vacant spaces has been transformed into new active temporary spaces to create an awareness of the new development project and a mental urban renewal of the area. The temporary spaces offer many different activities to get as many citizens involved as possible ("Køge Kyst").

part held at the old storage
ls at Frederiksø, hosted by
Kammerateriet

Ill. 25 - A temporary urban installation creates new spaces in the city, 'Kitchen Monument' by Raumlabor

Ill. 26 - At NDSM, Amsterdam, creative entrepreneurs are working side by side in an old warehouse

Ill. 27 - Temporary urban space installation in Køge by.

The temporary use is initiated by different actors with different agendas. The municipality uses temporality to secure a public affiliation to the new project, while attracting investors for funding. Temporary activity is useful for the municipality in situations where: - The development of a site is stalled – The development of a site is happening too fast and the municipality is worried to lose the local affiliation in the process – A public phase is to be initiated – A dialogue with the citizens is wished for (Boye, Olesen and Borchmann, 2009: 9).

The agenda of the landowners is purely economic and temporary activity is often used to enhance the chances of profit. Temporary use if useful for the landowner in situations where: - There are no investors interested in buying your land – The site is in decay due to stalling development and no present use – You wish to increase the attractiveness and value of the site – You wish to support good initiatives which can activate the neighborhood (Boye, Olesen and Borchmann, 2009, 9).

The local enthusiast can be understood as a private person, a company, entrepreneurs and unions, who use temporality for personal reasons. To them temporary use is usefull when: Your community needs a new location – You have an idea for a project, but not enough economic resources to realize it (Boye, Olesen and Borchmann, 2009, 9).

The Situationists' vision of creating authentic cities is still present in contemporary urban development, where temporary use is a tool to involve the locale citizen in the process. Temporary activity can be used by different actors with different agendas, and there are many great examples on how temporary use has been a success and has influenced the continuing development of projects.

Ill. 28 - Mountain bike race at Frederiksø, Svendborg

Ill. 29 - Anchorage at the harbour of Svendborg

SITE

INTRODUCING THE SITE

This section sets out to provide the reader with a better understanding of the site. The first part consists of several overall analyses in a bigger perspective to introduce the general potentials and problems present at the site. These will later contribute to the point of departure for the visions of this thesis project.

Ill. 30 - Overview of the harbour of Svendborg

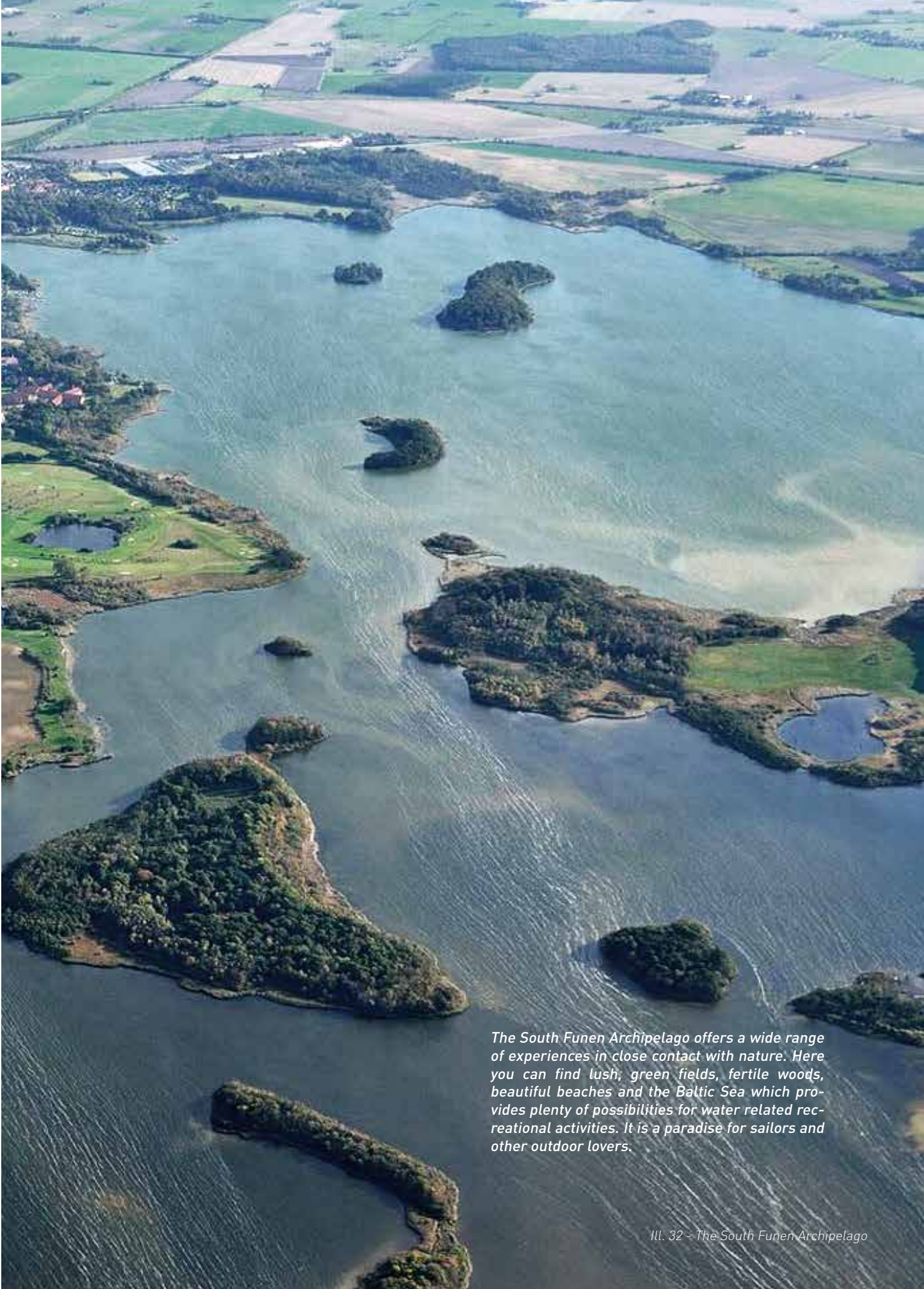
LOCATION

Svendborg is located at the southernmost tip of Funen in Denmark. The seaport city with its 26.804 inhabitants is the second biggest city at Funen, only surpassed by Odense which can be reached within 40 minutes by train or car. Svendborg was founded in 1253 and has an intact and beautiful city core with narrow streets and straits, squares and courtyards (Svendborg Kommune I).

The city is located in a dramatic landscape, on the edge between land and sea. The inner city is placed on a hillside sloping down towards the harbor front and Svendborgsund. Due to the sloping landscape the entire inner city can enjoy a view to the South Funen Archipelago just south of the city.

The harbour front and Frederiksø area are characterized by an industrial, maritime landscape with hard surfaces and large scaled buildings. They become a transition zone, placed on an axis dividing the city from the sea. On one side you look to the old and dense city, on the other you have views to the sea and nature. The stunning views dominate the site and leave a permanent impression on visitors and residents of Svendborg.

Ill. 31 - Location illustration



The South Funen Archipelago offers a wide range of experiences in close contact with nature. Here you can find lush, green fields, fertile woods, beautiful beaches and the Baltic Sea which provides plenty of possibilities for water related recreational activities. It is a paradise for sailors and other outdoor lovers.

Ill. 32 - The South Funen Archipelago

CITY IDENTITY

"The city by the sound", "The unconditional most beautiful area in Denmark" and "Capital of the Funen Archipelago" are some common phrases used to describe Svendborg (SvendborgEvent, 2016). The dramatic landscape in which Svendborg is located dominates the experience of the city and a huge part of the city's identity. Here, in between stunning ocean views and a lush and hilly landscape, the city enjoys the better of two worlds.

In March 2008, Svendborg became an official member of the "Cittaslow" movement. As one of these "slow cities" it represents the good life with focus on local foods, crafts and products. The goal is to increase quality in the everyday life through sustainability and should be seen as a countermovement to the rushed and fast life many are subject to in today's society (Svendborg Kommune II). This tells a story of a city with focus on the site specific qualities, traditions and community.

Svendborg harbour has always played a central part in the city's identity and is often called "the gateway" to the Funen Archipelago with ferry departures to smaller island as Ærø, Drejø, Skarø, Hjortø and Birkholm. For centuries the harbour has been associated with seafaring and related business (Svendborg Kommune and Vandkunsten). Today it is still bustling with different harbour related activities which include shipping companies, two shipyards and grain and fodder production. Furthermore, it has several active marinas and is a popular sailing tourist destination due to its relative closeness to the other port cities of the western Baltic Sea.

The city is also characterized by a dominant entrepreneurial culture. Fremtidsfabrikken (the Future Factory) I and II are clear evidence of this. The creative environment is flourishing and supported by many initiatives and coordinators which see potentials in empty buildings along the harbour front.

Last but not least, Svendborg is known for its very rich cultural life. Besides a lively theater environment, the city offers a wide palette of other cultural experiences. Every year they host the film award "SVEND" which celebrates the best Danish actors and actresses and in addition it is possible to find live music been played at various places in the city every night of the year (SvendborgEvent, 2016).

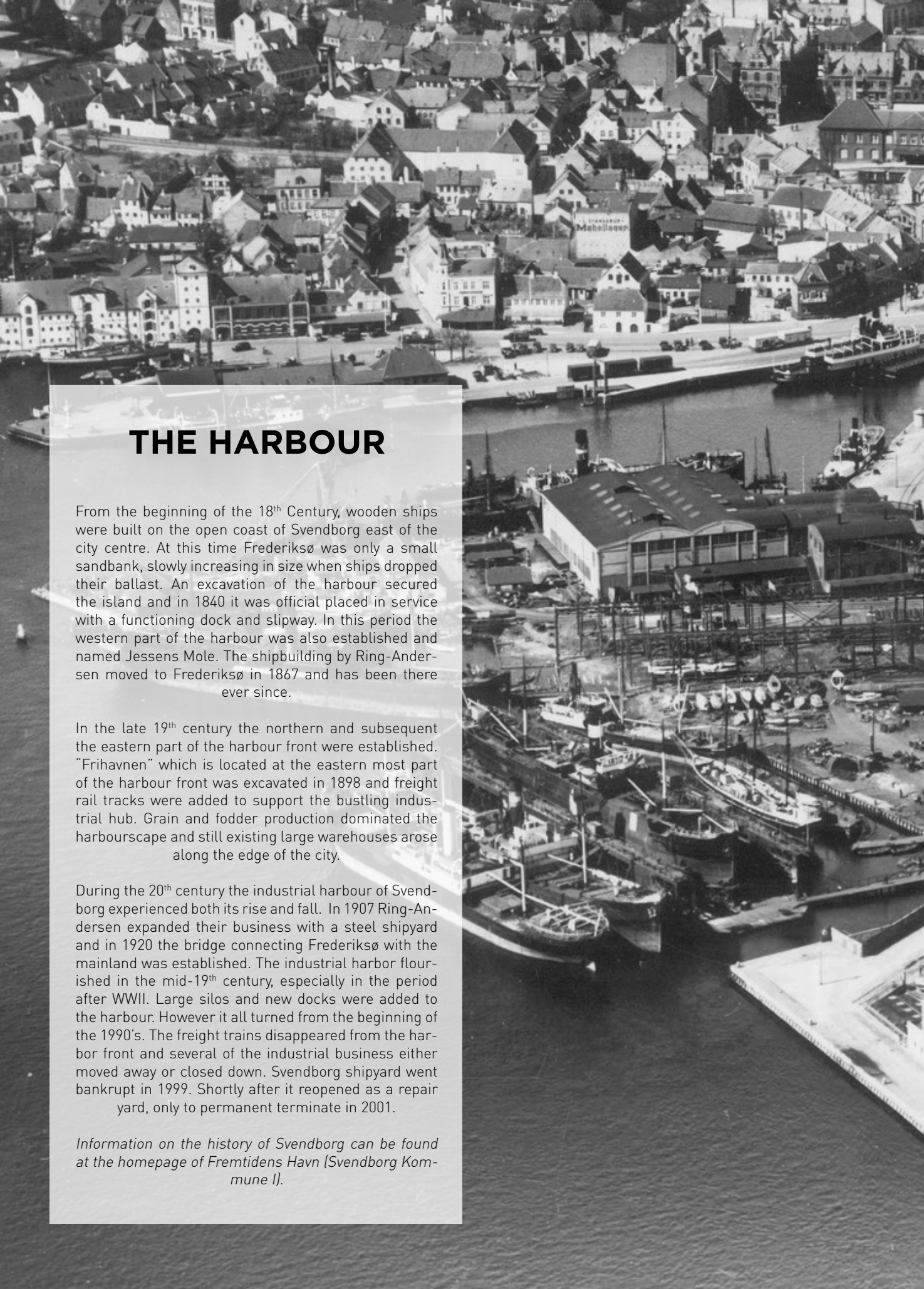
Svendborg is a lively and bustling city with a strong cultural and maritime heritage.

Ill. 33 - Svendborg seen from the sound

Ill. 34 - Several regattes are held at Svendborg each year

Ill. 35 - Food festivals are one way to see the Citta Slow movement in action in Svendborg

Ill. 36 - Maritime industries at the harbour



THE HARBOUR

From the beginning of the 18th Century, wooden ships were built on the open coast of Svendborg east of the city centre. At this time Frederiksø was only a small sandbank, slowly increasing in size when ships dropped their ballast. An excavation of the harbour secured the island and in 1840 it was official placed in service with a functioning dock and slipway. In this period the western part of the harbour was also established and named Jessens Mole. The shipbuilding by Ring-Andersen moved to Frederiksø in 1867 and has been there ever since.

In the late 19th century the northern and subsequent the eastern part of the harbour front were established. "Frihavnen" which is located at the eastern most part of the harbour front was excavated in 1898 and freight rail tracks were added to support the bustling industrial hub. Grain and fodder production dominated the harbourscape and still existing large warehouses arose along the edge of the city.

During the 20th century the industrial harbour of Svendborg experienced both its rise and fall. In 1907 Ring-Andersen expanded their business with a steel shipyard and in 1920 the bridge connecting Frederiksø with the mainland was established. The industrial harbor flourished in the mid-19th century, especially in the period after WWII. Large silos and new docks were added to the harbour. However it all turned from the beginning of the 1990's. The freight trains disappeared from the harbor front and several of the industrial business either moved away or closed down. Svendborg shipyard went bankrupt in 1999. Shortly after it reopened as a repair yard, only to permanent terminate in 2001.

Information on the history of Svendborg can be found at the homepage of Fremtidens Havn (Svendborg Kommune I).

Ill. 37 - Svendborg, ca. 1880

Ill. 38 - Svendborg, ca. 1960

Ill. 39 - Svendborg, ca. 1990

Ill. 40 - Historical photo of the harbour of Svendborg

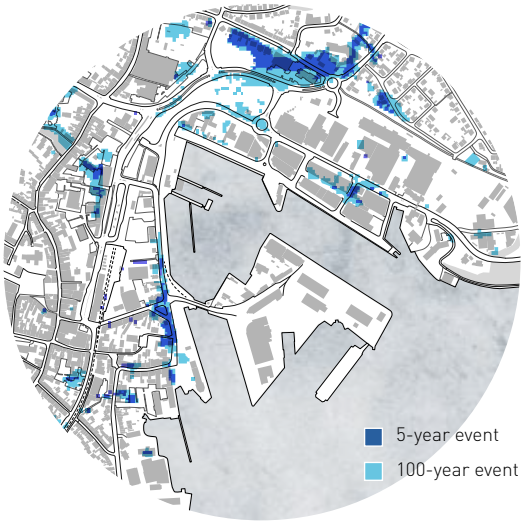
HYDROLOGICAL CHALLENGES

Svendborg faces several hydrological challenges. Due to climate changes, the sea level will rise during the coming years and increasingly severe storms causes the water level to rise even more. Due to the latest climate report from FN the future sea level will have arisen 0,1 – 0,9 m depending on a positive or negative scenario by the end of the 21th century (Miljø- og Fødevareministeriet and Naturstyrelsen, 2015).

In the last years Svendborg has experienced major floods due to heavy rain and cloudbursts. Floods occurring in 2004, 2012 and 2015 were particularly damaging and caused larger parts of the inner city to be covered in water (Fyens Stiftstidende, (TV2I, 2015), (TV2II, 2012)). The sloping terrain causes the rain to gather at the harbour, unfortunately mostly in indentations just behind the harbor front (Vand & Affald).

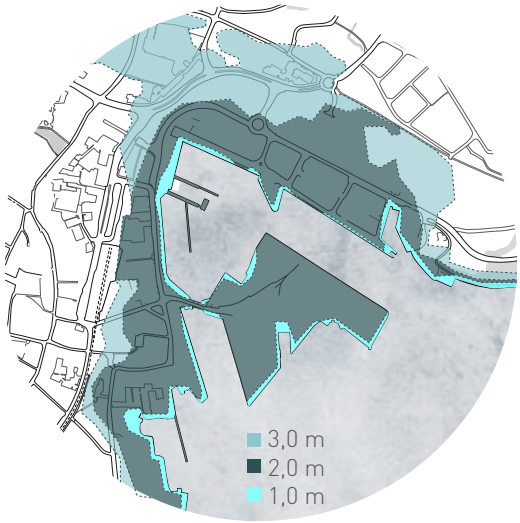
To prevent further damage caused by the water, different measures can be taken. Dykes along the harbor front and raised building plots will secure the buildings along the harbor front from damage caused by a rising sea level. Furthermore it is important to drain the rainwater gathering at the indentations inland. Today there are underground detention ponds which can hold the large amounts of water that can occur due to a cloudburst (Fyens Stiftstidende, 2004), but if these should fail or don't have enough capacity, it is very helpful to drain the water out into the ocean.

WATER ACCUMULATIONS



Ill. 41 - Illustration of water accumulations

RISING SEA LEVEL



Ill. 42 - Illustration of the rising sea level

Climate change and climate adaption strategies have focused on securing cities against heavy rainfall and cloudbursts. But during recent years, storms have appeared more frequently, and focus has changed into how to secure cities and their coastlines from rise of sea levels and flooding.
The illustrations are based on the climate adaption plans from Naturstyrelsen (Miljø- og Fødevareminisiteriet and Naturstyrelsen, 2015), and shows today's accumulation of rainwater, the rise of sea level in year 2050, and thereby the implications on the built environment in Svendborg.

Ill. 43 - The port office of Svendborg during a flooding

FUTURE PLANS

Svendborg has many plans for the future development of the city – both on shorter and longer terms.

Already commenced is "Den Grønne Tråd" (the green thread) - an urban renewal project which aims to create a beautified connection from the city park "Krøyers Have" past the town hall and main city square down towards the harbour front. This green stretch will provide the city with multiple green urban spaces and at the same time enhance the connection between the city center and the harbour front (Christine Jensens Tegnestue, 2016). Other planned projects have the same purpose of stitching the city and the harbour front through renewal of streets and alleys (Svendborg Kommune III, 2016). Finally, a project named "Det Blå Bånd" (the blue ribbon) seeks to bind the quay areas of Svendborg together through a renovation of the boardwalk (Svendborg Kommune IV, 2014).

Other planned projects include the construction of new school facilities for SIMAC (Svendborg International Maritime Academy) at the harbour front, right next to Hudes Plads (SIMAC.DK, 2016) and Fremtidsfabrikken II which is going to occupy Kvægtorvet - an old building at Frederiksgade (Fremtidsfabrikken). These projects will help activate and improve the image and quality of the urban life at the harbour front due to their attractive effect on the residents.

In 2015, Vandkunsten and Svendborg Municipality presented a masterplan for most of the harbour front and a part of Frederiksø (Svendborg Kommune and Vandkunsten, 2014). This plan builds on a long process with citizen participation, public hearings etc. and kick started an ongoing discussion of how Svendborg harbour should look in the future.

Besides the already initiated or planned projects, there are several actors present in the local debate which wish to take part in the imminent development of the harbour front. Jay Brun Jensen, head of Maritimt Center Danmark, expresses a deep wish for a maritime museum at Frederiksø, located in the abandoned structure named "Buehallerne". Furthermore, they are seeking to further develop an "experimental rambla" which communicate the rich maritime crafts heritage present at the city. (Jensen)

The library is currently looking for a new site as they wish to expand. They, too, wish to be a part of the future development of the harbor front and argue that they will support and promote the urban life at the harbor and act as an attractor and kick start further investments (Svendborg Bibliotek + Moos-Bjerre and Lange, 2015).

Kultutten – a cultural initiative which facilitates different activities for the city's residents such as a Free Shop, a bike repair shop and a gymnastics room – are currently renting abandoned buildings at Frederiksø. They wish to expand their initiative and have plenty of ideas of how to use other left over buildings and spaces at the harbour front and Frederiksø (Larsen, 2016).

The many qualities and potentials of Svendborg harbour and Frederiksø are easily recognized by many entrepreneurs and promoters which all wish to be a part of the future development of the harbour front.

Ill. 44 - Heading towards the future

Ill. 45 - The mountain bike club at Frederiksø

Ill. 46 - "Gøglerrummet" at Frederiksø, facilitated by Kultutten

Ill. 47 - Kammerateriet at Frederiksø

STAKEHOLDERS

Svendborg harbour front is a highly qualitative space which attracts many stakeholders. To clarify the different groups with interest in the site, a brief overview with an explanatory text can be found beneath.

INVESTORS

The investors are the ones paying the bills. They are either private investors or represented by the municipality. Private investors are often driven by an economical or personal ambition and engage in the urban development with a clear goal: to earn money or to realize a personal project. They are willing to invest large amounts of money if they believe in the project. The municipality has a partly economic approach to urban development. A profit is welcomed but not always a necessary precondition to realize a new project. The municipality is budgeting with expenses in relation to establishment and maintenance of public spaces and functions as long as these in return provide the city with qualitative spaces which makes the city more attractive and profitable as a whole. The municipality in Svendborg is involved in all larger investments planned for the harbour front and will pay for both public spaces, the new department of the library, the maritime museum and the new facilities for SIMAC. However, private investors also engage in these projects. Private investors or funds often pick up a big part of the bill as long as they are mentioned as contributors.

ENTREPRENEURS

The entrepreneurs are initiators with a personal vision or ambition of realizing a project. They are firebrands with enthusiasm, ideas and a strong will to succeed. They often have quite limited funds and are willing to compromise with external circumstances if they get a cheaper location in return. In Svendborg the entrepreneurs are especially represented in "Fremtidsfabrikken" and by the many creative artists which today can be found at Frederiksø and in the city centre. Many of these entrepreneurs have a dream of starting their own business one day and are attracted to the harbour front and Frederiksø due to their central location and exposure to the public.

TEMPORARY USERS

The temporary users often mimic the needs and wishes of the entrepreneurs. They often rely on voluntary work and are very limited economically. They can be driven by a profitable vision like the entrepreneurs, but most often they take point of departure in a wish to establish a space with a social or political agenda. The temporary aspect often means that they will work with the already existing facilities and resources and seek to avoid bigger investments as they will be used for a limited time only. They see potential in abandoned structures, especially if these are located centrally and easily accessed by the public. Kultutten and Kammerateriet are two temporary players who are active at Frederiksø. Kultutten, which is based purely on voluntary work, facilitates a bike repair shop, a free shop, a gym, etc. Kammerateriet consists of two entrepreneurs with other ongoing businesses in Svendborg city. They have built a bar and a beach bar and host concerts and events nearly every week.

CLUBS AND ASSOCIATIONS

Sports clubs and hobby and leisure associations can also be attracted to development sites, especially sites which relate to their field of interest. Such associations normally place themselves within a relevant context, close to appropriate outdoor facilities. For the harbour front of Svendborg this applies for maritime related activities such as water sports clubs or sailing clubs, but also other recreational or sports-related clubs like the mountainbike association located at Frederiksø. It could also be relevant for different maritime related arts and craft production associations or unions based on an affiliation with the harbour scape.

THE CITIZEN

The citizens play an important role in urban developments. They are present at the site in question today and often have their own visions and wishes for the future. They are attracted to the harbour front due to individual wishes. Maybe they wish for an apartment with ocean view or an outdoor recreational or active space in the attractive landscape, close to the water and bustling life of the harbour.

Ill. 48 - An anchorage at Frederiksø, Svendborg

CONTEXTU
ANALYSIS

ANALYSIS OF THE SITE

This section sets out to provide the reader with a better understanding of the site through multiple analyses. Each analysis explores an important aspect of the site which in the end will contribute to the design proposal. The section is summed up in a partial conclusion to clarify the significant problems and potentials represented at the site.

Ill. 49 - Orthophoto of the harbour of Svendborg

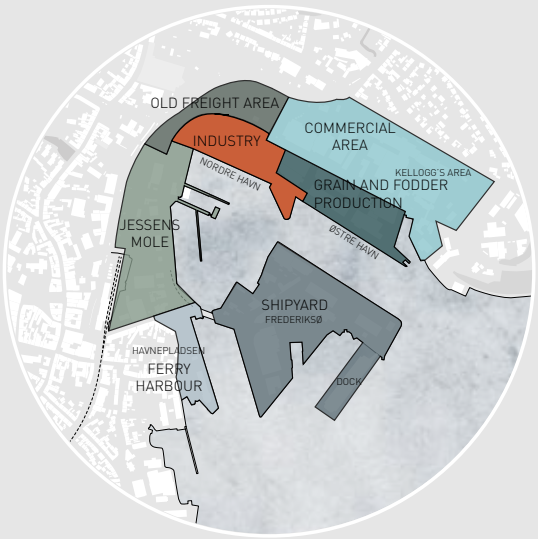
STRUCTURAL ANALYSES

Ill. 50 - Structural mapping of Svendborg

INFRASTRUCTURE, GREEN, BLUE & GREY AREAS

The infrastructural system in Svendborg is mainly feeded by the road Dronningemaen (orange) that links to both Nyborg and connects to the freeway towards Odense and further south to Tåsinge-Langeland. Østre Havnevej is the entry to the city from Thurø and a coastline connection. The bus terminal is located as an elongation of the train station, inbetween the old city and the harbour front. The network of infrastructural arteries extends south towards Svendborgsundbroen.

The green and blue structures of the city are evident as patches of greenery, sports fields, urban parks or gardens. The forests are located north on the hillside together with the lake and creek Kobberbækken, which has been culverted in the industrial quarters on the northern harbour. Tåsinge reveals as a green field in the archipelago.



Ill. 51 - Mapping of districts at the harbour of Svendborg

DISTRICTS

The harbour is represented by different identities and qualities according to the cultural heritage in Svendborg. The shipyard at Frederiksø, the ferry terminal and Jessens Mole on land all relate to the maritime heritage, either by being active industrial production zones, by offering infrastructure services connecting the archipelago internally, or by being recreational harbour areas.

Nordre Havn and Østre Havn are both industrial quarters that relate to grain and fodder production and smaller industries are located along the waterfront. The old freight area is an open field with parking on its outer limits with no real identity, which leads over to the industrial/ commercial zone and the former Kellogg's area where businesses and associations have taken over the lease. The identities and different areas at Svendborg's harbour front are all contributors to making a diverse experience, but the lack of built environment at Jessens Mole, accessibility at Frederiksø, and a coherent connection between the areas could have great potential in the future planning.

Ill. 52 - Mapping of barriers at the harbour of Svendborg

BARRIERS

Major infrastructural arteries and areas closed for public access makes up barriers in the urban environment complicating the access for public use. On the harbour in Svendborg a great part of the area is closed for public access because of industrial activity. Most of Frederiksø, Østre Havn and Nordre Havn are closed for public access. The two major roads Nyborgvej and Jernbanegade run in the periphery of the area and together with the railroad coming in from south they make up significant barriers to the harbour front.

This analysis shows that the accessibility to the site is complicated today. By breaking down the barriers, the harbour front could potentially become an open place for everyone.

PUBLIC SPACES

Ill. 53 - Mapping of public spaces and nolliemap of the harbour of Svendborg

The public spaces in Svendborg are very diverse and significant varying in size and expression. They include green parks, urban squares, pedestrian streets, a promenade, a beach bar, etc. All located centrally in the historical city and along Jessens mole on the western harbour front.

The markings on the map show their central location and the lack of public space outside the city centre. The nollimap highlights the built structures on the site, which gives a great expression on the negative space that potentially could becomes public spaces.

This analysis shows great potentials to make public spaces on the harbour front and connect them to the diverse public spaces in the city.

The **Try Out Park** is a public park containing temporary installations. It includes a skaterpark, urban gardens and a stage.


Jessens Mole is a promenade running along the western harbour front. The space contains seatings, trees and trails from the the old freight rail.



The **Beach bar** is a temporary space located in the industrial context of Frederiksø on the wide and open western quayside.



The **Maritime Rambla** is location for recreative maritime installations working as playgrounds and storytelling structures.



The shopping streets **Gerritsgade, Brogade and Møllergade** are some of the historical streets of Svendborg. They run across the city and connects some of the historical sites



Torvet is an open space located in the central part of town. It is location for temporary events and outdoor serving for the cafées.

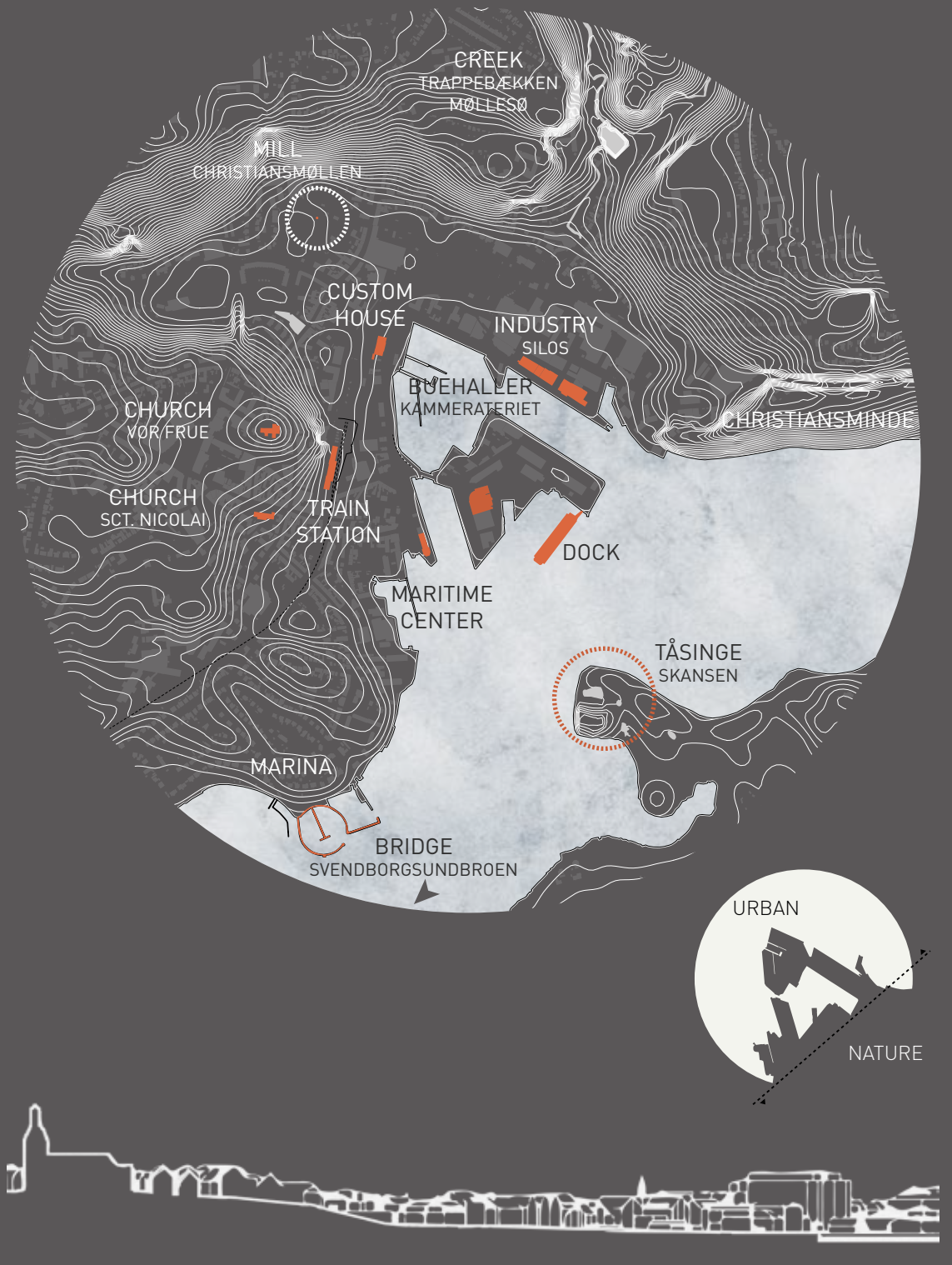


Centrumpladsen is a grey open space and **Krøyers Have** is a green park, both located in the central part of town, being used for temporary events.

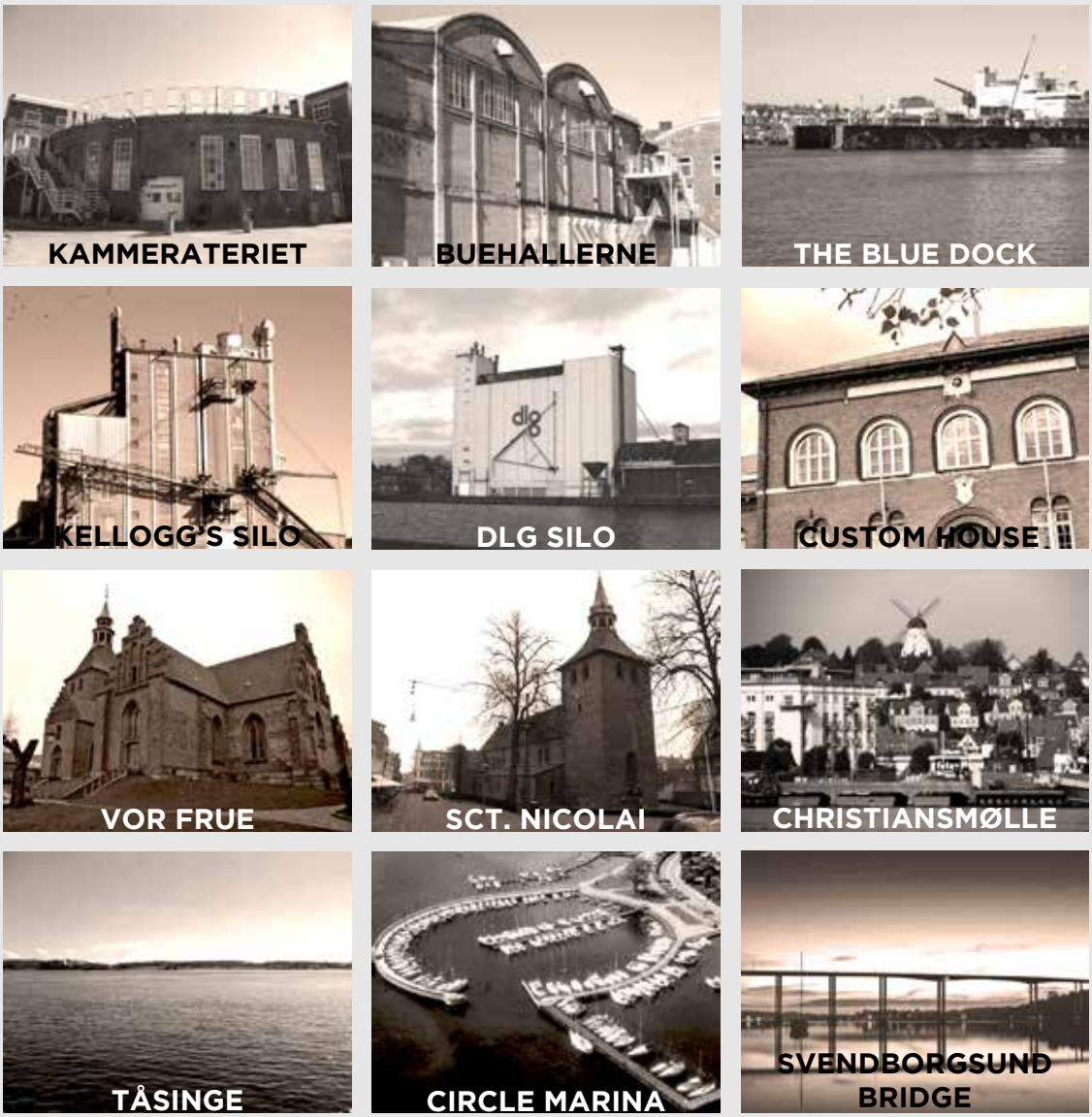


Ill. 54 - Illustration showing a selection of the urban spaces found in Svendborg

LANDSCAPE & LANDMARKS



Ill. 55 - Landscape and landmark illustrations of Svendborg



Ill. 56 - Landmarks in and around Svendborg

Svendborg is part of the South Funen Archipelago and situates itself in the sound of Svendborg. The moraine formations of the archipelago shows as islands with beautiful landscapes of lush green, that impresses with spectacular views. They bare witness of closeness to nature and a strong connection to the sea. The idyllic countryside, on the hilly slopes of Svendborg and on the islands attract tourists as well as locals in their pursuit of 'the slow life'. The coastal line and the islands are central elements in the archipelago and characterizes the landscape identity.

The city of Svendborg has been built on the hills sloping down towards the sound, and maintains its close connection to nature and water without compromising its urban fabric and the old city core. The churches functioned as peaks and landmarks on the hillside, revealing land to seafarers, and the industrial concrete cathedrals on Østre Havn have broken the scale as new landmarks.

The old mill, Christians Mølle, is located on the northern slope, still indicating Kobberbækken creek as a landscape feature with its adjacent lakes. More local landmarks are the custom house, the train station and the outdoor stage 'Bølgen' out on open water.

INDUSTRIAL HERITAGE

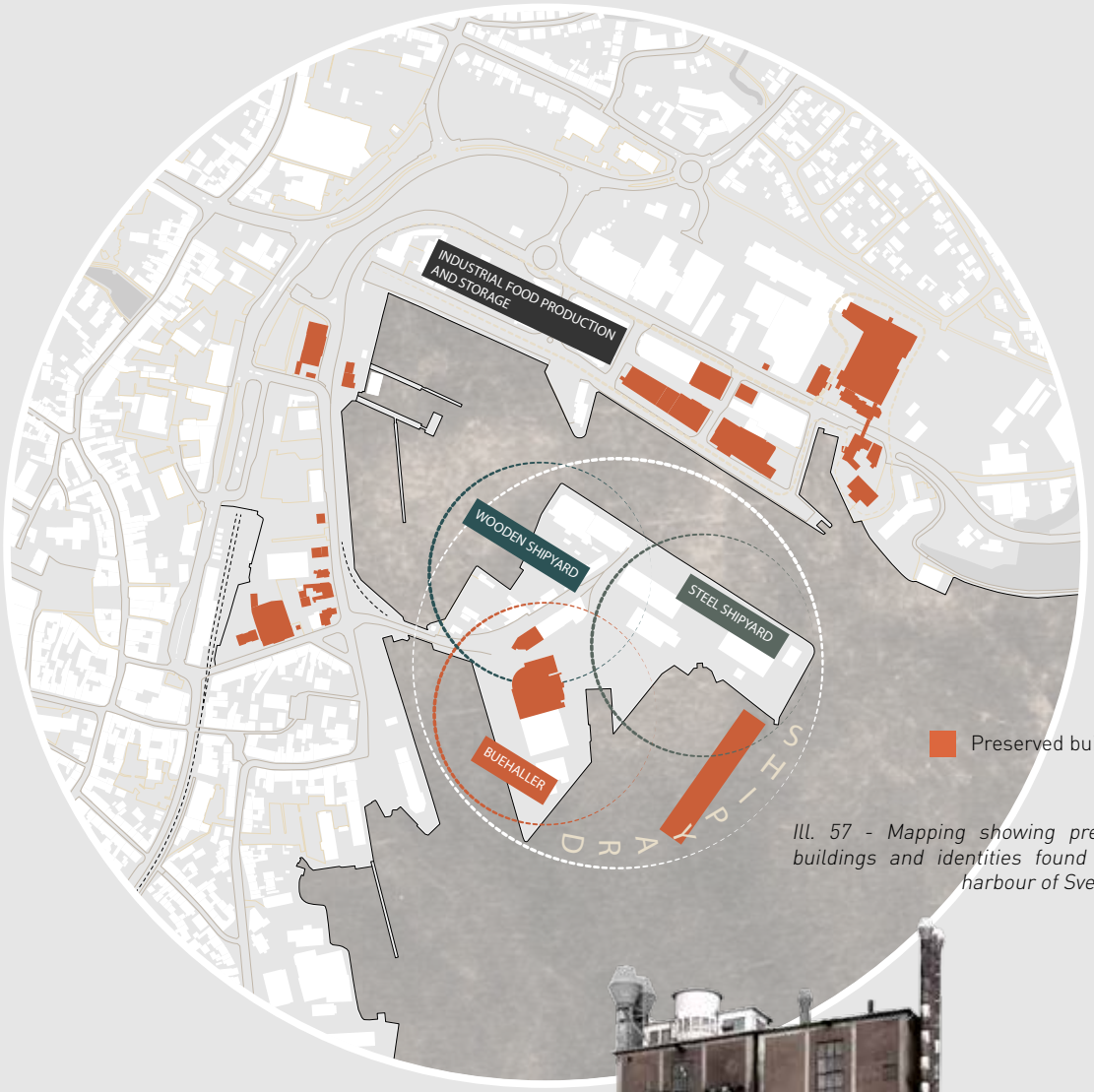
The dynamic cultural heritage of Svendborg harbour front is based on the industrial and maritime character observed and registered at the site. To explore these identities and characteristics, research has been made through the use of the categories of material and immaterial cultural heritage.

The map indicates the value of material preservation, such as the built environment e.g. the silos, the custom house, the small red brick houses at the waterfront, warehouses (Buehallerne) and the dock at Frederiksø.

The industrial remains and landmarks have had a central role throughout the history of Svendborg as indicators of a rough maritime milieu with its industrialized shipyard on Frederiksø. The buildings on Frederiksø has been used for administration, power station, storage, the blacksmiths and machine workshop. On the northeren harbour front the buildings tell the story of hard labour and agricultural production. The two companies in charge of most of the development was Nordic Kellogg's and FAF. They built buildings for storage, administration, offices, machine workshops and warehouses. The buildings at Jessens Mole refer to the subtle remains of former building techniques, materials and traditions that are worth preserving as evidence of a bustling life at the harbour front.
The immaterial cultural heritage is found in the mentality and the perception of the harbour front and within the atmosphere/ experiences of the place. The soundscape represents the audiographic atmosphere that affects the mind in relation to this perceived atmosphere. (Scan QR-code to explore Svendborg harbour front in sound).

The industrial heritage on Svendborg harbour is worth preserving. The buildings carry a history of different variations of industry, which is clearly shown through their materials and scale. The buildings together with the sound and materials of the harbour front tells the story of the industrial Svendborg. This atmosphere is worth preserving and valuable to incorporate in the new design of the harbour front.

Link: https://www.youtube.com/watch?v=ows3817ib-w



Ill. 57 - Mapping showing preserved buildings and identities found at the harbour of Svendborg

Ill. 58 - Collage of the most significant industrial structures at the site today

VISUAL AXIS SYSTEM

Ill. 59 - Illustrations of significant sightlines at the harbour of Svendborg

The visual axis system explores the urban voids in-between existing built structures at the harbour. On shore, the axis runs from west to east connecting the Green Thread with the silos at Østre Havn.
From Bølgen, there is a visual connection along the quay of Frederiksø and out towards the sound.

A strong cut through the landscape at the northern shore arise with Østre Havnevej, as the infrastructure separates the two districts.

The most stunning visual axis is found at Frederiksø, and is physically indicated by the old berth, which connects to the astounding scenery of Tåsinge.

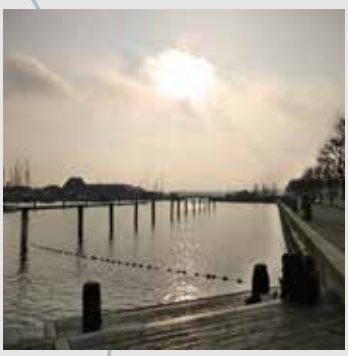
The mapping of visual sightlines and the axis system create an opportunity to actually define and design future public spaces with respect of these visual features. The old berth shows great potential in connecting the island visually with the northern harbour front.

Ill. 60 - Visual axis potential

TACTILITIES

Ill. 61 - Illustration of materials found at the site

Ill. 62 - "Buehallerne"



Ill. 63 - "Jessens mole"

Ill. 64 - Beach bar at Frederiksø

Ill. 65 - The berth at Frederiksø

Ill. 66 - The custom house

Ill. 67 - The wooden shipyard

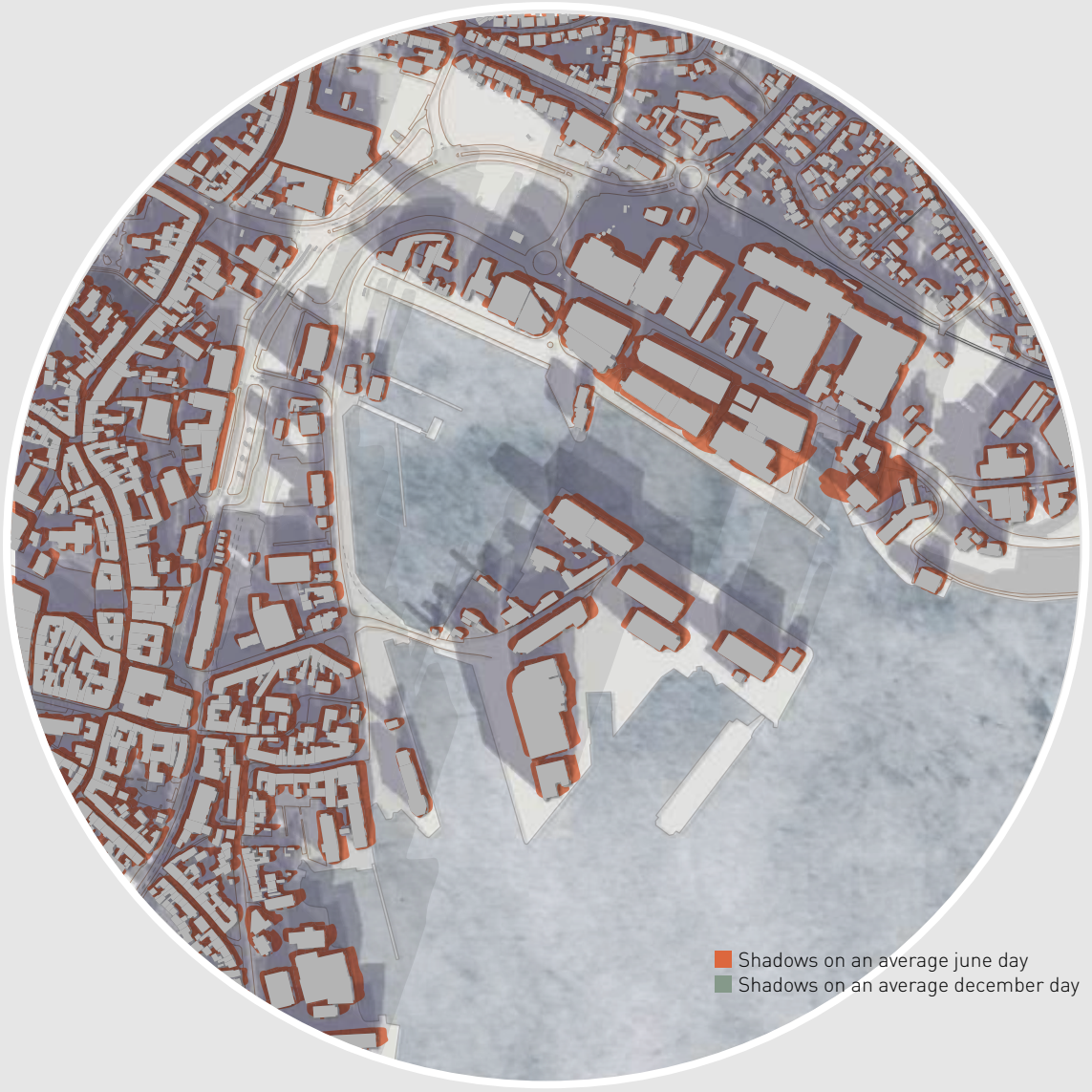
STORYTELLING THROUGH MATERIALS

The harbour front of Svendborg presents a rich selection of materials. Contrasting façades highlight the story of the development of the industrial harbour, ranging from older solid yellow or red brick buildings to newer structures in corrugated iron and concrete. The maritime environment is marked by wooden poles and planks, robes and sand found at the beach bar.

Many atmospheres and associations are connected to the tactilities present at Svendborg harbour. These are what many relates to on a personal level and are co-creational to the entire identity of the area. The storytelling that lies within the materials is important and must be developed in the design process.

Ill. 68 - Panorama photo from the berth at Frederiksø

MICRO CLIMATE

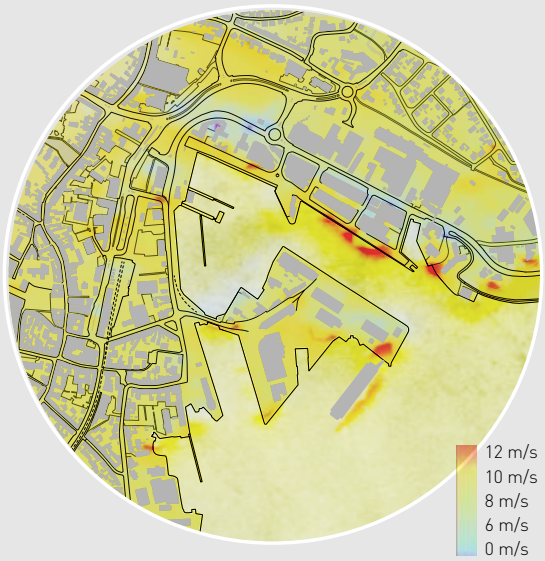


Ill. 69 - Sun analysis of the site

SUNLIGHT

The sun light has a great impact on the quality of the outdoor spaces. A space that recieves daylight throughout the day will be more attractive than one recieving only little or no sunlight. The analysis is showing the shadows for an average june day and for an average december day. The space along the quay and the south-eastern area of Frederiksø receives a great amount of sunlight. Some areas behind the buildings on the harbour front also have great sunlight conditions.

When developing the harbour front, the sun light analysis will help locate the ideal spots for placing public spaces. The most ideal spots are at the quayside and in the areas behind the buildings on the harbour front.

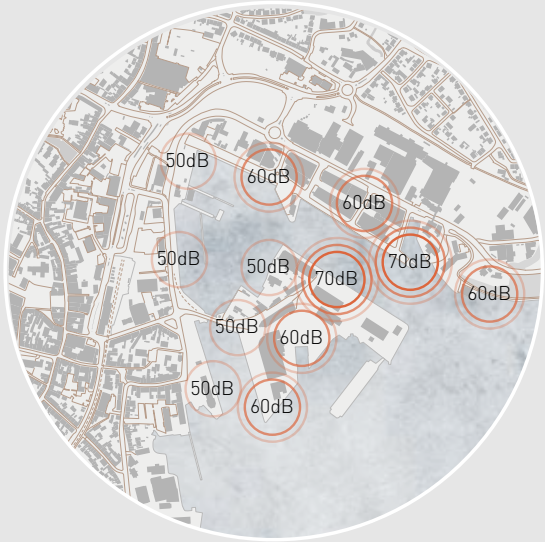


Ill. 70 - Wind analysis of the site

WIND

Svendborg is located next to the ocean, which exposes it to a lot of wind. Big buildings and structures creates bad condition for the wind and mostly ends up making windtunnels. The colours on the map show that the area around the big structures on Østre Havn and on the easteren part of Frederiksø is where the wind reaches the highest velocities, in a scenario with south wind at 10m/s.

This analysis gives an indication of where the wind can have an impact on the outdoor space.



Ill. 71 - Noise analysis of the site

NOISE

The noise level impacts the living conditions for the area. A standard noise level in an urban context is around 50dB. At Svendborg harbour the industry on Frederiksø and Østre Havn have a great impact on the noise level, where some places the level reaches 70dB at some places, which is far too loud for residence or other urban programs.

The noise level is an issue, which has to be considered before further developing the harbour front.

CHALLENGES:

+ The accessibility to the harbour front is limited due to the industries and traffic

+ The harbour front seems detatched from the city centre due to missing connections and purpose for pedestrians

+ There are hydrological challenges related to the sloping landscape caused by sea levels due to storm flods and global warming

+ Empty structures are left behind as the industry vacants the site, leaving the site with a deserted and decaying vibe

+ The remaining industry causes heavy noise pollution

POTENTIALS:

+ The site is located in the middle of the South Funen Archipelago and thus provides easy access to experiences in close contract with a beautiful nature

+ The site is furthermore located very centrally in Svendborg, close to the inner city and life connected to this

+ The harbour contains a rich industrial heritage with iconic structures, materials and a broad variarity in maritime related programs

+ The bigger scale of the industrial structures creates interesting spaces and sightlines worth preserving

+ The harbour front holds potential for the creation of attractive urban spaces and building plots

+ Svendborg has many local enthusiasts and several temporary activities and events take place at the site today

+ Many stakeholders show interest in taking part in developing the site

SUMMARY

Svendborg is currently in a situation where the previously active industrial harbour is slowly closing down and vacating the area, leaving empty structures and areas behind. Various stakeholders and actors have great interest in taking part of the development of the harbour front, due to its central location and much potential. Today the public and commercial life of the city is centred in the old city core and nearly no public spaces are found at the harbour front. Furthermore the industries close off many areas, so the accessibility is quite compromised. The municipality wishes to break down some of the barriers that are present today so the harbour will become an integrated part of Svendborg. Some projects on the harbour front are already being planned and can help tie the city centre and harbour front together - for example the maritime school SIMAC, which is going to be located at new buildings at Nordre Havn. The library and the maritime center also show interest in parts of the site and will be able to strengthen this new coherence even further.

The project site is located at the bottom of the sloping landscape as a port to the South Funen Archipelago. This means that there is a magnificent view from almost every spot at the site, either to the dense medieval city centre crawling up the hills or to the open sound with spots of green dotted along the horizontal line. But the location and landscape also represents some hydrological challenges concerning storm water floods and flooding related to heavy rain.

Ever since Frederiksø was established as a defined island, it has been used for maritime related industries. The ship yarding company Ring Andersen has been active throughout five generations and is still managing a wooden shipping repair company today. The heavy industries have put a clear mark on the harbour scape with large structural landmarks like the silos and other industrial related buildings. It has been active through two centuries and the industrial identity and heritage plays a huge role in the city's self-perception. However, as the old structures are abandoned, they leave a rising need for new functions to occupy the areas and to open up the closed country to bring back new forms of life and activities to the harbour front.

Svendborg is characterized by a rich cultural life, creative entrepreneurs and fiery souls. This holds much potential for future temporary events and use of the empty structures and areas at the harbour front, and can help fuelling a development process of the harbour. The harbour front itself also holds much potential. The history, scale, sightlines and closeness to the sea and scenic nature are just some of the parameters that make the site so attractive for future development. The harbour definitely has the possibility of becoming the new focal point of Svendborg!

Ill. 72 - Frederiksø seen from the mainland, standing near the Maritime Centre

We want to use urban design to promote social coexistence by facilitating the best options for people having interactions and affiliations with the place designed.

Ill. 73 - Frederiksø and the Maritime Centre with Tåsinge in the background

VISION STATEMENT

PROMOTING SOCIAL COEXISTENCE THROUGH A STRATEGY FOR INDUSTRIAL LANDSCAPE TRANSFORMATIONS

Envisioning Svendborg harbour front as an integrated part of the surrounding city calls for a holistic approach within urban planning. The importance of designing future inclusive and socially sustainable urban environments can be supported in a transformation strategy for post-industrial landscape preservation, meaning that the cultural heritage of Svendborg harbour front, its maritime and industrial history, should be take carefully into consideration when planning for at diverse city on multiple levels.

We want to use urban design to promote social coexistence by facilitating the best options for people having interactions and affiliations with the place designed.

The idea is to transform Svendborg harbour front through an urban development plan that focuses on the enhancement of the current industrial heritage and coexistence taking form as a processusal plan containing two strategies relating to the:

INDUSTRIAL HERITAGE

Sustaining the maritime and industrial heritage through the re-use and re-interpretation of existing structures, visual sightlines, and programmes.

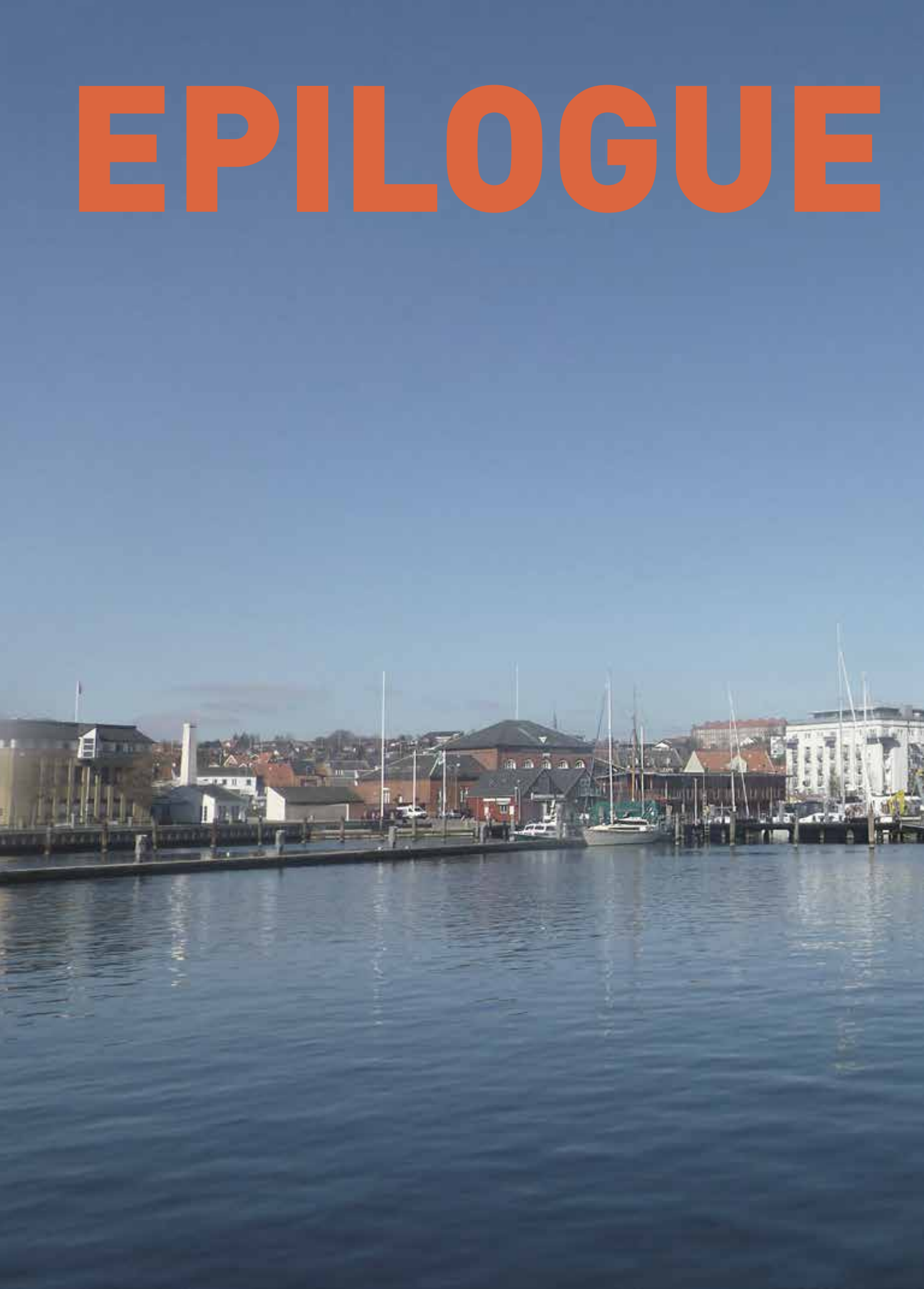
COEXISTENCE

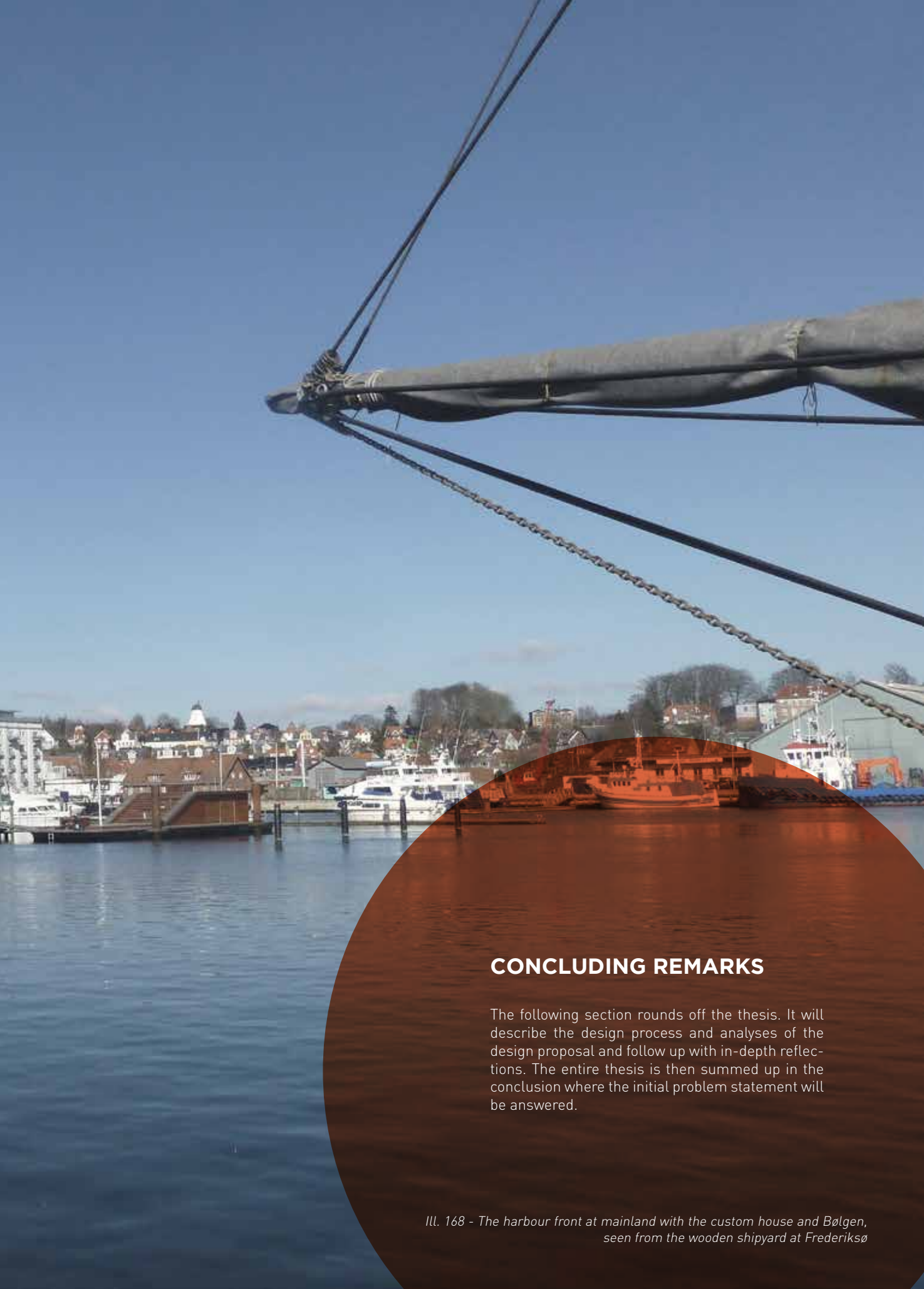
Securing social coexistence through programming, offering different housing typologies, and designing public spaces where people can meet and interact.

DESIGN

Please see the attached design booklet...

EPILOGUE





CONCLUDING REMARKS

The following section rounds off the thesis. It will describe the design process and analyses of the design proposal and follow up with in-depth reflections. The entire thesis is then summed up in the conclusion where the initial problem statement will be answered.

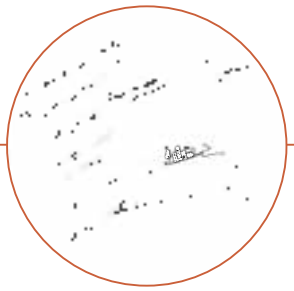
Ill. 168 - The harbour front at mainland with the custom house and Bølgen, seen from the wooden shipyard at Frederiksø

DESIGN PROCESS

Social coexistence and industrial heritage

Love for the public space

The public island



Social coexistence board game

Social coexistence in every plot

SOCIAL COEXISTENCE

The strategy for social coexistence secures a socially minded approach working with diversity and social inclusion.

- In the process, social coexistence has helped shape the design through programming and the placement of public spaces.
- The role of the public spaceand how it should address social coexistence has been considered thoroughly.
- The "city island" was a concept to make Frederiksø a completely public island for the citizens to use.
- Social coexistence has helped program the design by working with the different users of the area and incorporating more than one segment in each plot.

Preservation of different identities

Preservation of certain buildings and sightlines

Retelling the heritage in new ways

Ill. 169 - Illustration showing the design process

INDUSTRIAL HERITAGE

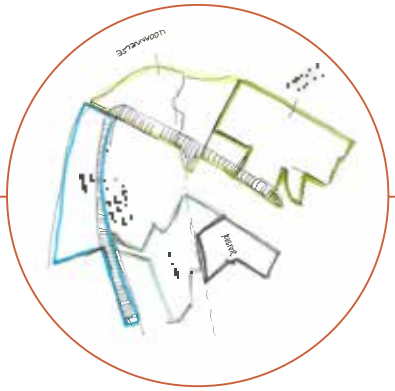
The industrial heritage is a central focus through the design process. Different aspects concerning the industrial heritage has been interpreted through the design.

- The industrial heritage has helped decide the identities and scales of the different plots, and determine different sightlines.
- The different identities have been the foundation for incorporating new programs in the design that relates to the industrial heritage.

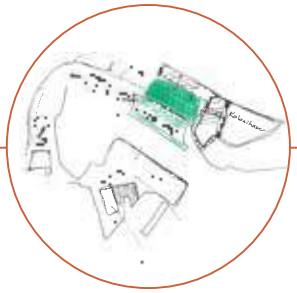
DESIGN PROCESS

Program, processual development and public space

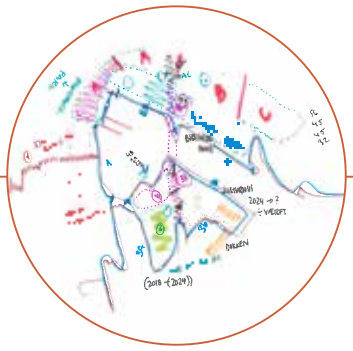
Adapted identities



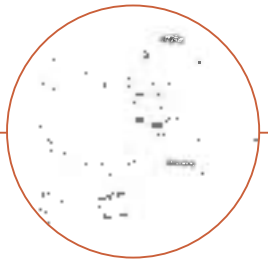
New programs

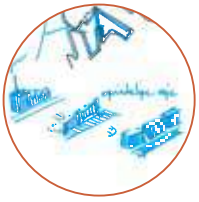


Programs, public spaces and connections



Processual development

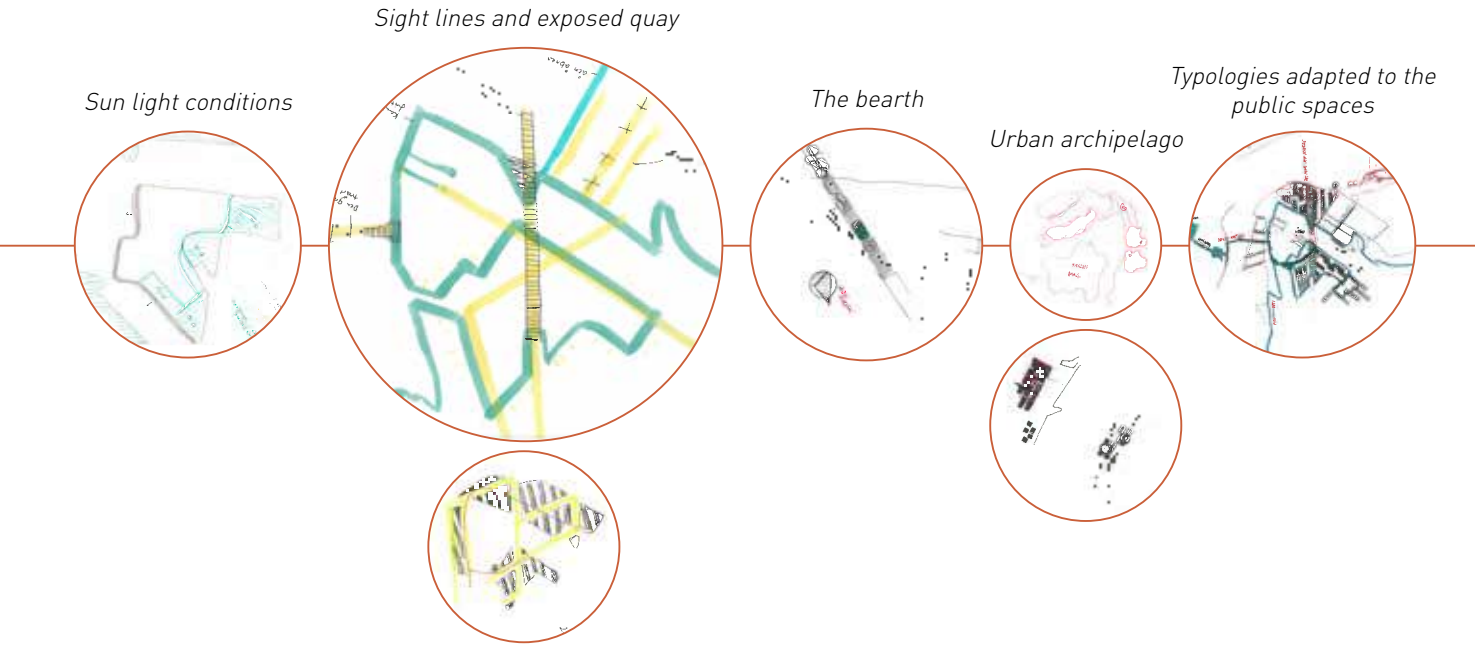




PROGRAM AND PROCESSUAL DEVELOPEMENT

The programming in the design respects the strategies for social coexistence and industrial heritage by considering the identities and scales of the different plots and securing a social mix.

- The new programs in the plots will attract new groups of people to the site, but still respect the industrial and maritime heritage.
- Different programs, public spaces, adapted identities and connections decide the form of the plots.
- The processual development has helped decide the duration and stages of the design, and how to design the project through a framework and local plan.



Ill. 170 - Illustration showing the design process

PUBLIC SPACE

The public space is a focus in the process that considers the principles from social coexistence and the industrial heritage in the location and expression.

- The public spaces have been placed according to the microclimate conditions of the area.
- The conserved sightlines and open quay are locations for public spaces.
- The landscape features of the berth makes a corridor for urban space.
- The urban archipelago serves as a concept for public spaces at the site.
- The public space is prioritized and placed before the buildings.

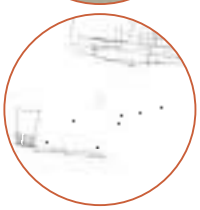
DESIGN PROCESS

Typology, form and hydrology

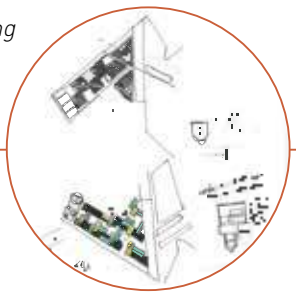
Conceptual typology

Detailing for each plot

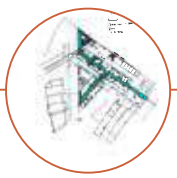
3 dimensional modelling

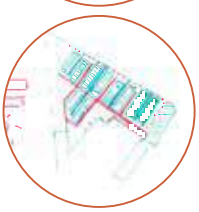


Typology on Frederiksø



Canal

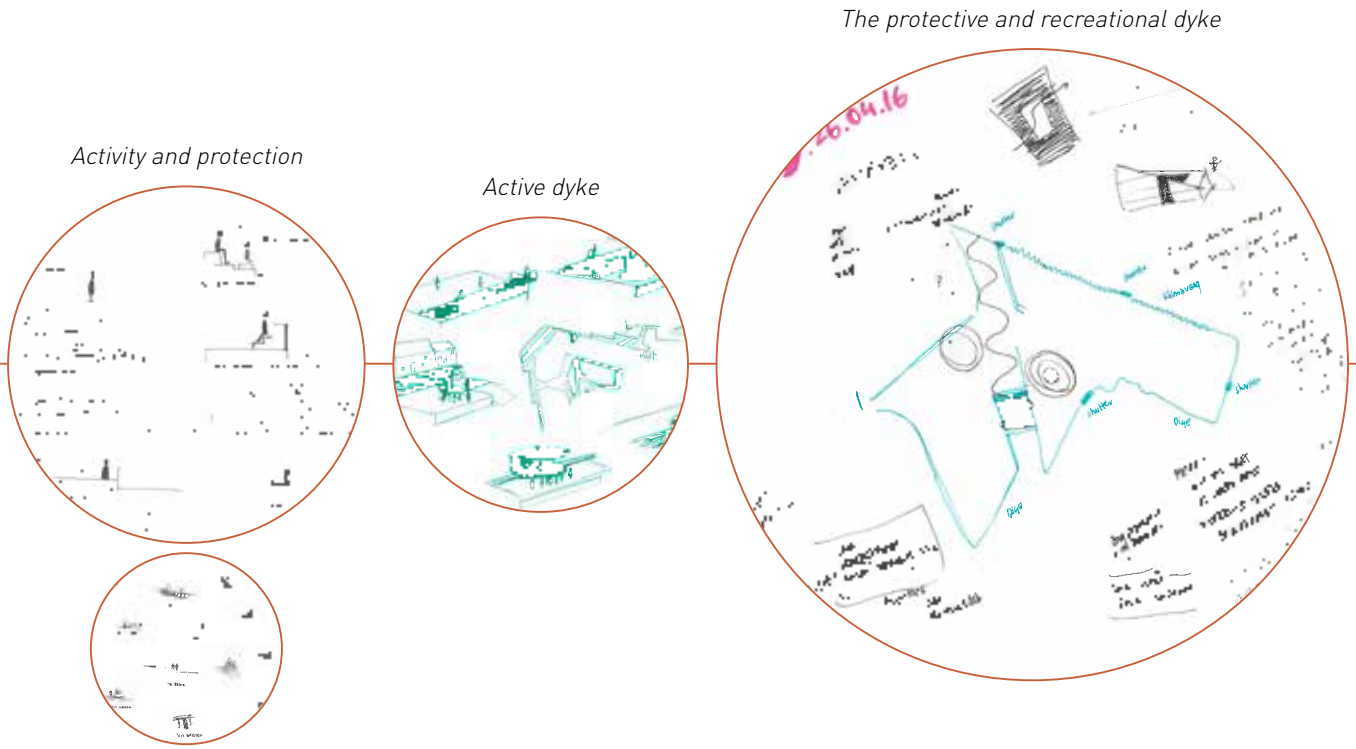




TYPOLOGY AND FORM

The typology of the design seeks to meet the defined scale and identity of the plot and also house the required mix of people.

- An overall study of typologies shows the possibilities for different forms.
- Detailing each plot to meet the decided programs and identities.
- 3D workshop to look at the relationship between the buildings and between the built and the public space.
- Focus on Frederiksø, experimenting with different scales and typologies.
- Working with canals creating access to the water



Ill. 171 - Illustration showing the design process

HYDROLOGY

The hydrological issues have influenced the design of the quay by introducing a dyke structure. The dyke has both technical and recreational purposes.

- Shape the quay to be protective against flooding and offer recreational possibilities.
- Design the dyke as an active element in the urban space along the quay.
- Incorporate the dyke in the design as a protective and recreational element.

REFLECTIONS
TRANSFORMATION AND DESIGN

FIELDS OF INTEREST

Urban transformation of landscapes requires a mindset connected to the fields of urban planning that take processual urban development into account.

The idea that places are a product of their own time, is closely related to aspects of process development, since the essential factor of any kind of processual intervention is the term of flexibility. Process development within urban transformation strategies is a matter of establishing a framework with a certain amount of flexibility that allows for changeability. Guidelines in the framework can function as a toolbox of what is to be controlled, and what should be up for open dialogue and discussion between urban planners, developers, local stakeholders, and citizens. Certain fields of interest can usually be incorporated and emphasized as catalysts for a specific transformation, such as focusing on political agendas (e.g. environmentally sustainable transformations).

In regards of the design of The Blue Neighbourhood, the effort of finding a coherent strategy for an urban transformation strategy within a post-industrial landscape, has lead to the use of specific fields of interest within urban design. Namely aspects of social coexistence, industrial heritage and process development have catalyzed the project. It has been evident throughout the entire process, that these three fields have run side by side, as three parallel courses. The use of different agendas or urban discussions and topics, impose a challenge when trying to integrate them as a holistic strategy, and it was not until late in the process that the three agendas for The Blue Neighbourhood united. They merged in the design of the urban spaces at Svendborg harbour front.

The fields of interest that were chosen for the site have proven to contribute with important food for thought when planning a post-industrial landscape. Processual urban development is a matter of learning to separate the framework from flexibilities. A masterplan might be the end-product, but it is only an illustration – a sketch to visualize the endless possibilities that lie within the framework. Acknowledgement should be given to the limitations in relation to future needs, economic development, and societal factors. It is important to establish guidelines for stakeholders to conduct the proposed illustration plan. Urban designers are to produce distinct goals and visions by tracing the potentials of a site, and thereby offer regulations in order for coordinators to facilitate the process and direct it in a way that benefits the best interest of the city.

The agenda of securing social sustainability and facilitating social coexistence is not only about togetherness, but also about affiliations with space, feeling safe, and having the opportunity and choice to interact with others.

And lastly, the discussion of preserving the industrial heritage has lead to the objective, that the industrial heritage is not only physical, it is also immaterial relating to storytelling, identities and atmospheres. Different ways of sustaining the industrial heritage may end out in a design that either reflects or imitates the original functions or something completely different, opposing the original programme.

The most important question when dealing with the industrial heritage is the question of "why"? Why preserve the industrial heritage? The answer relies upon identity: through on-site observations, registrations and interviews with local stakeholders, it was evident how much this industrial harbour front means to the citizens of Svendborg and their self-perception. Meaning, that the design of the new city district had to respect the impacts of the landscape in another way than firstly intended (relating to affiliations with space). Identity is important, since people have affiliations with the place, and it is a huge factor in the industrial and maritime identity of the city. In a social and economic perspective, identity plays a role in regards of the discourse of outskirt Denmark. Transforming the city with respect for its brand, industrial and maritime roots, can only be beneficial for everyone.

DESIGN

The theoretical material of process development was not easily identifiable and complex to find, which caused the approach/ establishment of our own method – a hands-on approach of how to transform over time. This hands-on pragmatic approach meant spending time and energy on testing out and evaluating upon several solutions. using a lot of energy in the design phase. The benefits of this approach is to be locally anchored and thereby extremely site-specific in the design intervention. In retrospective, an earlier theoretical approach could have affected the design, leading to a more coordinated process, but it could also have created limitations for the design to unfold. The entire learning process has been extremely beneficial.

Another part of the process that is important to keep in mind when process developing, is that an illustration plan can easily consume unnecessary time, when your end goal is simply to illustrate the possibilities within the framework. There is no point in getting lost in minor details, when the end goal is an area plan or a proposal for a local plan. Though, the illustration plan is important, since it determines weather or not the area plan and the guidelines within the local plan actually work, concerning scale, architectural form, placement of urban spaces and level of privacy.

The design will alter constantly, and transforms fast when testing out and shifting modes of representation (plan, diagram, 3D modelling, simulating, visualizing through the creation of atmospheres with renderings or collages). Suddenly, the design can be evaluated and reflected upon for further adjustments.

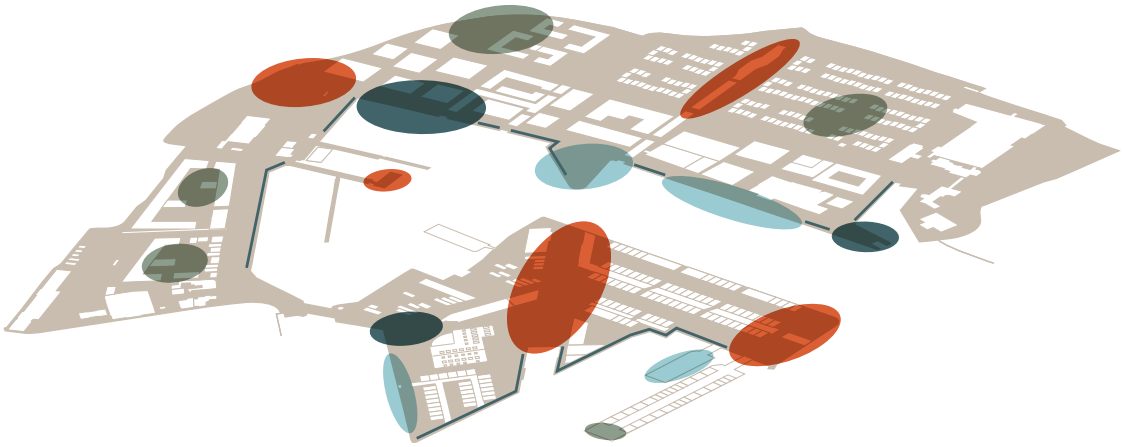
THE BLUE NEIGHBOURHOOD

In order to reflect upon the design proposal, concluding analysis has been made for The Blue Neighbourhood, describing structural relationships, districts, solar analysis and urban spaces.

The districts created show a long-term vision for the city, and the structural analysis is a clear indicator of how the infrastructure, blue, green and grey structures all enrol within the context. When designing the urban spaces, it was important to differentiate the urban spaces and categorizing different qualities, so they would not compete, but rather complement each other. The urban spaces vary internally within the different subdivisions. As an example, the public spaces for long-term stay are programmed differently from each others and have different qualities.

When observing the overall design, one could question if the the framework is the optimal solution?

The illustration plan that has been designed, illustrates only the vision of the intentions with the framework. This illustration could have turned out differently. The framework has been designed, taking analysis conducted into consideration, and is to be the best option for Svendborg harbour front. The belief is that the illustration plan and guidelines reflect our visions and strategies of the site in an optimal and comprehensive manner. But another outcome may function just as well, as long as it fits within the designed framework. The framework may also change due to the site-specific conditions, and other fields of interest might be included – the important thing is that a framework is laid out for the development with clear visions and intentions.



Ill. 172 - Illustration showing the different types of urban spaces

Public spaces for longer stay. These spaces are programmed to meet the needs of multiple segments.

Semi private court yards. These spaces are mainly used by the nearby residents, by other visitors are also welcomed.

Event spaces. These spaces can be occupied for happenings and will function as transit spaces when not in use.

Transit destination spaces. These spaces offers a break on the stroll along the harbour front.

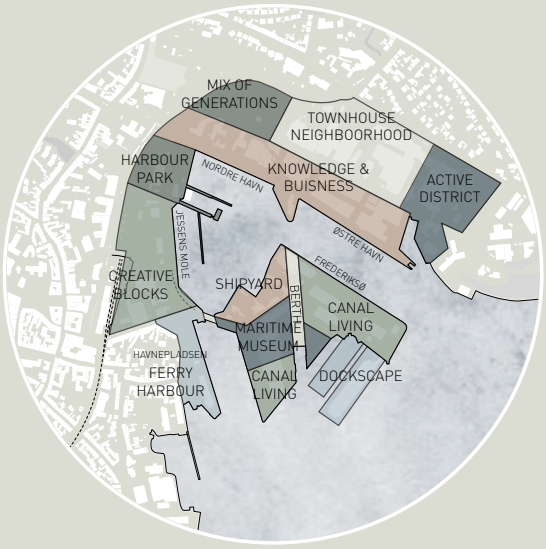
Transit space with seating opportunities.

STRUCTURAL ANALYSIS

INFRASTRUCTURE, GREEN, BLUE & GREY AREAS

Ill. 173 - Structural mapping of The Blue Neighbourhood

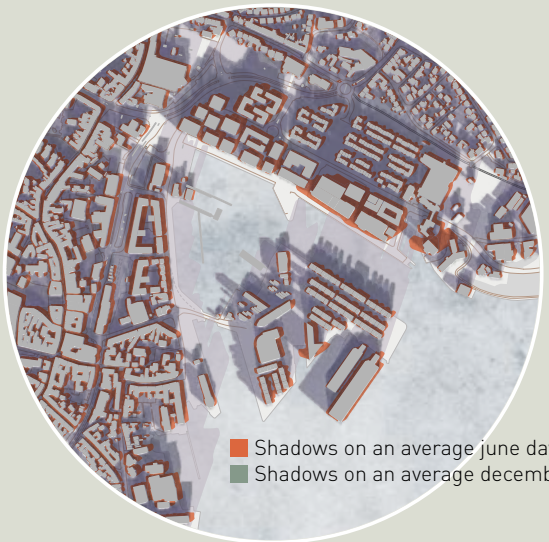
The green, blue and grey structures symbolize the green and blue areas and the infrastructural lines. The green structures has been introduced to the harbour front through placing parks, courtyards and other recreational spaces in the design. The accesibility to the blue areas has been improved by working with the quay and opening up for platforms and escalations next to the water. Trappebækken has been exposed and other canals has been incorporated as recreational elements in the design. The infrastructural structures secure great accesibility for cars where needed but also lead them around the site, and a new network of bicycle lanes offers great possibilities for moving around by bike.



Ill. 174 - Mapping of the districts in The Blue Neighbourhood

DISTRICTS

The new districts of the harbour front is of a more urban character than previously. The identities reflects the diverse image of Svendborg with districts revolving around creativity, maritime activity, the industrial history, education and diversity.



Ill. 175 - Solar analyses of The Blue Neighbourhood

SUNLIGHT

The spaces with great conditions for recieving sunlight has been maintained and used for new public spaces. The accesibility to the quay has been improved to use it as a recreational public space with great conditions for microclimate.

CONCLUSION

This text sets out to answer the initial problem statement and thus conclude on the master thesis.

The problem statement asked "How can we secure a processual urban transformation of the harbour front of Svendborg, which both creates diverse spaces for social coexistence and sustains the industrial heritage?"

To secure an urban design and planning that both integrates and considers social coexistence and sustains the industrial heritage, two main strategies and three follow-up principles are laid out.

The strategy for social coexistence secures a socially diverse city and affords coexistence between different social groups of people. This happens through a mix in programs both within the building plots and public spaces and the integration of the third space – the urban space in between spaces which are designed to create a sense of affiliation for specific segments. The third space is a safe zone that meets the needs of several segments and where social barriers are broken down and new relations between social groups are encouraged. The public spaces that invite to a longer stay are places where social exchange more likely will occur. Thus it is important that all segments feel welcomed in these urban spaces and likewise for the promenade along the harbour front.

The strategy for industrial heritage secures the cultural heritage in future development, conveying the city's historic maritime and industrial features. It clarifies the matter of preservation, restoration and creative re-use with respect of material and immaterial aspects and processes over time. Lastly it supports the maintenance of the different identities at the harbour front by re-using iconic structures and securing important sightlines.

The principle for urban spaces secures coherence in the urban spaces and sees to that they relate to and respect the context in which they enroll themselves. All urban spaces must afford social coexistence and reflect the needs of the users.

A principle for temporary use is implemented to make it a beneficial and integrated part of the process development of the site. Lastly principles for the plots and built environment are to see that the built structures will respect and meet the given context in the best possible way, securing that the two main strategies are kept throughout the development.

The processual development of this project is secured by dividing the site into several plots and then developing these in a specific order. The process plan takes the development of urban spaces, the built environment, drivers, and location for temporary use into consideration, thus securing a holistic process plan that prioritizes a qualitative urban life.

The framework of the development plan secures a consistence and quality in the urban planning and sees to that the overall visions are kept. The flexibility secures that the development of the site meets the needs of the city, as both the programming and shape of the constructed urban landscape is flexible within the given framework. This creates a highly adaptable end product which can contain the unpredictable future without compromising on the parameters that secures well-functioning urban planning and design. The illustrating graphic work and visualizations are made to communicate the visions and framework clearly and to inspire the future development.

Ill. 176 - A view to the sound from Hudes Plads at Nordre Havn

APPENDIX

DETAILED TECHNICALITIES

This section elaborates on some of the technical parameters that have been treated in this thesis, including MIKE 21 for hydrological calculations and simulations, detailed sun analyses and plot ratio and parking calculations.

MIKE 21

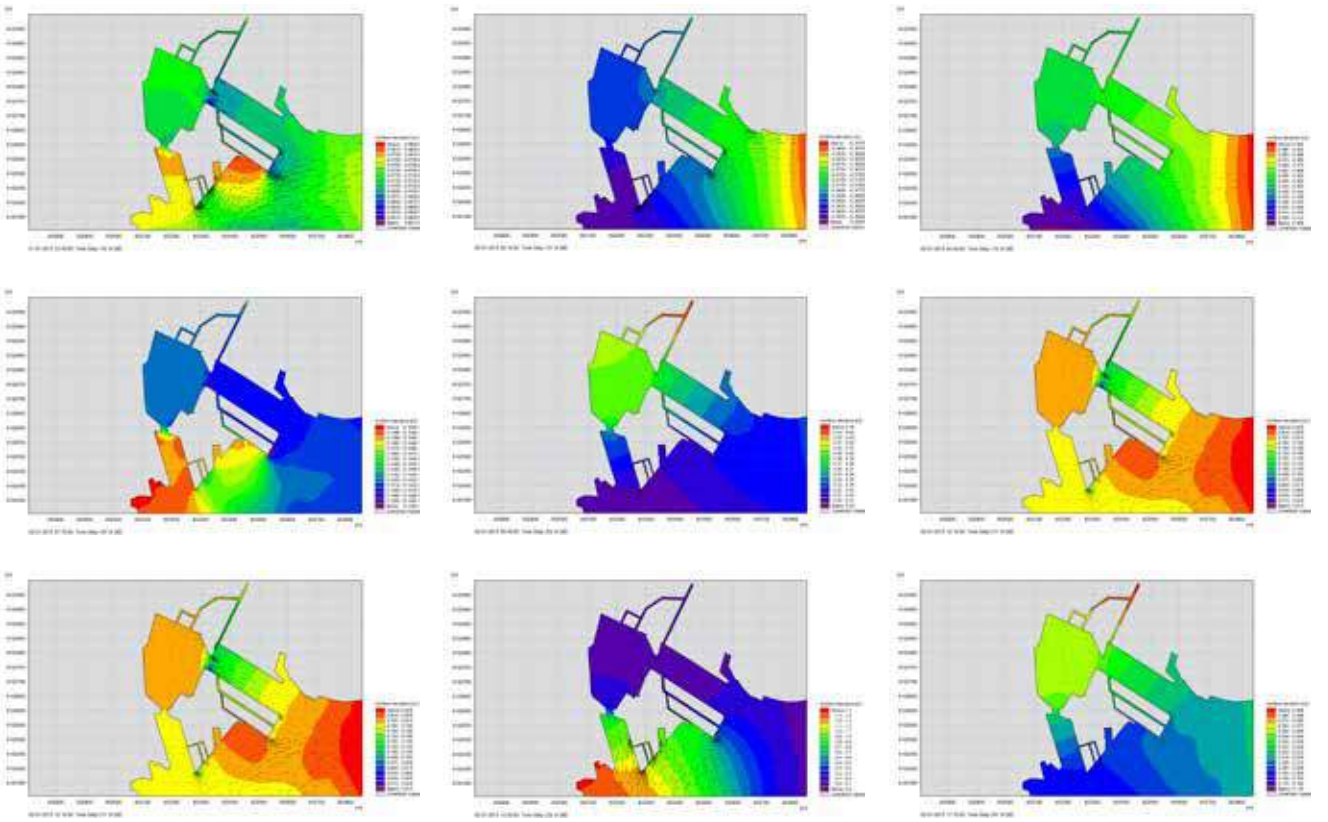
The meassurements are to investegate the hydrological conditions of Svendborg harbour. They are going to show how the design have influenced the conditions of the harbour basin. The meassurements are also going to support some of the aspects of the design and how the hydrological purpose is accomplished. The general wish for a harbour basin that is fairly disconnected from the flow in the sea, is to get a continous replacement of the water.

The first meassurement shows the generel flow in the entire harbour basin. The study shows a scenario of a summer day with light wind from east. The scenario is produced by informations about the water level meassured at Faaborg harbour which is located west of Svendborg, and Slipshavn located east. The composition of the two meassurements animates the scenario for Svendborg harbour.

The results show a clear variation of the flow in the basin, which causes the replacement of water. The images show the local waterlevel and how it varies through the day. The arrows show the direction of the flow and the intensity in the basin. The images prove an active and varied harbour basin with good hydrological conditions.

The QR code links you to an animation that shows the flow in the harbour basin and how it varies through the day.

Link:http://makeagif.com/i/sZGlug



Ill. 177 - Simulations of the flow from MIKE 21

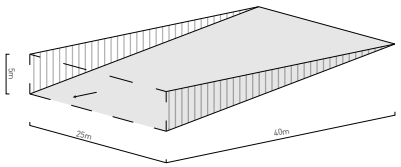
CASE: HARBOUR BATH

A harbour bath is placed at the southeren part of Frederiksø in the old berth. To maintain a good quality of water it needs to complete some requirements e.g. a regulary exchange of the water. The harbour bath in Copenhagen has an exchange period of about 2 days, in a basin of approximately the same size. The study examines the amount of water that discharges the basin, with the given informations of a summer day with a light wind from east.

The basin is calculated to contain a volume of 2500m^3. The general discharge for the basin in the scenario is 0,018m^3/s, which brings the exchange period on 38 hours. Considering that the scenario takes place on a summer day with light wind, 38 hours will be the maximal time of exchanging the water. The wind will be stronger in other periods of the year, which will increase the flow of the sea and decrease the time needed for exchanging the water.

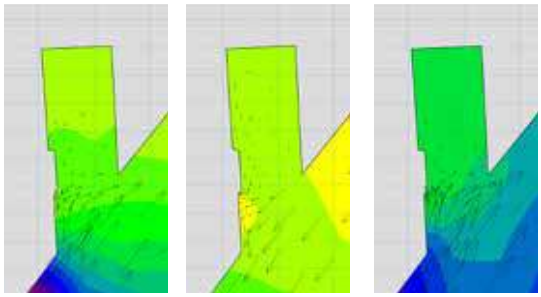
The images show how the harbour bath relates to the flow of the sea. The results show that the basin recieves a little flow but is mostly shielded from the strong stream.

Ill. 178 - Technical drawing of the harbour bath



Volume of the harbour basin:
(5m*25m*40m) / 2=2500m^3

Discharge of water:
The average discharge of water is 0,018m^3/s
2500m^3 / 0,018m^3/s = 138.889s = 38hours

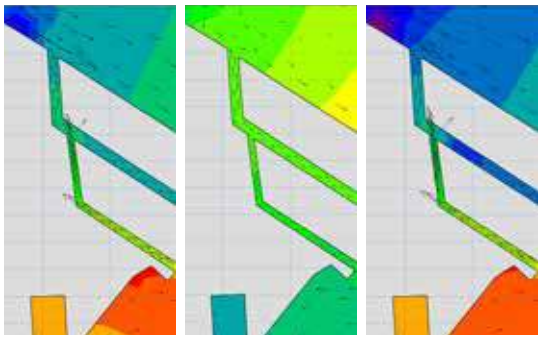


Ill. 179 - Simulations showing the flow zoomed in at the berth from MIKE 21

CASE: CANAL

In the artificially made canals, the flow should be at a minimum to enhance the conditions for accessing the water. To naturally clean out the water, the canals should experience periods with increased flow.

The arrows on the images show a varied flow in the canals. The arrows indicates that the direction and intensity of the flow varies through the day. The results show that the water is relatively calm and experiences periods with increased flow, which secures great hydrological conditions in the canals.

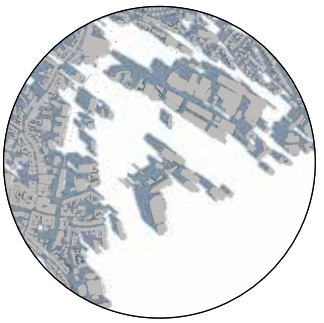


Ill. 180 - Illustration showing flow in the canals from MIKE 21

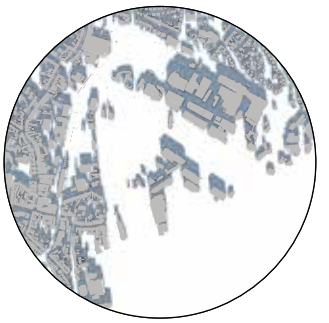
SUN ANALYSES

The sun analyses are meassured on the present structures of the harbour front, and on the structures of the design proposal. The measurements are taken at three times a day on the 21st of December, March and June.

IN 2016

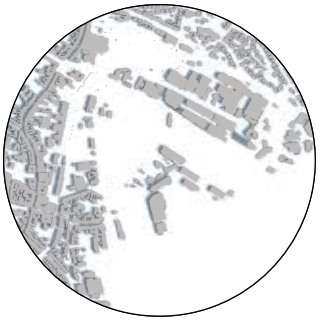


Dec. 21, 10.00

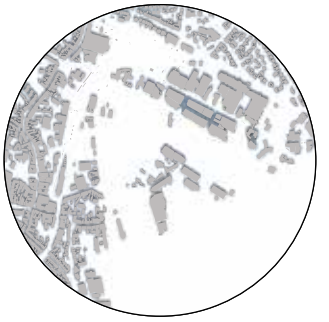


Dec. 21, 13.00

Dec. 21, 14.00



March 21, 10.00

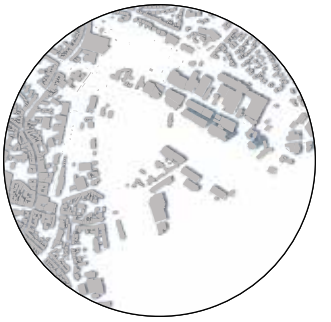


March 21, 13.00

March 21, 16.00

June 21, 10.00

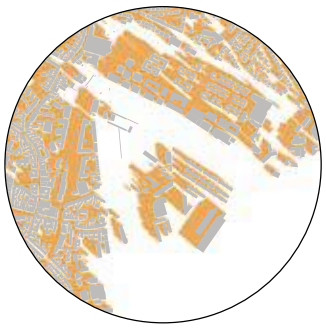
June 21, 13.00



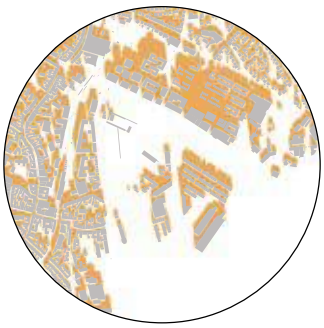
June 21, 16.00

Ill. 181 - Solar analyses of the site today

IN 2040



Dec. 21, 10.00



Dec. 21, 13.00

Dec. 21, 14.00

March 21, 10.00

March 21, 13.00

March 21, 16.00

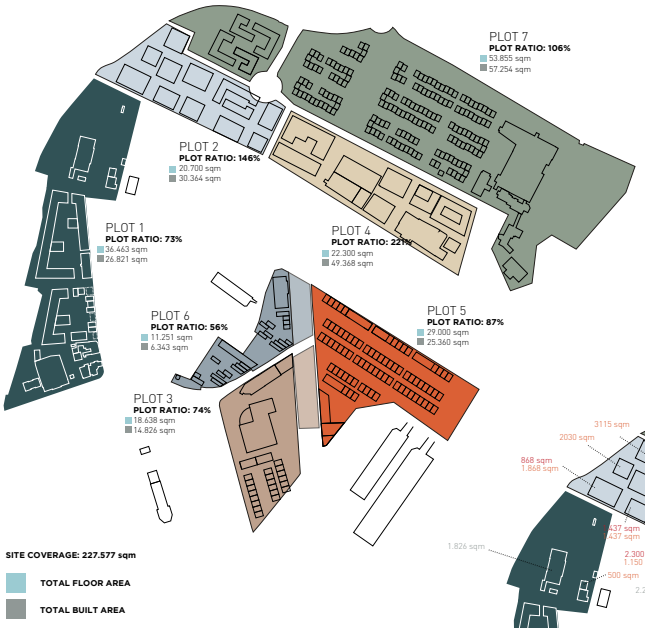
June 21, 10.00

June 21, 13.00

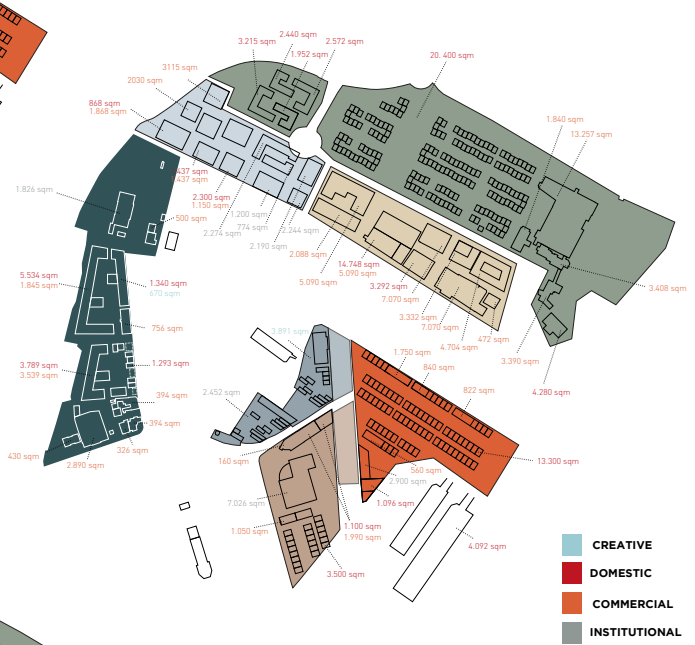
June 21, 16.00

Ill. 182 - Solar analyses of the proposed project in 2040

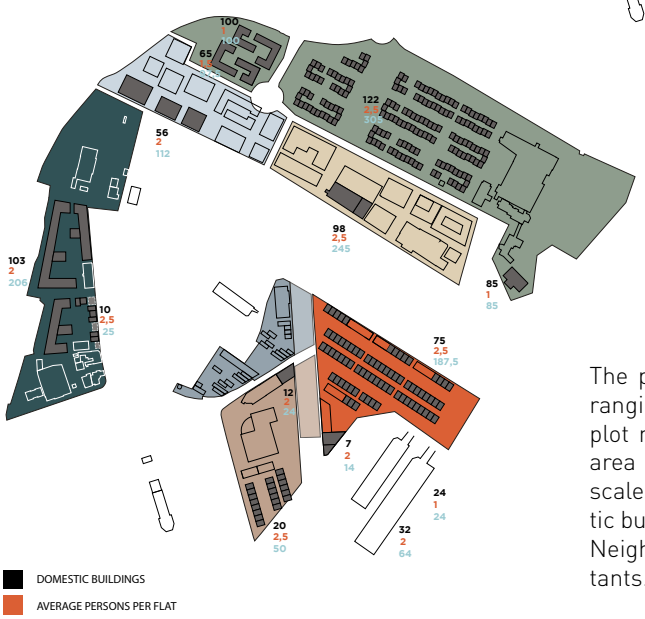
PLOT RATIO



Ill. 183 - Plot ratios for each plot



Ill. 184 - Floor plan areas

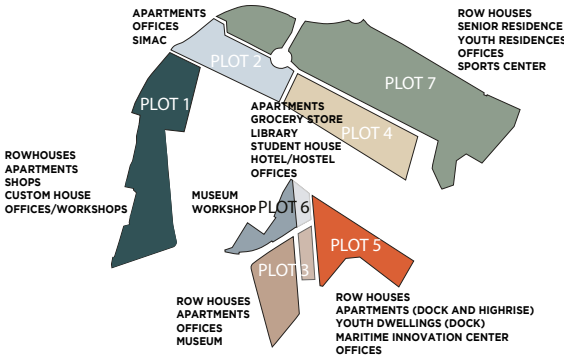


Ill. 185 - Domestic units and the average number of residents

The plot ratio has been calculated for all 7 plots ranging from 56-221%. The most densified area is plot number 4 at Østre Havn. The least densified area is found in plot number 6, where the small scale is kept. Units have been calculated of domestic buildings and according to the findings, the Blue Neighbourhood will have app. 1544 new inhabitants.

PARKING

Parking has been calculated for the Blue Neighbourhood according to standard parking regulations (Bilag F, 2009).
The calculations can be altered, considering the actual needs when the plots are to be constructed.



Ill. 186 - Parking according to the programming for each plot

STANDARD PARKING REGULATIONS

RESIDENTIAL						COMMERCIAL		CULTURAL	
ROW HOUSES		APARTMENTS		STUDENT, SENIOR					
PARKING LOTS	BIKE PARKINGS	PARKING LOTS	BIKE PARKINGS	PARKING LOTS	BIKE PARKINGS	PARKING LOTS	BIKE PARKINGS	PARKING LOTS	BIKE PARKINGS
1,5 per unit	2 per unit	1,5 per unit	2 per unit	1 per 4 units	2 per unit	1 per 25/50 sqm	1 per 100 sqm	1 per 8 seatings	2 per 10 seatings

PROPOSED PARKING SCHEME AT SVENDBORG HARBOUR FRONT

	RESIDENTIAL						COMMERCIAL		CULTURAL (INSTITUTIONAL)	
	ROW HOUSES		APARTMENTS		STUDENT, SENIOR					
PLOT NO.	PARKING LOTS	BIKE PARKINGS	PARKING LOTS	BIKE PARKINGS	PARKING LOTS	BIKE PARKINGS	PARKING LOTS	BIKE PARKINGS	PARKING LOTS	BIKE PARKINGS
1	15	20	155	206			279	139		
2			84	112			259	130	200	363
3	30	40	18	24			64	32	140	70
4			221	294			405	170	210	105
5	161	289	11	14	6	48	80	40	58	29
6							78	39	49	25
7	183	244			62	501	173	86	265	133

TOTAL AMOUNT	PARKING LOTS	BIKE PARKINGS
	3206	3153

Ill. 187 - Parking scheme

REFERENCE

ES

REFERENCE CATALOGUE

In the final section you can find every reference used throughout the project.
The references are divided into two parts - text and illustration - and are indicated by the Harvard method.

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Ill 41: I*llustration of water accumulations.* Own illustration

Ill 42: *Ilustration of the rising sea level.* Own illustration.

Ill 43: *The port office of Svendborg during a flooding.* Own illustration.

Ill 44: *Heading towards the future.* Own illustration.

Ill 45: The mountain bike club at Frederiksø. http://www.fyens.dk/svendborg/400-mountainbikere-paa-Svendborg-Havn/artikel/2704191

Ill 46: *"Gøglerrummet" at Frederiksø, facilitated by Kultutten.* http://www.fyens.dk/svendborg/Gallashow-i-Cirkusrummet/artikel/2981593

Ill 47: *Kammerateriet at Frederiksø.* http://www.fyens.dk/svendborg/Raa-tapasbar-Kammerateriet-indfrier-madloefte/artikel/2686254

Ill 48: *An anchorage at Frederiksø, Svendborg.* Own photo.

Ill 49: *Orthophoto of the harbour of Svendborg.* Own illustration.

Ill 50: *Structural mapping of Svendborg.* Own illustration.

Ill 51: *Mapping of districts at the harbour of Svendborg.* Own illustration.

Ill 52: *Mapping of barriers at the harbour of Svendborg.* Own illustration.

Ill 53: *Mapping of public spaces and nolliemap of the harbour of Svendborg.* Own illustration.

Ill 54: *Illustration showing a selection of the urban spaces found in Svendborg.* Own illustration.

Ill 55: *Landscape and landmark illustrations of Svendborg.* Own illustration.

Ill 56: *Landmarks in and around Svendborg.* Own illustration.

Ill 57: *Mapping showing preserved buildings and identities found at the harbour of Svendborg.* Own illustration.

Ill 58: *Collage of the most significant industrial structures at the site today.* Own illustration.

Ill 59: *Illustrations of significant sightlines at the harbour of Svendborg.* Own illustration.

Ill 60: *Visual axis potential.* Own illustration.

Ill 61: *Illustration of materials found at the site.* Own illustration.

Ill 62: *"Buehallerne".* Own photo.

Ill 63: *"Jessens mole".* Own photo.

Ill 64: *Beach bar at Frederiksø.* Own photo.

Ill 65: *The berth at Frederiksø.* Own photo.

Ill 66: *The custom house.* Own photo.

Ill 67: *The wooden ship yard.* Own photo.

Ill 68: *Panorama photo from the berth at Frederiksø.* Own photo.

Ill 69: *Sun analysis of the site.* Own illustration.

Ill 70: *Wind analysis of the site.* Own illustration.

Ill 71: *Noise analysis of the site.* Own illustration.

Ill 72: *Frederiksø seen from the main land, standing near the Maritime Centre.* Own photo.

Ill 73: *Frederiksø and the Maritime Centre with Tåsinge in the background.* Own illustration.

Ill 74: *Illustration plan of the project site.* Own illustration.

Ill 75: *Visualization of the harbour front at Nordre Havn.* Own illustration.

Ill 76: *Visualization of Frederiksø seen from Nordre Havn.* Own illustration.

Ill 77: *Visualization of the transformed berth at Frederiksø.* Own illustration.

Ill 78: *Maintaining the different industrial identities by building in the same scale of the historical buildings.* Own illustration.

Ill 79: *Preserving the old iconic buildings and structures for new programs and activities.* Own illustration.

Ill 80: *The quay will remain exposed as an active urban space and different sightlines will be maintained in the new design.* Own illustration.

Ill 81: *The silo of DLG, the old canteen and the storage halls "Buehallerne" are just some of the preserved buildings at the site.* Own illustration.

Ill 82: *Illustrations showing the industrial heritage strategies.* Own illustration.

Ill 83: *NDSM BROOKLYN HOTEL, AMSTERDAM.* http://lieftink.nl/referenties/

Ill 84: *NORDKRAFT, AALBORG.* http://www.visitaalborg.dk/aalborg/nordkraft-fuld-kraft-paa-kulturen

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Ill 88: *Illustrations showing the third space and social co-existence.* Own illustration.

Ill 89: *A mix in programs secures diversity in each plot.* Own illustration.

Ill 90: *PUBLIC SPACES LAYOUT.* Own illustration.

Ill 91: *MARKTHALLE, ROTTERDAM.* http://designzoom.ru/2014/10/20/kryityiy-ryinok-rotterdam/

Ill 92: *ÎLE DE NANTES, NANTES.* http://e-sushi.fr/tag/ville-de-nantes

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Ill 96: *The old berth at Frederiksø is transformed into a public space which affords social coexistence and reveals the industrial heritage.* Own illustration.

Ill 97: *Concept diagram for the public spaces of the site.* Own illustration.

Ill 98: *Concept rendering of the reopened creak "Trappebækken".* Own illustration.

Ill 99: *Concept rendering of the viewpoint at Østre Havn promenade.* Own illustration.

Ill 100: *Concept rendering of the green garden in the housing area in Nordre Havn.* Own illustration.

Ill 101: *Illustration showing how temporary use can benefit a development process.* Own illustration.

Ill 102: *Concept visualization of temporary use in an old warehouse at Nordre Havn.* Own illustration.

Ill 103: *A timeline i plans, showing the plots laid out for temporary use.* Own illustration.

Ill 104: *A mapping showing the choise of facade materials at the site.* Own illustration.

Ill 105: *CONCEPT DIAGRAMS.* Own illustration.

Ill 106: *Different facade materials with a maritime expression.* Own illustration.

Ill 107: *Plan showing the seven plots of the site.* Own illustration.

Ill 108: *Illustration of the process development of the site.* Own illustration.

Ill 109: *Building plan of the site today.* Own illustration.

Ill 110: *Building plan of the site in 2040.* Own illustration.

Ill 111: *Timeline in plan of the structural development of the site from today to 2040.* Own illustration.

Ill 112: *The illustration plan is flexible within the given framework.* Own illustration.

Ill 113: *Ill. 113 - Illustration of the site, the plot areas and icons of programs, preservation and user groups.* Own illustration.

Ill 114: *Plot location and overview of the plot's programs, industrial heritage and user groups.* Own illustration.

Ill 115: *Technical plan.* Own illustration.

Ill 116: *Preservation plan.* Own illustration.

Ill 117: *URBAN BLOCK WITH GREEN COURTYARDS, CIE AND SVESMI.* http://urbanlabglobalcities.blogspot.dk/2011/01/skimming-through-a101-urban-block.html

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Ill 119: *Plot location and overview of the plot's programs, industrial heritage and user groups.* Own illustration.

Ill 120: *Technical plan.* Own illustration.

Ill 121: *Preservation plan.* Own illustration.

Ill 122: *TRANSFORMED FREIGHT TRAIN AREA, AALBORG.* http://bascon.dk/da/projekter//vuc-og-sosu-campus-aalborg/

Ill 123: *ÅHUSENE WITH OPEN FLOATING SPACES, AARHUS.* http://www.danbolig.dk/bolig/aarhus/8000/ejerlejlighed/226-2015583-226

Ill 124: *Plot location and overview of the plot's programs, industrial heritage and user groups.* Own illustration.

Ill 125: *Technical plan.* Own illustration.

Ill 126: *Preservation plan.* Own illustration.

Ill 127: *MARITIME MUSEUM, BARCELONA.* http://barcelona-home.com/blog/nl/maritiem-museum-barcelona/

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Ill 129: *Plot location and overview of the plot's programs, industrial heritage and user groups.* Own illustration.

Ill 130: *Technical plan.* Own illustration.

Ill 131: *Preservation plan.* Own illustration.

Ill 132: *SILODAM, AMSTERDAM.* http://www.davecarr-smith.co.uk/D-WW_APNDX3_sqat-devl.htm

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Ill 134: *Plot location and overview of the plot's programs, industrial heritage and user groups*. Own illustration.

Ill 135: *Technical plan*. Own illustration.

Ill 136: *Preservation plan*. Own illustration.

Ill 137: *WILHELMINA PIER, AMERIKA PARK, HOTEL NEW YORK, ROTTERDAM*. https://shipsnmoreships.smugmug.com/keyword/wilhelminapier/

Ill 138: *AFFORDANCES OF DOCKS, RAAAF RIETVELD ARCHITECTURE*. http://www.abitare.it/it/architettura/2011/02/11/iakov-chernikhov-international-prize-2010-i-menzionati-2/

Ill 139: *BORNEO- SPORENBURG, AMSTERDAM, WEST 8*. Own illustration.

Ill 140: *Plot location and overview of the plot's programs, industrial heritage and user groups*. Own illustration.

Ill 141: *Technical plan*. Own illustration.

Ill 142: *Preservation plan*. Own illustration.

Ill 143: *VESTBYENS SKUDEHAVN, AALBORG*. Own illustration.

Ill 144: *MARITIME CRAFTS HISTORY*. Own illustration.

Ill 145: *Plot location and overview of the plot's programs, industrial heritage and user groups*. Own illustration.

Ill 146: *Technical plan*. Own illustration.

Ill 147: *Preservation plan*. Own illustration.

Ill 148: *SENIOR HOUSING WITH SHARED FACILITIES ADJACENT TO YOUTH RESIDENCES, AARHUS*. http://skraeppebladet.dk/blad/2013-04/artikler/hvordan-skal-fremtidens-almene-aarhus-se-ud/

Ill 149: *ROW HOUSES WITH PRIVATE GARDENS, COPENHAGEN*. Own illustration.

Ill 150: *Plan showing the placement of the dyke*. Own illustration.

Ill 151: *Illustration of types of dykes and their placement along the quay edge*. Own illustration.

Ill 152: *Visualization of Nordre Havn on a summer day, showing the sea gardens and activity of the harbour*. Own illustration.

Ill 153: *Visualization of Nordre Havn on a day with bad weather, showing the impact the nature has on the site*. Own illustration.

Ill 154: *Detailed plan of Frederiksø*. Own illustration.

Ill 155: *Detailed visualization of the transformed berth*. Own illustration.

Ill 156: *Plan showing the two sections*. Own illustration.

Ill 157: *Section AA - cutting thorugh Frederiksø and Frihavnen*. Own illustration.

Ill 158: *Section BB - cutting through the Maritime Museum, the berth, the high-rise and the event dock*. Own illustration.

Ill 159: *Plan showing the road profile sections*. Own illustration.

Ill 160: *Section CC - Cutting through the city dwellings at the tip of Frederiksø*. Own illustration.

Ill 161: *DD - Cutting through the Maritime Museum with parking lot, the dyke at the harbour front and the berth*. Own illustration.

Ill 162: *EE - Cutting through the main road at Frederiksø, showing the road and berth of the shipping yard*. Own illustration.

Ill 163: *Technical plan showing local area and subareas*. Own illustration.

Ill 164: *Technical plan showing functions and preserved structures*. Own illustration.

Ill 165: *Technical plan showing active and open facades*. Own illustrations.

Ill 166: *Technical plan showing the different urban spaces*. Own illustration.

Ill 167: *Technical plan showing infrastructure, parking and bridges*. Own illustration.

Ill 168: *The harbour front at mainland with the custom house and Bølgen, seen from the wooden ship yard at Frederiksø*. Own photo.

Ill 169: *Illustration showing the design process*. Own illustration.

Ill 170: *Illustration showing the design process*. Own illustration.

Ill 171: *Illustration showing the design process*. Own illustration.

Ill 172: *Illustration showing the different types of urban spaces*. Own illustration.

Ill 173: *Structural mapping of The Blue Neighbourhood*. Own illustration.

Ill 174: *Mapping of the districts in The Blue Neighbourhood*. Own illustration.

Ill 175: *Solar analyses of The Blue Neighbourhood. Own*

illustration

Ill 176: A view to the sound from Hudes Plads at Nordre Havn. Own photo.

Ill 177: *Simulations of the flow from MIKE 21.* Own illustrations.

Ill 178: *Technical drawing of the harbour bath.* Own illustration.

Ill 179: *Simulations showing the flow zoomed in at the berth from MIKE 21.* Own illustration.

Ill 180: *Illustration showing flow in the canals from MIKE 21.* Own illustration.

Ill 181: *Solar analyses of the site today.* Own illustration.

Ill 182: *Solar analyses of the proposed project in 2040.* Own illustration.

Ill 183: *Plot ratios for each plot.* Own ilustration.

Ill 184: *Floor plan areas.* Own illustration.

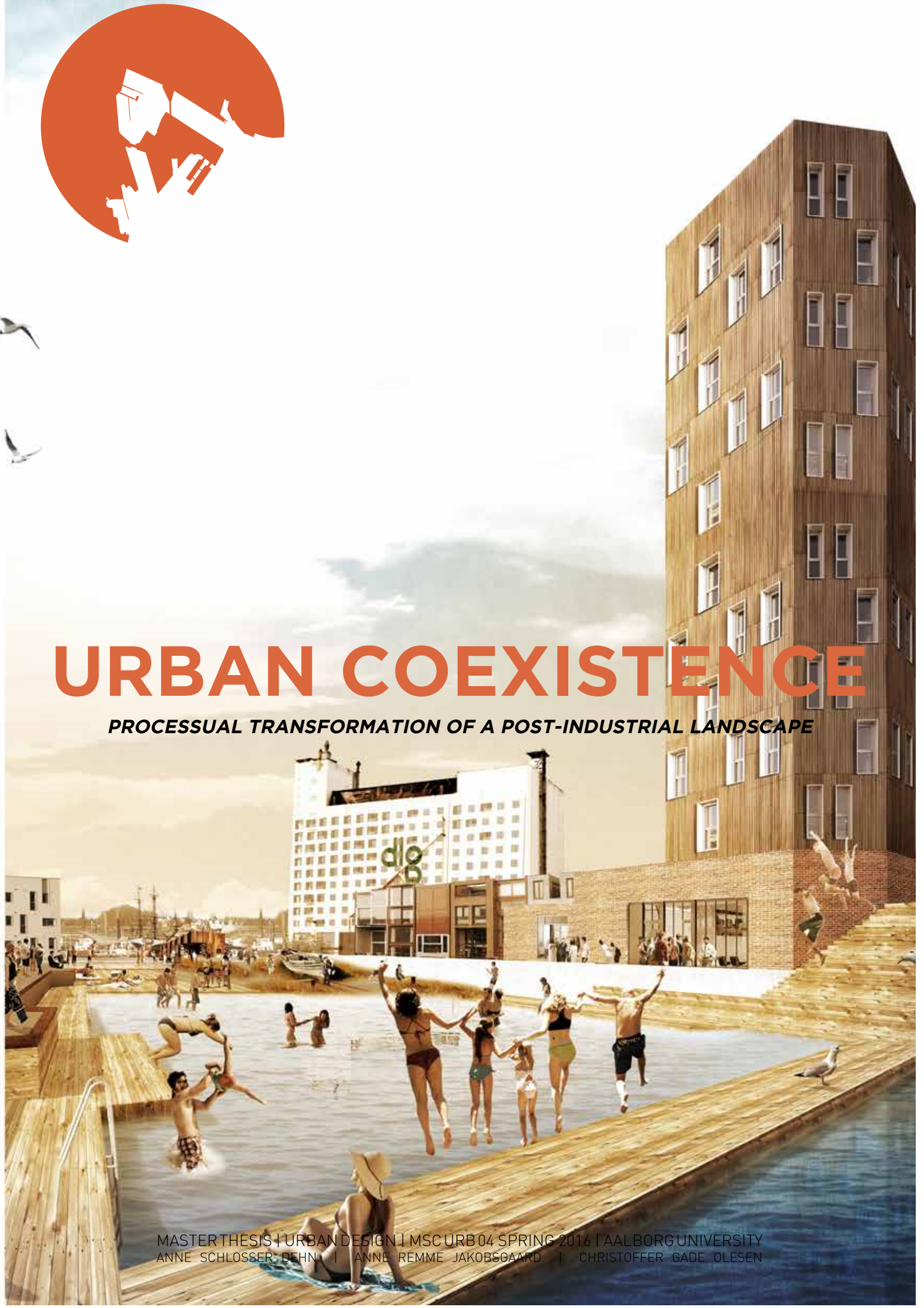
Ill 185: *Domestic units and the average number of residents.* Own illustration.

Ill 186: *Parking according to the programming for each plot.* Own illustration.

Ill 187: *Parking scheme. Own illustration.*

URBAN COEXISTENCE

PROCESSUAL TRANSFORMATION OF A POST-INDUSTRIAL LANDSCAPE



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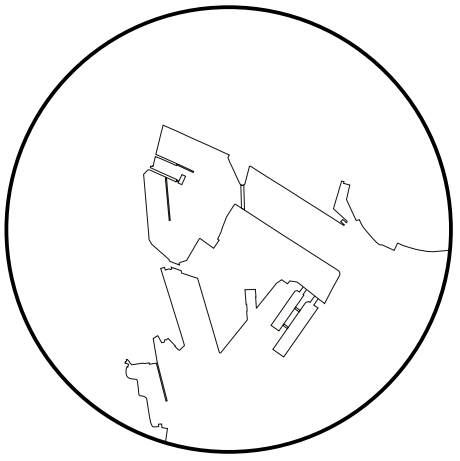

URBAN COEXISTENCE

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CONTENT

SECTION ONE INITIAL FRAMEWORK

SECTION TWO PROCESS DEVELOPMENT

SECTION THREE AREA PLAN

INTRODUCTION

The project is an urban development plan of Svendborg harbour front, which seeks to regenerate the existing post-industrial landscape through the use of two strategies. It answers the question of how to secure a processual urban transformation of Svendborg harbour front, which both creates diverse spaces for social coexistence and sustains the industrial heritage.

The following entails a vision for the future district at the harbour front, continued by a specification of the two strategies and principles for the urban transformation.

The processual development describes the phases of the urban development with focus on public spaces, drivers and temporary use, proposing a flexible planning tool for urban transformation.

An area plan of the site defines the proposed plots and their structural layout followed by a quay catalogue.

Lastly, a local plan is designed as an illustration of the possibilities within the framework of the area plan.

THE BLUE NEIGHBOURHOOD

Today the layout of the industrial landscape of Svendborg harbour front is characterized by a rim along the wharf attached to Frederiksø – an island and shipyard in Svendborg Sound, situated in the midst of the picturesque South Funen Archipelago.

This area contains a strong connection with the cultural heritage of Svendborg, not only industrial but also maritime identity of the city, which is important to preserve in all aspects of the urban transformation process.

The industrial heritage together with the local urban waterfront and plans for a future public network of urban spaces contain great recreational potentials in regards to establishing explicit, diverse, and well-defined public spaces in the post-industrial landscape of Svendborg harbour front.

Access to the surrounding nature of the archipelago is highly prioritized through the design and development plan of Svendborg quay area that constitute the opportunity for .... inhabitants to live on the thriving harbour front with direct contact to Svendborg Sound.

Social sustainability is an equal part of the processual urban transformation, which is a token of the intention of facilitating a strong image for Svendborg in a regional setting.
Envisioning Svendborg as a place for social diversity with multiple spaces of common grounds, leads to the possibility of strengthening the fellowship and togetherness within the community.

When developed, the BLUE NEIGHBOURHOOD will become a new district of Svendborg, coherently tied together by its public spaces, which emerge as urban archipelagos on the densified waterfront.

The goal is to envision a new neighbourhood that positions itself in a post-industrial context with respect for the cultural heritage and integrating sustainable principles of social coexistence. And to create a city with a phenomenal maritime recreative landscape, a great variety of cultural activities and public spaces as destinations for the people of Svendborg.

The extensions of Frederiksø over time and the different urban historic layers of the harbour front are evidence of a wharf in continuos change, and the Blue Neighbourhood will be an addition to this evolution, becoming a strong urban plateau that enriches and attracts people in a local as well as regional scale.

N

Ill. 74 - Illustration plan of the project site

INDUSTRIAL AND MARITIME HERITAGE

The former rough industrial harbour of Svendborg is to be transformed into a unique leisure place for Svendborg's citizens with respect for its maritime heritage and traces. The need for space along the quay for freight ships and vessels in need of repair will in the future wear out its purpose and then opportunity lies ahead.

The harbour front district will incorporate built environment worthy of preservation in its strategies for sustaining the relation to the industrial and maritime identities of the city. The old silos at the northern harbour front will be brought to life by entailing publicly accessible facilities that underline the importance of transforming the former closed off-industrial areas into liveable urban space. Maintaining the physical structures and opposing it with new programs will generate a contradicting awareness, awakening people's curiosity and highlighting the original use.

People will be able to dwell, work and take part of a landscape that provides traces and layers of the past, revealing the physical structures as evidence hereof, and translating the hard working, bustling life at the harbour front as soundscapes and new public life in the post-industrial rustic scenery.

Ill. 75 - Visualization of the harbour front at Nordre Havn

SOCIAL COEXISTENCE AS AN URBAN ARCHIPELAGO

The Blue Neighbourhood is a diverse district that includes room for everyone. The diversity is manifested through the use of a spacious concept of urban archipelagos that connects areas and provides different functions attracting multiple user groups. Several different types of ownership secure a diverse social mix and the programming constituted by commercial and creative businesses, enterprises, restaurants and cafés, public institutions and cultural activities will generate a hot spot for public life at Svendborg harbour front.

The urban archipelago of social coexistence is closely related to the urban spaces that arise within the different plots in the Blue Neighbourhood. Creating spaces for social interactions and coexistence across different social groupings is highly prioritized in the transformation process, and reflects the need for securing social sustainability in both urban spaces as well as in the programming of the built environment.

The concept of social coexistence affords social acceptance and bridges differences between generations, religions, ethnic origin, politics, and lifestyles and creates the possibility for people to coexist with respect for one another, meaning that the public realm in the Blue Neighbourhood should be a place for everyone.

BLUE LIVING

The attractive features of outstanding views and direct access to the open waters of Svendborg Sound is an invitation to provide the people of Svendborg with a recreational transition between the urban life and nature.
The edge of the quay will perform a major role in regards to this, and will be transformed into a promenade that guides and feeds activity into the urban archipelagos.

An integrated design of the quay will take hydrological challenges of rising sea levels, flooding and storm surge into account combining the design with technical as well as recreational aspects, making the edge flexible to catastrophes when needed. In the meantime, the dyke will create an accessible connection and bring people closer to the water.

Water is an asset, and people should be able to be at, in, above, sail on, and swim in the water. A harbour bath, piers, berths, stairs leading down or up, stepping stones, and pontoon terraces all add to the blue landscape that encompasses the urban surfaces and generates a link to water as an element.

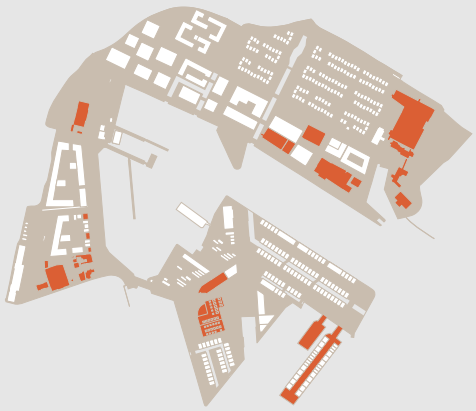
Ill. 76 - Visualization of Frederiksø seen from Nordre Havn

Ill. 77 - Visualization of the transformed berth at Frederiksø

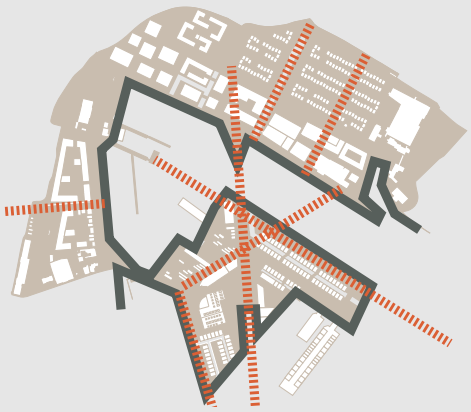
INDUSTRIAL HERITAGE STRATEGY

The strategy for industrial heritage is going to help reflect the industrial values into the new design. Different approaches are going to secure that the concluded aspects of the industrial heritage is to be used in the further development of Svendborg harbour. The various approaches focus on both material and immaterial aspects, which are going to be interpreted through different design solutions. The aspects will secure a preservation of different buildings, identities and sightlines of value, and that the expression of the new buildings and public spaces are going to tell the story of the industrial heritage. The cases are proposals of how this physically could be solved.

Ill. 78 - Maintaining the different industrial identities by building in the same scale as of the historical buildings.

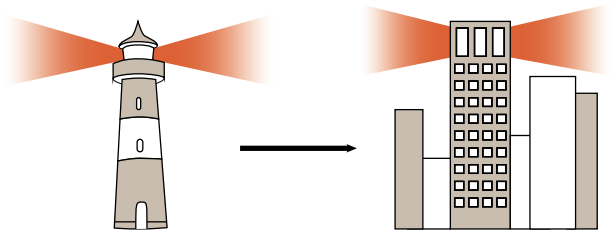


Ill. 79 - Preserving the old iconic buildings and structures for new programs and activities.

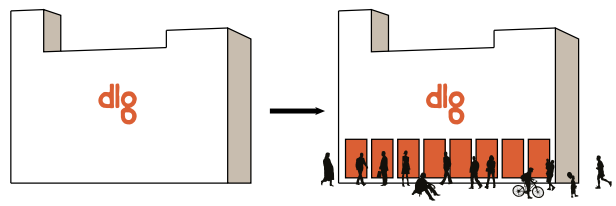


Ill. 80 - The quay will remain exposed as an active urban space and several sightlines will be maintained in the new design.

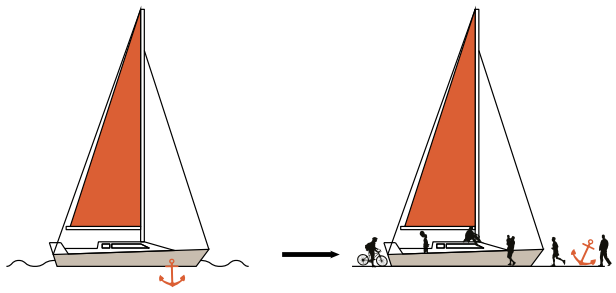
Ill. 81 - The silo of DLG, the old canteen and the storage halls "Buehallerne" are just some of the preserved buildings at the site



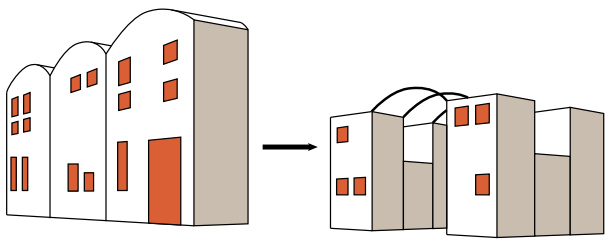
New buildings will have a symbolism connected to the industrial maritime heritage



New programs in the old buildings, that either reflects or contrasts the earlier activities



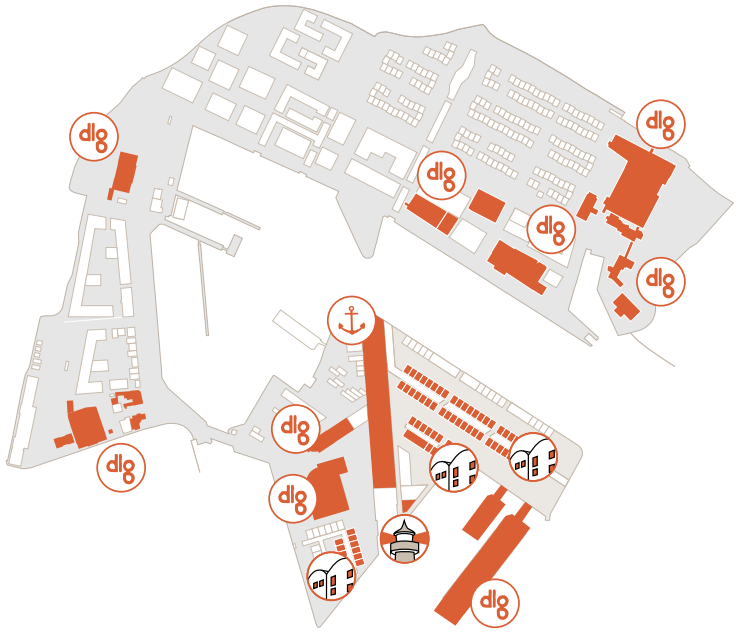
Trails from the past will be used for new recreational purposes in the public space



The form language from the old structures will be re-used in the new buildings

PRINCIPLES:

+ Maintaining the different identities of the original plots
+ Reusing the iconic old structures
+ Maintaining the important sightlines and the harbour edge
+ Create symbolic values to new buildings
+ New programs in maintained old buildings must either reflect or contrast the functions of the past
+ Use the trails from the past in a recreational way
+ Can use the form language from the old buildings in new designs



Mapping showing industrial heritage strategies used at the site

Ill. 82 - Illustrations showing the industrial heritage strategies

Ill. 83 - NDSM BROOKLYN HOTEL, AMSTERDAM
Mimicking the form of the old industrial buildings in the new design

Ill. 84 - NORDKRAFT, AALBORG
An old power station transformed into a cultural hub with a range of different programs

Ill. 85 - TORPEDOHALLEN, KØBENHAVN
The form of the old industrial buildings is maintained and re-used in the new design

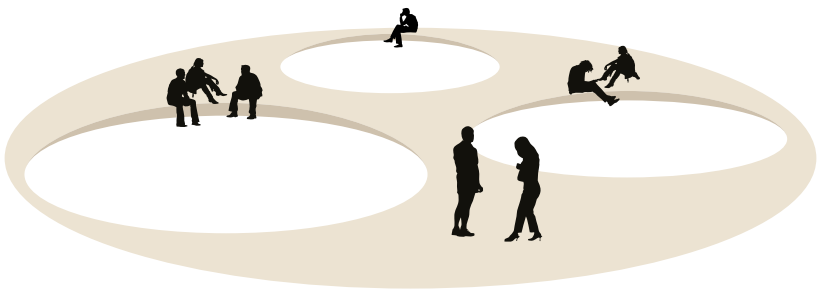
Ill. 86 - ELBHILHARMONIE, HAMBURG
The new extension to the concert hall is made in contrasting materials, highlighting the facade of the old building

Ill. 87 - GASHOLDER PARK, LONDON
The structure of old gasholders has been used as a temporary public park.

SOCIAL COEXISTENCE STRATEGY

The social coexistence strategy will secure a social approach in the development of Svendborg harbour. Social coexistence will be created through af diverse programming and public spaces that relates to different groups of people. Different approaches will secure that all aspects of social coexistence will be incorporated in the design. The cases are examples on how the design is capable of encouraging social coexistence.

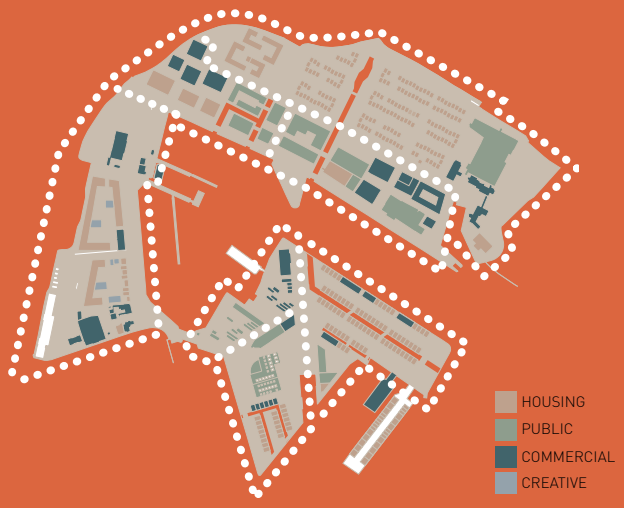
Various public spaces with different programs and shapings allow different social groups of people to feel affiliations with a specific space.



THE THIRD SPACE: the space in between where people feel safe. This is where social barriers are broken down and new relations across social groups can accur.

The urban space now sets the scene for social coexistence

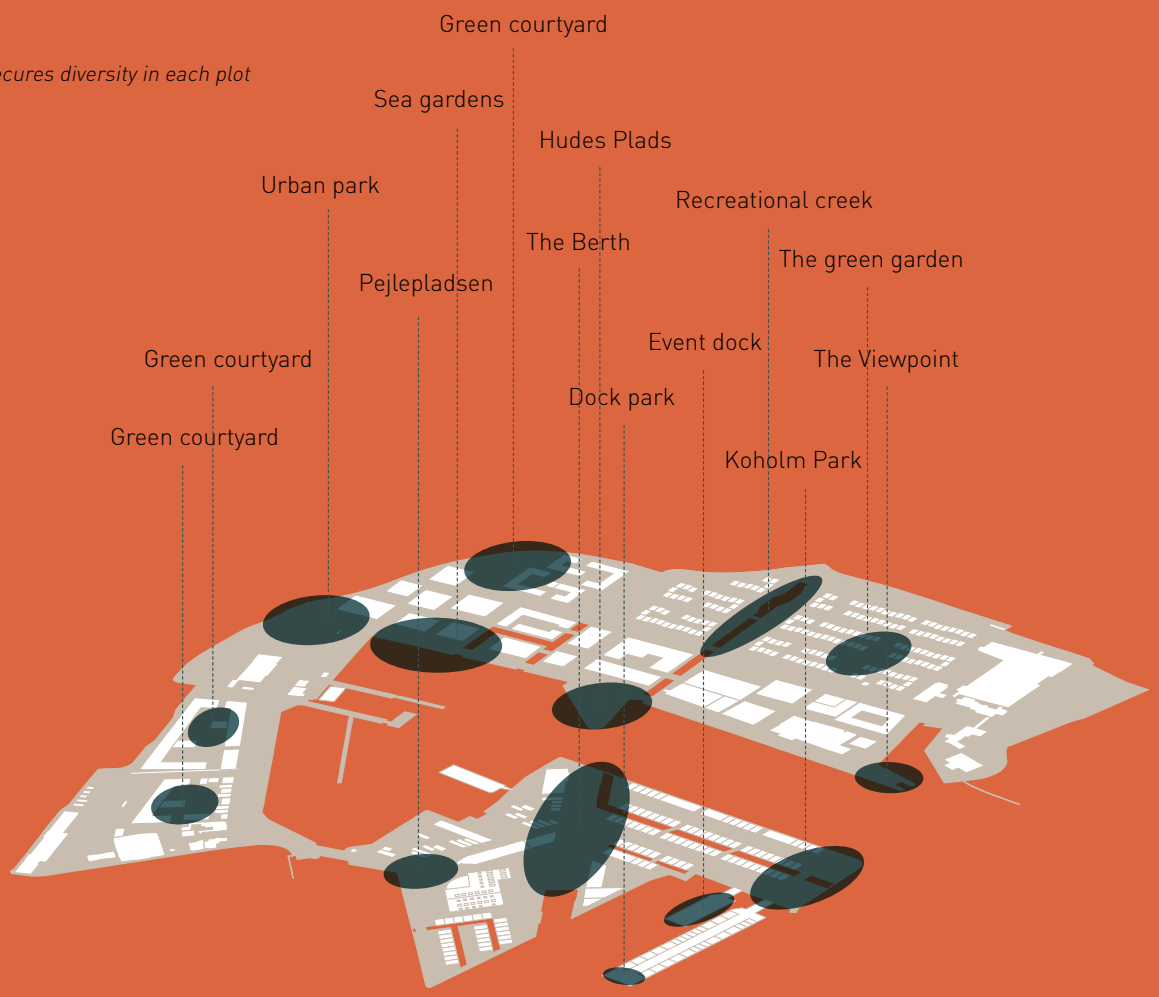
Ill. 88 - Illustrations showing the third space and social coexistence



Ill. 89 - A mix in programs secures diversity in each plot

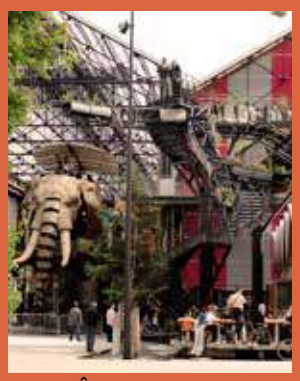
APPROACHES

+ Offer different public spaces that relates to different groups of people
+ The third space should feel safe and comfortable
+ Create opportunities for seating and recreational activity
+ Plots with different programs and focus
+ Variation in the programming of each plot



Ill. 90 - PUBLIC SPACES LAYOUT

Ill. 91 - MARKTHALLE, ROTTERDAM
A multiprogrammed building that creates a public space used for a food court.



Ill. 92 - ÎLE DE NANTES, NANTES
A centrally located urban island containing various programs relating to different groups of people.

Ill. 93 - JOMFRU ANE PARKEN, AALBORG
The park located at the harbour front, offers different kinds of activity and urban furniture along the side.

Ill. 94 - SUPERKILEN, COPENHAGEN
The long and narrow park offers three different spaces that each has their identity and programs.

Ill. 95 - NDSM, ROTTERDAM
The old ship yarding area is being used for different temporary programs and activities where everyone can join and be part of.

HOT SPOT OF THE HARBOUR

The new public space at the old berth is the main gathering point at the harbour front. The island of Frederiksø now belongs to the entire city and at especially at this point people meet and interact across social groupings. The berth offers activities for all ages and cultural backgrounds in a post-industrial context – a common ground where new relations are founded.

Ill. 96 - The old berth at Frederiksø is transformed into a public space which affords social coexistence and reveals the industrial heritage

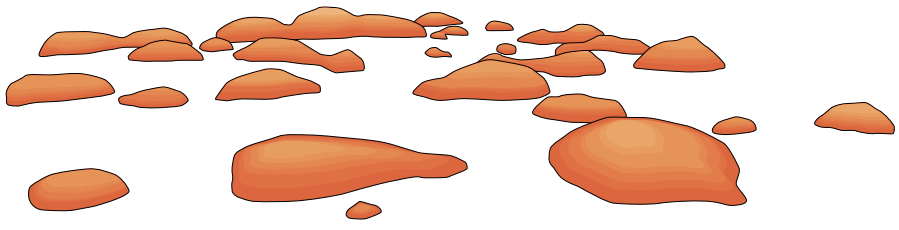
PRINCIPLES FOR THE URBAN SPACE

To secure coherence in the public spaces laid out at the harbour front, several principles are given. These principles rise from the two previous strategies concerning industrial heritage and social coexistence. It is of most importance that the public space relates to and respects the given context of which it enrols itself in, that it affords social interactions across social groupings and reflects the needs and wishes of the citizens.

PRINCIPLES:

+ The urban space must be **placed pragmatic**, in relation to microclimate, sightlines, industrial context etc.
+ There must be a minimum of **one public space** in each plot
+ The urban space must comprehend a minimum of **two different groups of people**
+ The urban space must show **diversity in form, materials and programs**, so different social groups can feel affiliation with the space
+ When it is suitable, the urban space must consist of **materials and elements reflecting the history** of the site

CONCEPT DIAGRAM



THE ARCHIPELAGO

The concept of the public spaces builds upon inspiration from the South Funen Archipelago. This creates a series of public spaces that relate to each other and at the same time conserve an individual identity and uniqueness.

ISLANDS IN THE CITY

Like small islands in the urban setting, the public spaces emerge and break up the build structures.
They create nodes in the city, a pause from the predictable course and a gathering point for the citizens.

DIVERSE PUBLIC SPACES

The public space "island" each has their own character, created from a variety in materials, programs and urban elements. Each space is specifically designed to meet the needs of at least two different social groups and has the "third space" where interaction across is afforded.
They turn into lively hot spots in the city.

Ill. 97 - Concept diagram for the public spaces of the site

REOPENING THE STREAM "TRAPPEBÆK-KEN"

A public space is established along the reopened stream running from Nordre Harbour down to the harbour front. It reflects the industrial character through use of concrete in the covering and an idiom with sharp edges. At the same time it relates back to times before the industrialization through an introduction of different grasses and rushes. This contrast adds quality through an interesting sense of tactility and changing experiences as one move along the stream.

This public space is especially used by the residents of the nearby community, but as it connects to a pedestrian path running along the edge of the project site, it invites citizens of Svendborg to pass through and enjoy this blue space on their strolls.

Ill. 98 - Concept rendering of the reopened creak "Trappebækken"

Ill. 99 - Concept rendering of the viewpoint at Østre Havn promenade

A VIEW TO THE SOUND

Several public spaces are incorporated along the quay. They all relate to the water in their own way. Some step down to allow maximum contact with the water surface, others offer recreational or active programs and others again step up to provide an overview and access to the magnificent views of the sound and the city.
These public spaces become destinations for walks along the edge of the harbour front and invite the residents of Svendborg to stop up and enjoy the sceneri.

THE GREEN COMMUNITY

Green public spaces break the hard surfaces and angular idiom of the site and introduce new tactilities and programs. In these lush gardens and parks, the residents can meet and interact through different tasks or doings. It is a safe and stimulating place for kids to play, and for elderly to relax and watch the activity. Here you can seek out to catch a break and turn an ordinary day into an enriching experience in closeness to nature.

Ill. 100 - Concept rendering of the green garden in the housing area in Nordre Havn

PRINCIPLES FOR TEMPORARY USE

Temporary use is an important part of processual design. It allows empty areas and structures to be used while waiting for an investor to develop the site. It plays an important role in relation to site preparation and development through mental urban conversion and can show investors at first hand that an area holds potential for future use. At the same time, temporary use is an opportunity for local enthusiasts to unfold ideas and visions – a playground for citizens and unions to try out own projects.

Many potentials and qualitative resources lie within temporary use and therefor it is important to incorporate it in the processual development. Temporary use performs best under free circumstances and our task is only to set the framework of the creativity so that it will benefit the urban context in the best possible way.

PRINCIPLES:

+ Throughout the entire development process, there must be **minimum one plot reserved** for temporary use.

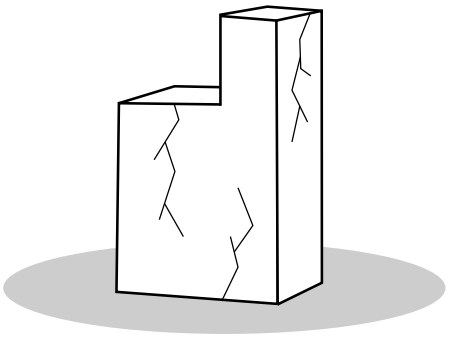
+ The temporary use must be **rooted in the local community** and **relate to the city**

+ The program must **accommodate social coexistence** and apply to minimum two social groups

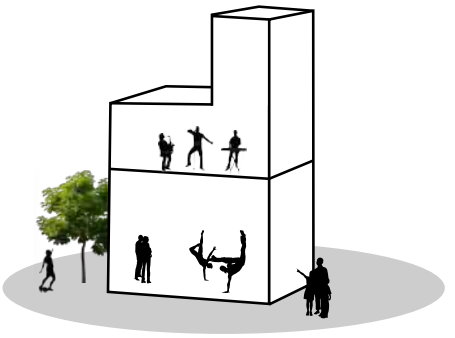
+ The temporary use must show **respect for the preserved structures**

+ If no local enthusiasts have shown interest in an empty plot before an reasonable deadline, **the municipality must facilitate temporary events or experiences**

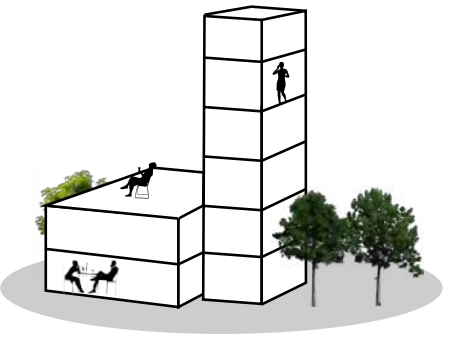
+ **The municipality must provide an employee** who at all times has a general overview and can help local enthusiasts get started with a temporary project



ABANDONED INDUSTRY



TEMPORARY USE ACTIVATES THE SITE



NEW PROGRAMS INHABIT THE SITE

Ill. 101 - Illustration showing how temporary use can benefit a development process

2016-2019

PLOT 3
Available for temporary use

2019-2022

PLOT 4
Available for temporary use

Ill. 102 - Concept rendering of temporary use in an old warehouse at Nordre Havn

2022-2024

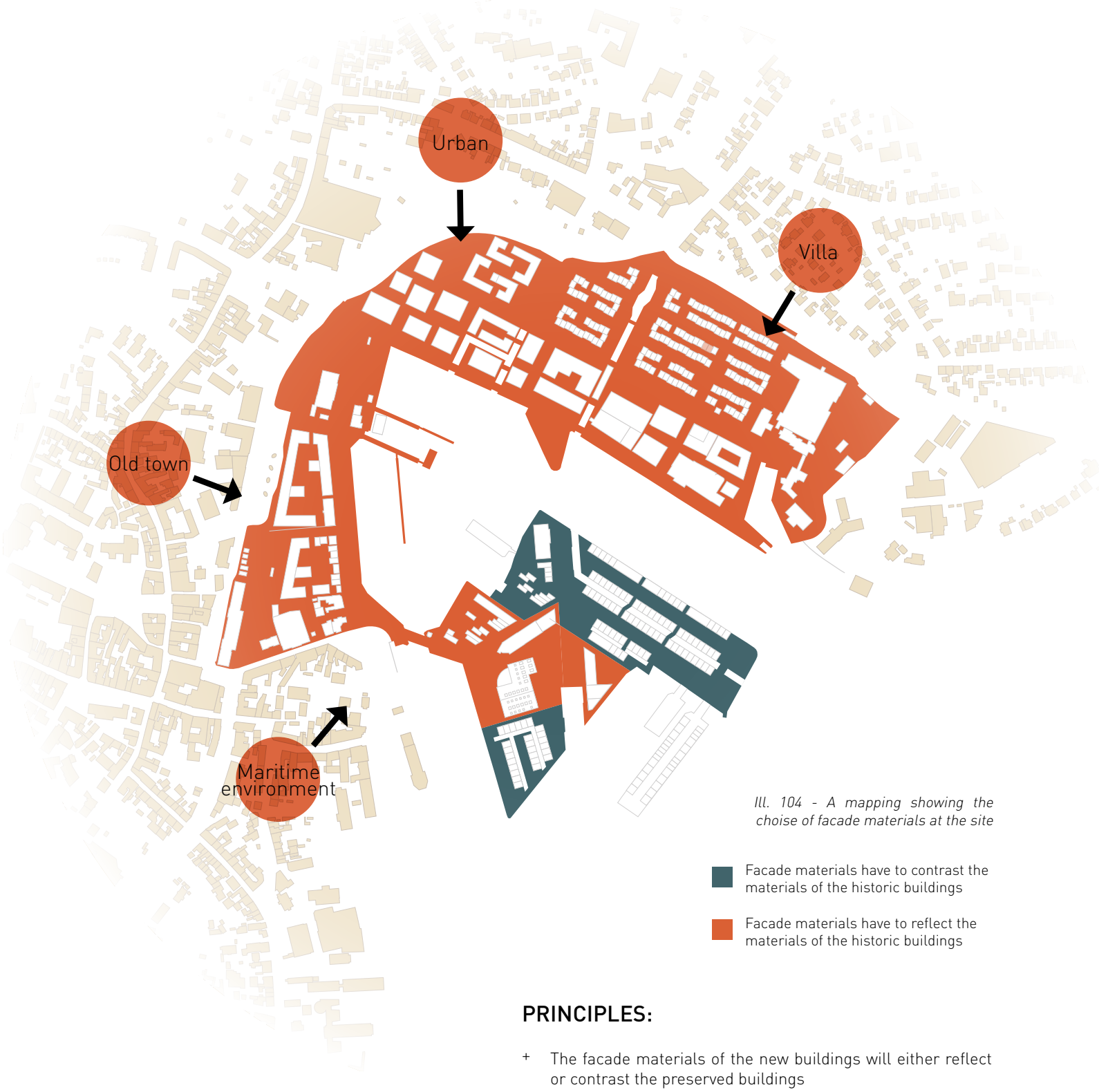
PLOT 5
Available for temporary use

2024-2030

PLOT 7
Available for temporary use

Ill. 103 - A timeline i plans, showing the plots laid out for temporary use

PRINCIPLES FOR THE PLOTS & BUILT ENVIRONMENT



Ill. 104 - A mapping showing the choise of facade materials at the site

Facade materials have to contrast the materials of the historic buildings

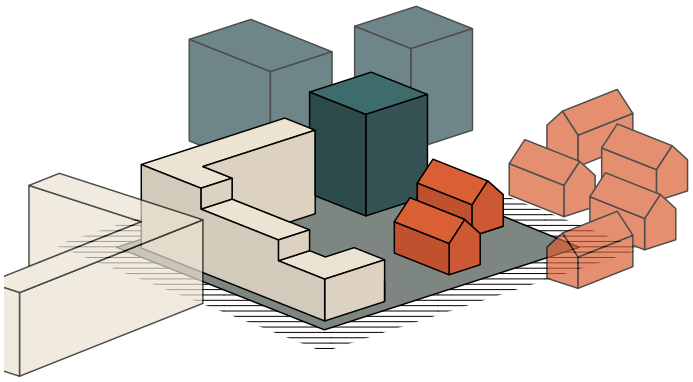
Facade materials have to reflect the materials of the historic buildings

The priciples will ensure that the built environment will follow the strategies for industrial herritage and social coexistence. The principles will secure a link between the new buildings and its local context by reflecting the scale, typology, materiality and identity. To encourage social coexistence in the plots, the principles focus on mixing programs and people. The ground floor facades are kept active or open to enhance to connecting between the building and the public space.

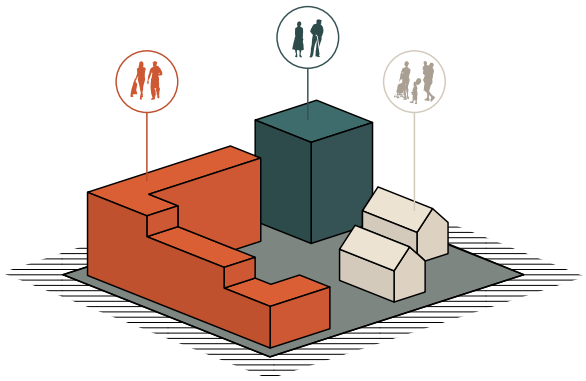
PRINCIPLES:

+ The facade materials of the new buildings will either reflect or contrast the preserved buildings
+ The buildings will reflect their near context in height, volume and identity
+ Each plot will have multiple programs and types of housing to ensure diversity
+ Each plot will have a mix between owning and renting possibilities
+ The ground floor of the new buildings must be open and active in defined zones

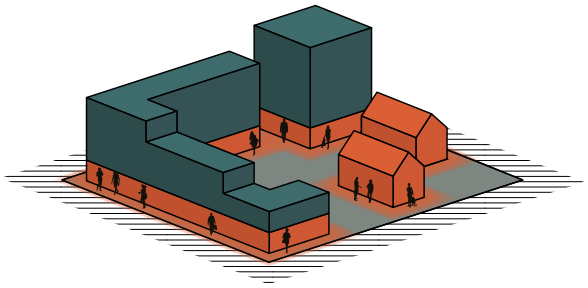
Ill. 105 - CONCEPT DIAGRAMS



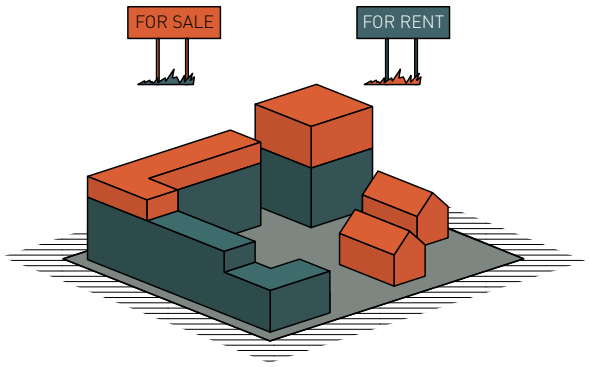
New buildings will reflect their near context to maintain the original scale and identity.



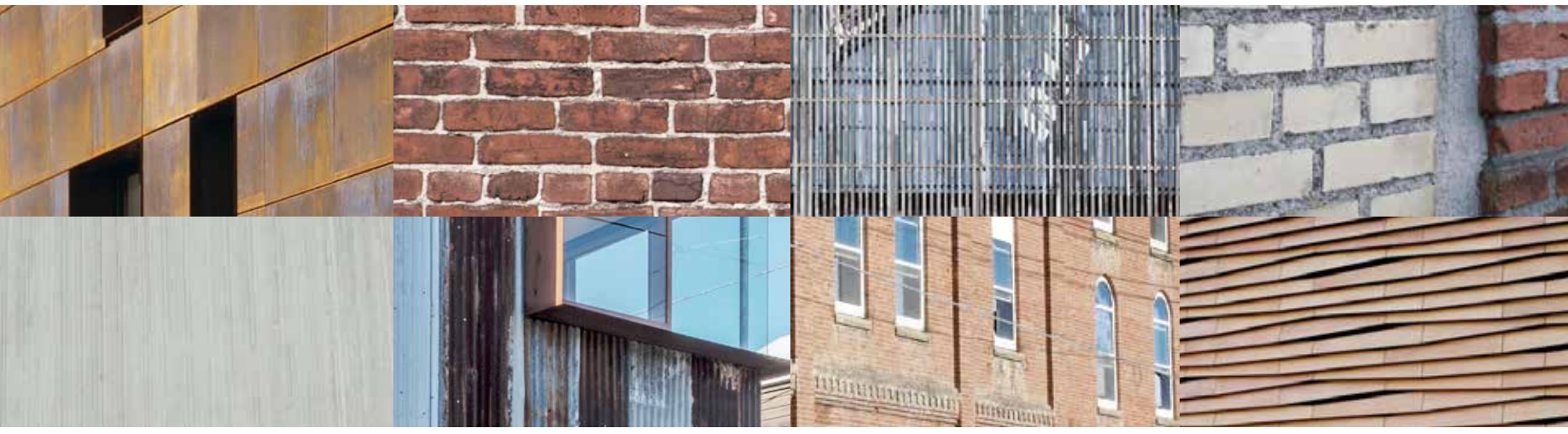
Each plot should contain different types of residence to house different groups of people



The groundfloor will be open to the street to secure life in the public space



A differentiation between owning and renting possibilities will secure a social diversity in each plot.



Ill. 106 - Different facade materials with a maritime expression

PROCESS DEVELOPMENT

The following section explains the process development of the site, the different parameters influencing the process and sums it up in a conclusion of the fixed framework and flexibilities of the plan.

PROCESS DEVELOPMENT

This project works with process development by dividing the site into several plots and then developing these gradually. Each plot consists of different elements; temporary use, the built structures and public spaces. Furthermore, each of the plots has a driver – a special program which will strengthen the site preparation and development and attract people when finished. The drivers must be constructed at the first part of the development period, so they can strengthen the continuing development of the rest of the area and secure that the process doesn't stall. The same goes for the public spaces, which can secure a lively vibe in the area. One of the lessons learned from the development of Ørestaden is that it is very important to prioritize the development of public spaces as these are a key to make a well-functioning urban area with life throughout the day and thus avoid creating a "dead zone".

In the following development plan, the plots nearest the inner city level will be developed first. This is done to connect to the existing life and activity and slowly lead people down towards the new public spaces along the harbour front. Furthermore these plots are chosen to be the first because they have the least amount of active business and build structures today and therefor require least intervention.

The order of the development plan allows the active industry to stay as long as possible up until the noise nuisances hinder the development of the surrounding plots. The first three plots are almost without a permanent function today (except from the preserved structures), and DLG which occupy most of the structures at plot four will move out in 2017. This leaves most of the inner harbour front and the south-western part of Frederiksø relatively ready for new developments.

Moving further into the future the plan becomes more flexible. It is however prioritized that Frederiksø will be fully developed in a foreseeable future, as it will be the pivotal point of the public life of the harbour along with the promenade running along the entire harbour front.

At the next page, a full timeline and overview of the development plan will be presented. Beneath is a short introduction to the different parameters.

TEMPORARY USE

The temporary use takes place in the years up till the beginning of the construction and development of a plot. Throughout this period local enthusiasts can use the area as they wish, as long as the program fits within the local context and affords social coexistence. If no local initiatives appear, the municipality will facilitate some kind of temporary use to secure that a mental conversion process can take place.

URBAN DEVELOPMENT

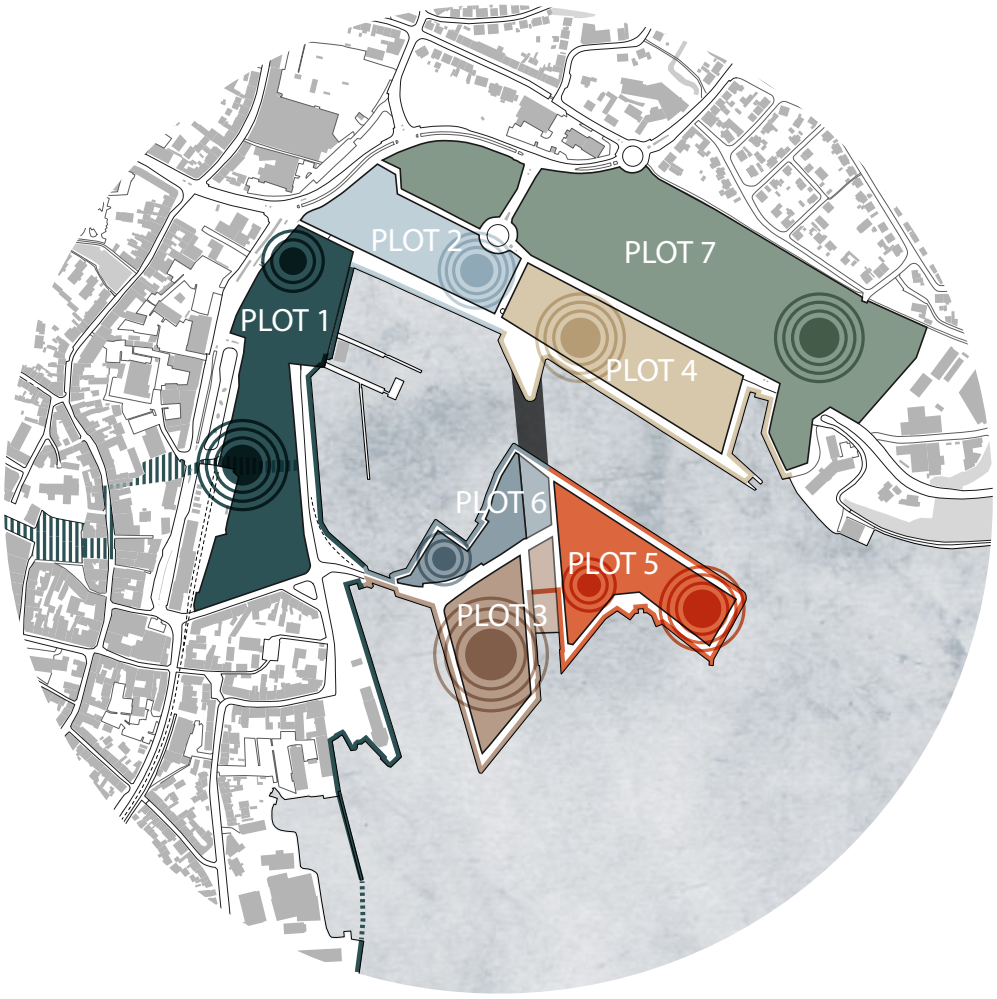
The plots will be developed in a chronological order. Depending on the extend of the transformation and the drivers, several plots can be under construction at the same time.

PUBLIC SPACE DEVELOPMENT

The development of the public spaces will mainly take place in the beginning of the development phase. These will strengthen the urban life and create a lively harbour front. The public spaces at the site are the promenade and urban parks and spaces as for example the Berth at Frederiksø.

DRIVERS

The drivers can both be build structures and urban spaces. Common for them is a programming with a high cultural value and an attractive effect on the citizens and sometimes also tourists. These will be developed in the beginning of the construction period of the plots like the public spaces.



Ill. 107 - Plan showing the seven plots of the site

PLOT 1

The first plot is located closest to the city centre. This area will mainly consist of city dwellings and workshops and other facilities aiming at the many creative entrepreneurs in Svendborg. The drivers are "Den Grønne Tråd" and an urban park, both outdoor public spaces.

PLOT 2

The second plot is located in continuation to the first. This plot will offer a variation of apartments and office spaces, thus adding both attractive living possibilities and jobs to the harbour scape. SIMAC is the big driver in the area, offering a rich study environment right next to both the sea and possible future employments.

PLOT 3

In the third plot, the new maritime museum will become the new attraction in the preserved storage buildings "Buehallerne". City dwellings will be added to the tip of the island with a beautiful view to the sound. The berth will be reestablished as a public space including a harbour bath and other recreational and maritime experiences.

PLOT 4

The fourth plot is dominated by preserved structures. The large silos will transform into new programs and more cultural and commercial programs will join in and create a dense new part of the city. The main driver in this plot is the new library, located partly in the old DLG structure.

PLOT 5

The fifth plot located at Frederiksø is a real game changer. The heavy industries have now moved out and the city is invited out to claim the island. City dwellings, a high-rise with apartments and a maritime innovation centre will become the main structures, along with smaller commercial offices. An urban park at the end of the island with views to Tåsinge and the South Funen Archipelago rounds up the area.

PLOT 6

The sixth plot is the former wooden shipyard company. This area will be divided into two programs; a part of it will be leant to the maritime museum for them to exhibit traditional maritime crafts. The other part will turn into a marina with space for maintenance of the boats.

PLOT 7

The last plot ties the project site together with the northern part of Svendborg. This area will function as a buffer between the villa houses to the north and the large scale structures south of the site. 2-3 stories city dwellings create new neighbourhoods around varying outdoor spaces. A sports centre overtakes one of the remaining large structures and becomes a destination for the city's active residents.

TEMPORARY USE

PLOT 3 (2016-2019)

PLOT 5 (2022-2024)

PLOT 7 (2024-2030)

PLOT 4 (2019-2022)

URBAN DEVELOPMENT

PLOT 2 (2017-2022)

PLOT 5 (2024-2030)

PLOT 1 (2016-2020)

PLOT 4 (2022-2028)

PLOT 3 (2019-2022)

2016 2017 2018 2019 **2020** 2021 2022 2023 2024 **2025** 2026 2027

PUBLIC SPACE DEVELOPMENT

Berth, plot 3 (2021-22)

Park, plot 2 (2018-2020)

Promenade, plot 1 (2016-2018)

Promenade, plot 5 (2026-2028)

Promenade, plot 4 (2022-2024)

Promenade, plot 2 (2017-2019)

Promenade, plot 3 (2019-2021)

DRIVERS

SIMAC (2017-2020)

LIBRARY (2022-2025)

MARITIME MUSEUM (2018-2020)

DEN GRØNNE TRÅD (2016-2018)

PARK (2024-2026)

PLOT 6 (2030-2032)

PLOT 7 (2030-2040)

2028 2029 **2030** 2031 2032 2033 2034 **2035** 2036 2037 2038 2039 **2040**

Berth, plot 6 (2030-2031)

Bridge (2032-2034)

Promenade, plot 6 (2030-2032)

MARITIME CRAFTS (2030-2032)

SPORTS CENTER (2033-2035)

MARITIME INNOVATION CENTER (2027-2029)

Ill. 108 - Illustration of the process development of the site

SVENDBORG HARBOUR FRONT
2016

Ill. 109 - Building plan of the site today

SVENDBORG HARBOUR FRONT 2040

Ill. 110 - Building plan of the site in 2040

At the next page, a full step-by-step plan can be viewed, providing an overview of the development of the build structures at the site.

2016

TODAY
Plan of the existing buildings

2016

PLOT 1
Existing buildings are demolished

2018-2022

PLOT 2
New buildings are added

2019

PLOT 3
Existing buildings are demolished

2023-2028

PLOT 4
New buildings are added

2024

PLOT 5
Existing buildings are demolished

2031-2032

PLOT 6
New buildings are added

2030

PLOT 7
Existing buildings are demolished

2017-2020

PLOT 1
New buildings are added

2017

PLOT 2
Existing buildings are demolished

2020-2022

PLOT 3
New buildings are added

2022

PLOT 4
Existing buildings are demolished

2025-2030

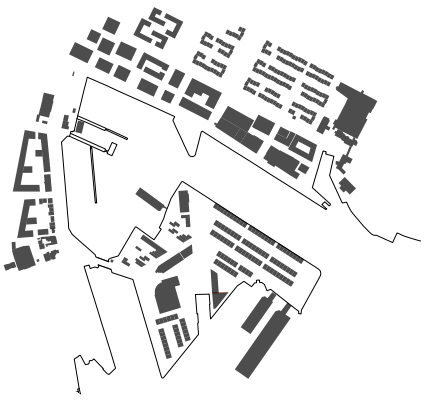
PLOT 5
New buildings are added

2030

PLOT 6
Existing buildings are demolished

2031-2040

PLOT 7
New buildings are added



2040

FINAL PLAN

Ill. 111 - Timeline in plan of the structural development of the site from today to 2040

FRAMEWORK & FLEXIBILITY

When working with urban development from a processual point of view, it is important to control the progress through a defined framework. This framework secures that the development will be consistent with the city's visions and that a certain level of quality of the urban spaces and structures will be kept. Successful urban development is depending on a well-designed foundation which creates the foundation for an adaptable and flexible detailing.

The following overview will clarify the framework and separate this from the flexible points in the plan. An extra frameset is laid down for Frederiksø, as this area is envisioned to become the island of the city and thus demands more guidelines.

THE FRAMEWORK:

+ The placement of public spaces is fixed
+ Physical and/or visual connections relating to the public spaces must be present
+ The build scale, both in height and volume, must be consistent with the laid out guidelines
+ The main infrastructural arteries and concepts are fixed
+ The quay edge must be public and accessible for pedestrians
+ The strategies for industrial heritage and social coexistence must be kept
+ The principles for temporary use, urban spaces and plots & build structures must be kept

FREDERIKSØ:
+ The island should be as publicly accessible as possible
+ The dwellings at the island can only have a minimal private outdoor space and preferably direct access to water

FLEXIBILITY OF THE PLAN:

+ The order of the construction of the plots can be rearranged if necessary
+ The plots can be redefined
+ The typologies for each plot are flexible and new typologies can easily be introduced as long as they stay within the given framework
+ Infrastructural veins can be rearranged to fit the build structures as well as possible
+ The programming both of the build structures and the public space can be redefined to fit the needs and wishes of the city in the best possible way
+ The choice of materials and shaping of the build structure and the urban spaces is flexible as long as it stays within the given framework
+ Plots laid out for temporary use are flexible and the temporary use may have to move to another location if the development is progressing in an unforeseen manner

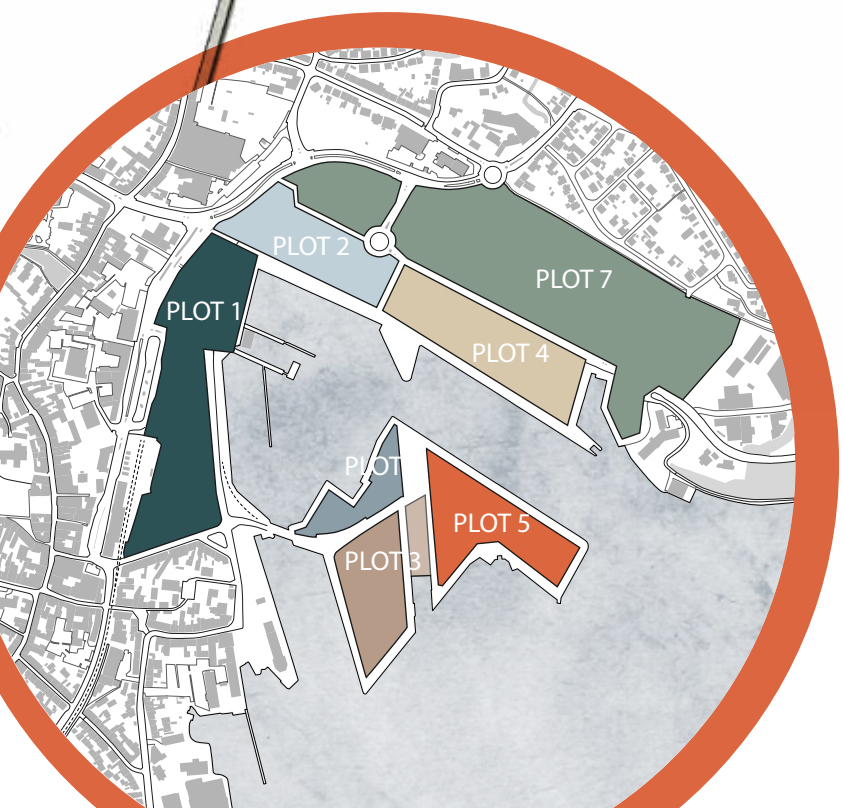
N

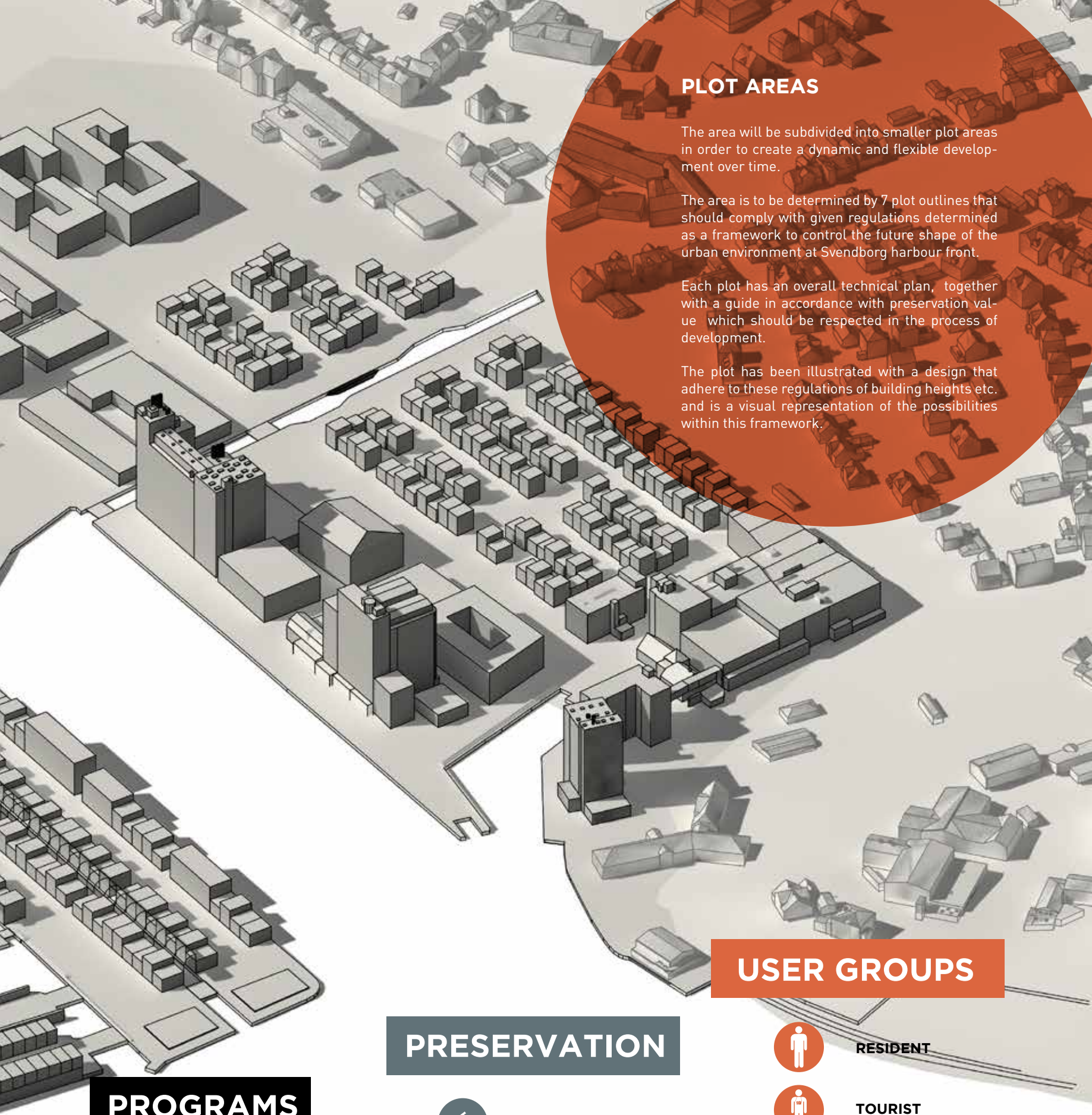
Ill. 112 - The illustration plan is flexible within the given framework

AREA PLAN

The following section presents a proposal for the area plan of the site. It dives into the different plots and explains programming, and building regulations, along with a technical and preservation plan. Each plot is finalized with inspirational reference cases.

OVERVIEW





PLOT AREAS

The area will be subdivided into smaller plot areas in order to create a dynamic and flexible development over time.

The area is to be determined by 7 plot outlines that should comply with given regulations determined as a framework to control the future shape of the urban environment at Svendborg harbour front.

Each plot has an overall technical plan, together with a guide in accordance with preservation value which should be respected in the process of development.

The plot has been illustrated with a design that adhere to these regulations of building heights etc. and is a visual representation of the possibilities within this framework.

PROGRAMS

- CULTURAL
- COMMERCIAL
- RESIDENTIAL
- FOOD/ RESTAURATION
- PARKING HOUSE

PRESERVATION

- SIGHTLINES
- QUAY
- STRUCTURE
- ANCHORAGE
- BERTH
- DOCK

USER GROUPS

- RESIDENT
- TOURIST
- LABOURER
- ELDERLY
- STUDENT
- CHILDREN
- CREATIVE

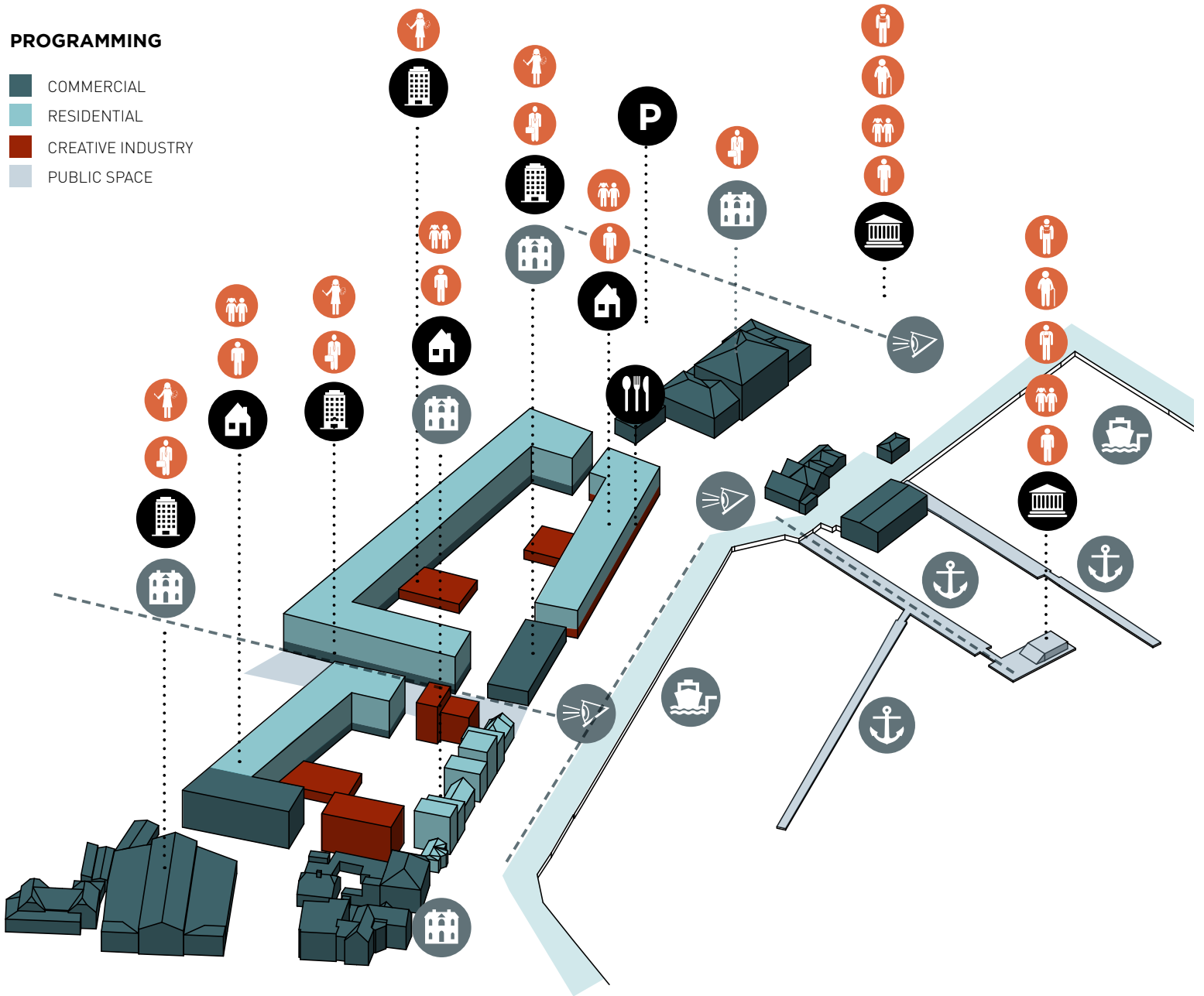
Ill. 113 - Illustration of the site, the plot areas and icons of programs, preservation and user groups

PLOT 1

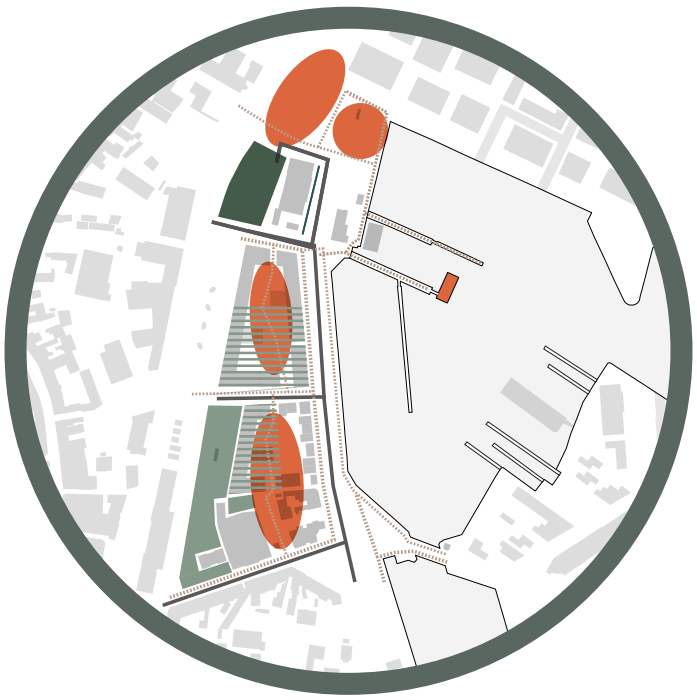
PLOT LOCATION

PROGRAMMING

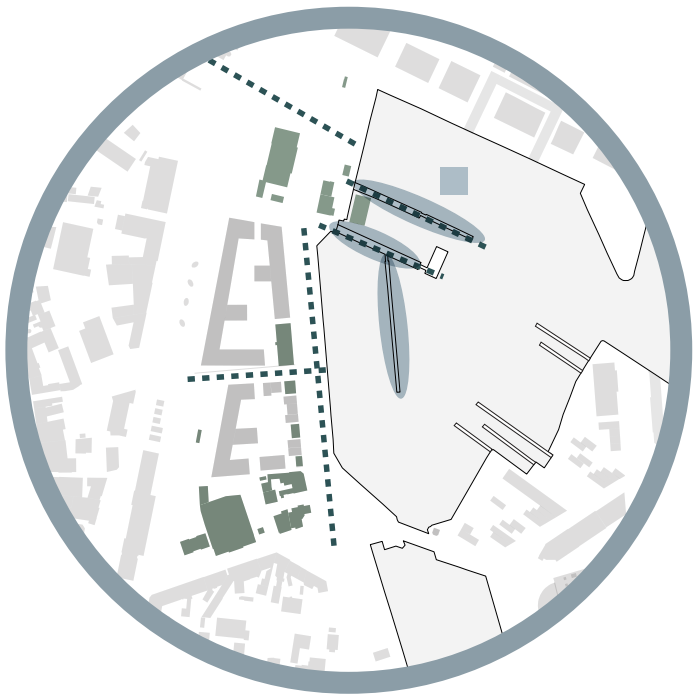
- COMMERCIAL
- RESIDENTIAL
- CREATIVE INDUSTRY
- PUBLIC SPACE



Ill. 114 - Plot location and overview of the plot's programs, industrial heritage and user groups



Ill. 115 - Technical plan



Ill. 116 - Preservation plan

TECHNICAL PLAN

- Public space
- Parking on terrain
- Underground parking
- Parking alongside the road
- Road
- Pedestian path

PRESERVED BUILDINGS AND SIGHTLINES

- Preserved building
- Preserved sightline
- Preserved anchorage

COEXISTENCE

Coexistence arises between the two programs of the creative industries and the residents in both the residential blocks and the townhouses. Groups of creative people use the green courtyards together with the dwellers of the blocks. Old and new structures coexist side by side, while privacy and public life meet.

The third space is the public shared space of the Green Thread that connects to the harbour front promenade, which also functions as a third space.

INDUSTRIAL HERITAGE

The industrial heritage is maintained as the small red brick buildings will be preserved as heritage infill in the new building blocks. The custom house and Kvægtorvet are preserved as well. Two sight lines have been physically defined, the first (The Green Thread) as a pedestrianized urban shared space, and the second running along Havnegade, respecting the intentions of creating a new flow between the old city and the harbour front.

PLOT INFO

PLOT RATIO: 73%

BUILT HEIGHT: 9-12 m. / 3-4 levels - max. 5 levels

PROGRAMMING: Culture, housing, commercial and retail

PARKING: On terrain, underground and alongside the road

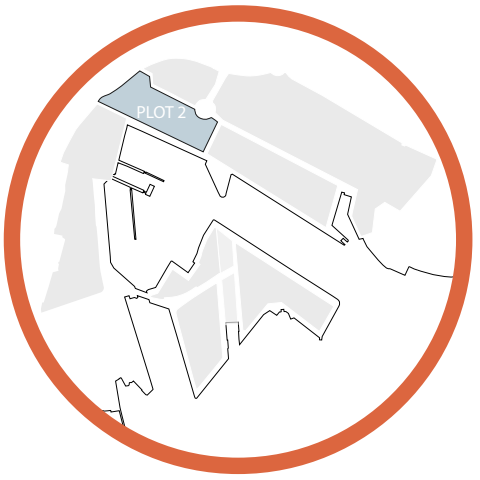
PUBLIC SPACES: Along the edge and within a courtyard

REFERENCES

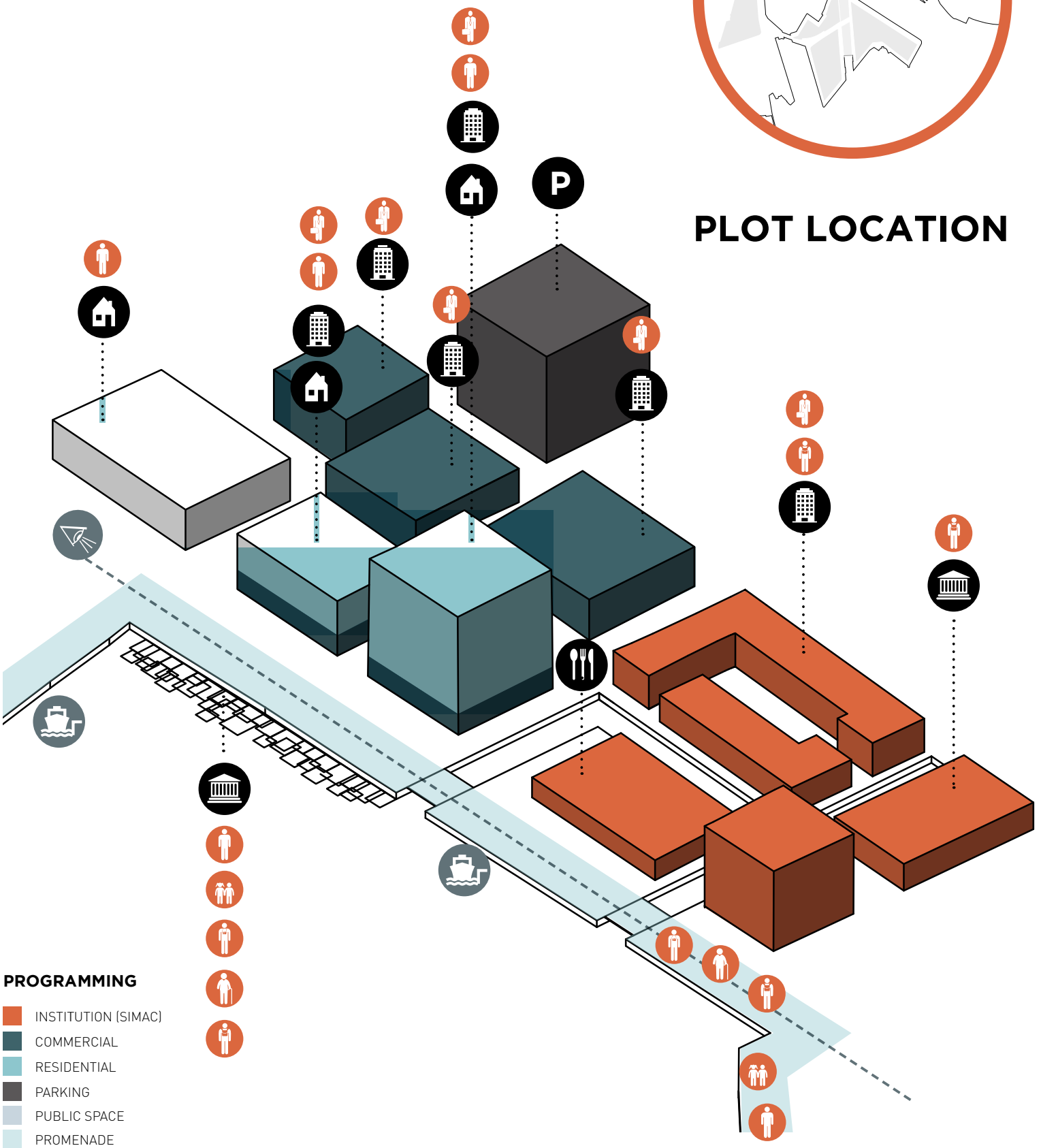
Ill. 117 - URBAN BLOCK WITH GREEN COURTYARDS, CIE AND SVESMI

Ill. 118 - GELUKSTRAAT HOUSING, DIERENDONCK BLANCKE ARCHITECTEN

PLOT 2



PLOT LOCATION



Ill. 119 - Plot location and overview of the plot's programs, industrial heritage and user groups

Ill. 120 - Technical plan

Ill. 121 - Preservation plan

TECHNICAL PLAN

Public space

Parking on terrain

Parking alongside the road

Road

Pedestian path

PRESERVED BUILDINGS AND SIGHTLINES

Preserved sightline

COEXISTENCE

Coexistence is made visible through the combination of programs and user groups. Residential, commercial and institutional programs meet, and the residents of the blocks are opposed to the employees of the office buildings together with the students of SIMAC.

The spaces inbetween are thought of as floating public domains, meaning spaces where the ownership is blurred and the space is made as public as possible. The third space is distinguished through the promenade and these floating spaces.

INDUSTRIAL HERITAGE

The industrial heritage is conserved through the preservation of the quay of the harbour front. The raw asphalt together with traces of the former freight train tracks that runs simultaneously with the edge of the quay are items worthy of preservation. The sightline that these constitute are to be protected in future urban development, and should be respected in terms of generating a straight, defined facade line towards the quay.

PLOT INFO

PLOT RATIO: 146%

BUILT HEIGHT: 15-18 m. / 5-6 levels - max. 8 levels

PROGRAMMING: Institution (SIMAC), housing, commercial

PARKING: On terrain, parking house, alongside the road

PUBLIC SPACES: Along the quay, on terrain, inside courtyard

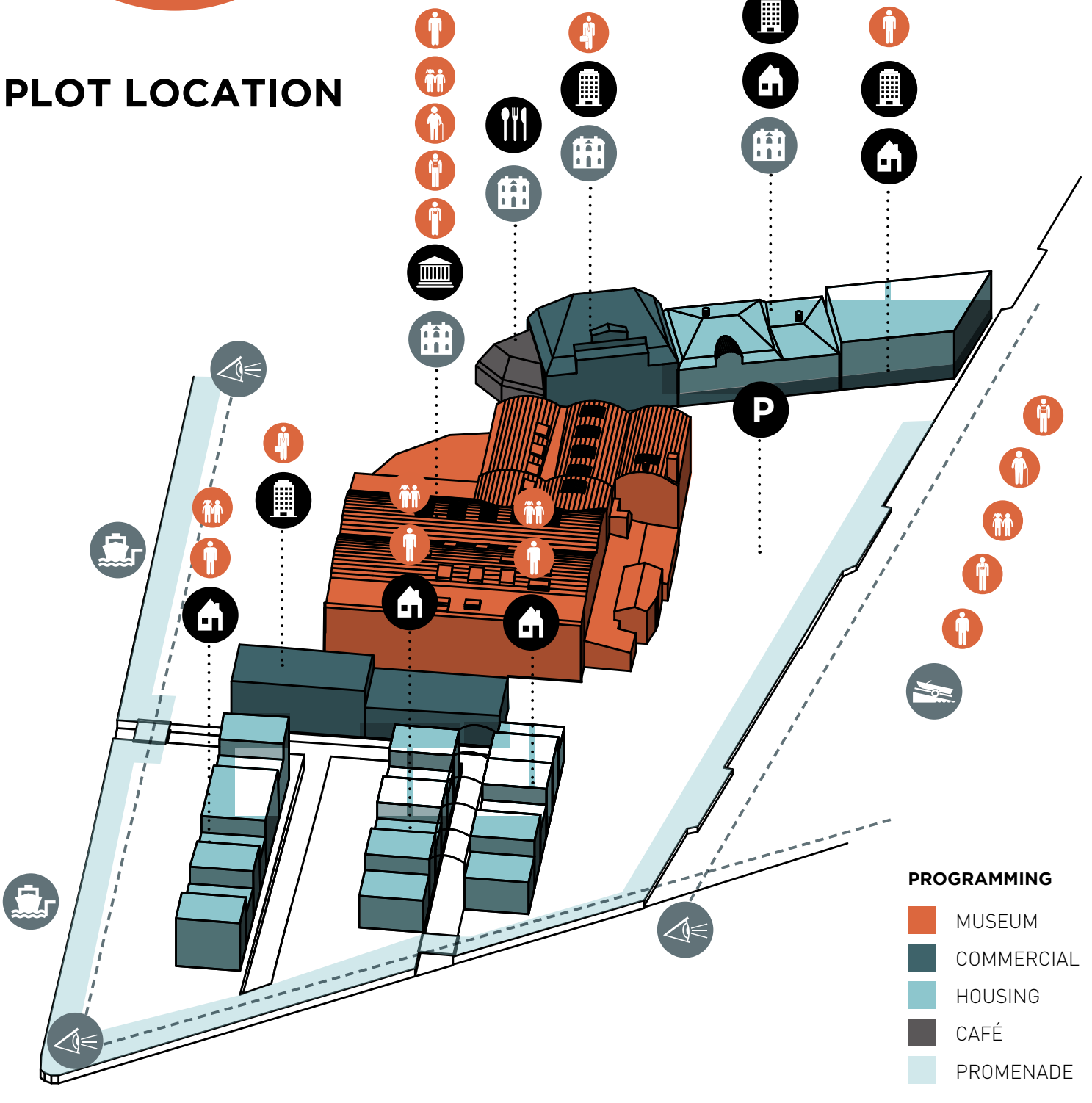
REFERENCES

Ill. 122 - TRANSFORMED FREIGHT TRAIN AREA, AALBORG

Ill. 123 - ÅHUSENE WITH OPEN FLOATING SPACES, AARHUS

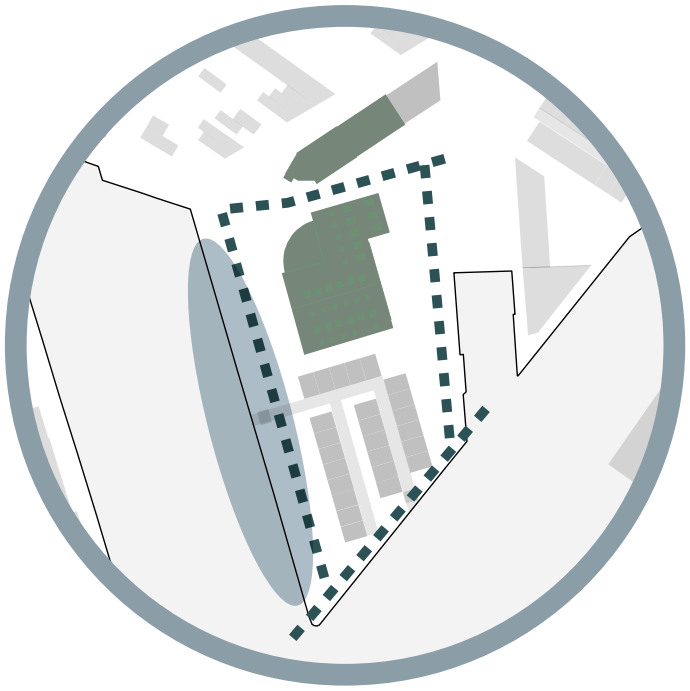
PLOT 3

PLOT LOCATION



Ill. 124 - Plot location and overview of the plot's programs, industrial heritage and user groups

Ill. 125 - Technical plan



Ill. 126 - Preservation plan

TECHNICAL PLAN

- Public space
- Parking on terrain
- Parking alongside the road
- Road
- Pedestian path

PRESERVED BUILDINGS AND SIGHTLINES

- Preserved building
- Preserved sightline
- Preserved anchorage

COEXISTENCE

Coexistence comes into existence through the programming of a maritime museum in combination with dwellings, offices and commercial facilitites. Semiprivate spaces of the dwellings meet the publicly accessible promenade and wharf.

The third space is the place where people interact, stroll, or stay for a while, just as it is envisioned at the wharf towards the city, where people can inspect and look at tall ships docking in relation to the Maritime Museum. The berth is a third space, where people can interact and coexist inbetween programmed zones.

INDUSTRIAL HERITAGE

'Buehallerne', the former machine workshop and forge shop, are to be sustained, but with a new programming as exhibition space of the Maritime Museum. The rest of the complex is turned into the entrance hall and administration of the Maritime Museum. The industrial heritage is also preserved through the re-use of the red brick administration buildings, which transforms into a café and commercial use.
The quay will be renovated to the south, and canals will make divisions, though still maintaining important sightlines towards the archipelago.

PLOT INFO

PLOT RATIO: 79%

BUILT HEIGHT: 6-9 m. / 2-3 levels - max. 5 levels

PROGRAMMING: Museum, commercial, housing, café

PARKING: On terrain, alongside the road

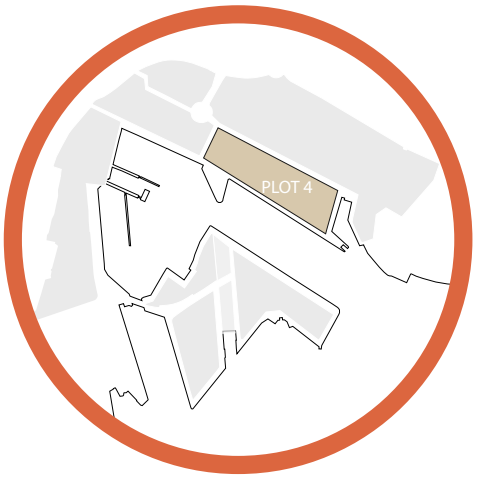
PUBLIC SPACES: In front of museum, promenade, berth

REFERENCES

Ill. 127 - MARITIME MUSEUM, BARCELONA

Ill. 128 - BORNEO-SPORENBURG, AMSTERDAM, WEST 8

PLOT 4

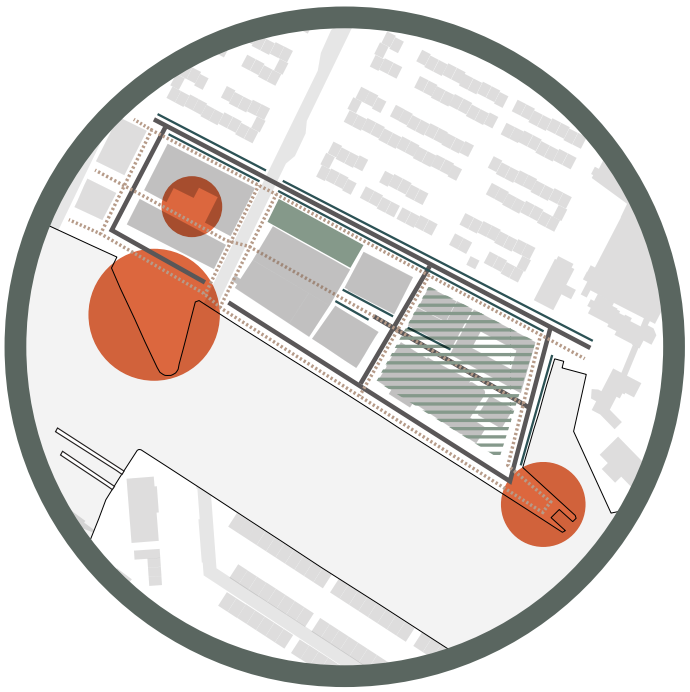


PLOT LOCATION

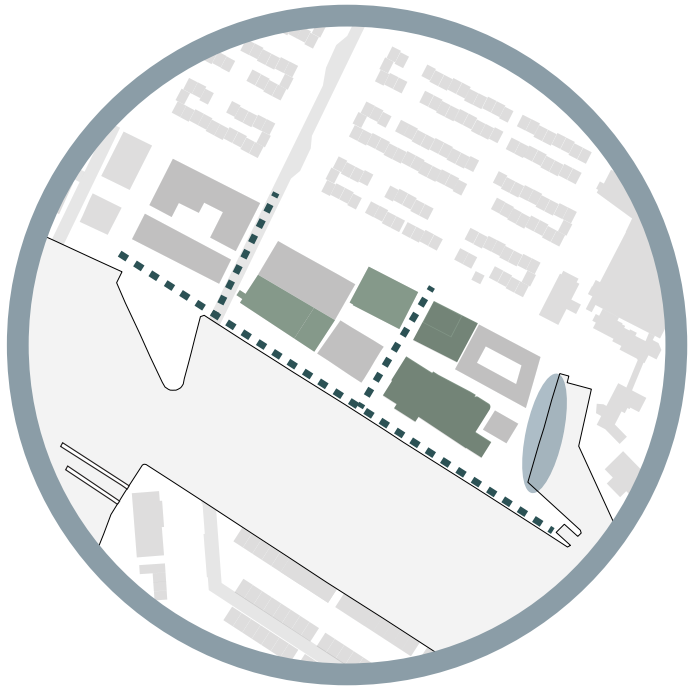
PROGRAMMING

- COMMERCIAL
- RESIDENTIAL
- CULTURAL/ LIBRARY
- HOTEL/ HOSTEL
- SENIOR CENTER
- STUDENT CAFÉ
- SUPERMARKET
- CAFÉ
- PUBLIC SPACE
- PROMENADE

Ill. 129 - Plot location and overview of the plot's programs, industrial heritage and user groups



Ill. 130 - Technical plan



Ill. 131 - Preservation plan

TECHNICAL PLAN

- Public space
- Parking on terrain
- Parking alongside the road
- Road
- Pedestian path

PRESERVED BUILDINGS AND SIGHTLINES

- Preserved building
- Preserved sightline
- Preserved anchorage

COEXISTENCE

Coexistence arise on multiple levels: programming and user groups make sure to generate a mix of people and create diversity. A hotel and thereby the tourist industry coexist with a senior center, and a public library coexist in the re-used silo together with dwellings. A student café is closely related to SIMAC in plot 2, and placed near a supermarket, that enables a courtyard to function as a public space for both programs.

The third space exists within the promenade and Hudes Plads, and within the sightlines that connect the harbour front area with the districts upland. The creekscape also functions as a third space.

INDUSTRIAL HERITAGE

The former silos of DLG and Kelloggs are preserved and re-used as a hotel and a public library with dwellings on the upper levels. They still function as landmarks in the new layout of the harbour front, only the programming is different, and they create a strong symbolic value for the city, maintaining an evidence of the past.
The warehouse behind DLG is designed as new office spaces for commercial use. The small administration building is turned into a senior center.
Sightlines are preserved together with the promenade.

PLOT INFO

PLOT RATIO: 221%

BUILT HEIGHT: Max. 50 m. / 6 - 7 levels - max. 12 levels

PROGRAMMING: Library, hotel, hostel, housing, senior center, student café, restauration.

PARKING: On terrain, alongside the road

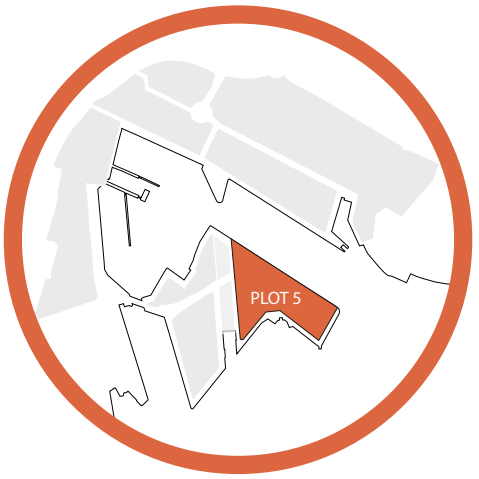
PUBLIC SPACES: Hudes Plads, promenade, the viewpoint.

REFERENCES

Ill. 132 - SILODAM, AMSTERDAM

Ill. 133 - BOEKHANDEL SELEXYZ DOMINICANEN IN MAASTRICHT, MERKX + GIROD

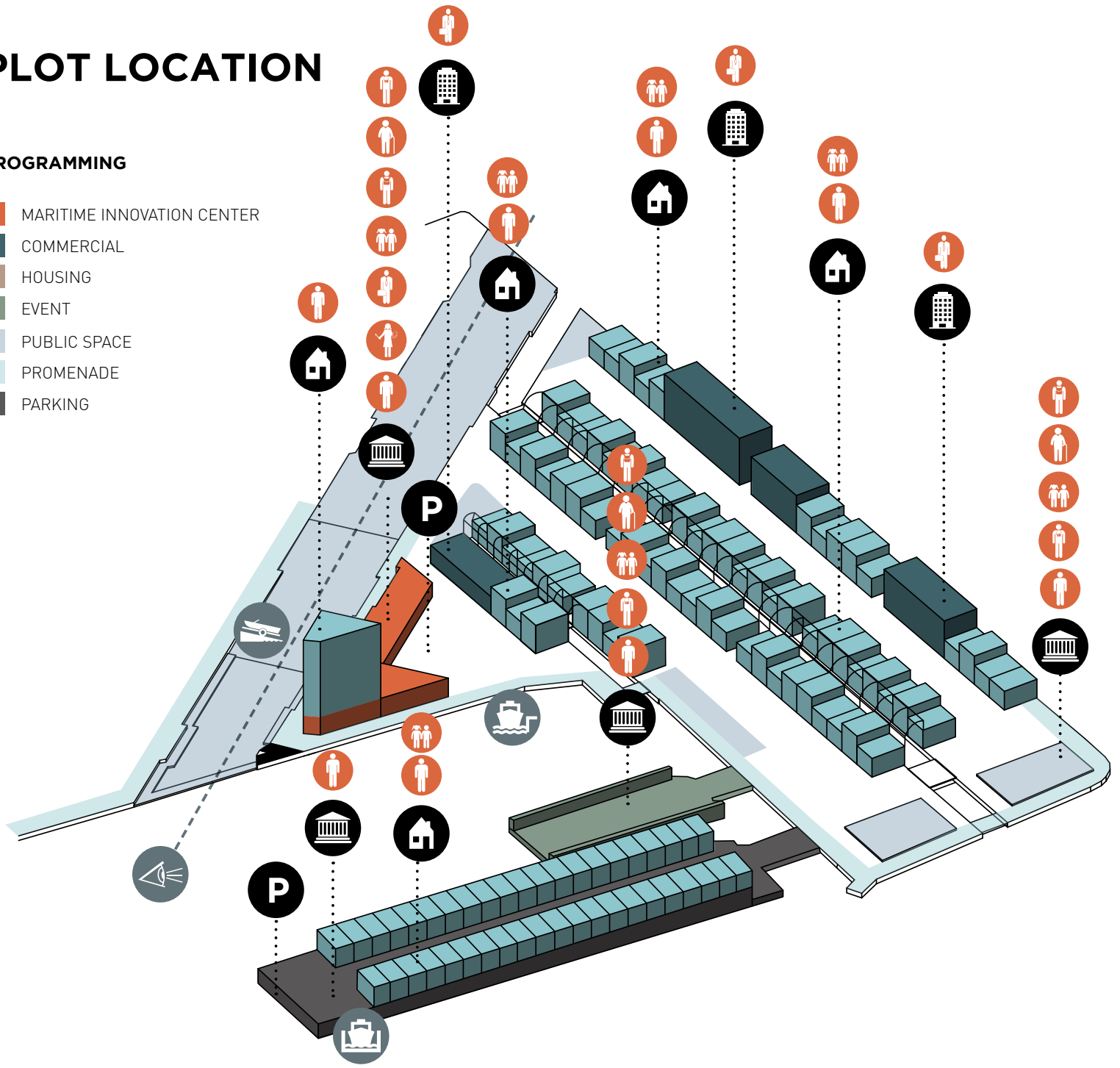
PLOT 5



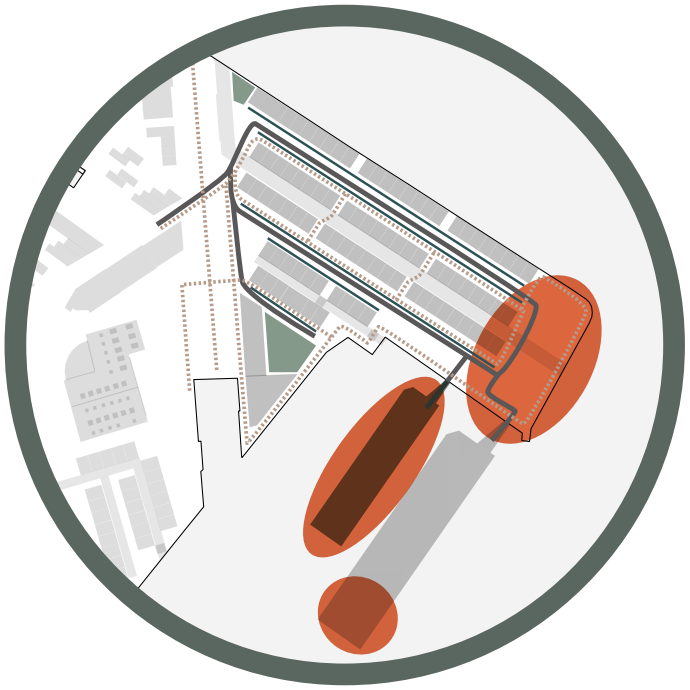
PLOT LOCATION

PROGRAMMING

- MARITIME INNOVATION CENTER
- COMMERCIAL
- HOUSING
- EVENT
- PUBLIC SPACE
- PROMENADE
- PARKING



Ill. 134 - Plot location and overview of the plot's programs, industrial heritage and user groups



Ill. 135 - Technical plan

Ill. 136 - Preservation plan

TECHNICAL PLAN

- Public space
- Parking on terrain
- Parking alongside the road
- Road
- Pedestian path

PRESERVED BUILDINGS AND SIGHTLINES

- Preserved dock
- Preserved sightline
- Preserved berth

COEXISTENCE

Coexistence is present as all user groups are represented in the public space of the berth and in the public park at the tip of Frederiksø. Dwellers of the canal houses live side by side with employees working in the offices, and cultural events happening in the dock and in the Maritime Innovation Center.

The third space is defined by the promenade and the pockets of stairs leading down to the water. The third space is also present in the berth and in the park at the tip.

INDUSTRIAL HERITAGE

The industrial heritage is maintained through the re-use of the former active docks, presenting the idea of a dockscape that integrates residential units into the original structure of the Blue Dock. Also adding to this idea, a new dock will perform as an eventspace, generating a frame of steel that can change according to the purpose of the event.
The berth is transformed into a public domain, respecting the traces of the past, re-using the original concrete foundation, and adding layers to the design of a pedestrianized open space. A harbour bath is installed in the southern most part of it, and re-interprets the maritime heritage in a recreational way.

PLOT INFO

PLOT RATIO: 87%

BUILT HEIGHT: 3-30 m. / 1-10 levels - max. 12 levels

PROGRAMMING: Maritime Innovation Center, businesses, canal row houses, luxury apartments

PARKING: On terrain, alongside road, in dock

PUBLIC SPACES: The berth, the park, the promenade

REFERENCES

Ill. 137 - WILHELMINA PIER, AMERIKA PARK, HOTEL NEW YORK, ROTTERDAM

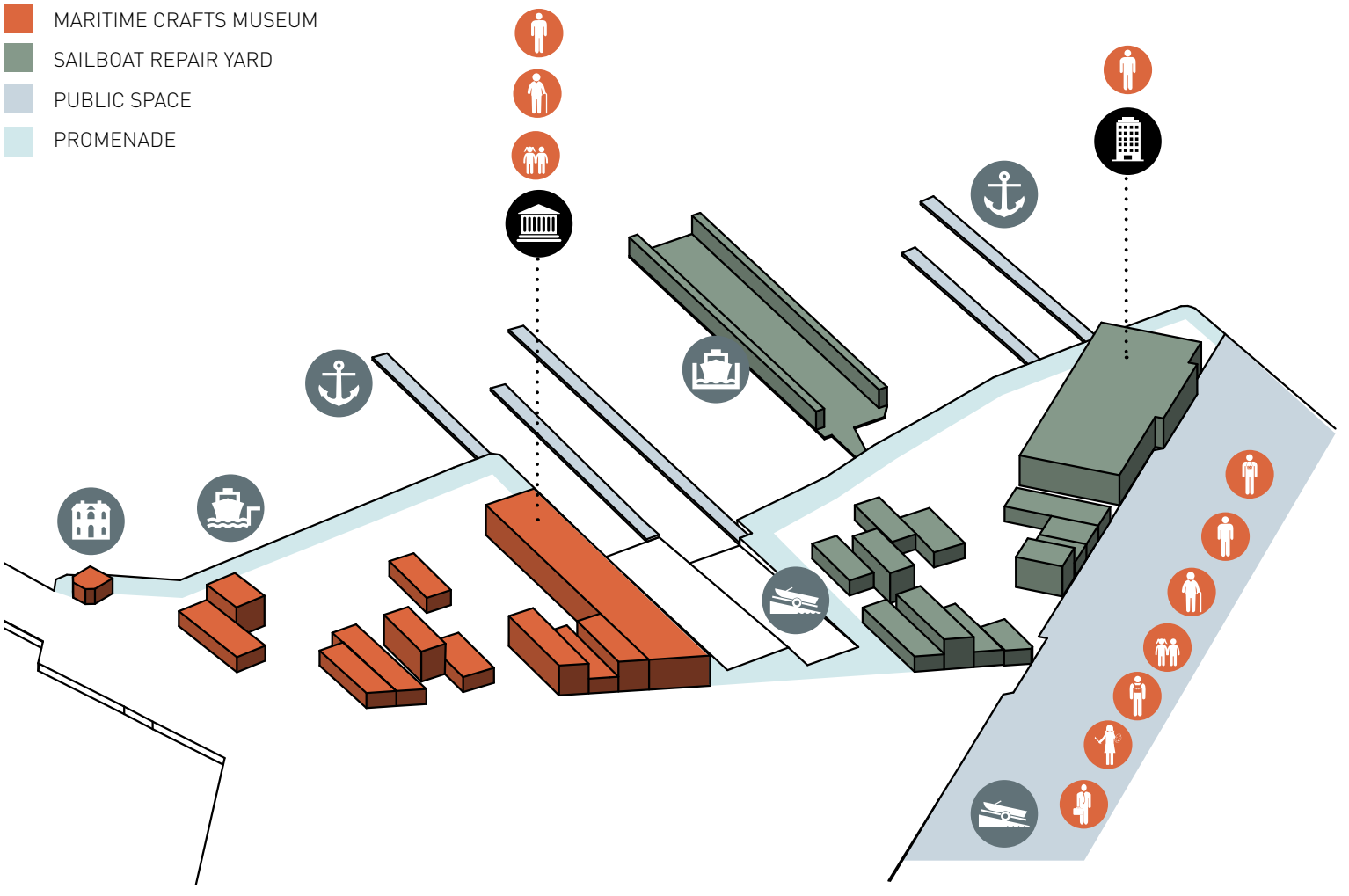
Ill. 138 - AFFORDANCES OF DOCKS, RAAAF RIETVELD ARCHITECTURE

Ill. 139 - BORNEOSPORENBURG, AMSTERDAM, WEST 8

PLOT 6

PLOT LOCATION

PROGRAMMING



Ill. 140 - Plot location and overview of the plot's programs, industrial heritage and user groups

Ill. 141 - Technical plan

TECHNICAL PLAN

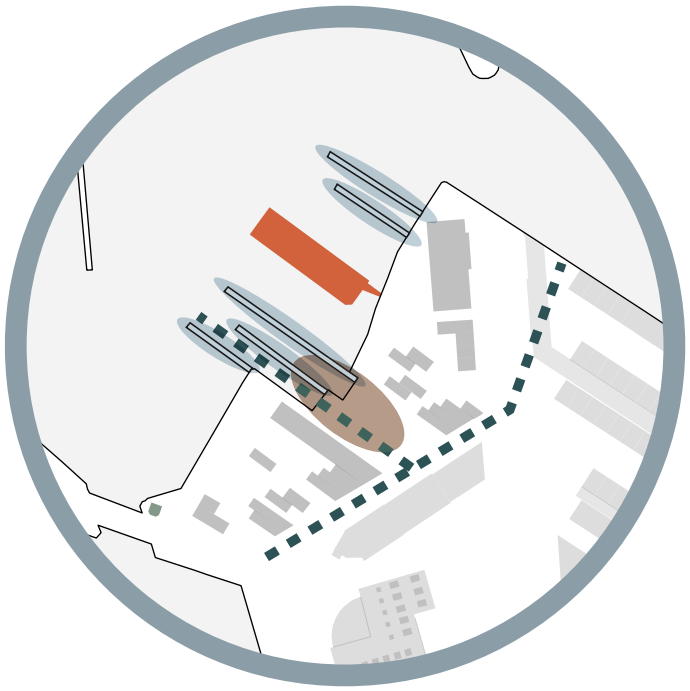
MARITIME CRAFTS MUSEUM

SAILBOAT REPAIR YARD

Parking alongside the road

Road

Pedestian path



Ill. 142 - Preservation plan

PRESERVED BUILDINGS AND SIGHTLINES

Preserved building

Preserved sightline

Preserved dock

Preserved anchorage

Preserved berth

COEXISTENCE

Coexistence is afforded by the berth, securing and making room for everyone. Also coexistence is afforded by the programs of the Maritime Crafts Museum in combination with the active sailboat repair yard. Access to the yard is of great importance, and secures a relationship between sailors and visitors.

The third space is seen as the promenade along the quay, connecting the two areas within the plot.

INDUSTRIAL HERITAGE

The industrial heritage is kept as a relation to the maritime history of the old wooden ship repair yard. People should be able to perceive and experience the old traditions of roping and preparing boats for their journeys on sea. The immaterial aspects and the storytelling is made visible, as visitors will be able to observe sailors maintaining their ships. The Museum will have small boat houses and a warehouse at their disposal to obtain ships for exhibition. The berth is to be continued as a trace within the landscape of former ship repairing, and will add to the maritime vibe.

PLOT INFO

PLOT RATIO: 56%

BUILT HEIGHT: 3-6 m. / 1-2 levels - max. 2 levels

PROGRAMMING: Maritime Crafts Mueseum, sailboat repair yard

PARKING: Alongside the road

PUBLIC SPACES: Piers, promenade, berth

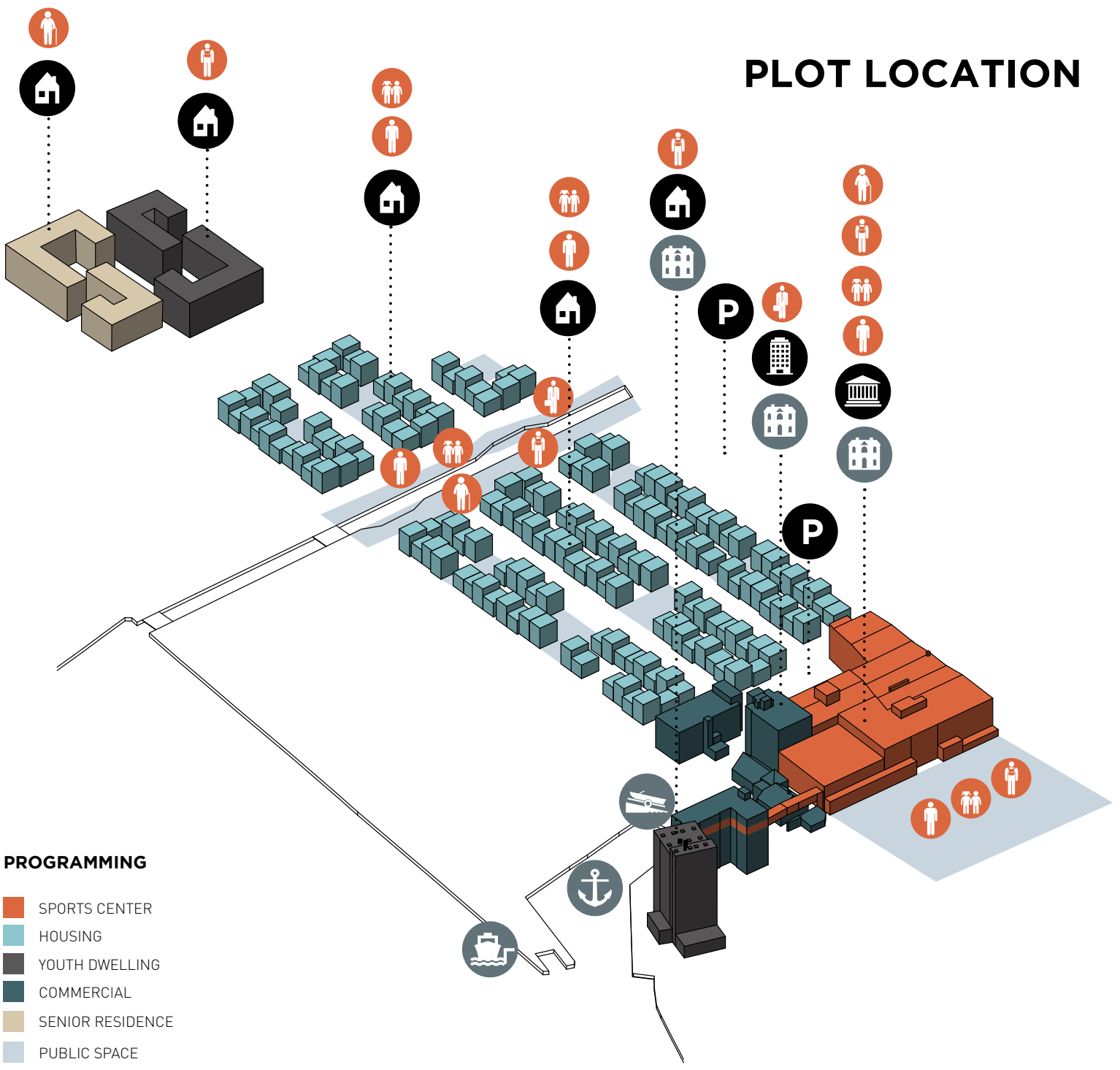
REFERENCES

Ill. 143 - VESTBYENS SKUDEHAVN, AALBORG

Ill. 144 - MARITIME CRAFTS HISTORY

PLOT 7

PLOT LOCATION



Ill. 145 - Plot location and overview of the plot's programs, industrial heritage and user groups

Ill. 146 - Technical plan

Ill. 147 - Preservation plan

TECHNICAL PLAN

Public space

Parking on terrain

Parking alongside the road

Road

Pedestian path

PRESERVED BUILDINGS AND SIGHTLINES

Preserved building

Preserved berth

Preserved anchorage

COEXISTENCE

The programming of a senior residence complex adjacent to a youth residence complex provides shared and private spaces that affords coexistence between generations.
Row house dwellings offers private, semiprivate and public areas for the neighbourhood to interact, and in combination with offices and a sports center, employees and locals are able to enjoy the recreational urban islands inside the row house area.

The third space is made up by the creekscape cutting through the row house district, where people can enjoy the qualities of a blue space.

INDUSTRIAL HERITAGE

The former Kelloggs complex is reused as a sports center, and the silos at Frihavnen are re-used as youth dwellings.
The row house are to be built in materials of brick in order to maintain an architectural link to the past and thereby connecting to Plot 4 (Østre Havn) through the architectural details and aesthetics, rather than programming and architectural typology.

The two sight lines from plot 4 are to be extended into the area to generate a new type of flow and a visual connection with the harbour front.

PLOT INFO

PLOT RATIO: 106%

BUILT HEIGHT: 6-15 m. / 2-5 levels - max. 6 levels

PROGRAMMING: Sports Center, row houses, youth dwellings, senior residence, businesses and entrepreneurs

PARKING: On terrain and alongside the road

PUBLIC SPACES: Creekscape, islands, sports field

REFERENCES

Ill. 148 - SENIOR HOUSING WITH SHARED FACILITIES ADJACENT TO YOUTH RESIDENCES, AARHUS

Ill. 149 - ROW HOUSES WITH PRIVATE GARDENS, COPENHAGEN

QUAY CATALOGUE

The following section explains the placement of the dyke and shows a variation of designs where the dyke becomes an integrated part of the urban space.

Ill. 150 - Plan showing the placement of the dyke

THE QUAY

One of the hydrological challenges that Svendborg is facing is protection against storm floods. Because of its location next to the sea, Svendborg is regularly experiencing events with storm floods where parts of the city get flooded, which causes severe damages. Research shows that in the coming 100 years the water level will rise up to 0,9m and severe storm floods will happen more often (Miljø- og Fødevareministeriet, and Naturstyrelsen. 2015).

The quayside at Svendborg harbour is elevated 1,5m above the water level, which protects against most storm events. In the future when the water level will rise and severe storm floods will happen more frequently, the height of the quayside will have to be extended. In a 100 year storm flood event the water level will rise 192cm, which is 42cm above the height of the quayside. Including the natural elevation of the water level, Svendborg can expect events where the water rises 132cm above the quayside (Sørensen, Madsen And Knudsen, 2012).

To secure the city against storm floods, the quay has to be adapted for the future conditions. The natural way of working with the quay is to either build a protective dyke or to raise the building plot. The dykes work as an extension of the quay to reach the required protective height. In the case of Svendborg the dyke has to protect for additional 1,5m.

The dyke will be made of concrete with a thickness of min. 40cm. The dyke can be shaped in different ways to meet the design of the urban space and in that way the dyke can be a functional addition to the surroundings e.g. as seating or as an access to the water.

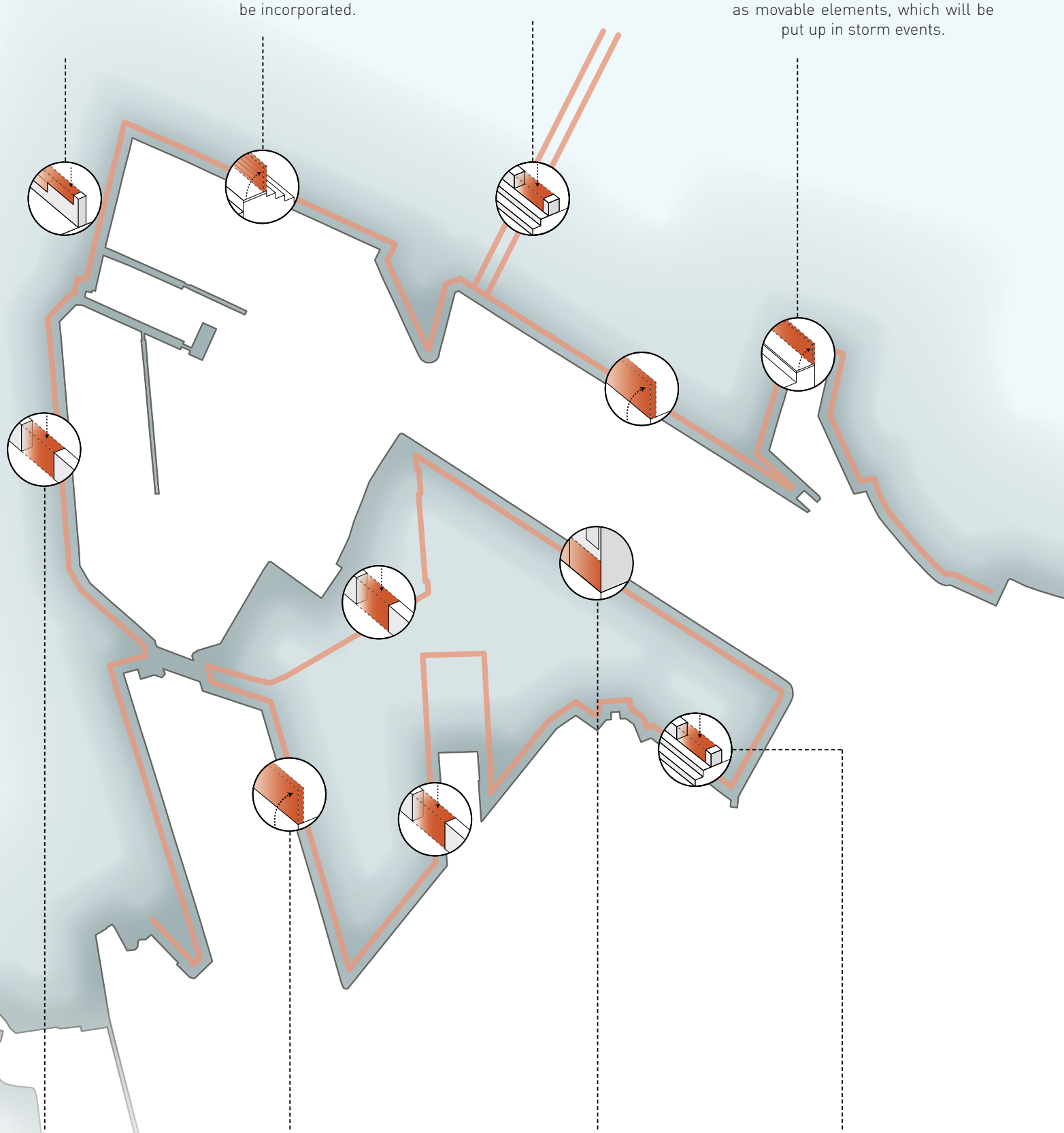
To adapt for the new design and maintain the contact to the water, the dyke has to be lowered in some places. In these openings there should be a possibility of filling in with shutters in cases of storm floods. These shutters can either be external elements to be attached to the dykes when needed, or they can be integrated in the design as e.g. seating or plinths, which can be raised. In cases where the dyke is kept completely open to maintain the access to the quay, external or movable shutters should be able to be attached and close the openings.

The dyke will be an active element in the urban space. The dyke will be shaped as a simple wall with different sized openings. External shutters will be the infill to the openings in cases of storm floods.

At Nordre Havn the dyke will be the element between the quay and the sea gardens. The dyke secures the access to the sea gardens by stepping down towards the quay. On the top of the dyke, movable shutters will be incorporated.

The dyke will open up in some places and step down towards the water. Behind Østre Havn the dyke will only be 0,5m tall because the building plots along Trappebækken has been raised.

The dyke will work as a recreational element towards the water and as a flat wall towards the road and parking spots. Stairs and openings will secure access across the dyke. Shutters will be incorporated in the dyke as movable elements, which will be put up in storm events.

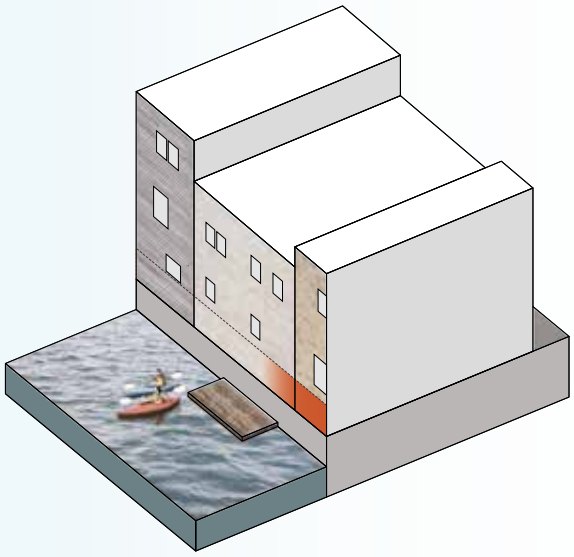


The dyke will run along the quay side shaped as a straight wall with openings and extrusions for seating. The wall will wind between the objects of the space and create recreational opportunities when desired. The dyke will contain openings to secure accessibility between the quay and the city. External shutters will work as infill for the openings.

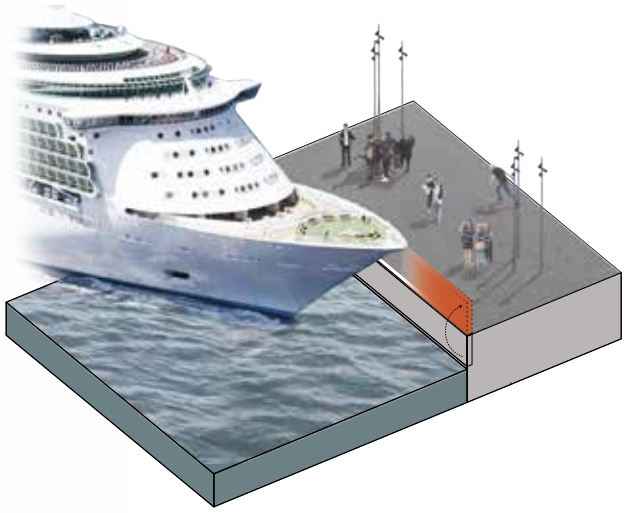
To offer large ships to dock, the quayside has been left completely open. The dyke will be a movable structure, able to be put up when necessary.

The dyke will be incorporated in the facades of the houses.

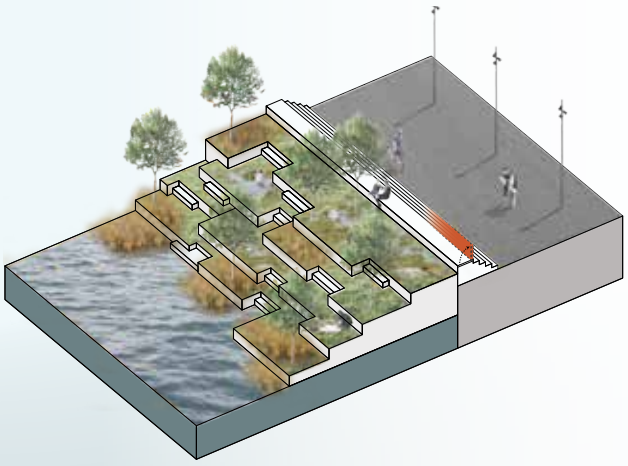
The dyke will have openings and step down towards the water in some places.



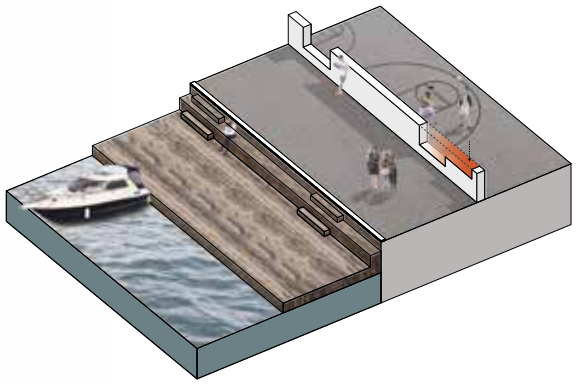
Incorporated floodprotection in the facades on houses on Frederiksø.



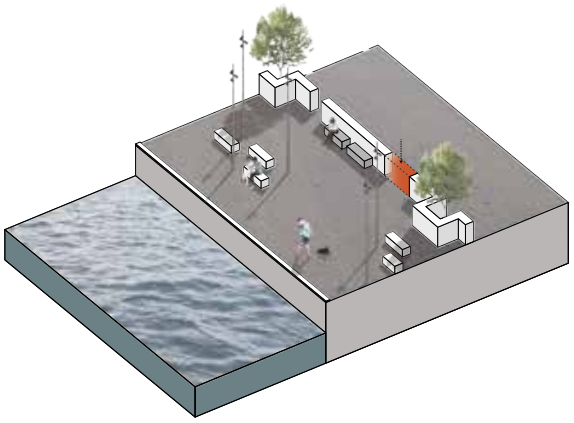
The open quayside at Østre Havn with hinged dykes.



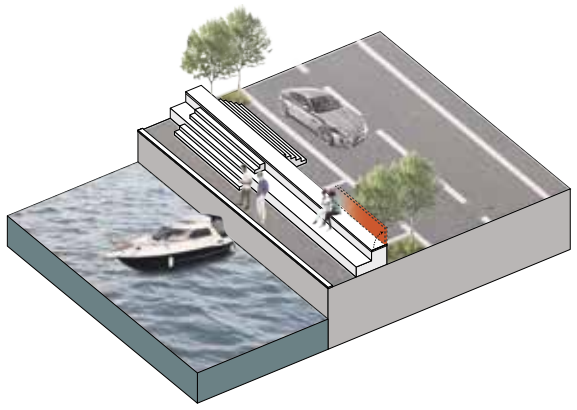
The dyke stepping up towards the sea gardens, with shutters hinged on top.



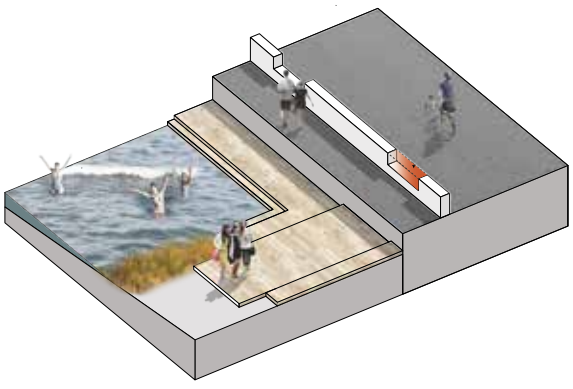
The dyke with different sized openings by the sports ground.



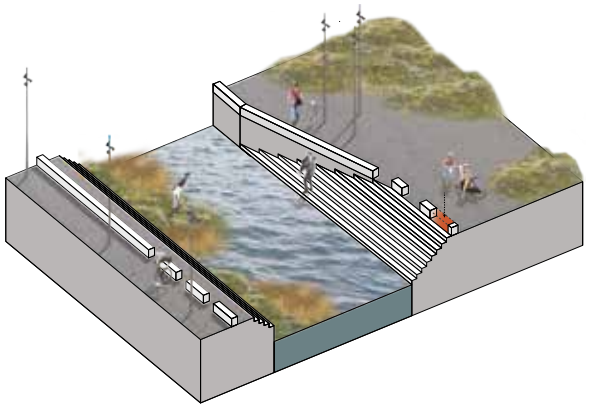
The dyke winding through the space along Jessens Mole with openings.



The dyke as urban furniture with hinged shutters on top.



The dyke at beddingen with different sized openings.



The dyke running along Trappebækken with openings and access to the water.

Ill. 151 - Illustration of types of dykes and their placement along the quay edge

EXPERIENCES ALONG THE HARBOUR FRONT

The tide gardens at Nordre Havn provide a possibility to get in close contact with the water. On a sunny day, these green terraces offers a change to change pace, settle down and take a break while listening to the rush and tall grasses rustle in the wind. From this green pocket one can watch the bustling harbour life with strolling people along the quay and pleasure boats and water sport activities filling the water.

Ill. 152 - Visualization of Nordre Havn on a summer day, showing the sea gardens and activity of the harbour

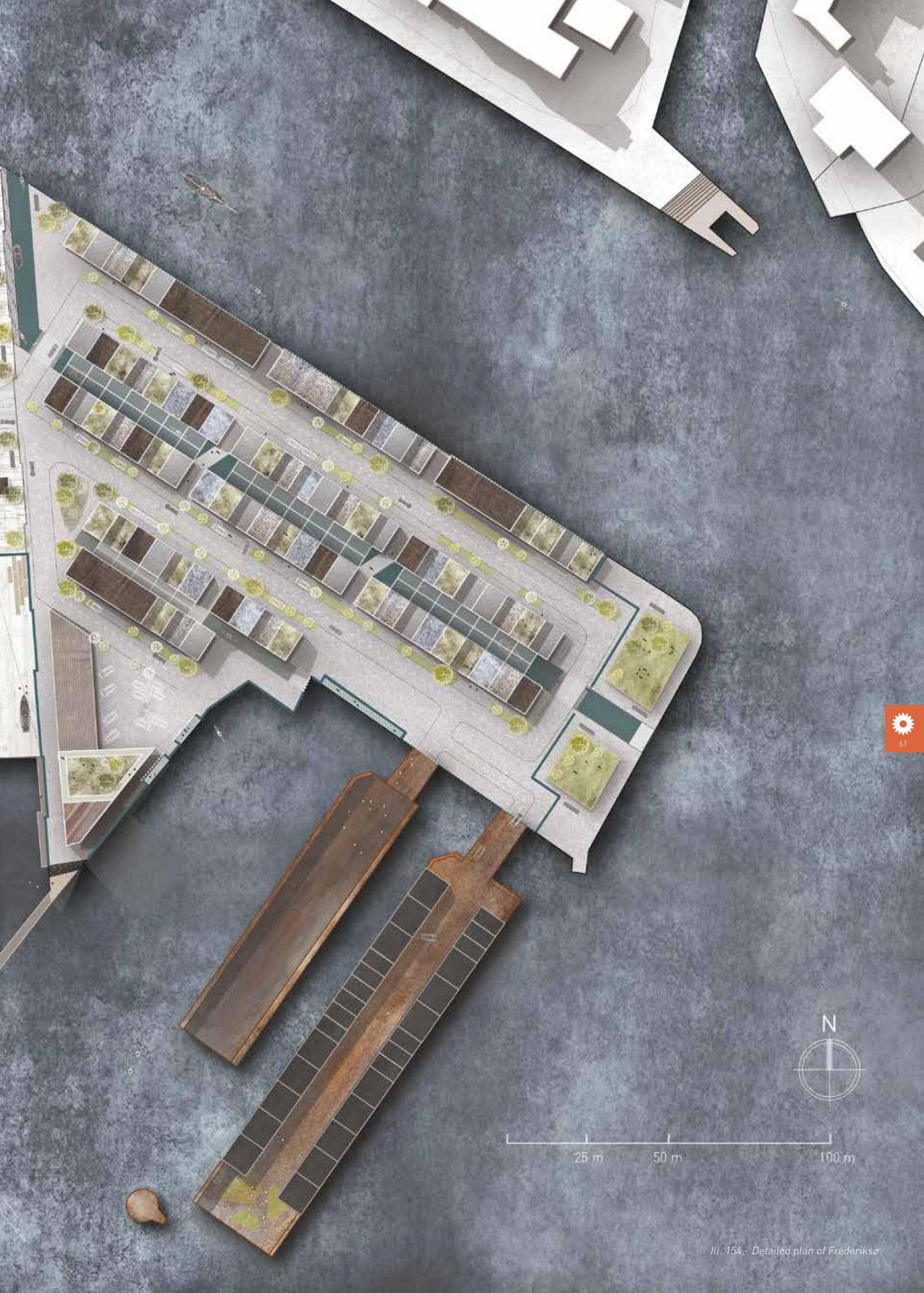
ON A STORMY DAY

Nature has a huge impact on the perception of the harbour front. When the weather turns bad, it changes the entire scenario and creates new sights and experiences. The sea rises as the wind picks up and heavy rain is lead into the harbour to drain the mainland. The tide gardens become an indicator of the changes in weather as the terraces gradually become flooded, allowing the sea to occupy the space.

Ill. 153 - Visualization of Nordre Havn on a day with bad weather, showing the impact the nature has on the site

PROPOSAL FOR LOCAL PLAN

The following section presents a proposal for a local plan for Frederiksø. This proposal consists both of illustrations and technical drawings and can be seen as a supplement to the previous defined framework of the development plan.



Ill. 154 - Detailed plan of Frederiksø

THE BERTH

The former industrial berth at Frederiksø is transformed into a new public space for the citizens to enjoy. Here social coexistence and the industrial heritage fuse together, resulting in an urban space with references and trails from the former maritime industry and a wide range of programs and possibilities for stay in interesting surroundings.

SOUNDS OF THE HARBOUR
Sound installations are integrated in the berth, imitating the former industrials soundscape

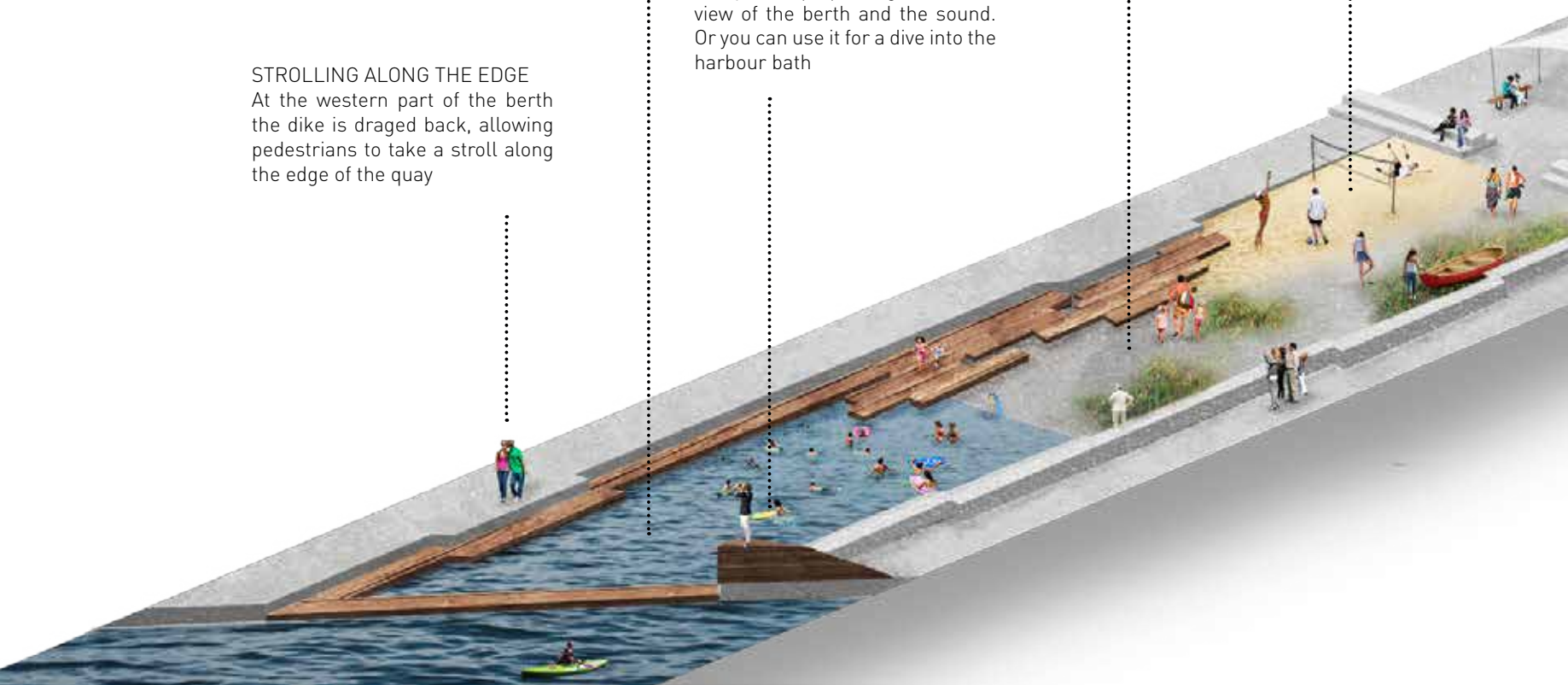
FUN IN THE SAND
The beach bar is relocated and is now an integrated part of the berth

HARBOUR BATH
The old berth is turned into a harbour bath benefitting the entire city and outside guests

TRAILS FROM THE PAST
A part of the old covering of the berth is preserved to reflect the historical use of the place

JUMP!
An escalation provides the opportunity to step up and get an overview of the berth and the sound. Or you can use it for a dive into the harbour bath

STROLLING ALONG THE EDGE
At the western part of the berth the dike is draged back, allowing pedestrians to take a stroll along the edge of the quay



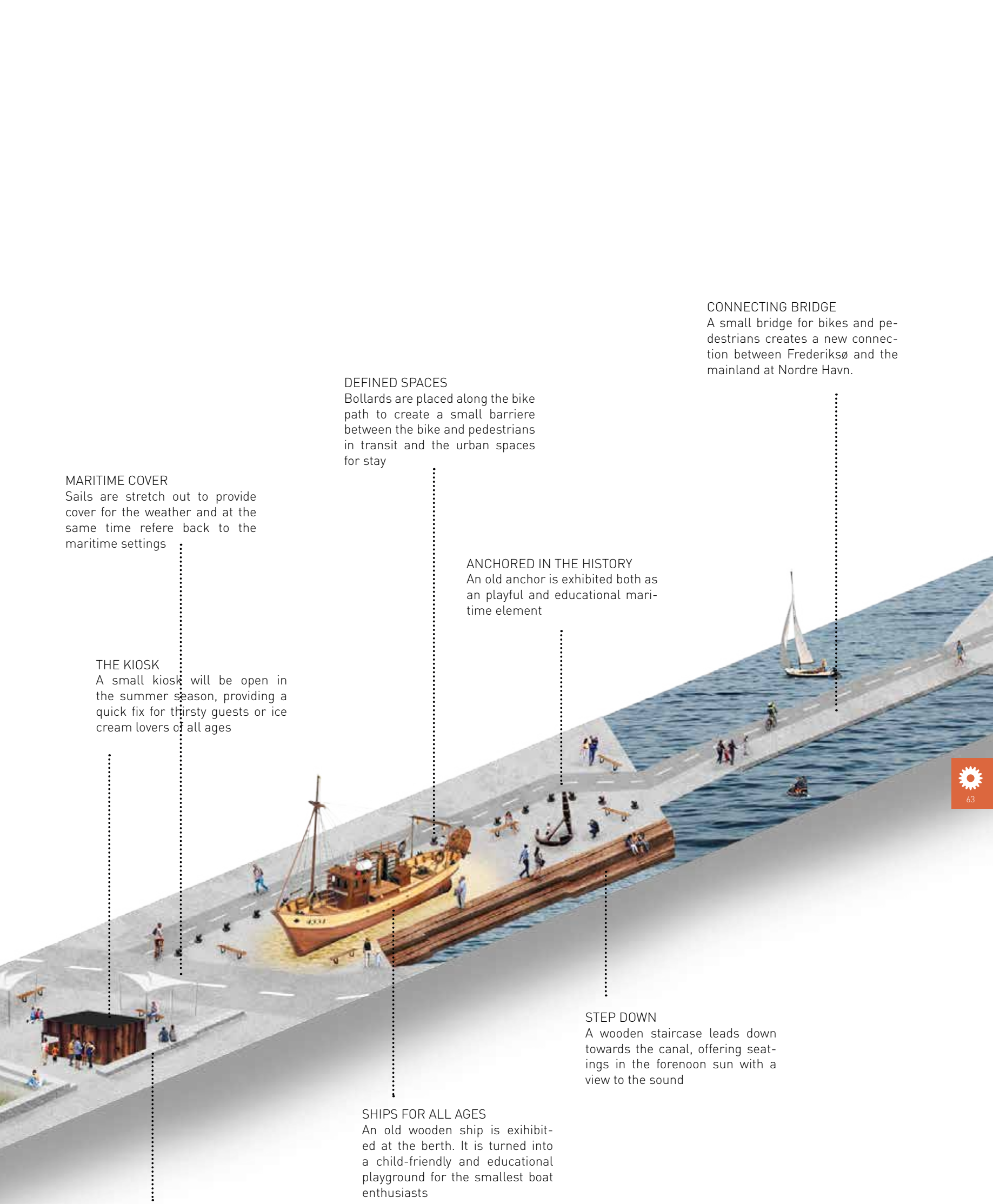
CONNECTING BRIDGE
A small bridge for bikes and pedestrians creates a new connection between Frederiksø and the mainland at Nordre Havn.

DEFINED SPACES
Bollards are placed along the bike path to create a small barriere between the bike and pedestrians in transit and the urban spaces for stay

MARITIME COVER
Sails are stretch out to provide cover for the weather and at the same time refere back to the maritime settings

ANCHORED IN THE HISTORY
An old anchor is exhibited both as an playful and educational maritime element

THE KIOSK
A small kiosk will be open in the summer season, providing a quick fix for thirsty guests or ice cream lovers of all ages

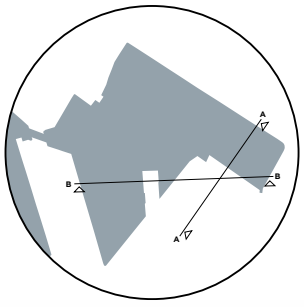


STEP DOWN
A wooden staircase leads down towards the canal, offering seatings in the forenoon sun with a view to the sound

SHIPS FOR ALL AGES
An old wooden ship is exihibited at the berth. It is turned into a child-friendly and educational playground for the smallest boat enthusiasts

THE DIKE
The shaping of the dike invites people to sit down, take a break and enjoy the scenery

Ill. 155 - Detailed visualization of the transformed berth



Ill. 156 - Plan showing the two sections

CANAL RESIDENCE
2 or 3 story dwellings with a combined canal courtyard

ROOFTOP GARDEN
The rooftops of the canal residencies can be utilized as gardens, terraces, and/or greenhouses

DOCK RESIDENCE
Two stories of mixed dwellings in the old dock at Frederiksø
90 m² / 50 m²

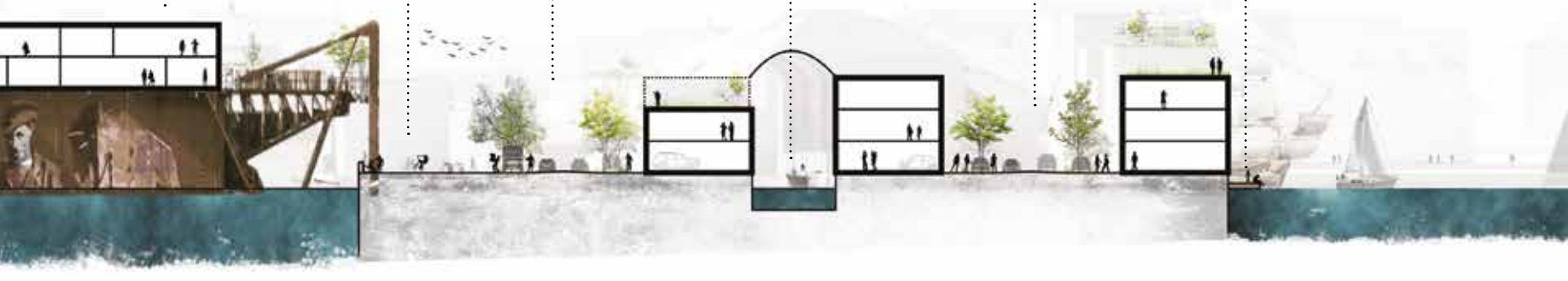
STREETSCAPE
Green parking zones separate hard and soft traffic modes. The dwellings have the opportunity to use some of the sidewalk for front gardens

STREETSCAPE
Green parking zones separate hard and soft traffic modes. The dwellings have the opportunity to use some of the sidewalk for front gardens

FLOATING BALCONY
Pontoon terraces can be attached to the dwellings creating a connection between homes and the archipelago

PROMENADE
Public domain that runs along the quay/ wharf at Frederiksø

CANAL
The canal provides direct access to Svendborgsund and the archipelago



HARBOUR BATH
The old berth is transformed into a harbour bath with a wooden platform running alongside its edges

THE LIGHTHOUSE
The lighthouse includes a Maritime Innovation Center and a residential tower with sublime views of the harbor-front and the archipelago

MARITIME MUSEUM
Exhibition space for the maritime history in the South Funen Archipelago and Svendborg

KOHOLMEN DOCK KIOSK
Small commercial entity that provides refreshments and foods

THE WHARF
Open space used for events and maritime exhibitions. The promenade is a shared space for soft and hard-road users

PARKING
Green parking area for visitors of the museum and the dwellings on the southern tip of Frederiksø

BEACH VOLLEY
Enjoy a game of volleyball at the beach area in the old berth

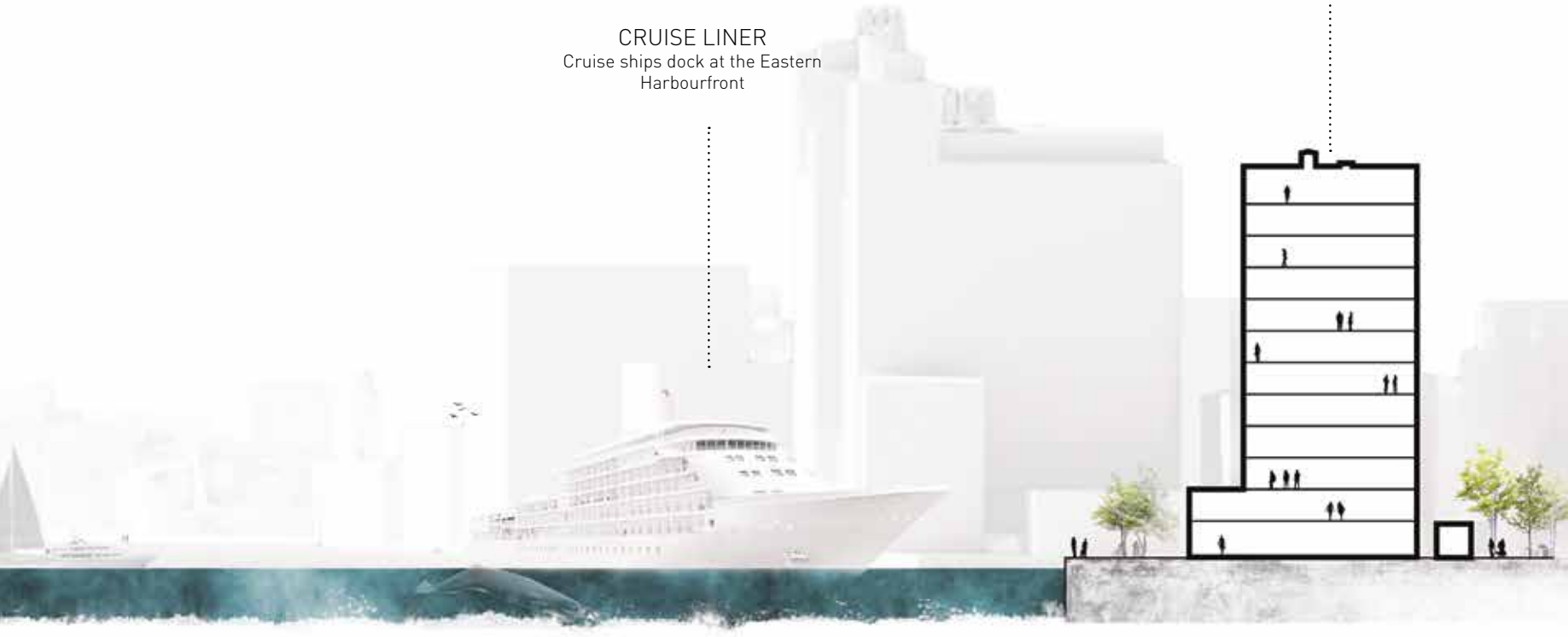
DIKE
The dike is designed as stairs and functions as furniture

DIKE
The multifunctional dike is pulled back to provide an adjacent public space for the harbor pool

SECTIONS

STUDENT RESIDENCE
12 story highrise with youth dwellings in the preserved industrial facility

CRUISE LINER
Cruise ships dock at the Eastern Harbourfront



Ill. 157 - Section AA - cutting thorugh Frederiksø and Frihavnen

EVENT DOCK
Proposed docklandscape features a new dock for events such as food markets, concerts, community gatherings etc.

KOHOLM PARK
The park at the tip of Frederiksø is an elevated public park and green space intended for recreational purposes

STAIRCASE POCKETS
The dike transforms into staircases leading down to the water creating intimate spaces

CANAL
The canal leads into the Canal Housing quarter

Ill. 158 - Section BB - cutting through the Maritime Museum, the berth, the high-rise and the event dock

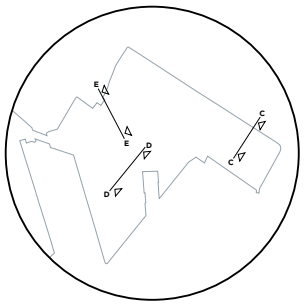
TECHNICALITIES

The following section elaborates further on some of the technical aspects of the prosposed local plan.

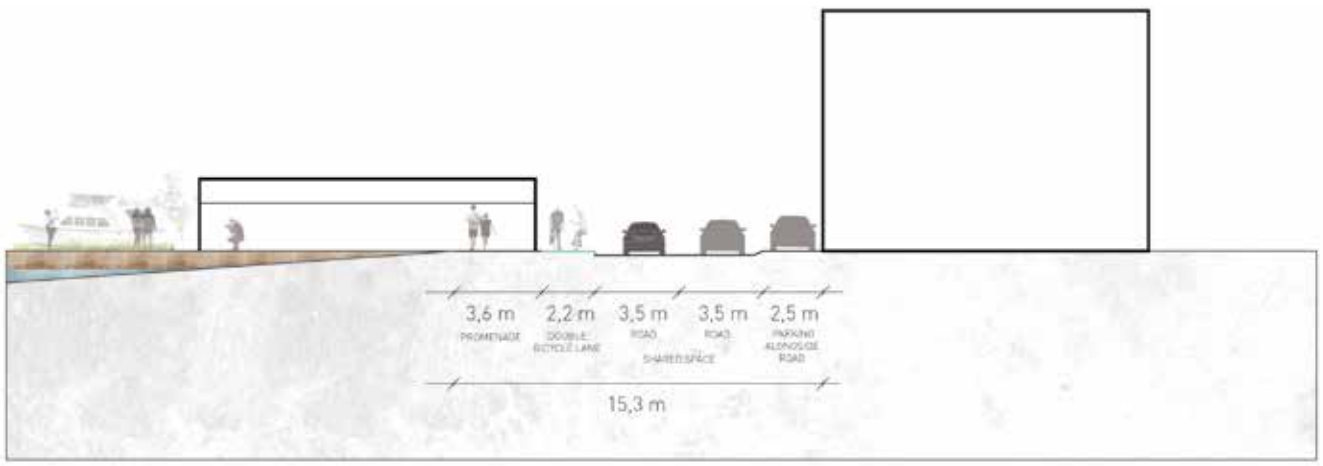
TECHNICAL
ROAD PROFILES

Ill. 160 - Section CC - Cutting through the city dwellings at the tip of Frederiksø

Ill. 161 - DD - Cutting through the Maritime Museum with parking lot, the dyke at the harbour front and the berth



Ill. 159 - Plan showing the road profile sections



Ill. 162 - EE - Cutting through the main road at Frederiksø, showing the road and berth of the shipping yard

LOCAL PLAN AREA AND SUBAREAS

Local plan area

Subarea I - IV

Building plot

Building plot with high buildings

Area dug out for canal

I

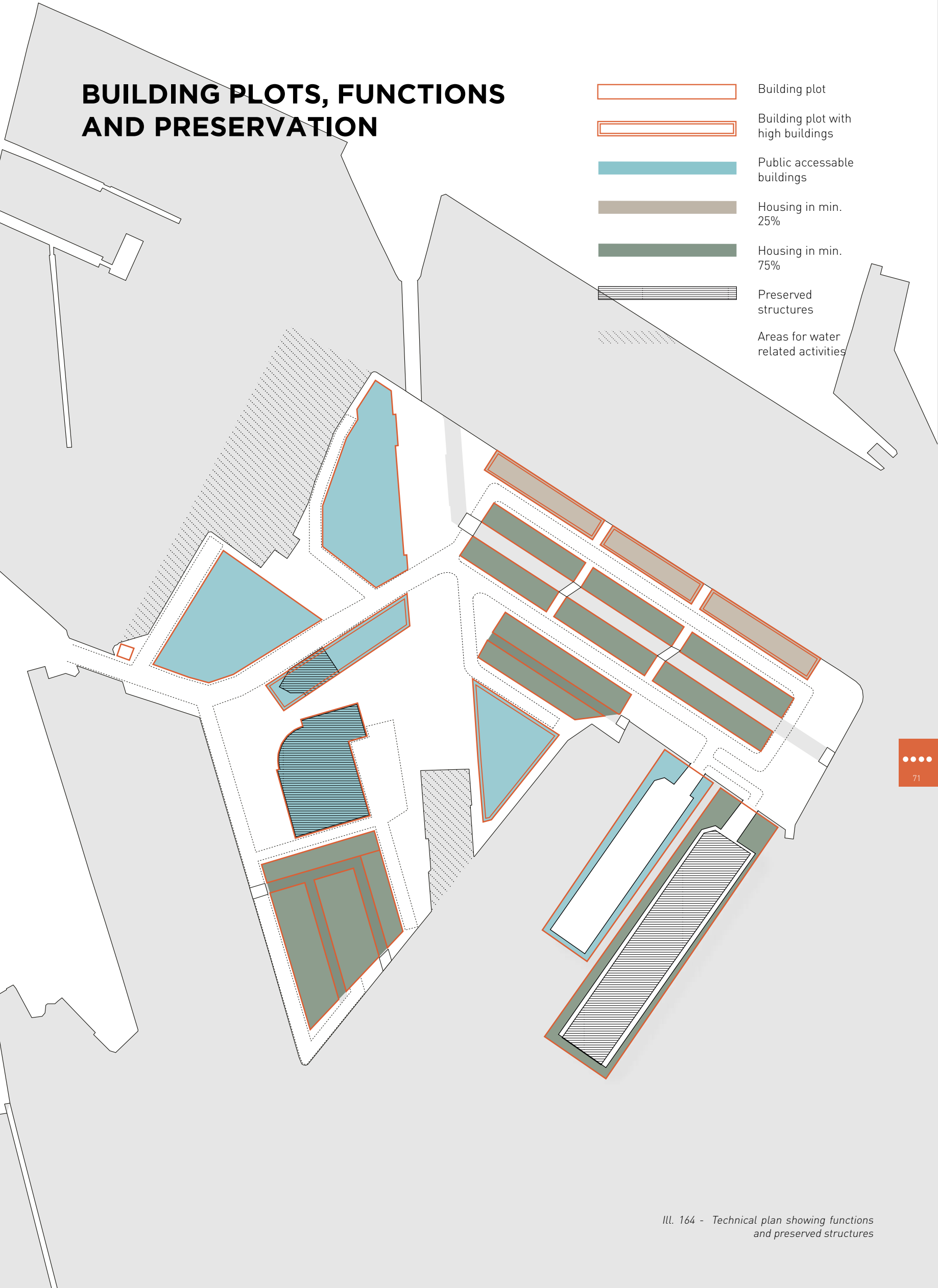
II

III

IV

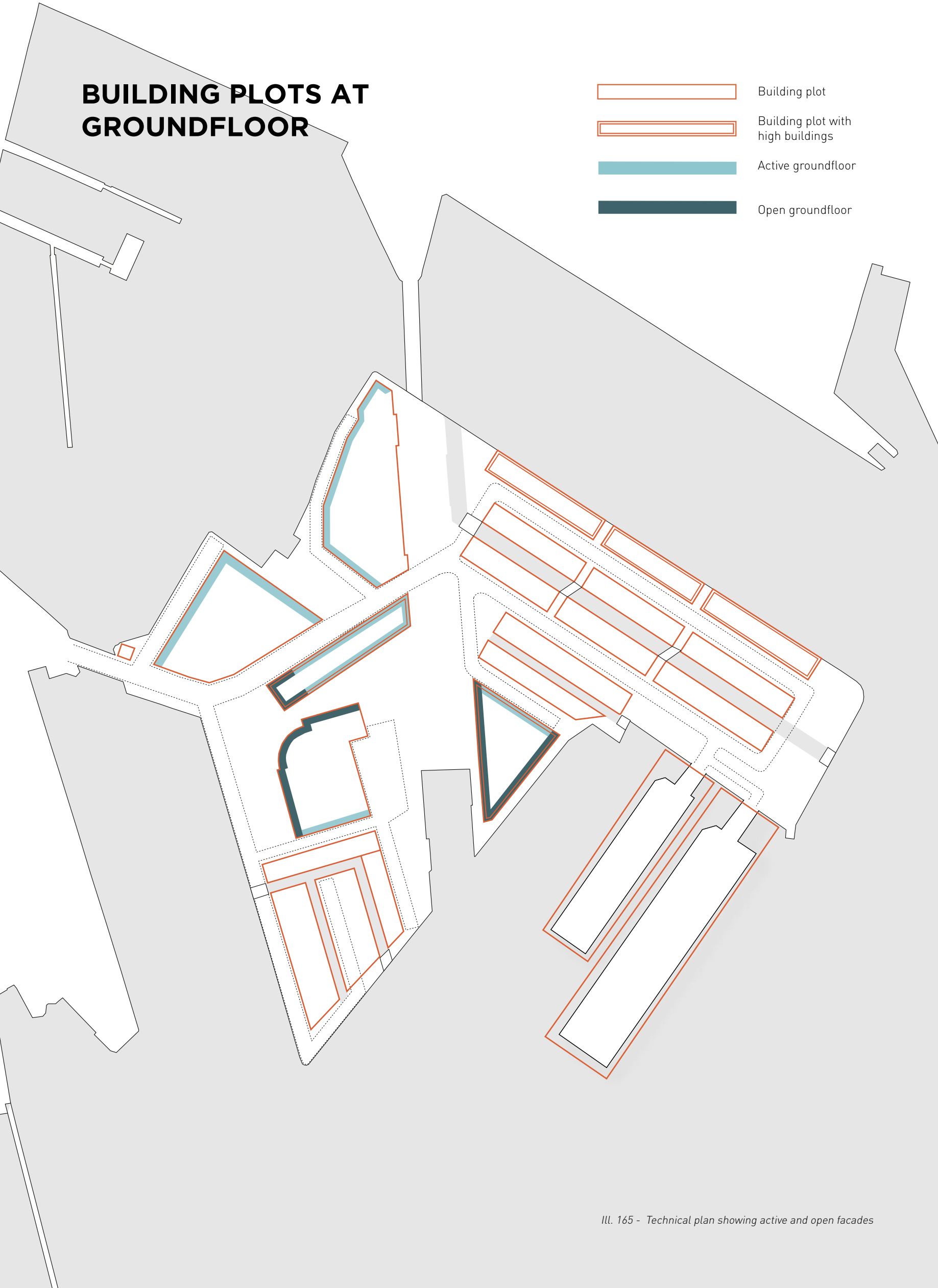
Ill. 163 - Technical plan showing local area and subareas

BUILDING PLOTS, FUNCTIONS AND PRESERVATION



Ill. 164 - Technical plan showing functions and preserved structures

BUILDING PLOTS AT GROUNDFLOOR



Ill. 165 - Technical plan showing active and open facades

URBAN SPACES

Building plot

Building plot with high buildings

Promenade

A Urban space of various character

A "Lystbådspromenaden"

B "Navigation square"

C "The Promenade Square"

D "The Berth"

E "The Promenade"

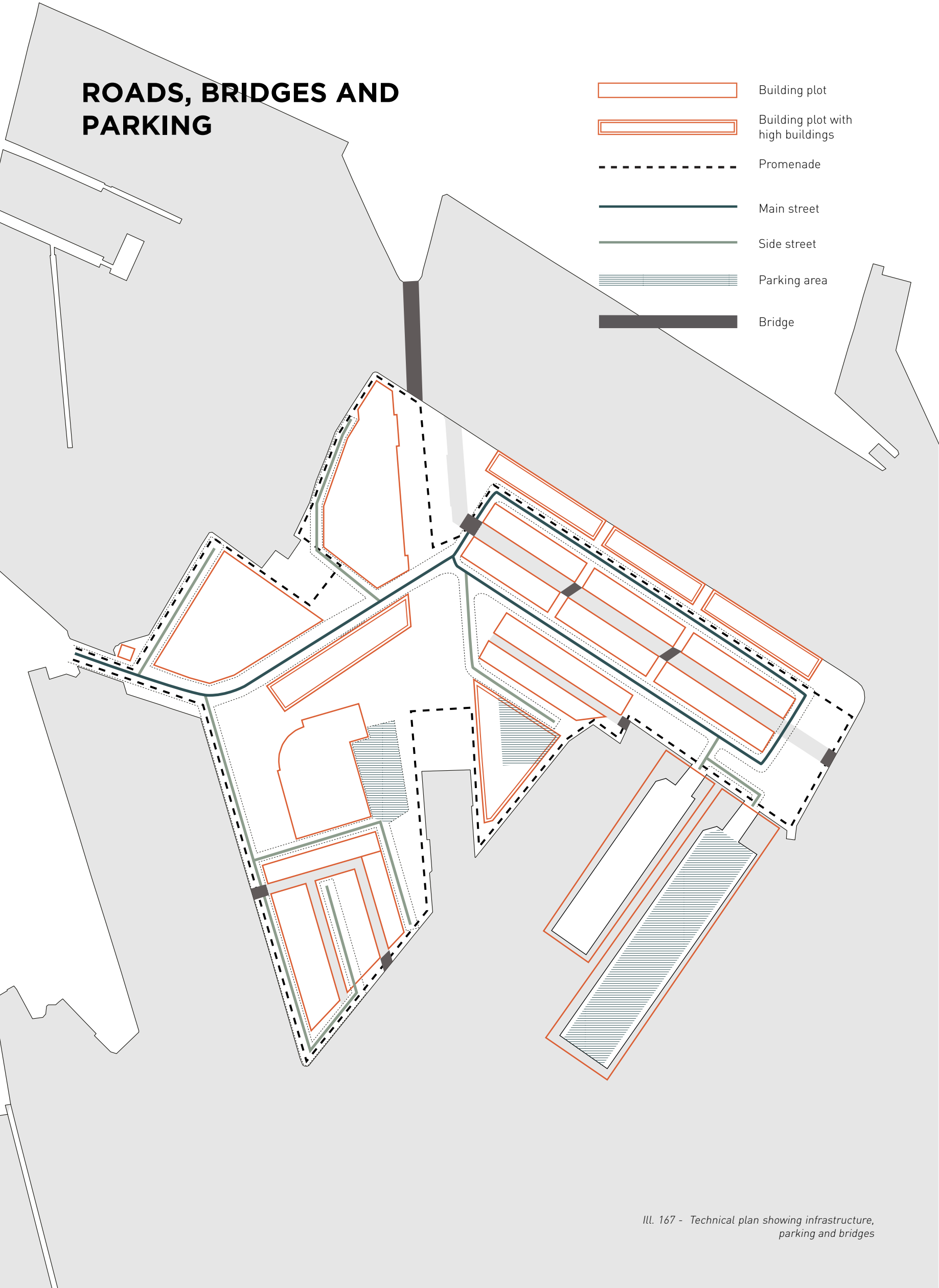
F "Koholmen Park"

"Event Dock"

"Dock Park"

Ill. 166 - Technical plan showing the different urban spaces

ROADS, BRIDGES AND PARKING



Ill. 167 - Technical plan showing infrastructure, parking and bridges

Please return to the academic booklet to read concluding remarks on the project...