Exploring

THE HIDDEN HEARTCHITECTURE

Ill. 1: The harbor front of Aarhus Ø

Revealing the potentials for livability in areas with starchitecture to approach a strategy for public life through spatial interventions at Aarhus Ø.

Abstract

Many cities around the world use starchitecture to draw attention to and rebrand transformations of former industrial areas. Starchitecture has the ability to change the image of the city. Nevertheless, it receives a lot of criticism upon its high-dense buildings, for not corresponding to its surroundings, and especially for lacking livability. Starchitecture challenge some of the fundamental principles of livability, among others; the spatial settings for public life.

This thesis aims to reveal the potentials for public life in areas of starchitecture by investigating Aarhus Ø, the new city district in the second largest city of Denmark. Aarhus Ø is undergoing construction that can challenge the existing public life. Therefore, this thesis aims to locate and unfold the public life at Aarhus Ø through our analytical approach of *Heartchitecture*. Heartchitecture is based on a literature study, exploring the relation between starchitecture and livability. Thereby, creating a focus through the remaining analysis of expert interviews, fieldwork, and case studies. The constraints and potentials revealed through the Heartchitecture approach and is thereby the conclusion on how to enhance public life at Aarhus Ø with a cityscape of starchitecture.

The findings shape a 'Strategy for public life at Aarhus Ø,' which evolve around a temporal dimension of initiatives in which can be done to 1) strengthen the excising public life, 2) secure public life during construction phases, and 3) further develop public life at Aarhus Ø in the future.

In conclusion, starchitecture challenge the conditions for livability at Aarhus Ø especially in relation to public spaces and thereby the public life. The challenges can be met through a variety of spatial interventions. Firstly, the location of the public space has to be chosen wisely based on the individual potentials. These potentials are located to be a pleasant microclimate, distance to high building facades with at least one open sides. The public spaces can be further supported by implementing features which the public seeks in the urban environment. These features are located to be attractions, green and blue assets. Finally, people should be able to move easily to and around the area, in a safe environment with a luring entrance inviting the public life in.

EXPLORING
THE HIDDEN HEARTCHITECTURE

Revealing the potentials for livability in areas with starchitecture to approach a strategy for public life through spatial interventions at Aarhus Ø.

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Lastly, we would also like to show our gratitude towards the great people at Aarhus Ø, who wanted to engage in our interviews despite the Covid-19 situation. You made it possible for us to get a deeper understanding of the site with nuanced perspectives on the new city district of Aarhus Ø. Information we would not have been able to find elsewhere.

Motivation

Our motivation for investigating the site of Aarhus Ø originated from the increased media attention. We all knew several people with an opinion to the area - both good and bad. Our self, we were not very familiar with the area, but we had heard about their explicit buildings and bold starchitecture as this is a branding strategy for Aarhus Ø. Derived from the critique of this type of urban development, we as urban designers find the perception of the people living in our cities highly relevant and have an interest in unfolding their insight of the city and the public life.

Through the site of Aarhus Ø we wanted to work with our own livability approach addressing the gap between starchitecture and livability. This approach is called 'Heartchitecture'.

Ill. 2: Public Life at Basin 7, Aarhus Ø

Reading guide

FORMALITIES & INTRODUCTION

ANALYSIS & STRATEGY

CONCLUSION & REFLECTION

SEPERATE APPENDIX

Firstly, the formalities surrounding this thesis are presented. Hereafter, the thesis is split into four parts: 1) Understanding Heartchitecture, 2) Analyzing through Heartchitecture, 3) Strategy for Public Life & 4) Final. Under these four parts the thesis consists of 9 chapters.

The first part contains the direction of the thesis, the methodology, literature study, definition of heartchitecture and four case studies.

The second part is setting the scene and exploring and exploring the site of Aarhus Ø through analysis.

In the third part the strategic framework for a public life strategy at Aarhus Ø isunfold.

The fourth part is the final remarks of the thesis consisting of a conclusion and a reflection along with a literature list and an illustration list.

In a separate document the appendix is to be found.

As a remark, all illustrations of "Small illustrative humans at Aarhus Ø"" without illustration number are our own illustrations and they will not appear in the illustration list.

Dictionary

The dictionary is intended to guide the reader through the different terms used throughout the thesis. The meaning of the words is our own definition and developed to clarify the understanding of the terms in the context of the thesis.

Livability

Livability is a widely used term in both Danish and English and is becoming more and more present in municipality plans and urban development projects, without a precise definition.

In our literature study we aim to unfold different variations for livability, but as we continue through the analysis, it is used to describe the quality of livable spaces and it is focusing on how the built environment supports the conditions for public life.

Heartchitecture

Heartchitecture is based upon our findings in the cross field between Starchitecture and Livability and is used as an analytical approach to explore the site of Aarhus Ø. Heartchitecture is created through the research phase of this thesis, and is used as a way to canalize our research through the analysis. Heartchitecture will further unfold in chapter 04.

Starchitecture

Starchitecture is a blend between the words 'star' and 'architecture'. A coinage used to describe the work of a famous architect responsible for designing an iconic 21st century building. Starchitecture becomes famous based on the architect behind and is often used to either brand or reimagine a city, a district, or an attraction.

Human scale

Human scale is a size humans can relate to, and a way of making sure that the object we interact with on a daily basis supports a feeling of security and comfort.

Nature

When asking both residents and visitors, and researching municipal documents upon Aarhus Ø, the sentence 'more nature' was frequently mentioned. Several things can be defined as natural, but in these cases, it was in relation to an increase in both access to water and an intensification of existing and a general increase of green assets. As we intend to target our strategy toward the municipality, and make it understandable to the general population, we decided to carry on 'nature' as a term for the above mentioned.

Public Life

Public life is a translation of the danish word 'Byliv'. Public life is what happens in the streetscape when people connect with each other in public places, whether it is on the street, squares, parks or seen in a wider perception – spaces between buildings. Public life links to everyday activities, where people spend time outside their home, job, or car.

Content

Abstract....3
Acknowledgement....5
Motivation....6
Readingguide....8
Dictionary....9

01 DIRECTION OF THE THESIS 12
Introduction....14
Aim and Objectives....16

02 UNFOLDING THE METHODOLOGY 18
Methodology....20
Phase 1: Researching the cross field....23
Phase 2: Analyzing Aarhus Ø....24
Phase 3: Developing Strategy....25

03 THE CROSS FIELD BETWEEN STARCHITECTURE AND LIVABILITY 26
Literature Study....28
Starchitecture....29
Livability....32
Public Life....34
Conclusion....39

04 DEFINING THE HEART IN STARCHITECTURE 40
Heartchitecture....42

05 EXPERIENCING HEARTCHITECTURE IN AN EXISTING CONTEXT 44
Case Study....46
Case: Nordhavn....48
Case: Sluseholmen....49
Case: Teglholmen....50
Case: Enghave Brygge....51
Our Experience....52

UNDERSTANDING HEARTCHITECTURE

ANALYZING THROUGH HEARTCHITECTURE

06 SETTING THE SCENE 54
Welcome to Aarhus 56
Aarhus in numbers 58
Public life in Aarhus 62
The public opinion upon Aarhus Ø 66
Arriving at Aarhus Ø 68
History of Aarhus Harbor 70
Aarhus Ø now and in the future 74

07 EXPLORING THE HIDDEN HEARTCHITECTURE AT AARHUS Ø 76
Plans and policy at Aarhus Ø 78
Meet the stakeholders 86
The cityscape 92
Starchitecture 94
Microclimate 96
Frontages affecting public spaces 100
Public life 104
People at Aarhus Ø 106
Serial vision 108
Moving around Aarhus Ø 110
Constraints 114
Potentials 116
Summing up our analysis 117

STRATEGY FOR PUBLIC LIFE

08 A STRATEGY FOR PUBLIC LIFE AT AARHUS Ø 118
A vision on behalf of public life 122
About our strategy for public life 123
For whom 123
Let us guide you 124
The three main themes 126
Eight focus points 128
Access 132
Nature 138
Cityscape 144
After construction 150
Securing public life during construction phases 152
Supporting existing public life at Aarhus Ø during construction 154
During construction 158
Example of spatial interventions 169

FINAL

09 FINAL REMARKS 162
Conclusion 164
Reflection 166
References 168
Illustration list 174

Direction of the thesis

INTRO TO THESIS

Now it begins. Firstly, you will find an introduction, followed by aim and objectives leading the direction for the thesis.

Introduction

Ill. 3: The harbor bath at Basin 7

The cities of today are under pressure due to the urbanization (Andersen, 2018). The deindustrialization has left the cities with blank spaces open for transformation and redevelopment (Harms, 2008). Today cities have to compete in order to attract residents, visitors and business, whereas the blank spaces become beneficial for creating the opportunity to re-imaging the city and develop new attractive districts close to the city center (Smith & Ferrari, 2012).

A way to draw attention to a new development is to build spectacular buildings, so-called starchitecture (Deshpande 2018). Starchitecture has the ability to affect the city branding (Alaily-Mattar, Ponzini & Thierstein, 2020), but it has received a lot of criticism upon its high-dense buildings, its lack of corresponding to its surroundings, and especially for its absence of livability. It challenges some of the fundamental principles of livability, among others; public life (Chiu, 2019).

FOCUS AND RELEVANS

This thesis takes its departure in Aarhus Ø, the new city district in the second largest city of Denmark. Aarhus Ø has been under massive critique for lacking public life, quality public spaces, and being dominated by starchitecture as a playground for competing architects.

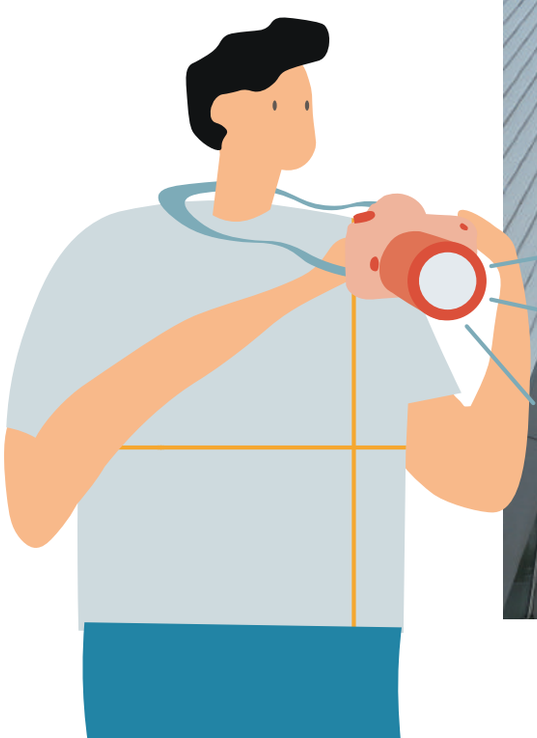
The new district has changed the image of Aarhus, especially by the sea, and has drawn media attention towards the iconic starchitecture projects. Since the beginning of redeveloping the former industrial harbor into a new housing district, the public life has evolved over time as the northern part of Aarhus is fully developed. But today the inner part of Aarhus Ø is under construction, and the new city district is most likely to face some of the same criticism as earlier received. At the same time, the inner part at Aarhus Ø function as the link and main corridor to the northern part, and therefore the existing Aarhus Ø risks to lose their public life in the construction process.

Therefore, we find it pressuring to investigate both how to approach areas with starchitecture in order to enhance the public life, and how to secure the existing public life on Aarhus Ø by supporting public life early in the construction phase. The relevance of exploring starchitecture in relation to the public life is the general tendency of cities implementing starchitecture to brand the image of the city in order to attract and compete for residents, visitors, and business. In the new district for Aarhus, it also becomes essential to address the ongoing construction for securing the established public life.

HEARTCHTECTURE

In order to address the gap between the terms of starchitecture and livability, the thesis apply an analytical approach to enhance the public life in relation to starchitecture. This approach is entitled Heartchitecture, and it focus on the cityscape of site specific starchitecture in relation to the microclimate, the public space and public life. Heartchitecture is to be a approach for public life in areas with starchitecture, which investigate the soft values of urban design by providing good conditions for the public life to grow and fore considering the people who visit, live and work in areas with starchitecture. Heartchitecture is about finding the heart!

In the following part of our thesis, we would like to invite you along, by unfolding the themes of starchitecture, livability and public life, and address the site of Aarhus Ø through the analytical approach of heartchitecture. The findings are to be used, to develop a 'Strategy for public life at Aarhus Ø,' which evolve around a temporal dimension of initiatives for Aarhus Ø, now and in the future development.

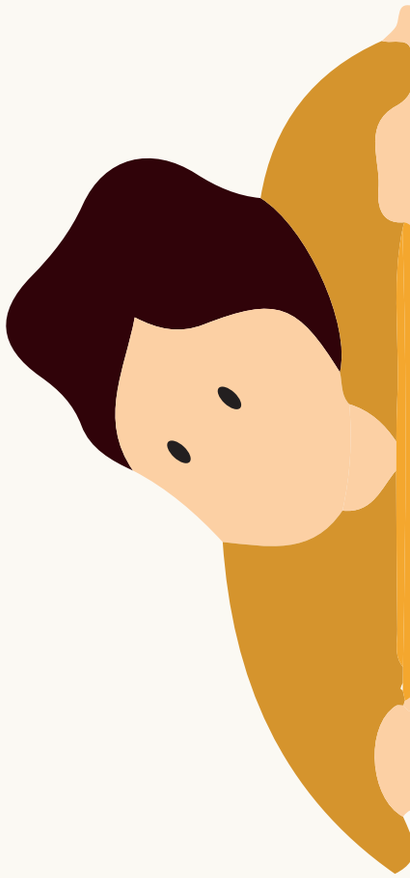


Ill. 4: The inner yard of 'The Iceberg'

Aim & Objectives

This thesis aims to reveal the potentials for public life at Aarhus Ø by investigating the relation between livability and starchitecture.

The relation is explored through our approach of Heartchitecture and the findings are used to develop a site specific strategy to secure and further enhance public life today and in the future to come.



1 Investigate the cross field between starchitecture and livability through scholars and case studies.

2 Explore the site of Aarhus Ø by analyzing the spatial characters in relation to public life through the approach of Heartchitecture.

3 Synthesizing the collected knowledge to conduct a strategy to secure and further develop public life at Aarhus Ø now and in the future.

12

Unfolding the methodology

APPLYING METHODS

Related to our three objectives, different methods will guide you through the underlying work of the thesis.

Methodology

This chapter describes the methodology of the thesis. It explains which and how the methods have been used, what they contribute to the project, and why these methods have been chosen to answer the research aim of the thesis.

The thesis is divided into three phases of research, as shown in the table below. Each phase is related to one of the three objectives of this thesis, and the applied method at each phase is presented.

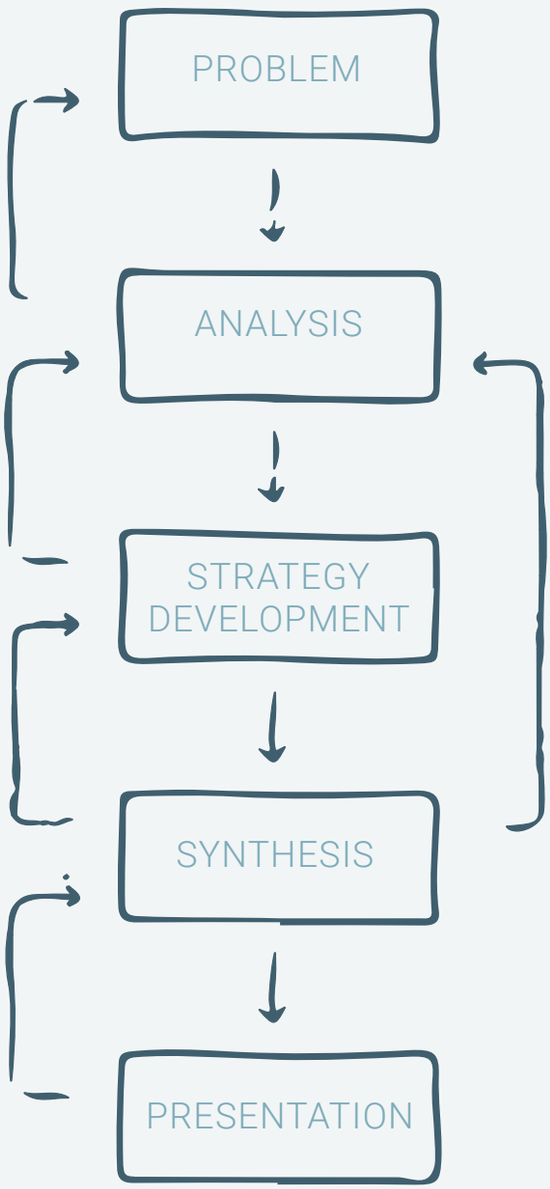
The choice of method is related to our different research objectives.

Research Phases	Objectives	Methods
Phase 1 Researching the cross field	*Investigate the cross field between starchitecture and livability through scholars and case studies*	**Literature study** - Scholars and peer-reviews **Case Study** - Four cases of harborfront development
Phase 2 Analyzing Aarhus Ø	*Explore the site of Aarhus Ø by analyzing the spatial characters in relation to public life through the approach of Heartchitecture*	**Desktop Analysis** - Grey literature and history **Inverviews** - Semi-structured expert interviews **Site analysis**
Phase 3 Strategy development	*Synthesizing the collected knowledge to conduct a strategy to secure and further develop public life at Aarhus Ø now and in the future*	Synthesizing findings from phase 1 + 2, into a strategy for public life Exemplifying suggested solutions for Aarhus Ø through a visualization

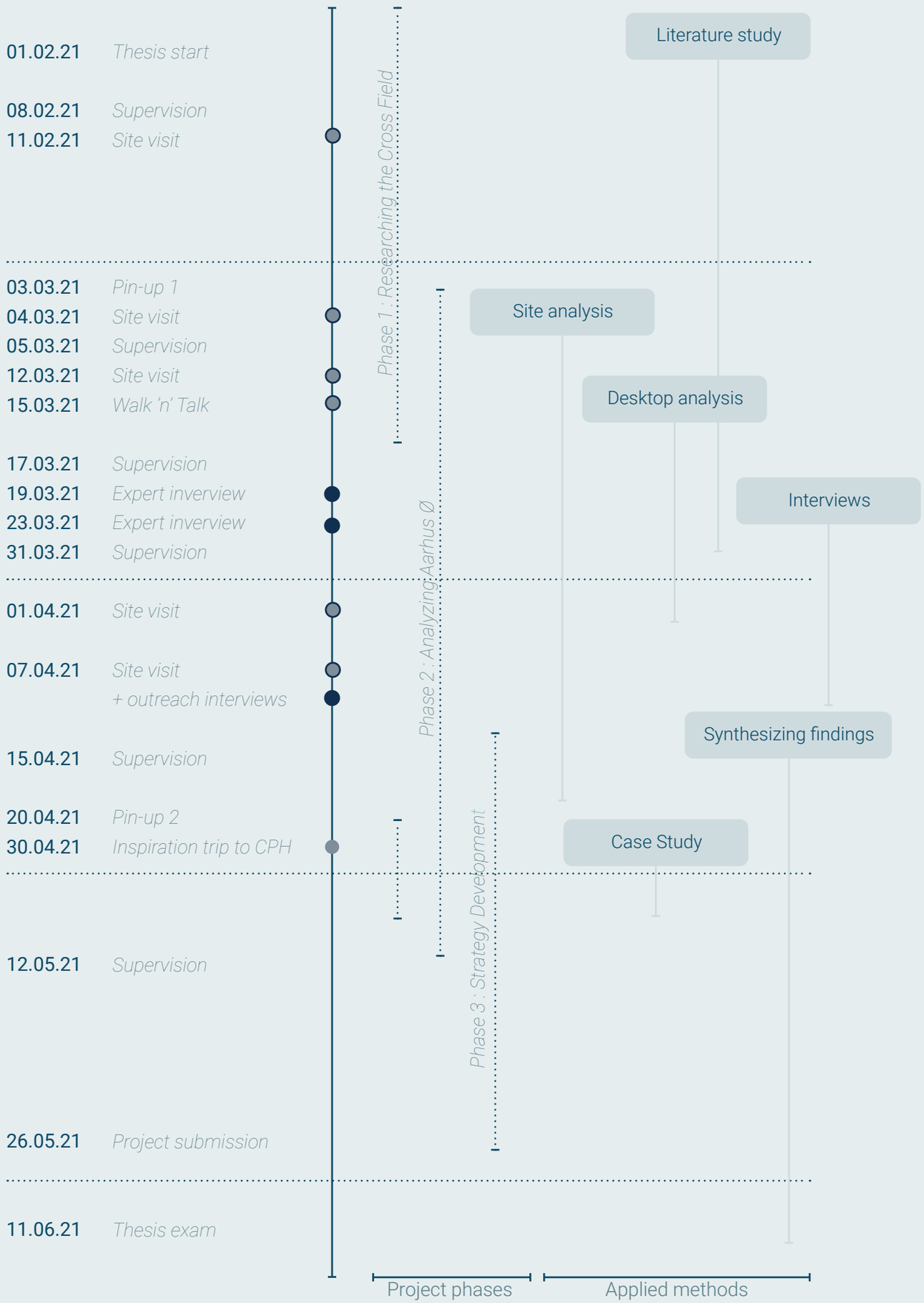
PROJECT APPROACH

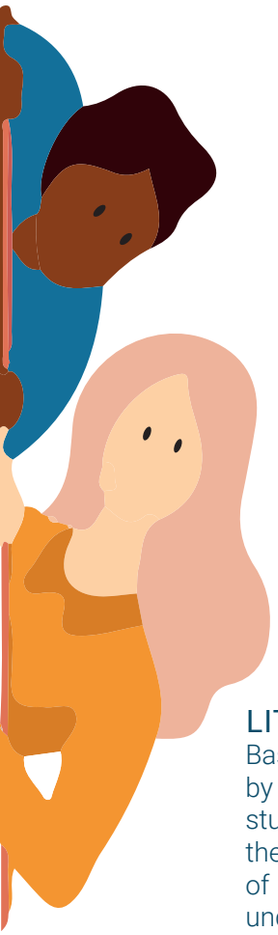
The frame of this project is based on the 'Aalborg University Model for Problem Based Learning (PBL)' (Askehave et al., 2015).
The first step in PBl is locating a problem in the society and formulates a statement serving as a starting point for further research. In our case, the identified problem is the challenging conditions for supporting public life in areas of starchitecture. Various methods investigate the problem, and a solution for the problem is presented through a product. In the following pages, we will run through these methods, and lastly, present the output as a strategy for public life. (ibid.)

In addition, 'The Integrated Design Process (IDP)' (Knudstrup et al. 2005) has been used during the project's development. In the iterative process, information is collected, which is then examined and discussed, diverting new questions and information. These findings will redefine or affect the previous phases in which the iterative process consists of. The principle of the integrated design process, with the modification of developing a strategy instead of a design proposal, is shown in the illustration. (ibid.)



Ill. 6: Figure showing the principle of IDP


01.02.21 Thesis start
08.02.21 Supervision
11.02.21 Site visit
03.03.21 Pin-up 1
04.03.21 Site visit
05.03.21 Supervision
12.03.21 Site visit
15.03.21 Walk 'n' Talk
17.03.21 Supervision
19.03.21 Expert inverview
23.03.21 Expert inverview
31.03.21 Supervision
01.04.21 Site visit
07.04.21 Site visit
+ outreach interviews
15.04.21 Supervision
20.04.21 Pin-up 2
30.04.21 Inspiration trip to CPH
12.05.21 Supervision
26.05.21 Project submission
11.06.21 Thesis exam
Phase 1 : Researching the Cross Field
Phase 2 : Analyzing Aarhus Ø
Phase 3 : Strategy Development
Literature study
Site analysis
Desktop analysis
Interviews
Synthesizing findings
Case Study
Project phases
Applied methods



Phase 1: Researching the Cross Field

LITERATURE STUDY

Based on peer-reviewed articles and scholars by key authors on the topics, the literature study outlies the theoretical discussion of this thesis. The literature relates to the main issues of starchitecture and livability. As a part of understanding the contextual aspects of urban livability, theories on livability in public places are revealed as public life.

This understanding of public life is explored through the research of three acknowledged actors within the urban design field. The selection of the literature was based on their significance in understanding livability and public life in respectively streetscapes, public places, and high-dense areas. All three settings are present in areas of starchitecture, and relevant to explore to locate potentials for support-ing livability in areas of starchitecture.

Furthermore, all topics of the literature study are linked to high-dense areas and transformed harbor fronts.

HEARTCHITECTURE AS ANALYTIC APPROACH

The approach of 'Heartchitecture' derived from a working title in our thesis application. It was used as a title to generate and motivate further research into the themes of relevance for our literature study. Heartchitecture was further developed in the research phase, based on findings and knowledge from the literature study and the identified cross field. Heartchitecture was further developed into an analytical approach to be used in the following phase.

CASE STUDY

To understand the relation between livability and starchitecture we conducted four case studies at harbor front tranformations in a danish context.

Based on Nordhavn, Enghave Brygge, Teglholmen and Sluseholmen, we gathered knowledge about public life in relation to both public places and starchitecture buildings. Here our approach of heartchitecture was a way to target our focus toward the same topics, as explored when analyzing Aarhus Ø.

The method has been chosen as public life is best experienced empirically on sites. The case study was a way to use our first experiences from site analysis on Aarhus Ø, look for similarities, and find solutions to problems at Aarhus Ø. As it is intentional to go out and observe public life in a real setting, as part of the phenomenological analysis.

Phase 2 : Analyzing Aarhus Ø

Phase two focuses on getting a more profound site-specific knowledge of Aarhus Ø through analyzing on-site. Through the first phase, it was clear that there were challenging conditions with the public spaces in areas of starchitecture. Therefore, this was a focus point when analyzing Aarhus Ø.

The second phase is approached through Heartchitecture to target the analysis of the thesis, to the knowledge cross field unfolded in phase one. The analysis gives a deeper understanding of the site, focusing on starchitecture, livability, and public life.

DESKTOP ANALYSIS

As a transition from our literature study to our site analysis, we continued to unfold the area of Aarhus Ø through desktop-analysis, revealing the general information, history, and policy plan for Aarhus Ø.

These analyses concerned both Aarhus and Aarhus Ø and did not require physical presence at Aarhus Ø. Analytical knowledge was gathered through grey literature as political plans for the area and statistics of the municipality of Aarhus. Furthermore, we added a dimension of the public opinion to get a feeling of general perception upon the urban development in Aarhus Ø.

Alongside, the history of Aarhus Harbor was examined, focussing on its development, from an industrial harbor to a new city district through time.

SITE ANALYSIS

The site analysis is conducted to gain site-specific knowledge of Aarhus Ø. The mappings are made on empirical knowledge and give an overall understanding of Aarhus Ø. In this thesis, selected analyses are gathered and linked with photos from Aarhus Ø, to show the spatial potentials and constraints based on both starchitecture and public life.

PHENOMENOLOGICAL

Phenomenological analysis as 'Serial vision' by Gordon Cullen (1961) and elements from Kevin Lynch's (1960) 'Legibility analysis' is modified and implemented in the mappings. The phenomenological analysis is based on the users' own experiences of the city and architecture. The purpose is to create new knowledge concerning the connection between the physical environment as the cityscape, visual and emotive reactions, and less about quantifying.

SEMI-STRUCTURED EXPERT INTERVIEWS

Semi-structured expert interviews are devised to gain knowledge of both Aarhus Municipality and the local community at Aarhus Ø. The semi-structured interview is chosen to guide the interview toward our research field, securing relevant output while allowing new knowledge to enter the conversation. The interviews created an understanding of stakeholders, politics, and the everyday life at Aarhus Ø.
Due to Covid-19, expert interviews were digitally, and outreach interviews with residents and visitors at Aarhus Ø, with the necessary reservations to distancing.

Phase 3 : Developing Strategy

The third phase concerns the development of a strategy for public life. The strategy builds previous findings, and unfolds into eight focus areas classified in three overall themes. Through multiple suggested solutions, the strategy lightens spatial interventions in the context of Aarhus Ø. Furthermore, the strategy is exemplified in a smaller area of Aarhus Ø to evaluate how this strategy could support and further develop public life at Aarhus Ø.

SYNTHESIZING PHASE 1+2

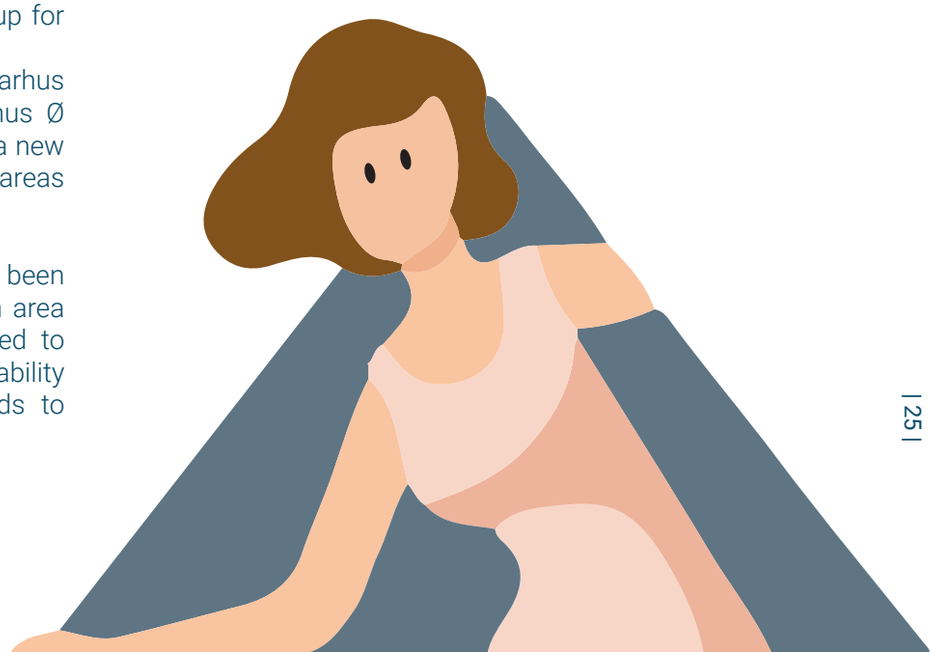
The strategy for public life builds upon the experiences and knowledge gathered through phases one and two. The strategy is the product of gained knowledge from both investigating the gap between starchitecture and livability and the area of Aarhus Ø.

UNFOLDING THE STRATEGY

The strategy encompasses both the existing areas (the northern part of Aarhus Ø) and areas up for development (inner Aarhus Ø).
The strategy for public life is meant for Aarhus Municipality to add public life to the Aarhus Ø agenda. Furthermore, it adds principles for a new practice at construction sites in newly built areas as guidelines developers.

Lastly, the focus areas of our strategy have been implemented in a visualization of a chosen area of Aarhus Ø. This visualization was formed to evaluate and test the strategy's transferability to an urban design proposal. But it needs to be underscored that in this thesis, it is just an exemplification and not an actual design proposal for a site. More likely, a way to illustrate how the strategy can be incorporated in creating an urban design proposal.

By exemplifying the public life strategy, spatial interventions show an example for applying the theory on a site through an atmospheric visualizations.



The cross field between starchitecture and livability

READINGS

This chapter presents the literature study conducted in this thesis. Through the literature study the theoretical themes of Starchitecture, Livability and Public Life will be investigated through peer-reviewed articles and scholars by key authors on the topics. Finally, the theoretical gap of the thesis will be identified.

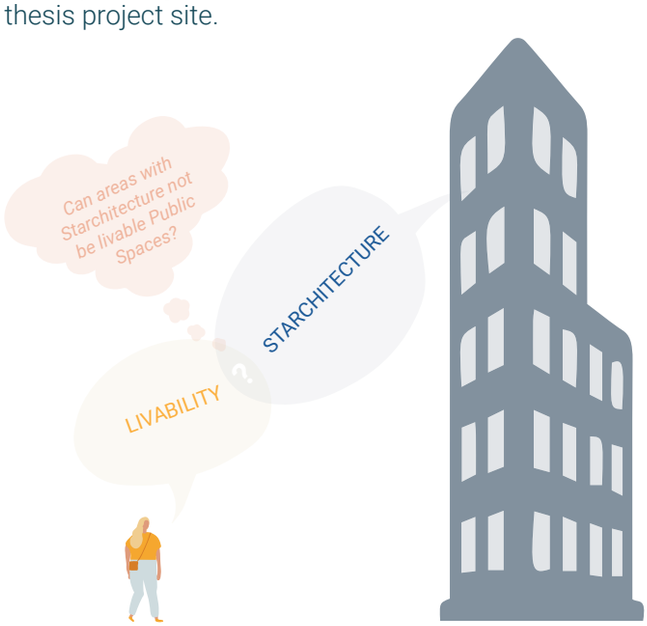
Literature Study

INTRODUCTION

As a consequence of urbanization, the cities, particularly the city centers, are challenged by the growing demand for accommodation due to their increased population (Andersen, 2018). Numerous city centers are old heritage districts with a low building mass, leaving little space for new buildings. The latest deindustrialization has affected many industrial areas in the cities. Harbor Industry is either shut down or forced out of the city center, leaving big spaces open for transformation and redevelopment (Harms, 2008). Their former production facilities characterize these industrial harbors and buildings with no function after the industry has left the area. These areas no longer have the same status and significance in the city as when in operation, and these areas need to find a new role in the city (Braae, 2003). The abandoned industrial spaces are an opportunity to the ongoing urbanization, as old harbor areas open the opportunities for re-imaging the city and develop new attractive waterfront districts close to the city center (Smith & Ferrari, 2012).

In bigger cities, several areas contribute to the increased accommodation demand. These areas compete to stand out among each other and be the most attractive new area. A way to draw attention to new development is to build spectacular buildings by high-profile architects, so-called phenomena of 'Starchitecture' (Deshpande, 2018). Starchitecture has a significant impact on city branding (Alaily-Mattar, Ponzini & Thierstein, 2020). Nevertheless, it has as well been heavily criticized for its high-dense buildings, choice of material, its visual distance from the rest of the city, and negative impact on both 'Livability' and public life (Chiu, 2019). In recent years, branding a city through livability and public life has become a way to draw attention to a new build area as well (ibid.), and the interlink between branding through starchitecture and through being a livable city comes into question.

Therefore, this literature study seeks to unfold the gap of public life between starchitecture and livability. The themes of starchitecture and livability are investigated, targeted redeveloped harbor fronts and high-dense build areas to understand public life in a context corresponding to Aarhus Ø. Aarhus Ø is this thesis project site.



Ill. 7: Questioning the gap between starchitecture and livability

Ill. 8: "Museo Guggenheim de Bilbao, Spain, Bilbao, Spain" : Photo by Jorge Fernández Salas on Unsplash (Salas, 2017)

Starchitecture

STAR-STRUCK ARCHITECTURE

Starchitecture is a relatively new concept within architecture. In the dictionary, 'starchitecture' is defined as a blend between the words' star' and' architecture' - a coinage to describe the work of a famous architect responsible for designing an iconic 21st-century building. (Macmilland Dictionary, 2007) Nevertheless, this definition belittles that starchitecture is a more complex urban process consisting of various subjects as regeneration, competitiveness, and re-imaging of a city. In the book 'About Star Architecture' Dr. Nadia Alaily-Mattar (Research and Teaching Associate at the Chair of Urban Development in the Department of Architecture of the Technical University of Munich), Dr. Davide Ponzini (Associate Professor of Urban Planning at the Politecnico di Milano) and Dr. Alain Thierstein (Professor of spatial development at the Technical University of Munich), writes:

"It can be argued that star architecture is a polysemous term. It often hides more than it reveals." (Alaily-Mattar, Ponzini & Thierstein, 2020, p. 2)

Cities around the world compete for residents, businesses, and tourists, and today there is a *"... common strategy for urban decision-makers to promote and build exceptional architecture projects such as iconic museums, urban transformations or public spaces not only for their utility but also for branding their city image and boosting media attention."* (Alaily-Mattar, Ponzini & Thierstein, 2020, p. 1) They use starchitects not only because of their professional competency but also because of the publicity and celebrity status that follow along.

TO DRAW ATTENTION: THE ORIGIN OF THE CONCEPT OF STARCHITECTURE

The concept of starchitecture can be traced back to 1997 in Spain, where the Museum of Modern and Contemporary Art (now the Guggenheim Museum) was built. The story says that Canadian-American architect, Frank Gehry, was told that the city of Bilbao" (..) need the Sydney Opera House. Our town is dying." (Deshpande 2018, para. 2). As a response to that, Gehry came up with the eye-catching, massive assembly of titanium, stone, and glass, shaped like a crossbreed of a ship and a palace, centering a giant fishtail just next to the river Nervión (Deshpande, 2018) known as 'the Guggenheim Museum [Ill. 8].

To Bilbao, the Guggenheim Museum became a driver of economic revival. With around one million visitors per year, it boosted the town's economy and put Bilbao's old, industrial city on the world map as a tourist destination worth visiting. (Deshpande, 2018) It now works as a landmark in the cityscape, and this transformation inspires cities worldwide. This transformation is referred to as 'the Bilbao effect' and is seen as an example of how modern, courageous architecture can turn run-down areas into tourist magnets and revitalize cities' economic decline (Macmilland Dictionary, 2007).

The city of Bilbao and the transformation of the harbor front represents an exceptional example of how a harbor front can create opportunities for a new perception and identity evolving from a former industrial city. The transformation of Bilbao has since been used as a reference model to create a narrative for redeveloped harbor fronts.

"Cities tend to imitate one another or at least tell similar stories in order to legitimize projects and policies." (Alaily-Mattar, Ponzini & Thierstein, 2020, p. 89).

As Alaily-Mattar, Ponzini & Thierstein (2020) underscores, starchitecture can add visibility and legitimization in harbor front projects to generate new identities re-narrating cities and nations (Alaily-Mattar, Ponzini & Thierstein, 2020).

AN ALIEN INVADING THE CITY: CRITICISM OF STARCHITECTURE

As with 'the Bilbao Effect,' spectacular architecture has the power to put a city back on the world map and to generate economic recovery for cities by being their new brand. However, starchitecture is also a subject for criticism, as letting function follow form and being iconic projects to be recognized by unabashed appearances exhibited in isolation, rather than being a part of an ensemble (Alaily-Mattar, Ponzini & Thierstein, 2020). In the book "Grounds and Envelopes," Hensel & Turko (2015, p. 1) writes that through time starchitecture has experienced criticism as *"...architecture that thrives on stubbornly maintained dichotomies, that is primarily intended to stand out and is therefore intentionally, explicitly, and thoroughly detached from its specific local settings."* Hensel & Turko (2015) argue that this criticism is often regarding not considering the context, neglecting human scale, and negatively affecting the city's microclimate and diversity.

Starchitecture's missing relation to the context is considered to obtain the side effect of placelessness, which is a term that implies a limited relationship both physical, functional, visual, and symbolic to a historical city (ibid.). As Alaily-Mattar, Ponzini & Thierstein (2020) explains, exceptional architectural projects, in some cases, are intended to modernize the image of historical cities. Cites rich with heritage buildings, where the characteristics of starchitecture redefine the cityscape, creating an entirely new skyline, where former landmarks and cultural heritage are overshadowed. Starchitecture is affected by global tendencies and does not, in the same way as other contemporary architecture, consider its historical heritage and local architectural traditions of its surroundings as it takes inspiration from additional sources worlds wide (Hill, 2017).

Starchitects design buildings worldwide, that to some, might feel like alienated pieces of architecture dumped into cityscape – a cityscape with its variating distinct character, history, and identity. Architecture is a product of the times and the society, and one might suggest that it is only reflecting our globalized world where the distance between the cities of the world is narrowing down, and as a result, this architecture is becoming more detached from its local context, when cities compete on a global scale to draw attention to their city (Hill, 2017).

Ill. 9: "City of London, United Kingdom" :
Photo by Ed Robertson on Unsplash (Robertsen, 2017)

AN ADDITION TO THE LONDON SKYLINE: EXAMPLES OF STARCHITECTURE

In London, England, the spectacular 'Headquarter of Swiss Re,' designed by Norman Foster in 2003 (Foster + Partners n.d.), and informally known as 'the Gherkin,' is an example of architectural placelessness [Ill. 9].

At first, the height and shape of the tower were separated from the surrounding context and thereby supplanting the former landmarks of London like St. Paul's Cathedral, Palace of Westminster, and Tower of London, which have been icons of the city and defining the skyline of London for centuries. After the construction of the Gherkin, several other starchitecture buildings were built around it, making it less outstanding at the skyline. Today, new iconic landmarks define London's skyline, like

Ill. 10: "The Shard, London, United Kingdom" : Photo by Florian van Duyn on Unsplash (Duyn, 2018)

'The Shard' by Renzo Piano from 2012 [Ill. 10]. The Gherkin later become a new icon for London despite receiving massive criticism in the beginning. (Alaily-Mattar, Ponzini & Thierstein 2020).

The Gherkin is an example of the effect and role of starchitecture, having little relation to the embedded historical city and context, but as an architectural icon creates global visibility and identity. This example further illustrates that the city is ever-changing, and what is exceptional today might become the new normal (Alaily-Mattar, Ponzini & Thierstein, 2020). Hensel & Turko (2015) comment on this tendency:

"In thinking this through it should strike one as obvious that this trend is in the long term entirely self-defeating; as more and more buildings superficially "stand out," "standing out" simply becomes the established canon and the new generic, no matter how frenzied or not the next design." (Hensel & Turko 2015, p. 4)

This evolution is relevant to notice when working with starchitecture, as it, as mentioned, sometimes is criticized for prioritizing form over function and public life. (Alaily-Mattar, Ponzini & Thierstein, 2020) As the effect of exceptionality disappears over time, the building still needs to accommodate a purpose, and it is noticing the role of the building after losing its value of being new spectacular architecture promoting the city's branding. For instance, by supporting public life through its surroundings, adding additional qualities to the high-dense cityscape breaking up big scale buildings by the '.'

BIG SCALE BUILDINGS: THE HUMAN-SCALE IN STARCHITECTURE

Another concern about starchitecture is the human scale. According to architect, urban planner, and writer Jan Gehl (2010), the perception of the human scale is affected by the distance between an object and the human body. This perception is on behalf of the human eyesight, which differs depending on looking either upwards or downwards. It appears that when looking upwards, the sight is limited as opposed to downwards (Gehl, 2010). Gehl (2010) argues that

"the horizontal field of visions means that when we are walking along the building façade, only the ground floor can offer us interest and intensity." (Gehl, 2010, p. 41)

Through eye level is the ideal way to experience the city as Gehl (2017) declares that the building's ground floor is where meaningful contacts are present. The level of contact to the ground floor will decrease after the third and fourth floor, where everything above the fifth floor will have lost its touch with events happening at the ground level (Gehl, 2010). This differentiation indicates that high and significant buildings of starchitecture are detached from the ground level and the human scale.

Starchitect pays much attention to designing the building as a whole, to be experienced from long distances. Every detail through every floor is worked through, but it is worth considering whether the lower floors should support other qualities than appearing notable in the cityscape. Especially because the lowest floors are hidden behind surrounding buildings and not visible in the entirety, and humans at the ground are not able to experience it as a whole, looking up, either.
Alternative use of the lower floors could be focusing on its surrounding public life and thereby contributes to both city branding through starchitecture and a 'livable city.'

Shibuya Crossing in Tokyo is the world's busiest pedestrian crossing, with as many as 3,000 people crossing at a time

Ill. 11: "Shibuya Crossing, Tokyo, Japan" :
Photo by Grzegorz Kaliciak on Unsplash (Kaliciak, 2020)

Livability

A LIVABLE CITY

The term 'livability' has been used to measure and evaluate various situations and elements, at several different scales, through time. Therefore, we choose to focus on livability in an urban context referred to as 'Urban Livability' to understand public life and its relation to a livable city.

Our further research takes its departure in 'Urban Livability' defined as:

"Urban livability can simply be rephrased as quality of life in cities, but its concept is complex because of the heterogeneous nature of cities and the encompassing meaning of quality of life." (Chiu 2019, p.1)

This definition lightens that quality criteria of urban livability might differ from both time and place. Therefore, it is crucial to know the conditions and current qualities of the setting when working with urban livability.

ABOUT LIVABILITY: THE COMPLEX CONCEPT OF URBAN LIVABILITY

Cities and neighborhoods build upon livability. But, as professor at the architectural faculty at Hong Kong university, Rebecca L. H. Chiu (2019) writes, the concept of livability is complex, and she further adds, *"...liveability cannot be standardized across cities as they have different development levels, and their residents have different requirements and expectations."* (Chiu, 2019, p.1)

Professor Harm Kaal (2011), who studied the history of livability, emphasize how the historical understanding of the concept' urban livability' leads to the conclusion that 'livability' needs to be contextualized by asking the questions: *"where, when, by whom and why—for which reason(s)—the concept has been used."* (Kaal 2011, p. 544)

As both Chiu (2019) and Kaal (2011) make clear, urban livability is a complex size that needs to be seen in a context to understand the definition. The first step to understanding the complexity of the concept is to investigate how livability change along with society and varies through history.

Professor Harm Kaal (2011) explains how the concept of 'livability' was first used by rural Dutch geographers in the 1950's in a study to figure out how rural livability could be preserved. These studies and their approach to livability gave a set of 'Rights of citizens' as; *"proper housing, health care,*

job opportunities, education, and opportunities for consumption and leisure." (Kaal 2011, p.544).

Through the rise of the welfare state in the 1960s and 1970s, the focus on 'livability rights' shifted toward more environmental aspects. These rights had to be met by the citizens by giving them a say in policy – a new approach to urban democracy (ibid). This approach prevailed in the 1990s when housing companies were the ones to secure urban livability. Kaal (2011) states how this change led to the government and housing companies determining the social composition in neighborhoods and the definition of livability

"in terms of a neighborhood with good amenities and a balanced composition of the population, particular groups of citizens became associated with un-livability, like the unemployed, ethnic minorities and one-parent families. In this respect, the use of the concept of livability in urban policymaking needs to be critically assessed." (Kaal 2011, p.545)

As Kaal (2011) puts it, looking into livability can be a way to understand how politicians, policymakers, and citizens understand local democracy, and it can change over time simultaneously with our life quality either de- or increase.

Today livability is the subject of discussion, in many forms, from neighborhoods to the worldwide scale of the 'Sustainable Development Goals by the United Nations General Assembly.'

As Kaal (2011) described, the concept of livability is contextual, and Chiu (2019) mentions, referring to Pacione (1990; 2003), that it can be evaluated both subjectively and objectively:

The first is the residents' evaluation and perception of the environments where they live. The second is the description of the environment (where the residents live and work) assessed by, for example, the number of facilities (like schools, healthcare, and others increasing the quality of life of the residents), crime rate, or the mismatch between demographic characteristics, services and facilities (like lacking daycares in a district with many families) (ibid.). These two sides are worth noticing when searching 'livable city ranking systems' such as the Economic Intelligence Unit, the Mercer Quality of Living Survey, the OECD Better Life Index (BLI), and the Monocle's Quality of Life Survey as they differ in the weighting of subjective and objective parameters (Chiu, 2019).

As Kaal's (2011) question of 'where, when, by whom, and why' livability is measured, it becomes relevant looking at how both cities and countries score on the different lists. This approach of ranking cities on their degree of livability (Chiu, 2019) can be seen as commercial city branding. Linking this to the use of starchitecture as city branding (Alaily-Mattar, Ponzini & Thierstein, 2020), they are both being used as instruments to promote the city even though it is in various ways. Therefore, the linkage of starchitecture and livability is interesting in combination with creating attractive cities.

Another thing to keep in mind when investigating the concept of livability is how different departments use it: *"While urban geography research aims to evaluate and explain urban liveability by applying urban and psychology concepts and theories to analyze secondary and primary data, and urban planning and design literature seeks ways to improve liveability with planning and design solutions, the global ranking constructs relay the views and ratings of city-dwellers, visitors, and other stakeholders, supplemented by secondary information."* (Chiu, 2019, p. 3)

There are several ways to work around livability, whether through changing a mindset or implementing design solutions, targeting locals, visitors, or something else.

COMPACT CITIES: THE IMPACT ON LIVABILITY WHEN LIVING DENSELY

Cities all over the world densify to support their growing population. Therefore, livability in these high-density districts has become a significant concern nowadays (Chiu, 2019). The compact city offers a more sustainable way of living with more people in less space, taking up fewer resources, and living in close proximity to several functions. And as Chiu (2019) underline, sustainability and livability is linked:

"Urban liveability and urban sustainability are in fact interlocked, the former being a component of the latter, which is defined "as the ability of cities to reduce the environmental toll of urban activities, while improving liveability and the socio-spatial equity of their inhabitants" (Chiu, 2012, 364)." (Chiu, 2019, p. 4)

Compact cities secure more sustainable cities and affect urban livability both positively and negatively (Chiu 2019). As Chiu (2019) writes, the positive effects of denser cities also relate to livability as it

grants *"better access to services and facilities, revitalization and regeneration of inner urban areas, a more vibrant lifestyle, reduced crime, lower levels of social segregation, and milieu for enhancing business and trading activities."* (Chiu 2019, pp.4-5)

The disbenefits to livability in dense cities are *"overcrowded living environment, insufficient urban green space, reduced domestic living space, poorer health of residents because of air pollution and a more compact living environment, and reduced housing affordability due to rises in land value because of reduced land supply."* (Chiu 2019, pp.4-5)

There needs to be a balance between these benefits and disbenefits to secure urban livability as cities are densified. Securing it and making a livable dense city has been a question to many architects and urban planners and might be found in the quality of public life.

Ill. 12: "Aerial view of the dense urban area of Hong Kong on a sunny day" : Photo by Manson Yim on Unsplash (Yim, 2021)

Public Life

UNDERSTANDING PUBLIC LIFE

Public life is a term for the danish word 'Byliv,' which is hard to define with the same meaning in English. In publications by Gehl Institute, the term is translated into 'Public life,' which is the definition that will be used in this thesis:

"Public Life is what people create when they connect with each other in public spaces – the streets, plazas, parks, and city spaces between buildings. Public life is about the everyday activities that people naturally take part in when they spend time with each other outside their homes, workplaces, and cars." (Gehl, 2019, p. 6)

The discussion of what good public life is and how it can be secured in our modern cities will be discussed further in this chapter.

VIEWS OF SECURING PUBLIC LIFE IN COMPACT CITIES

For centuries, livability, or the quality of public life, has been a vital issue in urban planning. By investigating suggestions for securing public life in modern cities, this study will be looking into the writings and work of: Donald Appleyard, as being one of the first urban planners focusing on livability and public life, and two architects specialized in public life in respectively urban spaces and high-dense areas; Jan Gehl and David Sim.

These three have been chosen as their work has influenced how our cities view design and planning perspectives according to public life and livability. Furthermore, the abovementioned work relates to a wide time span from the 1960s and up until today.

APPLEYARD: LIVABLE STREETS AND NEIGHBORHOODS

Donald Appleyard (1928-1982): Appleyard conducted his renowned study on livable streets in the late 1960s. In this work, he compared streets in San Francisco, which at first glance did not differ on much else except the level of car traffic. Through social and psychological studies along with neighborhood layout and this empirical research demonstrated the impact that traffic has on the public life in our streets. (PPS 2008)

The works of Appleyard are in this thesis because he examines the street itself as an urban space - a space that had been taken over by cars and which had been neglected but is a huge part of the public space and influences public life.

Donald Appleyard, a Professor of Urban Design at the University of California, spent his entire professional life making cities and neighborhoods safe and livable, particularly by focusing on the streets (PPS, 2008). In one of his last publications, 'Livable Streets,' he summarizes his knowledge and experience in making neighborhoods more livable through the streetscape. In the late 1960s, he conducted a renowned study on livable streets, comparing three residential streets in San Francisco, almost identically in the building structure, but with three different levels of traffic (PPS, 2008).

The main findings of this research were that people living on streets with light traffic had more friends and twice as many acquaintances than people by streets with heavy traffic. Appleyard (1980) indicated that one of the main reasons for this matter was that more vehicles demand more space, which results in less common space for the residents to interact socially. On the lightly trafficked street, the front steps were used for sitting and chatting, sidewalks for children to play, and adults to pass the time.

Moreover, the street was seen as a whole, and no part was out of bounds. On the other hand, the heavily trafficked street had little or no sidewalk activity and was used solely as a corridor between the sanctuary of individual homes and other city districts. The difference in the perceptions and experience of children and the elderly across the two streets was especially striking. (Appleyard, 1980) Appleyard herby emphasis the importance of the street according to public life.

GEHL: QUALITY PUBLIC SPACES

Jan Gehl (1936-): Gehl's most famous publication is "Life Between Buildings" from 1971, which includes studies and descriptions of major factors that contribute to how people use public spaces. Gehl has, through his career, focused on improving the quality of public life in our cities through design focusing on pedestrians and cyclists. (Gehl Architects, n.d.b)

The works of Gehl have been studied according to public life due to his work with the human scale and criticism of how our modernistic cities have been planned and his work with putting the human at the forefront of urban planning.

In his books "Life Between Buildings" and "Cities for people," Gehl (2010; 2017) criticizes the way many modern cities are planned. The books provide investigations and descriptions of how to secure public life. Gehl (2010; 2017) defines the livable city as a place where people, and pedestrians, in particular, are given priority. A place that em-

braces the social life and where both optional and planned activities take place. A good urban space encourages people to do more than just getting from A to B and has a smooth transition between private and public spaces. He also writes how places need to have a character (often referred to as "Genius Loci"/"Sense of Place" and in planning refers to a location's distinctive atmosphere) attracting people, and he underscores that public life attracts an increased public life.

Furthermore, Gehl (ibid.) emphasizes the importance of the human scale in the city, as building too dense and too high distances the built environment from its residents by repealing human interaction. Gehl (ibid.) argues that we can choose to build cities in a way, which takes human needs, such as inclusion and intimacy, into account.

Putting up criteria to secure better urban environments in cities through; security, comfort, and enjoyment values (Gehl, 2010; 2017). Gehl (2010) put forward '12 Quality Criteria' as a way to evaluate public spaces. His 12 Quality Criteria is a tool to investigate the qualities of public space, focusing on the aspects of protection, comfort, and delight (ibid.).

SIM: BUILDING DENSITY FOR EVERYDAY LIFE

David Sim (1966-): Sim joined Gehl Architects in 2002 as a part of his studies in architecture. Sim has been Partner and Creative Director at Gehl Architects since 2012. Sim focuses on Master planning Frameworks and urban design, collaborating with other professionals in the planning and building process, applying Jan Gehl's theories to large-scale projects. In his recent book "Soft Cities," Sim studies the built environment of the dense city according to the human scale. (Gehl Architects n.d.a)

The work of Sims "Soft Cities" adds Gehl's theories to the dense city in a solution-oriented work and reflects on how public life can still be unfolding if we design our dense cities the right way.

The concept of 'Soft Cities' is about getting closer together, connecting people to each other and all aspects of life around them, and also the title of David Sim's book about the topic. Sim (2019) writes:

"I would like, instead [of the focus on reorganizing human activities into district silos that have been the way of planning for the last decades], to focus on how potentially conflicting aspects of everyday existence can be brought together and connected to deliver better quality of life." (Sim 2019, p. 3)

Sim (2019) mentions social, mental, and physical health as parts of 'good quality life' and that the city needs to balance privacy and sociability along with a pleasant microclimate. Sim (ibid.) describes his perception of 'quality of life:

"The key difference between the standard of living and quality of life, as I see it, is that standard of living comes down to the money we have and how we spend it, whereas the quality of life is about the time we have and how we spend it." (Sim 2019, p. 90)

When Sim (2019) mentions living denser, questioning how densification should be. He argues, denser does not necessarily make more livable cities, and:
"(...) a stand-alone, stacked building in an open landscape—even if the stand-alone building has an unusual or eccentric architectural shape—the free-standing building generates fewer kinds of space than the one that is part of an enclosed urban block." (Sim 2019, p. 68).

Sim (2019) points towards making cities denser by building low-dense areas, preferably courtyards lower than six floors ideally, but when new city districts are developed toward high buildings, he still sees the possibility for strengthening public life through layered buildings and active grounds floors and thereby make the area more human scale. He calls this concept' livable urban density' and argues that it must be present to make a 'soft city,' and thereby secure public life:

"A livable, resilient, high-density area should have; a diversity of build form and of outdoor spaces, flexibility, a human scale, walkability, a sense of control and identity, a pleasant microclimate, a smaller carbon footprint, and greater biodiversity." (Sim 2019, p.212)

Good Pubilc Space is

Where people are given priority

Where social life is embraced

Where both optional and social activities take place

Diverse in its design

Flexible in its use

Related to the human scale

Giving the user a sense of control and identity

Offering a good microclimate

Accessible

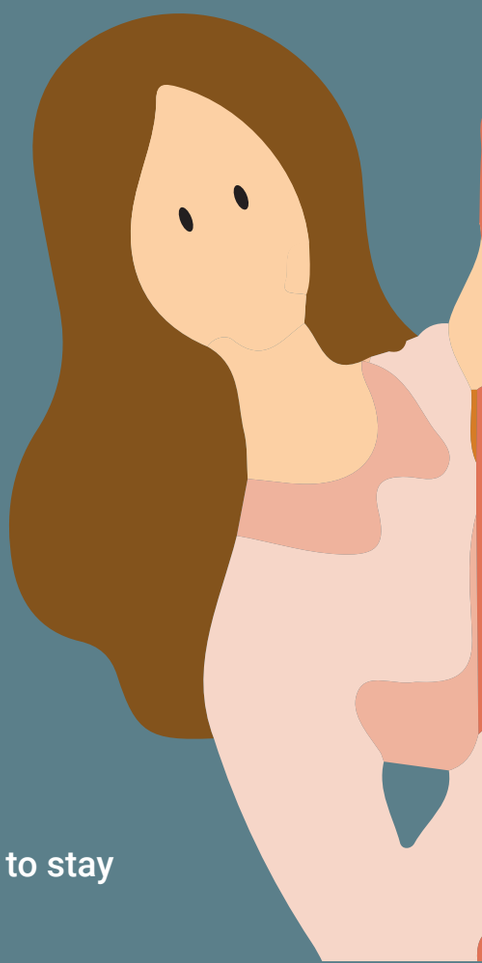
Comfortable

Having a good reputation

Offering activities that people can engage in

Making people linger, even if they no pressing reason to stay

Having a cultural identity



A mixture of activities, car-free spaces, and a strong cultural identity add to the success of Nyhavn in Copenhagen

Ill. 13: "Copenhagen Nyhavn (City Clock)"
Photo by City Clock Magazine, 2013

Ill. 14: Jomfru Ane Parken Aalborg, Denmark

EXAMPLES OF LIVABLE PUBLIC SPACES

Quality public spaces are crucial for public life. Good public spaces are where people are given priority and embrace social life and where both optional and social activities occur (Gehl, 2010, 2017). A good public space is diverse in its design, flexible in its use, relates to the human scale, gives a sense of control and identity, and offers a suitable microclimate (Sim, 2019). Good public spaces should be accessible, comfortable, have a good reputation, be approachable, and offer people activities (PPS, 2016). This regard whether it is a street, park, plaza, waterfront, or a playground (ibid.). Another thing characterizing good public spaces is that people linger, even if they have no pressing reason to stay, and that the space has a cultural identity (ibid.)

The canal quay 'Nyhavn' in Copenhagen is an example of good public space. Both sides of the canal are flanked by the typical bright colored townhouses and the narrow canal [Ill. 13]. The old townhouses create a small and intimate environment in the big pulsing city of Copenhagen. Nyhavn is centrally located in Copenhagen and easily accessible for pedestrians from the central parts of the city. The area is almost free of cars, letting pedestrians and cyclists get the whole experience of the canal without having to worry about hard trafficators. There is access to activities such as 'canal tours,' restaurants, bars, and several places to sit, relax, and breathe in the atmosphere of the place on both sides of the canal. On sunny days, public life from cafes will be drawn outside to the canal and encourage socializing and activity.

Another example is the minor harbor park 'Jomfru Ane Parken' in Aalborg [Ill. 14]. The park is part of the harbor transformation of the former industrial harbor in Aalborg, established in 2015 (CF Møller Architects, n.d.). The park is lowered compared to the rest of the harbor front, creating a sense of enclosure, security and creates a good microclimate. The area is located along the harbor, next to the shopping street, cafes, and the nightclub street 'Jomfru Ane Gade" in Aalborg, making it a popular place to enjoy coffee, sandwich, or a beer. When the weather is good, people will sit on the grass enjoying the company of other people engaging in different activities like games or sunbathing.

Good microclimate, a feeling of intimacy and a green element in a grey harbor area creates a good public space at Aalborg Waterfront

Summing Up

A global tendency to accommodate the increased demands caused by urbanization is through transforming old industrial areas. Industrial harbors are turned into residential harbors, creating entire new city districts, linking harborfront developments to the opportunity of reimagining the face of the city. A common approach is city branding through eye-catching architecture created by famous architects - also known as starchitecture.

Starchitecture has several qualities; it is an outstanding piece of architecture that sometimes outrages and shakes the population but simultaneously creates worldwide publicity and boosts the city economy.

On the other hand, many projects receive criticism initially for not blending into the existing cityscape, but most of these iconic buildings become an integrated part of these cities' identity over time. Most starchitecture is parts of new city districts with high buildings and high building density.

As starchitecture is one way of city branding, another is to promote through being a livable city with vivid public life. Livability is a highly used therm, and depending on its context, it can describe both mental and physical stages and be used as a measurement to reach common goals. The physical pratic of urban livability is context-specific and requires some ground conditions in urban spaces for supporting public life.

Public life is when people connect in the public spaces, and it is crucial to secure to have a livable city. Different urban planners and architects as Donald Appleyard, Jan Gehl, and David Sim have studied the public life in our modern cities and how we can live densely and still maintain public life. Public spaces are necessary to prioritize when developing our cities, as good public spaces are a basis for public life.

Combining the concept of starchitecture with creating good urban spaces can be a challenge as, especially starchitecture in high-dense areas, challenge many aspects of creating good public spaces, such as human scale and a safe environment. Herefore, starchitecture is often linked to lacking livability. Despite that, spatial interventions can strengthen public spaces and meeting some of these challenges by activating building ground floors, supporting the main functions, and having layered buildings.

These findings amplify the possibility that areas of starchitecture can be livable by strengthening public spaces and supporting public life.

Therefore, the public life and public spaces in Aarhus Ø, an area of starchitecture, are further investigated in this thesis, seeking ways to enhance livability and support public life through strategic planning and spatial interventions.

Defining the heart in starchitecture

HEARTCHTECTURE

In this chapter, the analytical approach of 'Heartchitecture' will unfold. Heartchitecture is developed through this thesis and is based on findings from the literature, and the cross field between livability and starchitecture.

Ill. 15: Life at the harbor bath at Basin 7

Heartchitecture

Heartchitecture is an approach to manage the livability perspective of starchitecture. The approach addresses the gap between the terms of starchitecture and livability as underlined in the Literature Study.

Heartchitecture investigate the soft values of urban design by providing good conditions for the public life to grow and considering the people who visit, live and work in areas with starchitecture. The approach is contextual when analyzing sites with starchitecture in relation to the public space and public life surrounding it. It is an approach denominated by the soft values 'Heart' into the term of starchitecture which creates the new word of Heartchitecture.

Heartchitecture is an analytical approach for the municipality to apply when analyzing an area in relation to starchitecture. The analytical approach of Heartchitecture take into account the users of the public spaces in relation to starchitecture. The users are kept in mind in order to enhance good conditions for the public life and to find the 'heart'. The users play an important part in categorizing the public wishes and to evaluate the existing public spaces in and around the starchitecture.

The analytical approach of heartchitecture focus on the cityscape of site specific starchitecture in relation to the microclimate, the public space and public life. The approach of heartchitecture present the constraints and potentials of the site-specific area with starchitecture which are focus points for the municipality to work with in order to enhance the public space and public life.

Heartchitecture is about finding the heart!

What's the heart about?

The heart is about human scale
Heartchitecture is breaking down the scale, softening the hard environment in relation to densely build areas of Starchitecture

The heart is about the identity of the place
Heartchitecture is a social way of branding af city distrct, based on the qualities of public life

The heart is about a puls
Heartchitecture support different kinds of activities in order to secure the public life at different hours of the day and time of the year

The heart is about where people meet
Heartchitecture support different kinds of activities in order to secure the public life at different hours of the day and time of the year

The heart is about inviting
Heartchitecture is welcomming and creating an open environment for both its visitors and local residents

Experience heartchitecture in an exsisting context

INSPIRATION

By studying four different cases of harbor front transformations, we search for practical experience to bring toward when through our thesis.

Our case studies are conducted to gain knowledge on redeveloped harbor areas. The study investigates four cases of redeveloped harbor front projects in the danish context of Copenhagen. Informing the project site of Aarhus Ø.

The case studies focus on heartchitecture, brought to life in a site specific setting. To secure a considerable potential for experiencing urban life, the case study is investigated on a danish national holiday in a sunny day late in April.

Ill. 16: Harbor area at Nordha

avn, Copenhagen.

Ill. 17: Nordhavn, Copenhagen. Starchitecture integrated in harbor front developement

Nordhavnen in Copenhagen, Denmark

Nordhavn is a former industrial harbor in Copenhagen´s Northern Harbor constructed in the end of the 19th century. The harbor was expanded into the water due to the growing harbor industry and increasing shipping trade. In 2008 the redevelopment of the area participated in an international competition to become "The sustainable city of the future". (Propstep, 2019)

The vision leaves Nordhavn to be the largest and most ambitious sustainable urban development project. The new harbor project focus on the future sustainable city to be *"...a eco-friendly city, a vibrant city, a city for everyone, a city by water, a dynamic city and a city with green traffic"* (Propstep, 2019)

Today, the new quarter contains different functions and activities connected to the historical harbor. As examples to be mentioned are container terminals, fish markets, a ferry landing, and the existence of large harbor business. The project is still in the early developing phase with only a few neighborhoods and public institutions built, waiting for the container terminal to move, for more to come. (Propstep, 2019)

The masterplan of Nordhavn is based on different highly known architect firms as Cobe, Sleth, Polyform and Rambøl. To promote the new sustainable urban development project of Nordhavn specific architect firms has also provided unique architectural projects in relation to the different neighborhoods.This has led to award winning housing and business projects. (Propstep, 2019) Projects to be named are 'Göteborg Plads', 'The silo', 'The red city' and the multi-story car parking with a urban playground on top 'Konditaget Lüders'. (By&Havn, n.d.)

The new city district in Copenhagen strive to become a livable city through the aim to fulfill two of the six sustainable focus points: "a vibrant city" and "a city for everyone" for the vision of Nordhavn. (Propstep, 2019) Göteborg Plads' is one of the most important urban spaces in the new neighborhood in close relation to the harbor front and harbor bath. The idea of the urban space is to be an active market place with outdoor serving, and with different ways and levels to access the water. Attracting people to make a vibrant cityscape. (By&Havn, n.d.) Nordhavn is an impressive green redeveloped harbor front project. The streets along the harbor front are separated and defined through having a green transport corridor in the middle, a separated transition area with integrated bike parking and both green plants and natural stones in a different level, and lastly a wooden promenade down to the water edge. The promenade offers different opportunities to engage with the water.

Along the promenade it hums with people and activities. The area has an active ground floor with cafés and shops offering outdoor serving with different level of seating along the water edge. The space is in close relation to the iconic buildings as 'the silo', giving it space and respecting the idea of the buildings. High terrasses to the buildings scales the high buildings down and integrates is with the public space. The promenade with water activities and a harbor bath, the active rooftop area "Lüders', and the small intimate streets of the neighbourhood of Aarhusgade ooze of life and people.

Despite being a former redeveloped industrial harbor area with hard surfaces and concrete, the green elements has been prioritized in the planning of the new area. Trees and beds are planted as building fences to the construction sites, ensuring green elements and life before buildings.

Ill. 18: Sluseholmen, Copenhagen. Straight system of canal, deviding areas into islands

Sluseholmen in Copenhagen, Denmark

Sluseholmen is a former industrial area in Copenhagen's South Harbor constructed in the 1940s. The ground structure of the new city district was designed in 2000 by Dutch Architect Sjord Soeters van Eldonk Pones and Arkitema Architects, and was ready for its first residents in 2006. It consists of eight dockyards and an additional three are planned. (Berlingske, 2005) The area is characterized by blocks with enclosed courtyards, with facades designed by 25 different architects in order to secure a unique character of every building (Dansk Arkitektur Center, 2018).

The concept of Sluseholmen is for every resident to have water access, which makes it stand out from the majority of city districts in Copenhagen. Sluseholmen is inspired by Holland with canals, charming small bridges, water and urban spaces creating the foundation for public life. (Sluseholmen.dk, n.d.)

Architect Sjord Soeters van Eldonk Ponec did the design of the main structure, and except his overall lines for the area, the only starchitecture project is the futuristic high-rise 'Metropolis' by London based Future Systems in cooperation with Danish architect Kasper Danielsen. Metropolis stands on its own minor peninsula as an appendix to the rest of Sluseholmen.

At Sluseholmen the good neighborliness is fundamental for their visions, by prioritizing diversity in the demography for people to find a common home. Social togetherness is shown through their Facebook group and in everyday life in the courtyards. They have a vision of having the community right outside your door. (Sluseholmen.dk, n.d.) Despite their focus on livability, Sluseholmen was the city district with the least public life. The few people on site were doing activities on the water like SUPboarding and kayaking, but otherwise the activities were happening inside the block, in courtyards with a variety of activities, which made the areas outside seem dominated by traffic. Sluseholmen both have a harbor batch and plots for common gardens, but no one seems to use it, as the gardens were mainly uncut grass and the harborbath was empty.

Though it appeared like several of the residents have been living in the area for quite some time, as they had created furnished pontoon-terraces, which made a more loose atmosphere. Instead a lively feeling was coming from some cottages pointing at Amager Fælled, but the outside wasn't invited in as 'private'-signs were placed at both ends of the marina. Along the mainroad were smaller shops and cafés, but without any possibilities for outdoor serving due to the narrow sidewalk. Instead customers carried their food and beverages to the quayside and benches nearby.

The entire area was dominated by pavement, which made the line between the vertical building facades and the horizontal ground seem hard and large-scale. The original quayside is generic, liniar at lifted more than two meters above sea level making it impossible to touch the water, and do not make any natural opportunities to stop. Later on additional plateaus had been clipped to the quayside, now inviting bypassers to stop for a while. The entire quayside also has a five centimeter high edge, which makes it seem more safe to walk by.

Even though the intention of the many different facades was to create a diverse cityscape the building blocks seem flat and solid, as they didn't have any staggering in either the facades or the building height, and did not have any front yards and only few had balconies.

Ill. 19: Teglholmen, Copenhagen. Inner basin and school yard integrated in public space

Teglholmen in Copenhagen, Denmark

Teglholmen is an artificial peninsula construted in Copenhagen's South harbor situated between the areas Sluseholmen and Enghave Brygge. (Teglhusene.dk, n.d.) The landing was constructed in the late 19th century due to the need of a new brickyard. The brickyard was desired to provide bricks for the large area of Vesterbro in Copenhagen. When the production ended, the former clay burial was filled with water to become the new harbor basin known as 'Teglværkshavnen'. In that way the history of the islet is still to be found through the harbor basin, the street names, and former buildings constructed with the bricks from the clay burial. (Teglholmbrygge.dk, n.d. b) Teglholmen has experienced an expanding urban development. Today the area is a mix of residential, business and public institutions. The islet features a new integrated public school and day nursery which serves all of the new islets of Copenhagen's South harbor. (Teglhusene.dk, n.d.) Teglholmen is close located to 'Den Grønne Kile', the green wedge, facilitating a harbor area in close relation to both water and green elements. (Teglholmbrygge.dk, n.d. a)

Teglholmen consist of buildings designed by different danish architectural practices. A project to be mentioned is the public school by JJW architects. The school are built with an active rooftop as a playground for the children. The idea is to draw the city into the school and in reverse the school into the city. The project is situated along the central harbor basin using the water as an extra classroom. (Jastram, 2015) The area is to be a channel city. The idea of Teglholmen is to have the existing harbor basin in the middle with channels connecting to the harbor front and the promenade. (Dansk Arkitektur Center, 2017)
The central harbor basin is supposed to act as the center for the local community life. A big square and the public school create the gathering point in close connection to the water. Along the harbor front is the promenade with water activities, small shops and cafés. The building height is lower towards the promenade offering a better opportunity for creating public life. (Dansk Arkitektur Center, 2017) The area is intended to be a calm neighborhood with both water and green structures in the form of the green wedge. Attracting students, seniors and especially the young families to become a part of Teglholmen. (Teglholmbrygge.dk, n.d. a)

When entering Teglholmen it is the local small-scale environment along the harbor front and promenade that draws people. The area is divided into large business buildings at the inner part of the area and residential buildings along the harbor front and basin. The promenade is heavily used creating public life. It contains an active ground floor with shops and outdoor servings. People are enjoying food and beverages both on the sidewalk tables and on the harbor promenade. The materials along the harbor front are soften up the hard structure by having a wooden promenade, rounded cobble stone and vegetations. The scale leaves the felling of walking in a local community with smaller houses near the water, with few residences and side by side gardens. People are meeting in between to use the bigger space. In the higher end of Teglholmen high terrasses are used to break up the inhuman scale. The buildings are staggering and both the road and canal are perforated, breaking up the straight lines.

In the center is a basin, next to the school, which creates foundation for even more activities. A large square are leading down to the harbor basin with wooden elements dragged through the build hard surfaces leading down to the water. The activities are on the rooftop of school, the water, and the promenade. The area has a higher extend of greenery.

Ill. 20: Enghave Brygge, Copenhagen. Quayside as urban space with activities and green elements

Enghave brygge in Copenhagen, Denmark

Enghave Brygge began construction in 2014 and is thereby the newest build neighborhood in Sydhavn, Copenhagen, and is also called 'the missing link' in the development plan for Sydhavn (By&Havn, 2013). The new area is built upon the former industrial harbor used to scrap ships, and today the area is a refinement of the visions from Sluseholmen (Grøning Arkitekter, n.d.). Enghave Brygge is branding itself with "The harbor is yours" focusing on life to the harbor, the proximity to water and sustainability (Engholmene.dk, n.d.). The vision has been for every building to have the opportunity to see and experience the water. The buildings are open towards the water with its own green area leading down to the water. The area creates individual wharfs along the quay with small oasis of plants to form the public space which make the quay serrated. (By&Havn, 2013)

The idea is to have eleven individual housing islands with one main canal leading through the area. This intends to create an attractive public space along the harbor. The canals have modern curves with reference to the old canal of Copenhagen, Chrstianshavn Kanal. The canals break up the straight lines of Sluseholmen, and creates niches along the water. (By&Havn, 2013)

The narrow town houses with surrounding canal in Amsterdam is what has inspired the architecture at Enghave Brygge (Grøning Arkitekter, n.d.). The architecture is as mentioned opened to the harbor front securing the view and access to the water. The buildings are following the roads and canals by making this twisted run with sharp edges.

The public life at Enghave Brygge is focused to be addressed to the harbor front. Connecting the residents to the harbor. The residents have the opportunity to both be alongside the harbor but also in their semiprivate courtyards directed to the water. The idea with the area is to become an affordable diverse area for the growing housing demand. (NVP, n.d.)

When entering Enghave Brygge the area is still under construction. To conceal the construction site, the building fence is painted with a story which leads people towards Enghave Brygge, just to experience the story.

Enghave Brygge is the most impressive redeveloped harbor front project in Sydhavn. The serrated quay or wharfs invite people to the water. It creates small niches for stay and define different public spaces by using plants to divide the space. It offers different ways to connect with the water edge and plays with the pavement underlining the curved canals and dividing the public space.

The curved canals break up the straight lines seen in Sluseholmen which creates an exciting canal. Along the canals the buildings follow the structure of the canal and opens up with a semiprivate green garden towards the harbor. The buildings are a mix of point blocks and elongated buildings which make it possible for the residents to view the water. Smaller gimmicks such as a telescope and other play elements provide the harbor with activities along the water.

Our experience

The observations during the case study have led to a conclusion, which is a collection of the most inspirational potentials from the visited harbor front projects.

Through the experience of the case study we found that It is crucial to create activities and functions along the harbor front both for the residents and visitors. Restaurants and shops should have outdoor seating to create public life, and activities and play should be integrated into small elements such as climbing in connection to stairs and hills, or a binocular along the harbor edge to view the ships drifting by. In addition to the harbor edge, it is important to break the straight lines both the roads, the canal and harbor edge. Use the green to break up the space both creating and breaking the levels. Material is also a factor to consider since it offers different perception of scale and can be defining space.

By prioritizing the pedestrians along the harbor front, it becomes a format for urban life to blossom. The harbor front should be easy to access and move around at. It should offer different opportunities for stay with both small spaces to be alone and larger spaces to be part of the community. It is important to respect the architecture and the give the buildings the needed space. Buildings with large flat roof are ideal for public activities creating life at different levels.

The case study shows that it takes time to create a new area with good urban spaces. The different harbor projects compared to each other indicate that the projects have evolved and learned from each other. The idea of the city is ever changing and so are the areas. That is also why it is ideal to implement a construction site fence early in the process, leading people and the urban life to the site. Making an effort to attract urban life in the early construction phase.

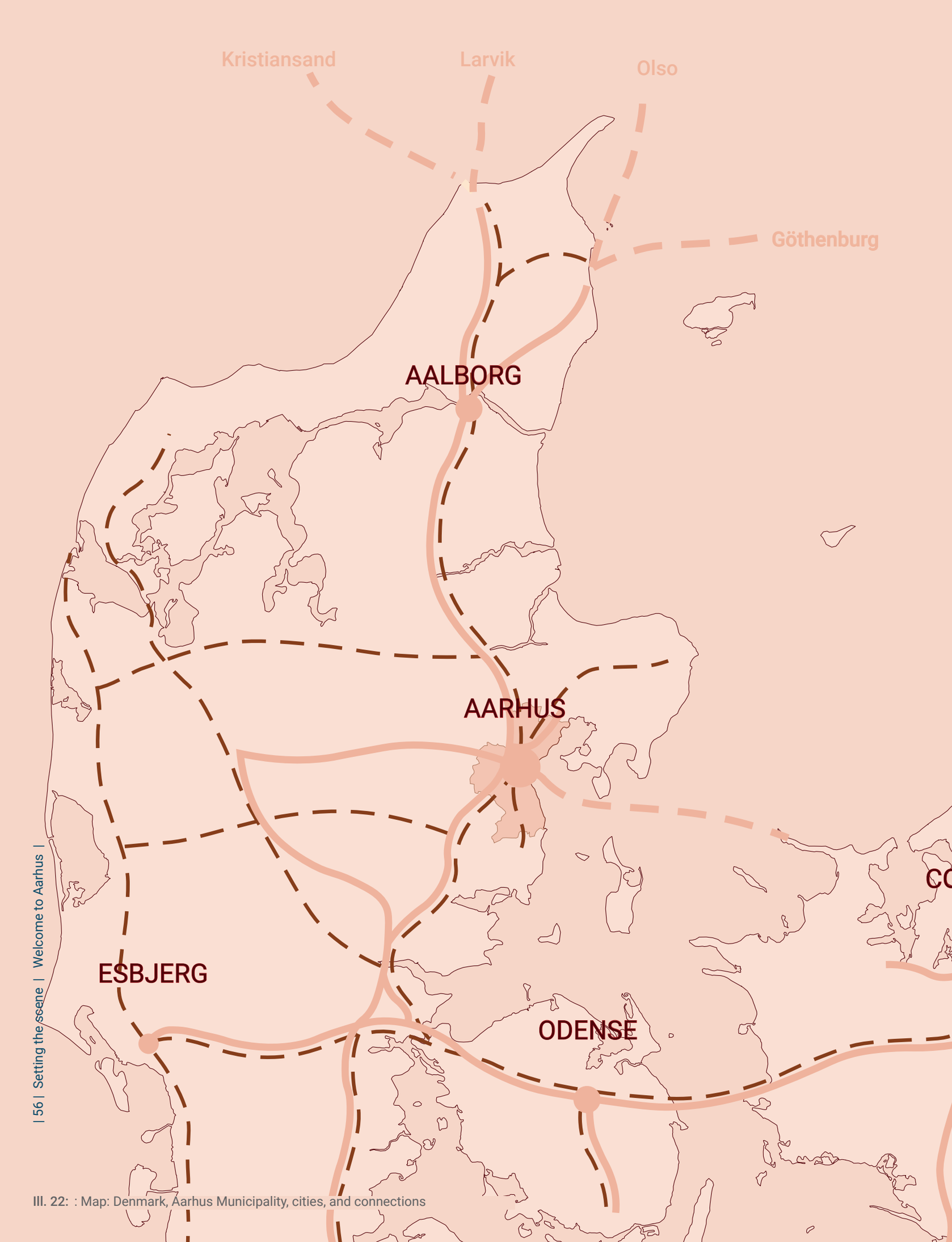
Ill. 21: The harbor at Nordhavn in relation to starcitecture

16

Setting the scene

THE HARBOR CITY

Prior to our analysis of Aarhus Ø, this chapter briefly lightens the most apparent public life in the city of Aarhus, along with a depiction of the public opinion upon Aarhus Ø. Subsequent is the evolution of Aarhus Ø from industrial harbor up until today.



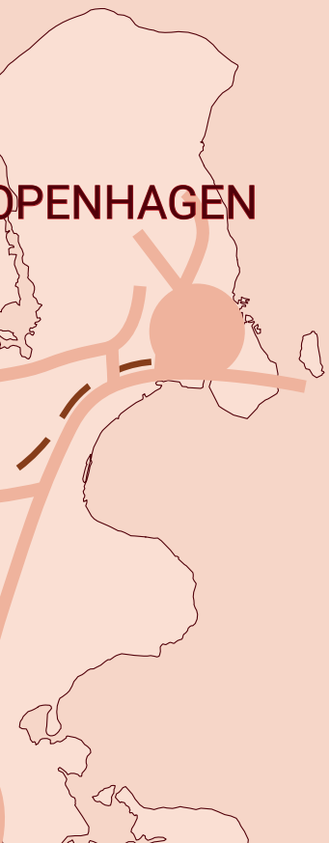
III. 22: : Map: Denmark, Aarhus Municipality, cities, and connections

Welcome to Aarhus

East in the Region of Central Jutland lies what some refer to as the capital of Jutland, the city of Aarhus (VisitAarhus, 2021). Due to its central location, Aarhus is well connected to the rest of Denmark through both train, highway and fairies.

With its population of more than 350.000 inhabitants, Aarhus is the second-largest city in Denmark (Danmarks Statistik, 2021), and have over the recent years both been elected as the European Cultural Capital and earned positions as a must-visit destination on multiple international media (CNN, 2019; Vouge, 2017; National Geograpics, 2017; Lonely Planet, 2016).

At the same time, the city of Aarhus attracts students from all parts of Denmark due to its variety of educational opportunities which makes the city, and especially the city center, lively and vibrant. Near Aarhus, you will find both attractions and world-class museums, a wide range of dining and shopping opportunities, all surrounded by charming neighborhoods, forests, and the bay of Aaehus (Visit Aarhus, 2021).



Highways
Ferry connections
Train connections

The 5 biggest cities in Denmark

Aarhus Municipality

Aarhus in numbers

Aarhus is a city in growth. The number of inhabitants are increasing with more people wanting to live in the city due to education or jobs.

Aarhus stand out from the statistics for the rest of Denmark in term of demography. The average age for inhabitants in Aarhus is 37,5 years (3,4 years less than average in Denmark), which also means that 69,9% of the population consists of people in the working age 15 - 64 years (Trap Danmark, 2019). The reason for the large labor force and the low average age is that Aarhus is a city for education with a university and several educational institutions.

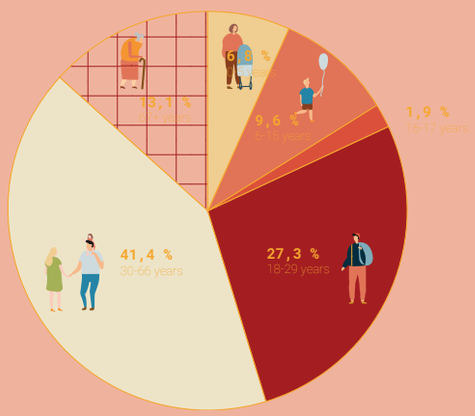
After end studies many students decide to stay in Aarhus due to job opportunities and the advantages of living in a large city.

This puts a lot of pressure on the housing market, leaving Aarhus to have one of the highest housing prices with an average of 32.200 danish kroner per square meter. I Denmark the average housing pric-es per. square meter is 13.600 danish kroner (ibid.).

Due to urbanization and pressure on the housing market, 54% of the housing stock in Aarhus is high. The city is building higher to secure housing opportunities in the centrum of the city (ibid.). The grow-ing population and demand for housing necessitate the need for new housing and different housing types due to the wide demography.

The population is anticipated to grow and an increase in young people (often students is staying in Aarhus after end studies) is increasing the birth rate, this putting even more pressure on the demand for new accommodations in Aarhus in the future. (ibid.)

This growth means that 10% of all housing in Aarhus has been built within the last nine years from the years 2010 to 2018 (ibid.). One of the building projects adding to the fast growth in new accommoda-tions are the new harbor area Aarhus Ø, and in general many parts of Aarhus is under construction. Overall, the city is building both higher and denser to accommodate the future population growth (ibid.).



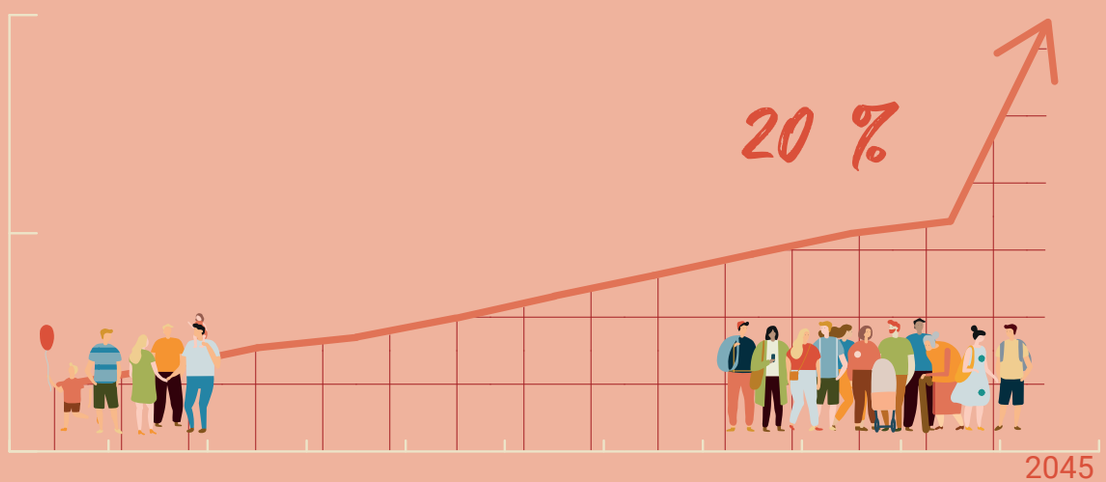
III. 23: Diagram showing the deomographics of Aarhus (based on information from; Trap Danmark, 2019)

The demography of Aarhus is close related to the large range of educations and jobs. Many students move to the city to study, and after end studies subsequently many chose to stay in Aarhus and start a family (Aarhus Municipality, 2021b).

This is both tendency of people moving to Aarhus thus due to jobs, but also the convenience of living in a large city (Trap Danmark, 2019).

According to Aarhus Municipality´s housing projections, 26.583 new homes will be needed in Aarhus in the period from 2021 to 2030 (Aarhus Municipality, 2020d).

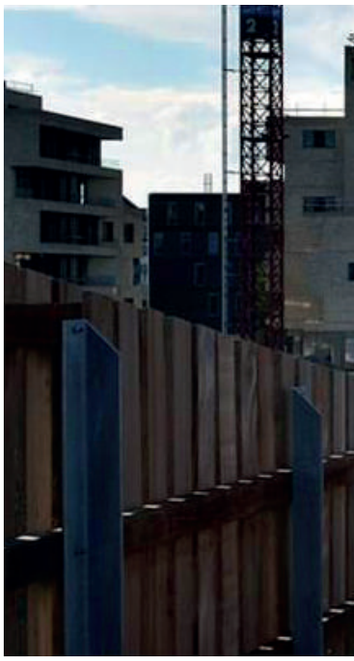
The numbers are calculated and based on the municipality´s development and on the future expected need for schools and day care institutions due to the increase in population (ibid.).



III. 24: Grap showing thefuture expected increase in the population of Aarhus (based on information from; Trap Danmark, 2019)

Aarhus Municipality are experiencing an increase in population, and in the future the city is going to increase even more with 20% up to 2045 (Trap Danmark, 2019).

The average increase is at 4.975 inhabitants per year. In 2030, it is expected that there will be almost 400.000 inhabitants in Aarhus (Aarhus Municipality, 2021b).

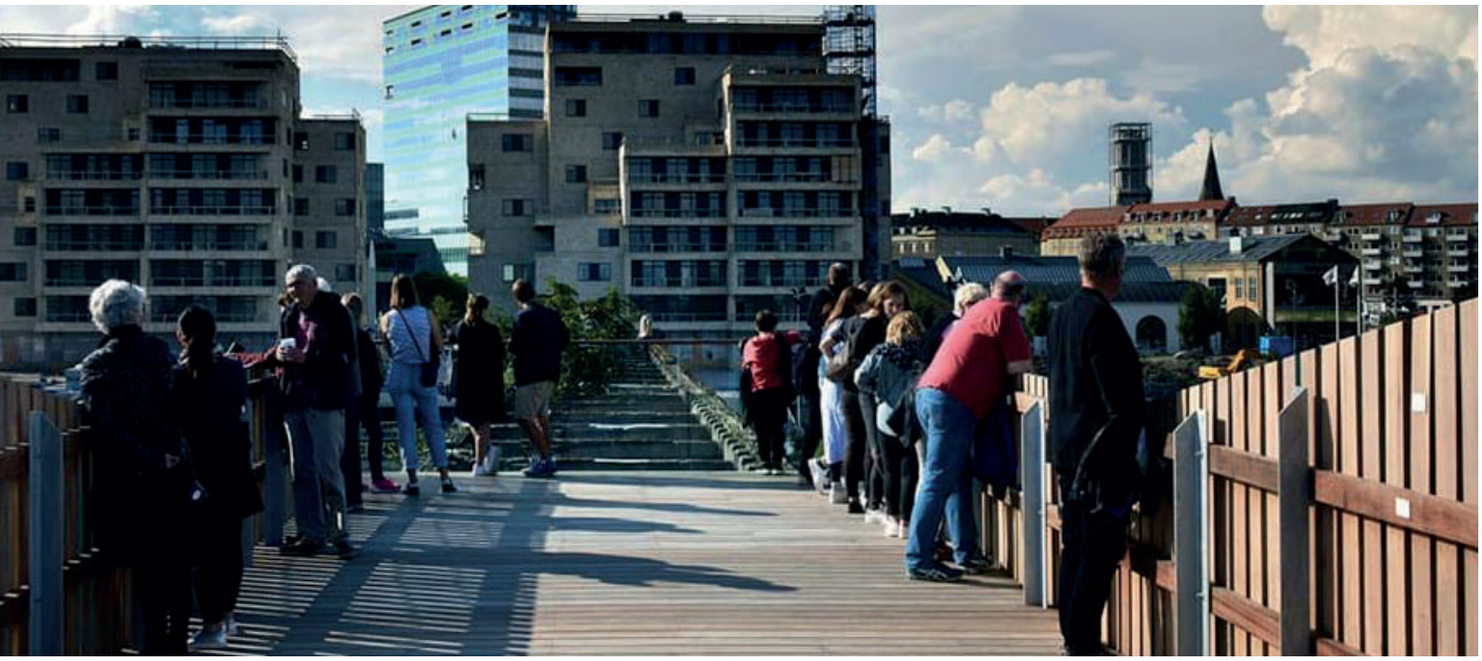


Ill. 25: "Aarhus Å ved Ceresbyen 2019" Photograph by Antonsen, 1934
Ceres Byen, an old brewery transformed to a residential area

A way in which Aarhus Municipality is trying to meet the increasing demand of residential units is by redeveloping older buildings by modernizing them and increasing both the height and density into having more housing units.

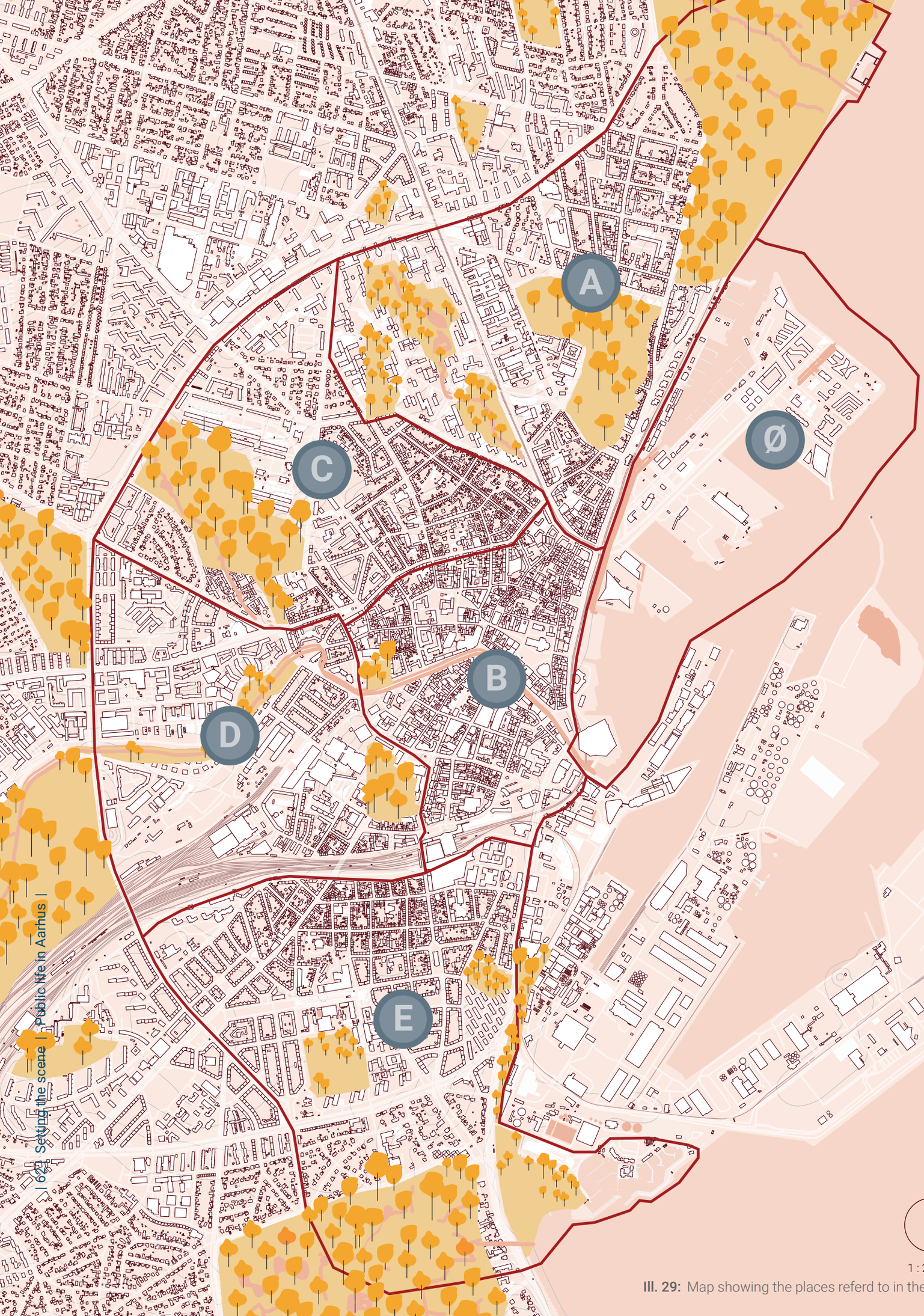
Furthermore, old industrial areas are being transformed into both residential and business areas. A recent example of transformation is; 'Ceres Byen' [Ill. 25], Aarhus N, Skejby and Aarhus Ø. New areas to be developed in the future is the South Harbor Quarter and the second stage of Aarhus Ø.

Ill. 26: Photo: Terrasse Houses in Aarhus



Ill. 27: Ongoing construction in the South Harbor Quarter

Ill. 28: Photo showing the ongoing construction at Aarhus Ø



1 : 20,000

Ill. 29: Map showing the places referd to in the text

Public life in Aarhus

Livability comes in many shapes and sizes, and to understand livability, and how it comes to sight in Aarhus it has been investigated where the citizens of Aarhus prefer to stay in the city and to get a grip of the public life in these designated public places.

Based on designated public places of Aarhus, mapped out on Ill. 29, photos have been taken (conducted in the period from mid-March to the end of May, but many of the photos shown is from other periodes before this project). The observations are done to understand the livability and the everyday life in Aarhus, by surfing around spotting people enjoying the public life. This was done to create an understanding of how the citizens of Aarhus uses their public realm and which features attracts most people and invites them to stay in the public places.

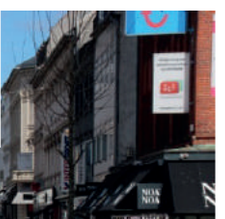
A: TRØJBORG AND RISSKOV

Have a lot of shoreline, people are seeking the beaches and places with direct access to water. The forest attracts several kinds of activities whether it is sports or a Sunday stroll.

Ill. 30: Photomapping A

B: INNER AARHUS

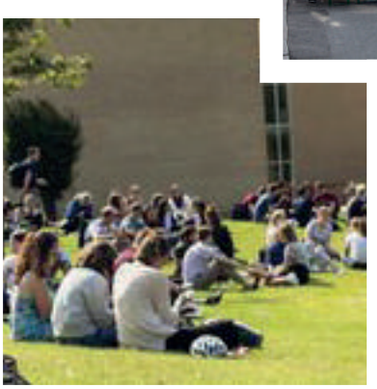
The green areas are limited in the inner city, creating a high amount of activity in these spaces. People sit in every sunbeam, especially when sheltered from wind. Restaurants extend out to the cityscape. At places location near the water the amount of people is even more increased.



Ill. 31: Photomapping B

C: LATIN QUARTER AND 'ØGADERNE'

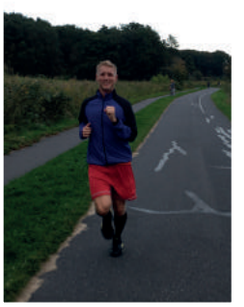
Tiny old housing characterizes the cityscapes, which makes a cozy and warm environment. The places are small, but still cafés drag the servings outside to the sidewalk which strengthen the public life. The big green spaces at the Botanical Garden also attract people in every age



III. 32: Photomapping C

D: VESTERBRO AND THE BRABRAND PATH

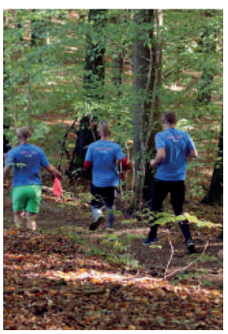
Have space for several kinds of activities. 'The Brabrand Path' attracts people by its 17 km wide path, making room sports and movement. At 'Ceres Byen' the park facilities are highly used.

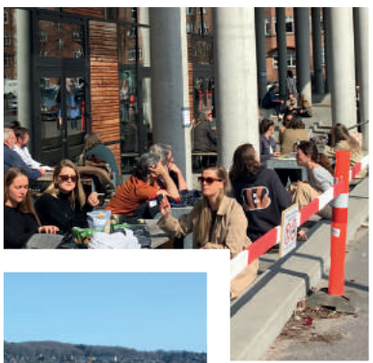


III. 33: Photomapping D

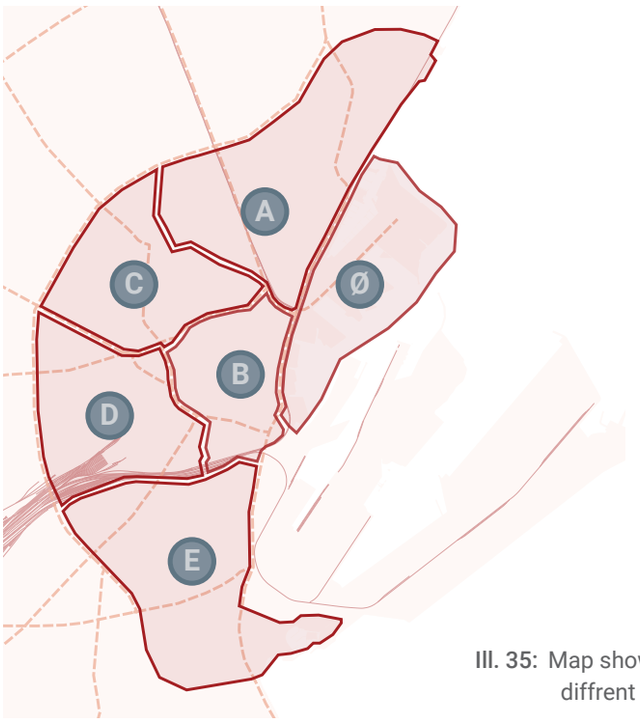
E: FREDERIKSBJERG

In the district of 'Frederiksbjerg' the area around the school with the active square of two weekly flea market are highly visited. Right beside is the new "Red Plaza" with afternoon sun and shelter. The beach nearby is also a preferred area to visit.





III. 34: Photomapping E



III. 35: Map showing the diffrent districts

Photo mappings of livability in Aarhus

Based on the photo mapping it is registered that the residents of Aarhus highly seek water. Especially the places with direct access to interact with the water surface, like beaches and elevated constructions, attracts people.

At the green spaces people is gathering to meet and enjoy entertainment and outdoor events or to go for a walk. In places where the number of parks is limited, like in the city center, places of sun and shelter are the main attractions. At these are also provided with sitting opportunities, inviting people to stay.

The forest 'Risskov', the Forests of Marselisborg and 'The Brabrand Path' are highly used for sports activity and longer walks.

When people take a walk, they like to look at activity which is something which makes people stop. Both at the marinas, when there are flea markets (Fredriksbjerg), the deer park (Marselisborg), or just in general at places where people are walking by. This is further supported when cafés and restaurant are moving the serving activities out in the street, which all together is adding to the urban livability and public life in the cityscape of Aarhus.

The Public Opinion upon Aarhus Ø

Aarhus Ø is a controversial area and topic in the local medias, and even though it is the most designed area in Aarhus Municipality, it is meet with objection from several citizens and stakeholders. Aarhus Ø has been through a long process since it´s starting point 20 years ago. The time has meant that it har constantly changed and at the same time more stakeholders have joined (Hestbek, 2021). The focus has shifted from a more architectural approach to being more about politics, money, and user involvement.

In new areas and districts, being in the middle of a development phase, it is inevitable to meet criticism from citizens or other actors. Every time a change happens, it happens on the terms of others. Aarhus Ø has been met with great criticism over time from both the local population and the media shown in the figure below [Ill. 36]. A selection of problems, criticisms and wishes for changes to the district has been selected to illustrate the public opinion upon the area. Wishes and problems are a selection of citizen quotes from the development plan 2020 for inner Aarhus Ø (Aarhus Municipality 2020b), social media and newspapers.

Ill. 36: Statements and utterings from the public opinion
The utterings is from (Facebook see Appendix I; Bech-Danielsen, 2018; Aarhus Municipality, 2020b)

Arriving at Aarhus Ø

Aarhus Ø is the newly build area in Aarhus and is located at the former harbor of Aarhus. The harbor front is transformed from a container harbor into a new housing area with both housing, business, and cultural institutions.

Aarhus Ø is a well discussed topic when concerning the future of Aarhus since it is a new development. Today the area is partly a construction site, that people live side by side with and there is a lot of opinions about Aarhus Ø.

Ill. 37: Photo of the entrance when arriving at Aarhus Ø

History of Aarhus Harbor

FROM INDUSTRIAL HARBOR TO NEW CITY DISTRICT 'AARHUS Ø'

The new district “Aarhus Ø” is located at the former harbor area “Pier 4”. The starting point for the transformation from industrial harbor to a new city district started with Aarhus City Council in 1997 when they adopted the masterplan for an expansion of the harbor area to the south (Aarhus Municipality, 2018a). By expanding the harbor, the older areas which are also closest to the city could be released for new purposes and development. In 1999 the municipality of Aarhus held an ‘open city plan idea competition’ for the old part of the harbor near the city center, including Pier 4. The final comprehensive plan [helhedsplan] was adopted for the area in 2003 (ibid.).

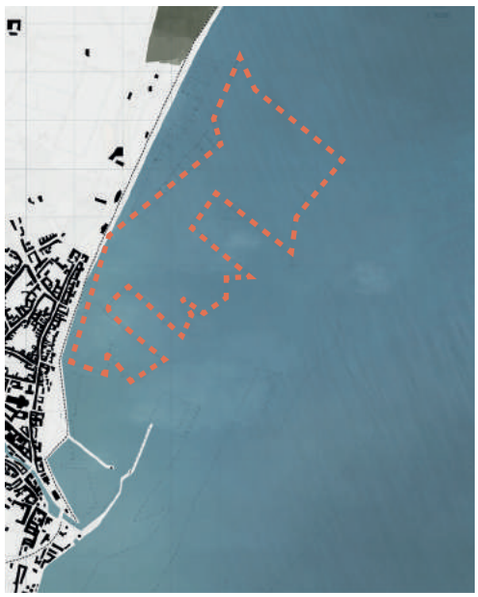
The vision for the transformation of the old harbor areas is to recreate the connection between the city and the bay of Aarhus that the former harbor areas had separated. Another part of the transformation is the recreational connection of the promenade which marks the original coastline of the city. The promenade enables pedestrians and cyclists to move along the coast from Riss Skov in north to Marselisborgskovene in south (ibid.).

The northern part of the areas closest to the city changed its name to “Aarhus Ø” in 2012. The name signals that the new district is located east of the of the existing city and that it is surrounded by water (halft-island) giving it character of an island (ibid.).

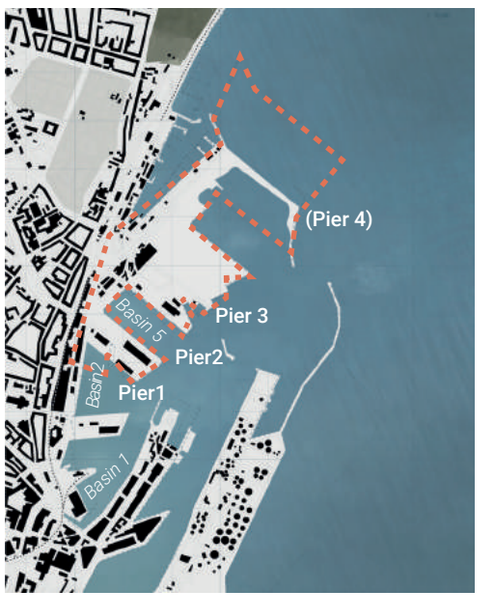
AARHUS A CITY WITH A HARBOR

Aarhus as a city began as the Viking town “Aros”, meaning “the mouth of the river” as early as the 10th century and was an important market town. The towns position at Aarhus Bay and the river valley made it a key point in Jutland (Højlund, Nabe-Nielsen, n.d.).

Construction of the modern harbor of Aarhus began I 1840, before that time Aarhus had had a so-called stream-harbor’ [åhavn] where the ships had to sail into the opening of the stream to dock (Andersen, 2014). But as ships became bigger it made it hard to dock in the narrow outlet of the river. To secure the function of the harbor it was decided to expand the harbor transforming it into a costal harbor (ibid.). [Ill. 38]



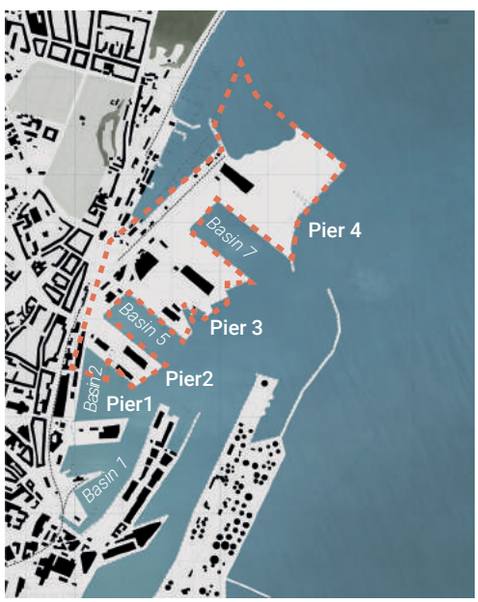
Ill. 38: Aarhus Harbor 1842 - 1899



Ill. 39: Aarhus Harbor 1953-1976

[Ill. 38, Ill. 39, Ill. 40, Ill. 41] The figure ground maps show the development of the harbor area at Aarhus Bay from the mid 1800 to today. It shows the footprint of the buildings and the shoreside of the bay/harbor. The read line shows the expand of the area of Aarhus Ø today.

The figure ground maps is based on the maps "Højemålebordsplade 1828-1840" [Ill. 38], "4cm maps 1953-1976" [Ill. 39], "4cm map 1980-2001"[Ill. 40] and present orthophoto [Ill. 41] from Miljøstyrelsen (n.d.).



Ill. 40: Aarhus Harbor 1980-2001

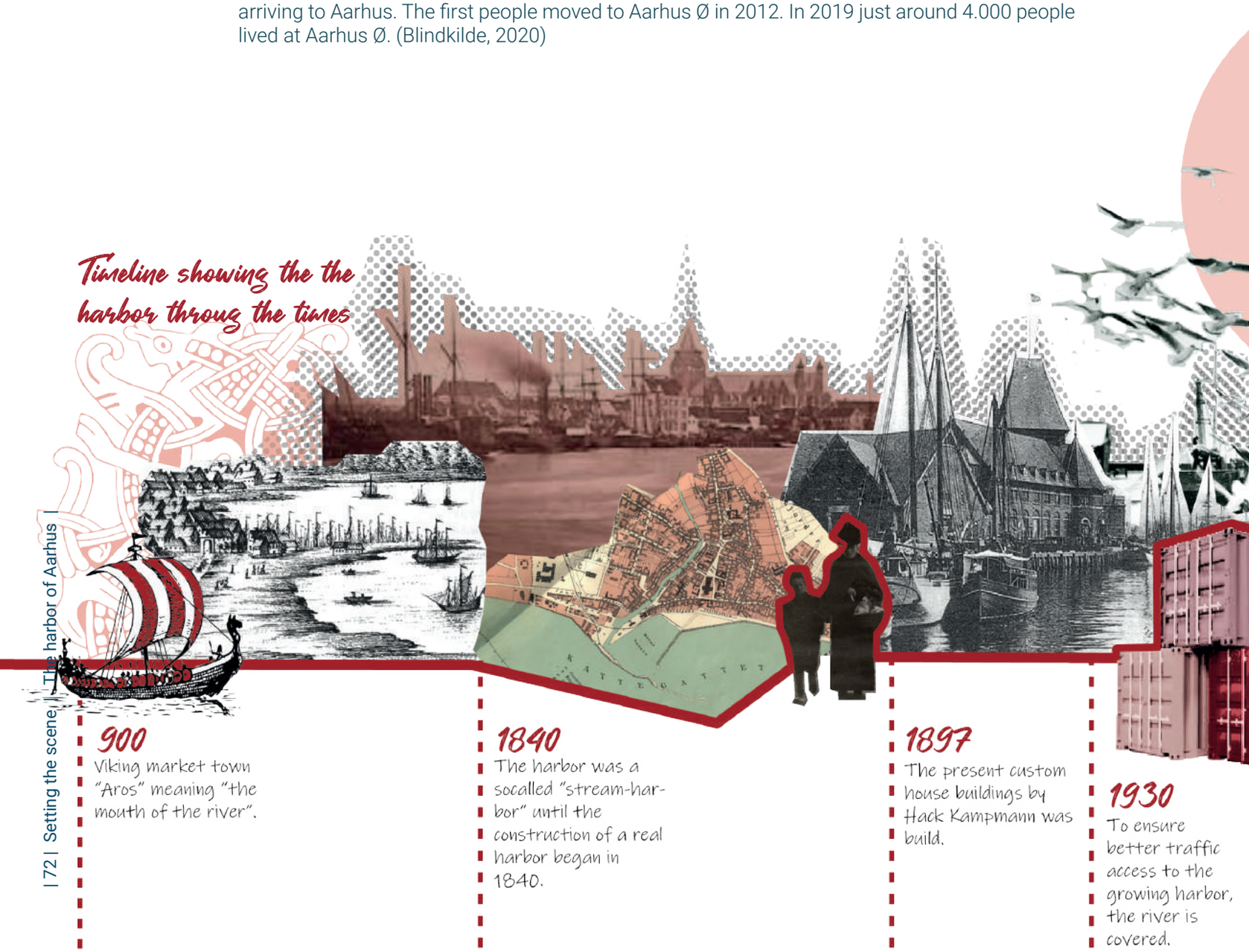
Ill. 41: Aarhus Harbor today 2021

During the last part of the 19th century the new harbor was constructed and combined with the construction of the railway connecting Aarhus to Randers and a direct line to the new harbor making Aarhus harbor more attractive for ships to dock in. Aarhus harbor became one of the biggest market town [købstad] in Denmark during the late part of the 19th century. (Andersen, 2014)

The Harbor of Aarhus

THE FACE OF THE CITY

Through the long history of Aarhus city, the harbor has had an important role as the key point of trading. Today the southern harbor is still active, but the northern harbor has been transformed into the new city district Aarhus Ø [Ill. 41]. The harbor has always been the face for the city to the seaside, and at the ferry of "Molslinjen" transport 2,78 people to and from Aarhus (numbers from 2016) the harbor is still an important entrance to the city (Petersen 2017). Therefore, the transformation of Pier 4 is also important as a statement because it is the first thing many see when arriving to Aarhus. The first people moved to Aarhus Ø in 2012. In 2019 just around 4.000 people lived at Aarhus Ø. (Blindkilde, 2020)



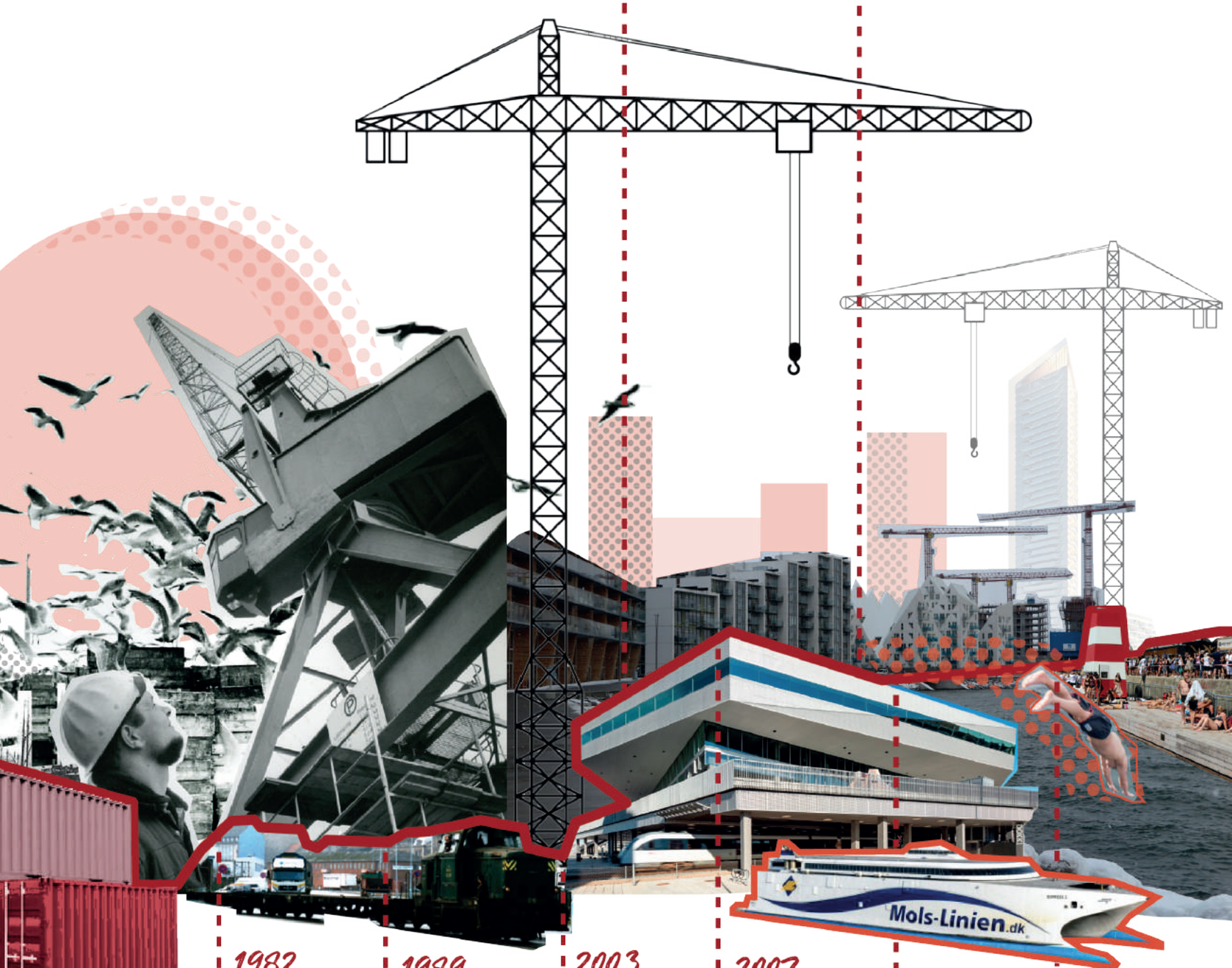
Ill. 42: Timeline showing the development of Aarhus Harbor (timeline based on data from; Aarhus Kommune, 2018; Andersen, 2014, Blindkilde, 2020; Højlund, n.d.& Petersen, 2017)

2006

The container harbor is moved from the north harbor to the new eastern harbor. Aarhus is now the largest container harbor in Denmark.

2008

First tender round of Pier 4. Plans for a new vibrant neighborhood.



1967

Aarhus will be a container harbor. The shipping container was invented in 1956.

1982

The container revolution at the harbor means that many old buildings are being demolished. Pier 3 and 4 is build.

1989

Aarhus City Council decides to reopen the river.

2003

The layout plan for the northern port areas is adopted.

2007

The chanales at Aarhus Ø is constructed and the area secured against rising sealevels.

2013

With Dokk1, the last part of the reopening of the river is completed. The river and the harbor are once more connected.

2020

"Molslinjen" is relocated at the eastern harbor. The development plan for the inner island is prepared.

Aarhus Ø now and in the Future

Aarhus Ø is the youngest city district of Aarhus and is known to be a modern district with iconic architecture projects (Visit Aarhus, 2021).

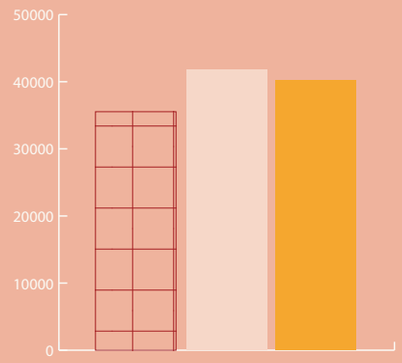
The award-winning building "The Iceberg" [Isbjerget] by CEBRA and JDS Architects are an icon in the cityscape besides from the harbor bath and AArhus by BIG Architects and the future Lighthouse 2.0 (Visit Denmark, n.d.). The architecture at Aarhus Ø is under top 10 attractions for visitors to experience in Aarhus (Visit Aarhus, n.d.).

The new city district of Aarhus Ø has been developed through the last 10 years and are still under development. The construction began in 2008, and when the new district is finished, it is estimated to accommodate for 12.000 residents (NiA, n.d.). This is the same amount as the medium-sized danish city of Odder [see Ill. 44], which indicates that the build environment at Aarhus Ø needs to be dense to accommodate for the future residents (Madsen, 2017).

The location close to the city center, the harbor front and the water attracts residents. The new architect designed buildings and the location cause the rent to be high at Aarhus Ø (NiA, n.d.). The average price per square meter is 40.156 Danish kroner (Propstep, 2020). This is higher than the general average price in Aarhus which is set to 36.452 Danish kroner per square meter [see Ill. 45] (ibid.).

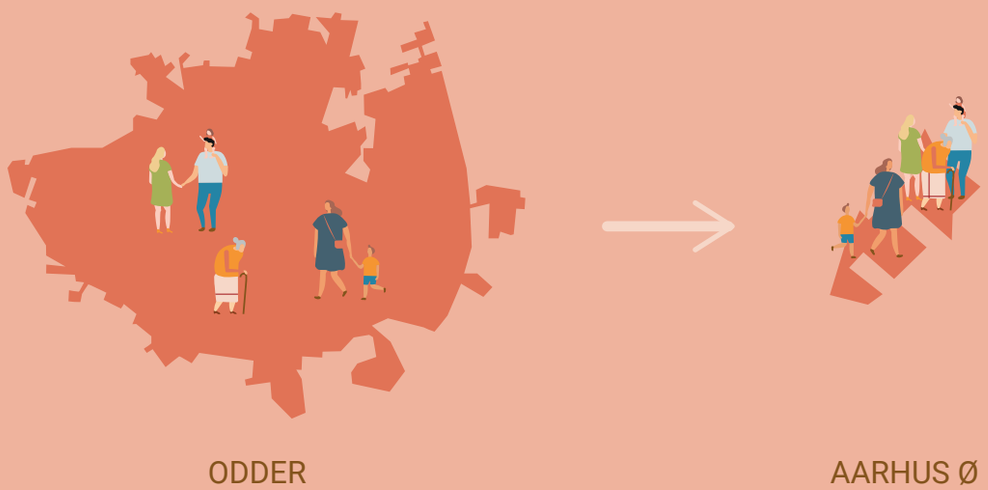
To break with the building costs, the municipality plans to secure diversity in residents by issue 25% of the total housing units to council apartments (NiA, n.d.). Furthermore, Aarhus Ø has youth housing to accommodate for the opportunity for students to live at Aarhus Ø (ibid.).

The diagram indicates the average housing price per square meter at Aarhus Ø. The price is in general higher than the housing prices in Aarhus due to the location and newly build architect drawn building projects at Aarhus Ø (Propstep, 2020).



III. 45: Diagram of average housing prices

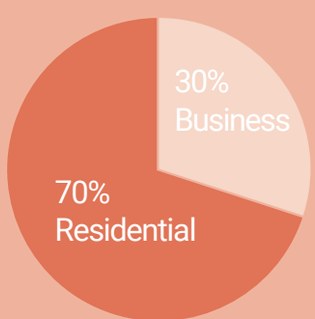
To set the future 12.000 residents in perspective, the illustration shows the difference between the danish city, Odder, and Aarhus Ø. In the future Aarhus Ø has as many residents as Odder, which force the residents to live denser than in Odder. (NiA, n.d.)



III. 44: The illustration demonstrates the difference between Odder and Aarhus Ø

The Iceberg is the ninth most viewed architectural attraction in Aarhus (Visit Denmark, n.d.). Visitors visit Aarhus Ø to experience the architecture, which also can be seen from the water side. The iconic buildings as the iceberg attracts people to Aarhus Ø and brand the island.

III. 43: The Iceberg



III. 46: The distribution of the buildings of Aarhus Ø

The diagram shows that the distribution is of buildings at Aarhus Ø is 30% business and 70 % residential housing (Hestbek, 2021).

Exploring the Hidden Heartchitecture at Aarhus Ø

ANALYSING THE SITE

This chapter is preceding the analysis of the site of Aarhus Ø. The chapter investigates Aarhus Ø through; Stakeholders, Policy plans, Cityscape, Starchitecture, Climate, Public space, Public life, and Mobility. The chapter is summed up with constraints and potentials and a conclusion, leading up to the Public Life Strategy.

Plans and policy at Aarhus Ø

When introducing the planning material for Aarhus Ø, Aarhus Municipality (2020a, p. 1) states that;

"Aarhus Ø is to be a city district, which the rest of Aarhus will come to visit, with public life every hour of the day, every time of the year. Apartments, shops, shopping facilities and activities for the urban life are to be side by side with the water, creating a lively, city district for both residents and the rest of Aarhus (Authors translation)."

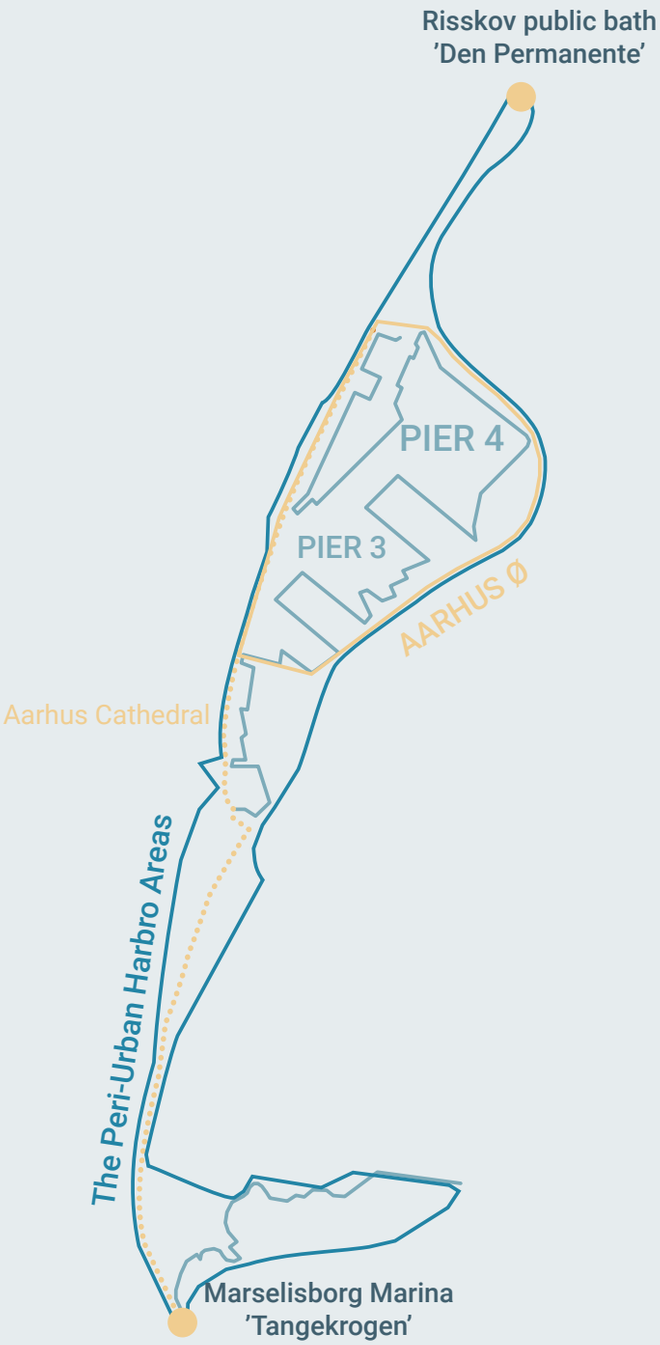
In 1999 the City Council of Aarhus Municipality arranged an ideas competition for 'The Peri-Urban Harbor areas' [Ill. 47]. With a main idea of rebuilding the city edge to the water, architect Knud Fladeland Nielsen and Peer Teglgaard Jeppesen won the competition. Their proposal covered a stretch of 5 km from Risskov public bath 'Den Permanente' down south to Marselisborg Marina and became the foundation for 'Masterplan for the Peri-Urban Harbor Areas'. (Aarhus Municipality, 2003) Based on their concept followed the 'Quality handbook for the Peri-Urban Harbor Areas' (Aarhus Municipality, 2005) and 'The Peri-Urban Harbor Areas - Disposition Plan for the Northern Areas (Aarhus Municipality, 2006a).

In 2013 the City Council of Aarhus decided to name the northern part of the Peri-Urban Harbor Areas; Aarhus Ø. This name suggestion came from the residents of Aarhus based on its double meaning of being both a city district in the eastern part of Aarhus, and because of its location in the middle of Aarhus bay, as the danish 'Ø' both indicates the east direction and is the danish word for island. (Aarhus Municipality, 2018a) Further on, Aarhus Ø will be used when describing the northern part of the Peri-Urban Harbor Areas, marked in red at Ill. 9.The process of transformation of Aarhus Ø into a residential area has been ongoing since 1997 and is planned to continue for the following 10-15 years. (ibid.)

Through this chapter, we will guide you through the policy and plans in the most planned area of Aarhus Ø, from when from the first master plan, as mentioned above, up until today, where Aarhus Ø is half way through their development period of 30 year.

STRATEGIES AND PLANS FOR AARHUS Ø

Since 1997, the planning of Aarhus Ø has been in progress, which have led to several plans for the area. First was the 'Masterplan for the Peri-Urban Harbor Areas' defining sight lines, structure of the canals, a subdivision of Pier 3 and Pier 4 into seven smaller islands and creating an urban harbor area in relation to Aarhus Cathedral. Originally, it was only the canal in which was planned to create the characteristic north-south and west-east grit, as *"(...)housing units are to be placed in a nuanced bending form, to create intimate, small squares and bigger, open, connecting urban spaces. (authors translation)"* (Aarhus



Ill. 47: Map: Key locations and bounderies in relation to the plannning of the Peri-Urban Harbor Areas

Municipality, 2003 p. 33). It was in 2003 decided that the construction work of Aarhus Ø where to start in the northern part, in order to continue existing harbor activities at the inner part. (Aarhus Municipality, 2003)

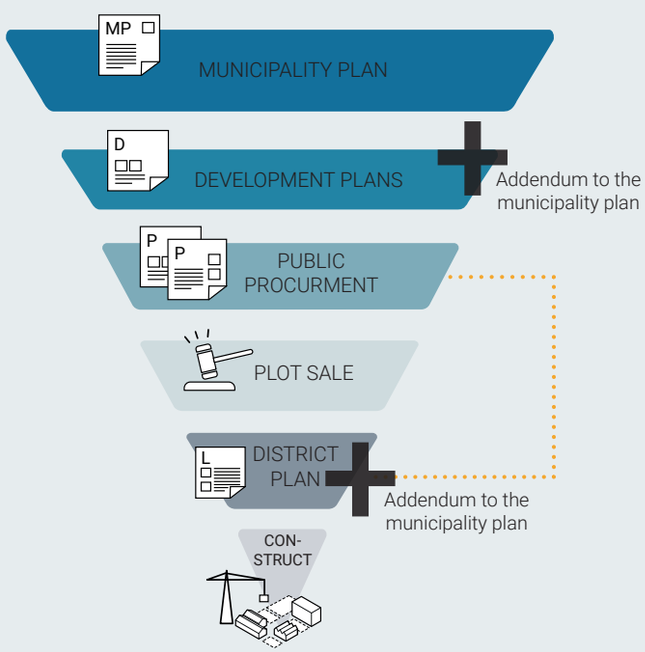
Later on in 2005 came the 'Quality handbook for the peri-urban areas' (Aarhus Municipality, 2005) as an addendum to the municipal plan from 2001, including a more specific placement of the building plots and functions, as the masterplan from 2003 was only meant to draw the general lines (Aarhus Municipality, 2003). The main purpose of the quality handbook was to work as concept and guidance for architect, developers, investors, and other stakeholders, and specified the basic qualities, building structures, water access and the recreational connections from the masterplan. (Aarhus Municipality, 2005) The quality handbook further adds to the municipality plan, that the entire area of Aarhus is for mixed residential and business purposes and that the total gross story area cannot be more than 500,000 m², and a strong connection by public transport is essential. At this time no buildings were determined, as this only works as guidelines and adjoins the need for an authorized development plan followed by individual district plans for the area. (Aarhus Municipality, 2005)

As determined in 'Quality handbook for the Peri-Urban areas' (Aarhus Municipality, 2005), Aarhus municipality needed a development plan in order to continue the transformation. The first was the 'Disposition Plan for the Northern Areas [Aarhus Ø red.]' as a clarification of the following 15 years of planning (Aarhus Municipality, 2006a). It determines the future urban structures, landuse, infrastructure, canals, public places, the promenade, building plots and plot ratio. In the disposition plan building plots are

suggested, and now the concept of the grit of canals and roads, with buildings placed to break the lines to create pocket spaces and shelter for wind, is replaced by big building plots, (Aarhus Municipality, 2006a) creating parallel lines through the islands.

Aarhus Ø is at the time owned entirely by Aarhus Municipality and has to be self-financing, by selling building plots to earn back the money spend on constructing the canals, public utility, infrastructure and additional installation from the process of turning the previous container dock in the a residential harbor (Hestbek, 2021). This business model is used to a great extent in several other project. It has it origin at Docklands in London, and was used for the first time in Denmark when Copenhagen and Frederiksberg Municipality in the 90's made an agreement with the government about a permission for buildings at the preserved Amager island, provided that this new city district where to finance the first stage of the Copenhagen Metro. Like wise the last stage of the Copenhagen Metro was financed by developing the residential harbor in Nordhaven, and in the future, the city of Copenhagen will be made climate resilient through the construction of the artificial island, Lynetteholmen. The earning form this project will both finance the creation of the island, another extension of the Copenhagen Metro and its connection to the ring road. (Andersen & Møller, 2021) Creating Aarhus Ø have been a cost intensive affair to Aarhus Municipality, and these areas therefore requires several story square meters, to cover the costs. This is the reason why Aarhus Municipality is selling of big building plots at Aarhus Ø, as it requires high-density buildings to meet the need amount of story square meters, and to that follow big building plot. (Hestbek, 2021)

Now the structure of the canals, main roads and the promenade is finally determined for Aarhus Ø, and the size and shape of each building are now to be settled through the different district plans. This disposition plan became the foundation for public procurement and sale of building plots (Aarhus Municipality, 2018c).



Ill. 48: Plan heiraki at Aarhus Ø (based on Aarhus Municipality 2020c)

At this time, Aarhus Municipality decided to work with a plan hierarchy [Ill. 48] where the municipality plan and different development plans are to define the general guidelines for the specific area, and where both development plans and district plan can work as addendum to the municipality plan. Then the different plots are up for public procurement where interested developers and investors can hand in proposals for a design, whereupon the city council chooses which developer gets the opportunity to buy the specific plot.

Their proposal is then defining the development of a district plan for the site, and through that, the proposal from the public procurement can add to the municipality plan

Ill. 49: Map: Development Areas at Aarhus Ø

as well. Finally, when the design proposal is incorporated in the district plan, the construction can begin. (Aarhus Municipality, 2018a) Aarhus Municipality do not organize and based their decisions upon architecture competition, as the municipality are not the developer the buildings.

Despite that, architectural composition plays an important part of determine the appearance of Aarhus Ø, as developer at to 'bid' upon the right to build the plots. These bids are not only determined based on the highest bidder, but on a combination of appearance, functions, concept, and price. Therefore, almost every developer hires external or use own architects to develop compositions to present the municipality, in order to earn the right to build the plot. This is also on of the reasons behind the many starchitecture projects at Aarhus Ø. When developers it exceedingly dedicated to investing in a building plots, whey are willing to pay an extensive amount of money, in order to earn the plot. Using starchitects for developing outstanding and unique compositions and using their name as publicity is a way in which their chances are instead, and more developers resort to this approach. (Hestbek, 2021)

Deciding on building plots outer appearance in an area like Aarhus Ø, requires an additional district plan, in order to make the project come true (Aarhus Municipality, 2018a), and therefore Aarhus Ø have individual district plans for every building in the area. Some buildings even have two (Aarhus Municipality, 2008a; 2017a). Having a district plan for every development project at Aarhus Ø have, at the time of writing, left the area with 15 district plans for the building constructed as a result of a winning proposal from the public procurement. At Ill. 50 the valid plans for Aarhus in chronological sequence, in relation to one another.

In 2018, ten years after the 'Disposition Plan for the Northern Areas' Aarhus Municipality created the 'Basin 7 Development Plan' (Aarhus Municipality, 2018c) with the headline; 'Rethink'. This development plan was a test on a smaller area trying to implement experiences from the northern part of Aarhus Ø in combination with a wish for creating more public life. For the first time at Aarhus Ø, Aarhus Municipality gathered a team of both developers, constructors and architects specialized in both public life and modern buildings, in order to rethink the area. They introduced the overall ambition for the site; 'create public life, before buildings', planning strong connections between existing functions, programmed with restaurants, cafes, a harbor bath, a theater, and maritime allotments. This band of public life was later used to define the building plots, breaking up the traditional square shapes previously seen at Aarhus Ø. (Aarhus Municipality, 2018c) This is the other way around, compared to previous practice.

This approach got a lot of credit for being the kick starter for the public ilife on Aarhus Ø, and in continuation of that, Gehl Architects was hired to initiate the development of inner Aarhus Ø. Gehl Architects assisted in creating the 'Development Plan for Inner Aarhus Ø' (Aarhus Municipality, 2020b) and based their findings on user participation and market dialog to secure a synergy between the people living in the area and people investing in the area. Prior to the development plan for the inner part of Aarhus Ø (Aarhus Municipality 2020b) Aarhus Municipality hosted an info meeting, a city walk, a workshop and two public meetings in cooperation with Gehl Architects (Aarhus Municipality, 2020c) where more than 600 people participated in total (Aarhus Municipality, 2018c).
Here the participant had a great influence on the development of inner Aarhus Ø, which also reflects on the development plan, as here are several statements from the residents of Aarhus (Aarhus Municipality, 2020b). The main vision for the development plan is to create 'public life before urban spaces before buildings' and they point out how the planning praxis have changed since the beginning of Aarhus Ø, and how the inner parts are to adjust. Furthermore, a much more thorough green strategy is implemented where the edge zones are activated, in order to have some smaller places for public life.

Already in the 'Masterplan for the peri-urban Harbor Areas' from 2003 it was the intention that; *"New, experimental building typologies of high architectural quality and city elements as canals, bridges, town squares, plazas, marinas and houseboats should support the distinctive character the new city district (authors translation)"* (Aarhus Municipality, 2003, p. 10)

11 ha land reclamaintion into Aarhus bay

1983 : **[154]** The harbor is expanded by 5 ha creating Pier 4

1986 : **[270]** Pier 4 is expanded by additional 5 ha

1988 : **[294]** The marina expands to reach the end of Pier 4

Determing the main structure of Aarhus Ø and the peri-urban harbor areas

2003 : **'Masterplan for the peri-urban harbor areas'**

2005 : **'The sky scraper handbook'**

2005 : **'Quality handbokook for the peri-urban harbor' areas**

2006 : **'The sky scraper policy and developer guide'**

2006 : **'Disposition plan for the northern part of Aarhus Ø'**

2008 : **[815]** The chanels, promanade and the eastern part of Pier 4

2009 : **[858]** 'The Iceberg'

2009 : **[859]** 'SHIP'

2010 : **[895]** 'The Grundfos dormitory'

2013 : *The City council changes the Peri-Urban Harbor Areas to Aarhus Ø*

2013 : **[933]** 'The Harbor Houses'

Development of the northern Aarhus Ø

2014 : **[953]** 'The Harbor Islet'

2014 : **[974]** 'The Canal Houses'

2015 : **[960]** 'The Storehouses'

2016 : **'Developmentplan for Basin 7'**

2016 : **[1000]** 'Basin 7, Bernhardt Jensens Boulevard and Nikoline Plaza

2016 : **[1005]** 'The Yachting Centre'

2017 : *Current municipality plan*

2017 : **[1034]** 'The Z-house'

2017 : **[1035]** New district plan for 'SHIP'

2017 : **[1061]** 'House of the Generations'

2018 : **[1079]** 'Nikoline Houses'

2019 : **[1095]** 'Light House tower'

2019 : **[1104]** 'Conference Hotel'

2019 : **'Development strategy for Inner Aarhus Ø'**

Development of the inner Aarhus Ø

District plans Developement plans Other municipal happenings **[123]** Distrct plan number

III. 50: District plans at Aarhus Ø

DENSE BUILDINGS AND STARCHITECTURE

In the original idea proposal for from 1999 the intention of Knud Fladeland and Peer Peer Teglgaard Jeppesen was to create an urban environment similar to the existing city of Aarhus, which in 2003 led to the maximum building height of 12 m in the 'Masterplan for the Peri-urban Harbor areas' (Aarhus Municipality, 2003), but less than a year later the 'High-rise building policy of Aarhus Municipality' (Aarhus Municipality, 2006b) marked Aarhus Ø as an; *"(...) area where high-rise buildings at present are not ruled out (authors translation)"* (Aarhus Municipality, 2006b p. 13), which opened the possibility for building even higher.

In continuation of this, the possibility for buildings variation in height of 4-9 story buildings, along with the possibility of raising single building blocks of 16-19 stories, with a maximum height on 60 meters, near Basin 7 and an additional one of 110 meter in the north-east corner, was integrated in the 'Disposition plan for the Northern part of the Peri-urban Harbor areas' (Aarhus Municipality, 2006a). These decisions were based on a part of the vision from the 'Quality handbook' (Aarhus Municipality, 2005) of having *"(..)significant building work and landmarks to characterize the city as a whole, but also defining the single areas identity (authors translation)."* (Aarhus Municipality, 2005 p. 10)

As mentioned, the previous plans only sets the guidelines and ground elements, so when the first district plan after Aarhus Ø became a residential harbor was made 'District plan 815' stated that a 146 meter high-rise building in the north-east corner was permitted along with at maximum height of 40 meters at the contiguous buildings. At present, the highest building planned is still 146-meter-high, but the surrounding buildings have increased from a size maximum of 6 stories to 12.

PLANNING LIVABILITY

Formerly, livability and public life was not very present in planning material for Aarhus Ø. As a matter of fact, the respective district plans only require urban space in relation to each building equaling 10 pct. of the housing floor area and 5 pct of the business floor area. (Aarhus Municipality, 2008a), even though this is a deviation from the municipal plan which demands an area for urban spaces in the inner city equaling 40 pct. of the constructed housing floor area (Aarhus Municipality, 2017a). This is justified in Aarhus Ø's location to Aarhus bay as a recreational feature and the intention of developing bigger urban spaces such as plazas, the promenade, canals, and recreational assets in relation to the marina. (Aarhus Municipality, 2008a)
At a local authority level Aarhus Municipality states;

"The city council wants all projects to contribute to a bigger degree of livability, a good public life for all and and to be of high quality (authors translation)" (Aarhus Municipality 2017b, p. 33)

Today, Aarhus Municipality mentions 'livability' in both the Municipality Plan (Aarhus Municipality 2017b), the Plan Strategy (Aarhus Municipality, 2019e) and the development plan for inner Aarhus Ø (Aarhus Municipality, 2020b), as more restent plans. But a more specific approach on how to work with and secure the livability at Aarhus Ø is not present before the development plan for Basin 7 and inner Aarhus Ø, when the concept of 'Public life before buildings' are introduced. With great success, they implemented different activities and functions for public life as the first stages of the development. In the development plan for Basin 7 it is further mentioned, that;

"(...) activites serves multiple purposes. They interact as positive 'branding' of Aarhus Ø, where public life and mental urban transformation is created, before buildings. (Authors translation)" Aarhus Municipality, 2017b, p. 15.

In the development plan for inner Aarhus Ø, which, among other things, build upon experiences from the mentioned above, one of three main topics is public life. To briefly sum up, this topic revolves around creating a mix of functions, to create space for local communities and to secure that temporary functions activate and generate attention to the city district. (Aarhus Municipality, 2020b) In other words, they intend to brand through livability and public life as well.

The development plan for inner Aarhus Ø target the importance of functions for public life and recreational urban spaces, and states that; *"In relation to public procurement the developer must, in a creative way, contribute*

to creating local communities, which includes residents, businesses and visitors. (Authors translation)" Aarhus Municipality, 2020b p. 24. But without adding any comments upon how.

FINAL REMARKS

One of the most consistent statements in the policy plans at Aarhus Ø through time is the importance of the recreational connection south/north and the visibility to the water from a variety of places (Aarhus Municipality 2020b; 2006a; 2005; 2003.)

This was a focus already at the idea proposal from Knud Fladeland and Peer Teglgaard Jeppesen, and is visible by the through going canal indicating the old quayside near Kystvejen and divides the different islands. Despite this prolonged focus on water accessibility, there it was not before the development plan for Basin 7 that a design introduced where people were actually able to through the water was made (Aarhus Municipality, 2020b).

The development plan of Basin 7 was also the first project at Aarhus Ø introducing a focus on urban livability and public life, with the concept of 'public life before buildings'. This was the foundation for the now very successful area around the harbor bath with small restaurants and bars located in old containers (Hestbek, 2021). In the development plan for Inner Aarhus Ø this focus was extended to 'public life, before public space, before buildings'. Here the population have been highly involved in huge user participation workshops, in order to meet the wishes and desires in the area. Gehl Architects here worked with an approach to rethink the way in which the area of Aarhus Ø is right now, by highlighting qualities and values for public life, public places and buildings.

Through the development plan for the northern part of the peri-urban harbor areas, the buildings plot was distribute to developers to after they won the 'buildingrights' allowing them to build to the plot border mainly creating urban spaces inside the building blocks. Gehl Architects try to redevelop this way of building by reserving edge zones for urban spaces.

Here Aarhus Municipality is also advised to at a higher level, set some demands for the developers to 'in a creative way, contribute to creating local communities', without setting up guidelines for how. So unless they are cooperating with architects, urban designer or similar with at knowledge about both public life and the relation to the build environment, they will most likely have to invite external consultant to guide the process like 'Kilden and Mortensen' did when investing in the area at Basin 7. Here they cooperated with 'Institut for (X)', which is a culture, business and education platform, arised from citizen initiatives.

Right now the interest in the building plots is higher than in 2008, where the development almost stopped due to the financial crises. In fact 11 developers bid on the two first residential plots at inner Aarhus (Hestbek, 2021). This puts Aarhus Municipality in a position where it could be beneficial to try and test how developers would be able to develop public life.

As mentioned earlier, the transformation of Aarhus Ø is financed by selling the right to construct the building plot. It can be argued that this is very beneficial to use this business model when developing cities, as it ables the municipally to make comprehensive and expensive development project serving a greater good, without draining the 'the public purse'. But as money highly controls these projects, there is a risk to the quality of public life. Public life does not add to the bottom line from day one and when a developer invest in the right to construct a plot at Aarhus Ø the tendency, so far, have been developing to the border of the building plot, with little or no concerns to public life. (Andersen & Møller, 2020)

Aarhus Municipality (2017b, p. 4) states that; *"they have an obligation as the city grows, they are obligated to ensure that it grows the better (Authors translation)."*

And in relation to that we find it crucial to search for a way in which Aarhus Municipality can try and reveal the potential for developing public life at Aarhus Ø, and create some kind of strategic framework to locate the potentials and make these more site specific, and furthermore guide the developers upon how to realise these potential when building on Aarhus Ø.

Meet the Stakeholders!

The dialog between the local community and Aarhus Municipality is essential for developing the democracy and culture in the municipality, basically because almost all of the decisions affecting the local community are made by the city council or managed by the municipal administration.

At Aarhus Ø, the main stakeholders are the local community, the developers, 'the Joint Council of Aarhus Ø and the Peri-Urban Harbor areas (the joint council),' and the Aarhus Municipality. To get a better understanding of Aarhus Municipality, we have divided it into two divisions. The municipal administration as planners and the developers in 'the Department of Technical and Environmental Services [Teknik og Miljø-afdelingen],' and the city council mainly comprises politicians and the mayor.

On the following pages is a brief overview of the main stakeholders in the development and everyday life of Aarhus Ø. This chapter aims to understand who makes the decisions and how the local community are and could be involved in both the work of the joint council, and Aarhus Municipality.

THE LOCAL COMMUNITY

70 pct of the buildings on Aarhus Ø are housing units, and the entire area is forecasted to accommodate 12.000 people when finished. (Hestbek, 2021) The residents of the Aarhus Ø plays an important part in the development and success of Aarhus Ø, as they are the foundation for the local community. (Aarhus Municipality, 2018b) Concerning livability and public life, the local community is an essential asset. The everyday movement brings public life to the urban environment, and local enthusiast facilitates gatherings, activities, and impulse meetings, all to joy for the common good. (Aarhus Municipality, 2018b)

The interest in the area development of Aarhus Ø is varying from resident to resident. It is likely to be higher among house owners than at tenant, as house owners all so have an economic driver for developing the entire Aarhus Ø.

Their influence on the project and the overall development depend on their engagement level, as they have to voluntarily engage in the public involvement processes or single-handed contact Aarhus Municipality or the joint council.

Legally, every resident is entitled to fundamental rights like access to information, participating in resolutions, complaining, and taking adjunctions to court (Retsinformation, 2003). Again, after the City Council has made resolutions, the citizens are left with an 8-week hearing period to file oppositions (Retsinformation, 2020)

THE JOINT COUNCIL OF AARHUS Ø AND THE PERI-URBAN HARBOR AREAS

The Joint Council of Aarhus Ø and the Peri-Urban Harbor Areas (the joint council) is one out of 36 different joint councils, representing different districts of Aarhus Municipality (Aarhus Municipality, 2019d). At first the joint council consisted of people from the inner city, as no one was living at Aarhus Ø jet (Hestbek, 2021), but now every member of the council lives at Aarhus Ø (Schrøder, 2021).

The primary purpose of the joint council is to act as spokesperson and strengthen the dialog between the local community and Aarhus Municipality – both in terms of contact with the municipal administration and the city council. (Schrøder, 2021; Aarhus Municipality, 2019d) Members of the joint council volunteer for their position (Aarhus Municipality, 2019d) and thereby have a greater interest in the development and political processes of Aarhus Ø than the general population.

The joint council has in-depth knowledge about the municipality's work regarding their specific area. Therefore, they are very competent when local wishes and desires are presented, as they already know what is on the agenda and have a 'louder voice' when speaking to the local authorities. (Aarhus Municipality, 2019d)

Every resident of Aarhus Ø can contact the joint council, but it is the responsibility of the joint council to pass on information and discussion papers to the general population. (Aarhus Municipality, 2019d)

DEVELOPERS

Building an entirely new city district is an expensive affair, and therefore it requires several developers backed up by wealthy investors. Aarhus Ø is divided into multiple building plots, defined as eighter housing units, business property, or buildings of public functions. Developers cannot buy the building plots. Instead, they have to make a building proposal to obtain the right to construct the specific plot. (Hestbek, 2021)

The developers have a great interest in Aarhus Ø as it affects the success of their investments. Furthermore, some investors also live on Aarhus Ø (Hestbek, 2021), which makes their interest double-sided.

Their influence is dependent on whether other developers are trying to get their hands on the specific plot they are desiring. With many interested developers, the municipality can more or less control what is being built on-site, as they can use their demands to control who gets the right to construct. On the other hand, when only one developer wants to invest, it will most likely be easier to negotiate with local authorities, depending on their investment from the developer. (Hestbek, 2021)

THE MUNICIPAL ADMINISTRATION

Aarhus Municipality has since 2007 been the owner of Aarhus Ø (Aarhus Municipality, 2021a.). They brought the entire area from 'Port of Aarhus [Aarhus Havn]' to extend the city into the bay. At Aarhus Municipality, it is 'the Department of Technical and Environmental Services (DTE),' who, in brief, work around urban development, mobility, and the environment. DTE consists of three administration areas with a mutual secretariat and has multiple collaborators, including the joint council. (Aarhus Municipality, 2021a)

DTE and its subdivisions are both contributing to the development and the political agenda by developing planning material and buying up areas for development to reach the common goals of Aarhus municipality concerning growth and densification (Aarhus Municipality, 2020c)

Roughly speaking, the municipal administration is responsible for the development of the areas owned by Aarhus Municipality. Right now, five areas are their main priority, of which Aarhus Ø is one. (Hestbek, 2021)

The distribution of the building plot of Aarhus Ø is the responsibility of the municipal administration. Still, they can officially only recommend procurement materials for the city council, as they have the finals say in the decision-making. (Hestbek, 2021)

THE CITY COUNCIL

As the only municipality in Denmark, Aarhus Municipality is ruled by 'the City Executive Board [Magistratstyret],' which means that the day-to-day management, both political and administrative, is done by the City Executive Board. The City Executive Board is a public agency consisting of the mayor and five councilors elected by a majority in the city council. (Aarhus Municipality, 2019a) One of these councilors has the political and administrative responsibility for DTE (Aarhus Municipality, 2021a).

The City Executive Board is making the 'recommendations for decisions' [indstillinger] for the city council. The city council is the highest decision-making and granting authority. Colloquially, the city council is the parliament, while the City Executive Board is the government. (Aarhus Municipality, 2019a) The mayor is also the head of the city council, which in Aarhus Municipality consist of 31 members. (Aarhus Municipality, 2019b)

Every resident in Aarhus Municipality is entitled to run for a spot in the city council, as long as they have Danish naturalization, citizenship in Iceland, Norway, or an EU country, or had an official residence in Denmark through the last three years (Aarhus Municipality, 2019b). Still, spots are mostly to be occupied by politicians. (Aarhus Municipality, 2019c)

At Aarhus Ø, the city council must approve every development project, whether it is a single building plot or the entire area. Based on proposals from developers, they decide who is to earn the 'right to construct the site.'

In theory, their communication to the border population is through the joint council (Aarhus Municipality, 2019d), but in reality, especially the councilor in charge of DTE reaches out to both locals and developers at Aarhus Ø (Hestbek, 2021) and through social media (Appendix I).

PUBLIC INVOLVEMENT IN AARHUS MUNICIPALITY

Literally speaking, the city council has the final say in the decision-making through the development of Aarhus Ø. But as in any other politically-driven organization, several dynamics are affecting these decisions.

At Aarhus Municipality, the 'Aarhusmodel for User Participation' sets the basic principle for how user participation must be done. (Aarhus Municipality, 2004) Aarhus Municipality distinguishes between three types of contact and cooperation with the users. These three types are; 'information,' 'user involvement,' and 'user participation.' Information is when locals are informed about what is done in their neighborhood. This is a one-way communication through fliers, letters, or newspapers, and in some cases, at public meetings. (Aarhus Municipality, 2019d) Often,

Aarhus Municipality uses the joint council to contribute this information (Schrøder, 2021). User participation is when the user is involved in developing a project through hearings, public meetings, and focus groups (Aarhus Municipality, 2019d). This has, for instance, been done prior to the development plans for Aarhus Ø, where more than 600 participated at the most recent development plan for the area (Hestbek, 2021). Lastly, user involvement is when locals are cocreators of local transformations through dialogue, workshops, and initiatives from locals (Aarhus Municipality, 2019d). At Aarhus Ø, this has been done at minor parts of 'the Ø-line' and through a temporary empty build site as project 'the Ø-garden' (Aarhus Municipality, 2004).

As mentioned above, the general population is engaged through user participation for the latest development plans at Aarhus Ø. In contrast, user involvement is mainly carried out in practice at smaller, local-based projects. (Aarhus Municipality, 2004) Aarhus Municipality strives to inform impacted stakeholders along the process of each project and use the joint council as the middleman for contributing this information between the municipality and the local community. (Schrøder, 2021). The joint council has in-depth knowledge about the municipality's work regarding their specific area. Therefore they are very competent when local wishes and desires are presented, as they already know what is on the agenda and have a 'louder voice' when speaking to the local authorities. (Aarhus Municipality, 2019d)

The municipality intends to involve the joint council as soon as possible in projects regarding the local community (Aarhus Municipality, 2004). Nevertheless, there is a general feeling of them mainly listening when suggestions are beneficial for the city council's plans and that the municipality seeks their opinion and experiences too late in the process (Schrøder, 2021).

The joint council feel that they are very involved in theory, but in practice, solely when their purposes fit the original plan (Schrøder, 2021), to which the joint council express their frustration;

"The joint council mentioned several times their concerns about et cetera and et cetera [building heights, style and density]. But despite that, not a comma is changed in the received material from the hearings, even though we had additions concerning it (Authors translation)." (Schrøder, 2021, p. 4)

The general feeling is that the main reason their opinions are brought to the table is because of their stubbornness. The joint council tries to enter these processes earlier by attending public meetings in the city council every time tender documents [udbudsmateriale] are being created and when hearing statements are being proceeded. To ensure that the local points of view are put to thought, the joint council knows that they are not in a calling veto position but would still like to attend the evaluation and process of the hearing

statements to ensure the city council proceeds with their perspectives. Furthermore, they are approaching the city council through good dialogs and open letters. (Schrøder, 2021)

The joint council wants to increase its focus on user involvement and tries as often as possible to engage the residents at Aarhus Ø, but these ambitions have not yet been realized at much as they wished. So far, they conduct open meetings every sixths week, where people are free to attend. A representative from the owner's association is attending these meetings. On a daily basis, the owner's associations are the link to the residents and pass on information between the residents and the joint council.

WHEN LOCAL COMMUNITY REACH OUT

When issues occur on Aarhus Ø, people tend to express their opinions on Facebook as a mutual platform. Here topics like traffic issues, garbage complaints, upcoming construction, and suchlike, are put to speak, leading to joint solutions and different arrangements like garbage gatherings. Residents of Aarhus Ø also use their Facebook pages to 'tag' members of the city council and create an awareness of what is happening in the area. Local politicians also use these Facebook groups to promote their politics through hot topics from the discussions, and especially the counselor responsible for DTE is reachable through these Facebook discussions. Furthermore, both locals and the joint council use these Facebook groups to share information about local meetings and Aarhus Municipality's work. (Apendix I)

There was considerable interest in the participation process at the latest workshop, as more than 600 residents attended (Hestbek, 2021), and to which the overall attitude is positive (Schrøder, 2021).

THE IMPORTANCE OF A LIVABLE CITY DISTRICT

A common interest among both the municipality, developers, the joint council, and the local community is to develop a livable and attractive city district, which attracts both visitors and future resident, and where people are happy to live (Hestbek, 2021)

To both residents and the joint council, Aarhus Ø is the foundation of their everyday life. When living in smaller accommodations, such as apartments, daily life tends to extend out in the cityscape. Public life in these areas is thereby increasing and contributing to the overall livability. (Appleyard, 1978) Along with livable city district follows rising housing prices, general health, and the supply of functions (Chiu, 2019). Rising housing prices and the supply of functions are also attractive elements for the developers, affecting their investment in the area. The municipality has a double sited interest in public life at Aarhus Ø. Firstly, they want a livable city district attractive for the existing and future residents of Aarhus. Second, they want several developers willing to invest in the area to get the best building solution at a competitive price. (Hestbek, 2021) Furthermore, the city council is interested in meeting the wishes of the general populations, as those determine whether they will be counselors for the next election period (Aarhus Municipality, 2019b).

At present, Aarhus Municipality has invested in public life at Aarhus Ø through 'Domen' on Pier 2, 'The cable track,' and food stalls at Basin 7 to increase livability at Aarhus Ø (Hestbek, 2021)

Both locals and the joint council are skeptical of the building densification and afraid that decisions are made upon economic speculations. Still, most are aware that it is a balance between economy and urban quality and that the 'calculations have to meet in the end.' (Schrøder, 2021)

WHEN MONEY TALKS

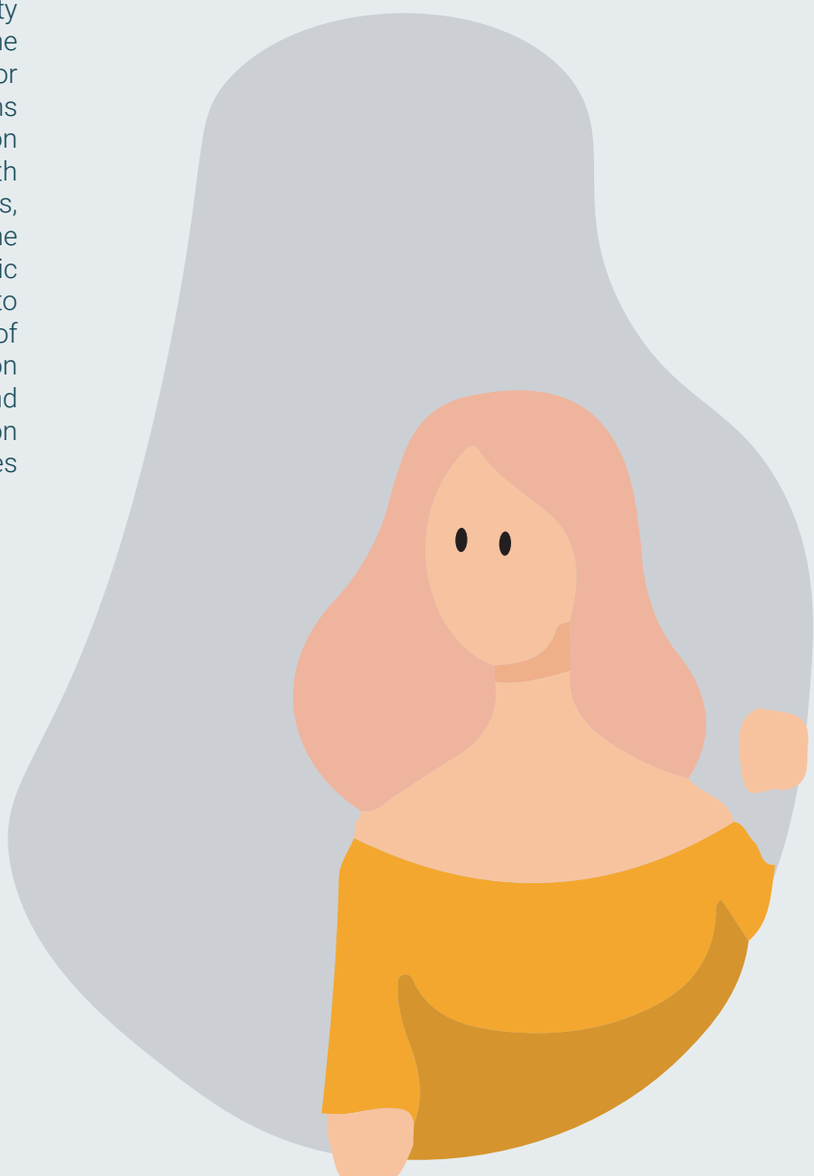
Economics plays an undeniable role in the development of Aarhus Ø. The city council has put up some target numbers for the entire profit performance for DTE to follow, so whenever the development plan is changing, it affects the area budget. Especially when building plot is set aside for future school or cultural functions, these institutions expect to receive the building plot for free, as they are a part of the municipality administration themself and the municipal administration owns Aarhus Ø. Nevertheless, DTE has to profit 4,5 billion Danish kroner by devesting building plots. Roughly speaking, this equals 800.000 square meters. When building plots are drawn out of the equation, the only solution is to build even higher and dense, which is not popular among the general population. (Hestbek, 2021)

Only one building plot on Aarhus Ø is obligated to take public life into count in their development. For the rest of the area, it is up to the single developer to decide whether they intend to prioritize it or not. As a main rule, developers are only obligated to fulfill the demands of the existing development plan and their winning proposal for the right to construct the plot [byggeret]. (Hestbek, 2021)

As mentioned in the previous chaptor 'policy and plans,' the demand for the right to construct the plots at Aarhus Ø is highly attractive. But as DTE has to meet a fixed profit, the developer has to offer the best project at the best price. This discourse leads to constructions focusing more on how many residents to accommodate, that supporting public life.

FINAL REMARKS

To a greater extent, Aarhus Municipality could involve both the joint council and the local community concerning initiatives for supporting public life. Several interventions can be done within public places, based on public opinion, without interfering highly with the profit of the building plots. Nevertheless, it might even become a benefit to the investment. Further, it is an area where public opinion is more likely to be heard at taken into account—adding to the overall perception of being listened to and having an influence on the neighborhood. Both the joint council and det residents of Aarhus are experts upon public life on Aarhus Ø, as they are the ones who create it.



The Cityscape

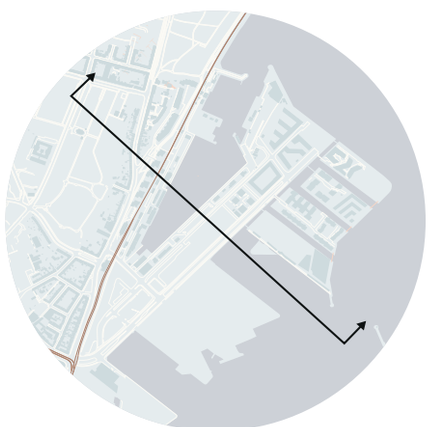
The cityscape at Aarhus Ø differs from the rest of Aarhus. The buildings have various shapes, materials, and heights, branding the new city district through examples of starchitecture. Aarhus Ø is the frontage for the city of Aarhus towards the water and the new visiting card for tourists to experience.

Some of the buildings at Aarhus Ø is what Is characterized as starchitecture in this report. The buildings address themselves by only taking their own building plot into account, not considering largely its context or the character and history of Aarhus.

The height of the buildings at Aarhus Ø the is staggering. The main part of the buildings at Aarhus Ø is 10 floors and more. 12 floors are the average height. The highest building today is AARhus, being 20 floors high (63 m) (Rye, 2019) and the future building of "Lighthouse 2.0" is going to be the highest skyscraper in Denmark with 45 floors (142 m) (Lighthouse.dk, n.d.). The height of all the buildings is increasing towards the bay with the highest buildings along the waterfront at East (shown in the section in Ill. 51 below).

The buildings at Aarhus Ø are all given a name (Aarhus Municipality, 2020e). This is atypical for the city of Aarhus, but backs up the ideas of the buildings being starchitecture with unique names for branding.

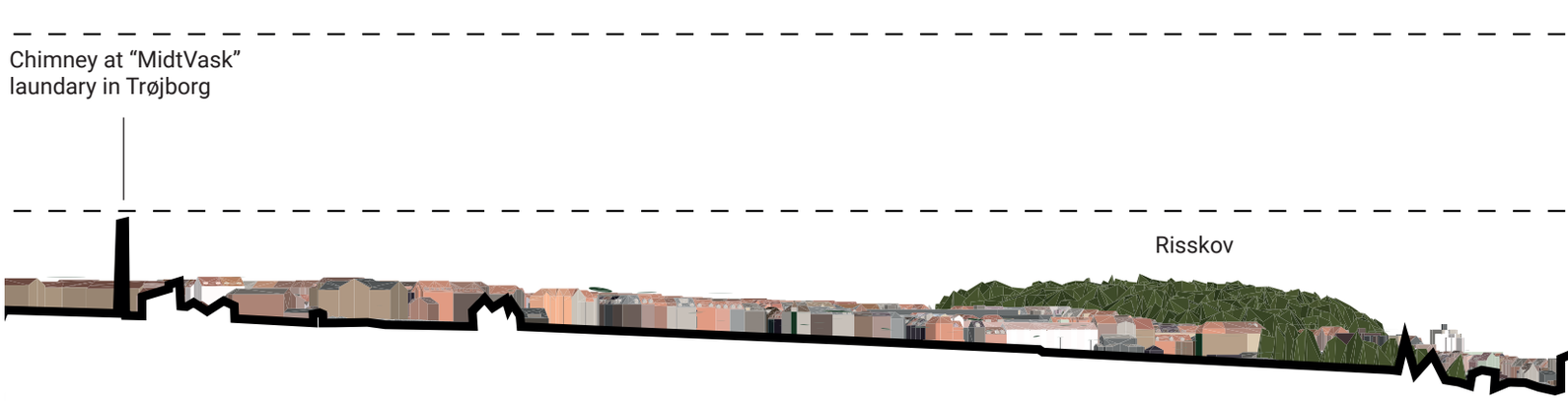
On the map the existing buildings at Aarhus Ø are listed and future buildings are included. The buildings we define as starchitecture building are listed as well.



Map of section cut

THE HEIGHTS

As the section indicates, the height of the buildings at Aarhus Ø is way higher than the rest of Aarhus (but it is worth noticing that the city of Aarhus I located at a slope). The building in Aarhus is 4 - 5 floors and placed on the hill side of Aarhus leading down to the water. The buildings of average 12 floors, up to 45 floors with Lighthouse 2.0, makes Aarhus Ø become a big difference in height. Even through the city is placed on a hill side, the buildings at Aarhus Ø becomes higher and blocks the view to the water from the inner city.



Ill. 51: Building heights and topography of Aarhus Ø and Aarhus City

Ill. 52: Map showing the buildings at Aarhus ø

1 Sejlsportscenteret
Aarhus International Sailing center

2 SHIP
The SHIP Building

3 Z Huset
Z House

4 Havnehusene
The Harbor Houses

5 Kanalhusene
The Canal Houses

6 Ungdomsboligerne
The Youth Housing

7 NicolineHus
Nicoline House

8 Konferencehotel
Conference Hotel

9 Havnebadet at Basin 7
The Harbor Bath

10 Karrérne
The Blocks

11 Kampanilen
The Campanile

12 Teateret
The theatre

13 AArhus
The AArhus

14 Havneholmen
The Harbor Islet

15 Isbjerget
The Iceberg

16 Lighthouse 2.0
Lighthouse 2.0

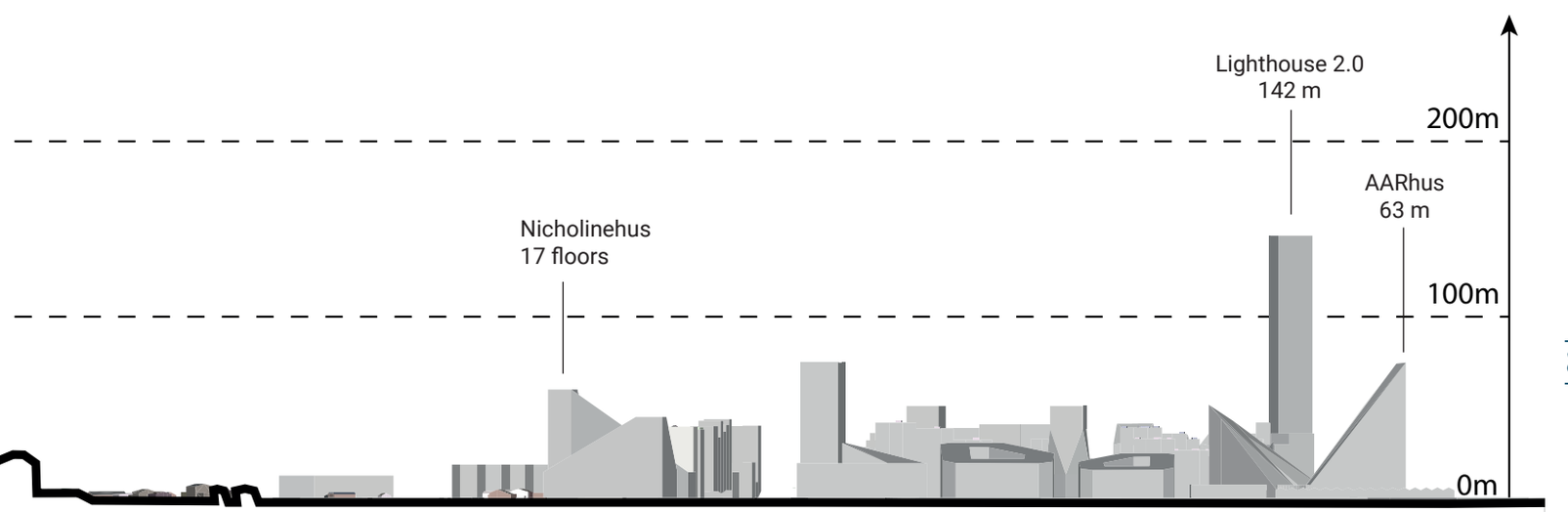
17 Lighthouse
Lighthouse

18 Pakhusene
The Warehouses

19 Generationernes Hus
House of Generations

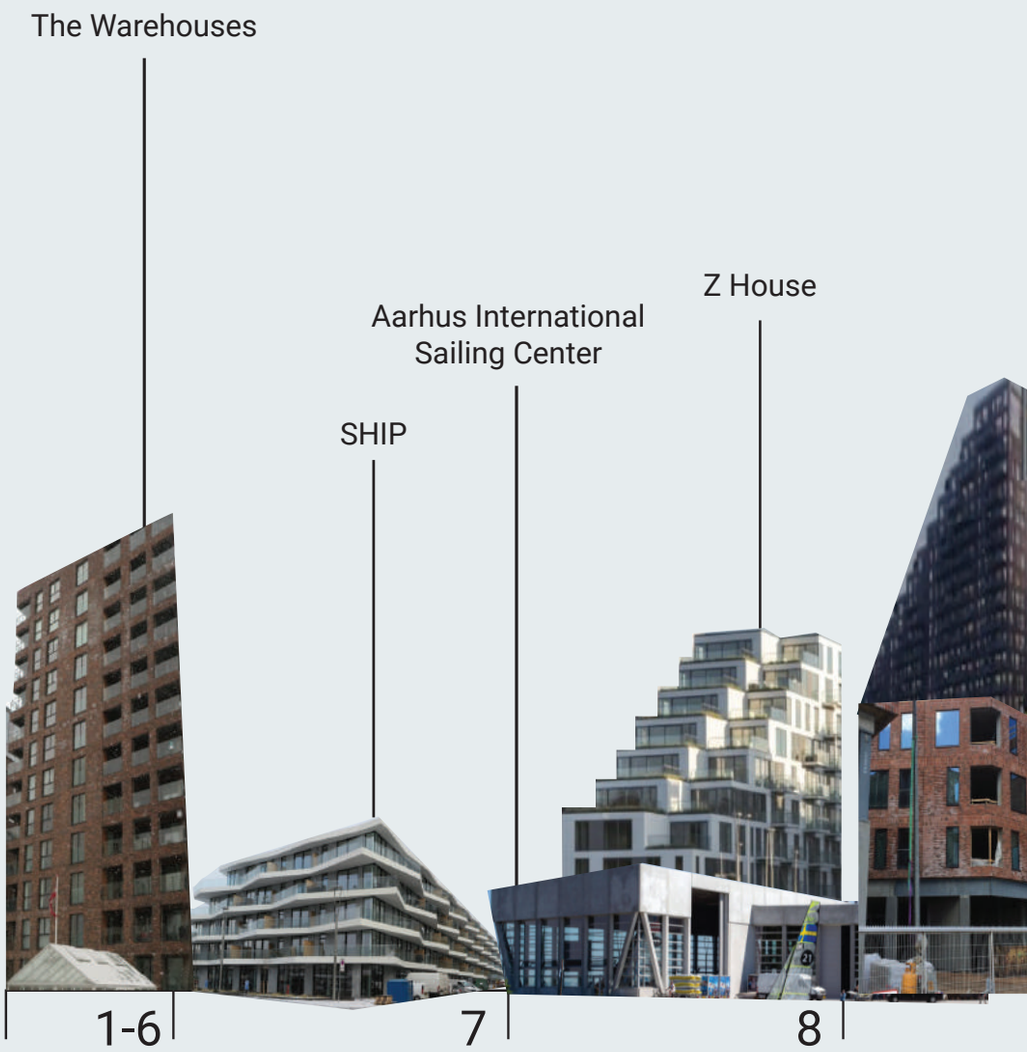
20 Ø-linjen
The Island Line

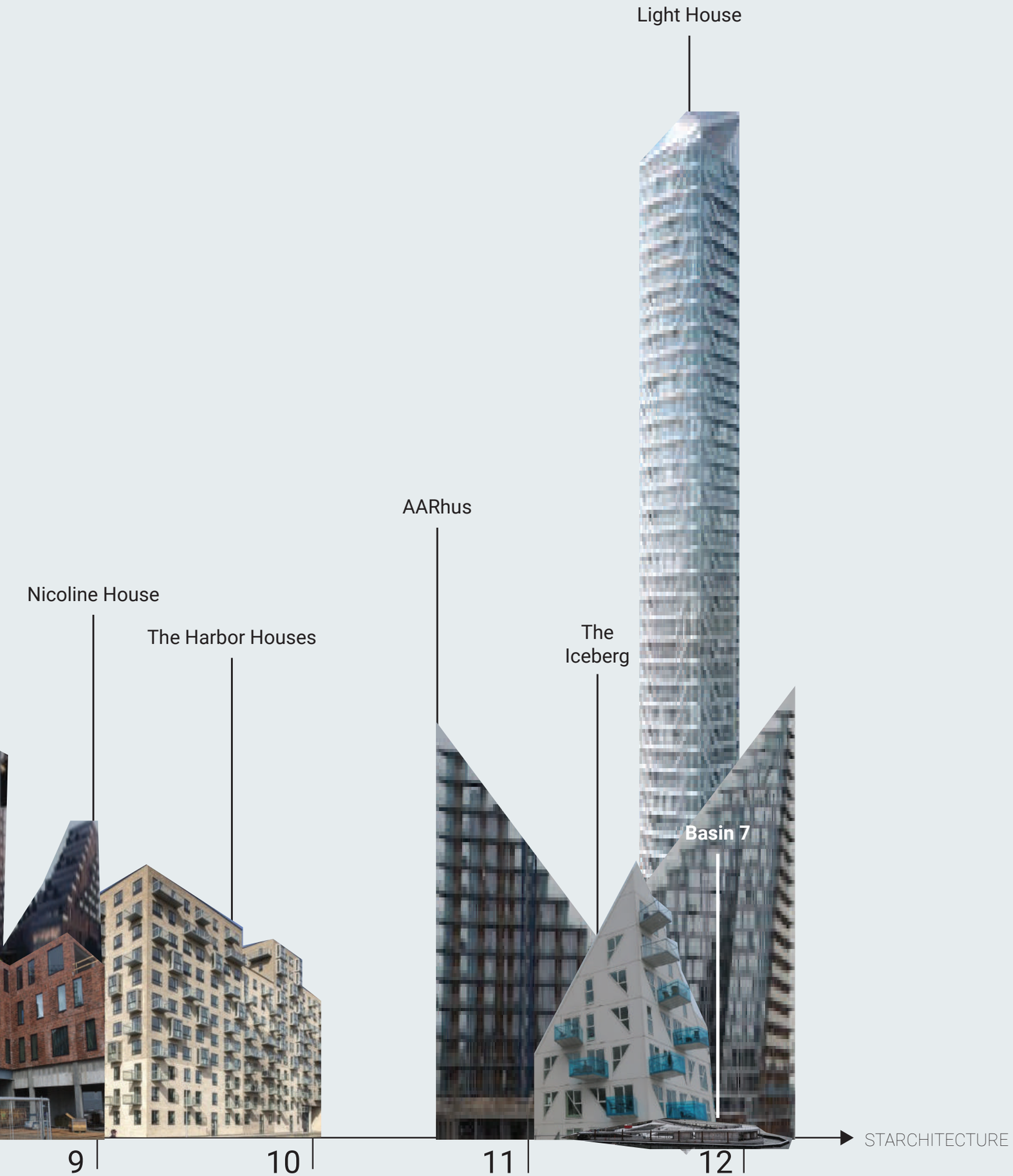
21 Lystbådhavnen
The Marina



Starchitecture

This graph [Ill. 53] illustrates our investigation on starchitecture at Aarhus Ø. Through a table, found in appendix V, with categories as architect, public procurement, vision and branding, the buildings at Aarhus harbor been ranked at each parameter from 1 - 3 in every category, three being score being 12. From 10 the buildings are categorized as starchitecture in this project. It need to be stressed that this is our estimation of what can be categorized as starchitecture buildings.The illustration shows the height and the raking of the buildings.





III. 53: Illustration showing starchitecture buildings at Aarhus Ø

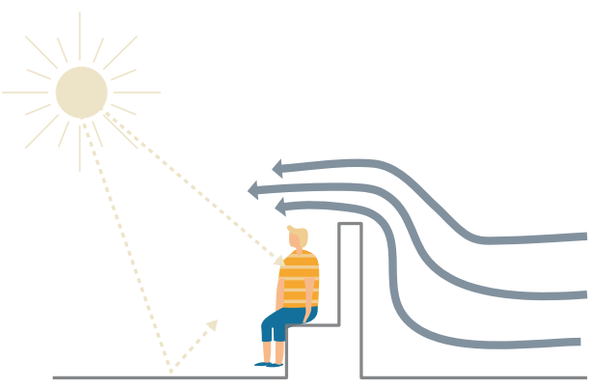
Microclimate

SUN AND WIND

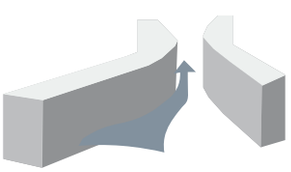
To create comfortable outdoor spaces in the city, the design of urban spaces and buildings must offer protection against unpleasant sensory experiences as wind and rain, and that lets people enjoy the positive aspects of the climate as sun (Gehl, 2010). When we stay outdoor the solar radiation and the mechanical and thermic influences of the wind have both positive and negative influences on our well-being. These factors influence how much and when it is comfortable to use the outdoor spaces in our cities (Bjerg, 2012). In a country like Denmark the season of sedentary outdoor stay is limited to a shot period in the summer, and especially sheltering for wind can improve the quality of outdoor stay and prolong the season (ibid.).

SEA BREEZE

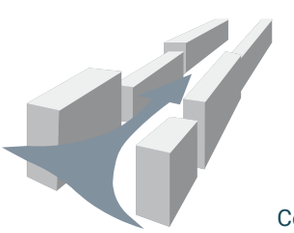
The location of Aarhus Ø at the sea will result in a windier environment as there is nothing to break the wind (so-called 'roughness factor' of the landscape (Appendix III) when it comes from the sea (from direction from north-northeast (NNE), east (E), over to south-southeast (SSE)) (see wind rose in Appendix II). The design of the buildings will also affect the speed of the wind as placement, shape, and height of buildings can create different wind scenarios. High buildings and large building surfaces tend to create turbulence with high-speed winds. Especially corners, passages between two blocks increases the wind speed and create unpleasant turbulence.



Ill. 54: Weather conditions (illustration based on figure in; Bjerg, 2012, p.16)
Orientation to the sun and shelter for wind are important, especially during the cool spring and autumn months

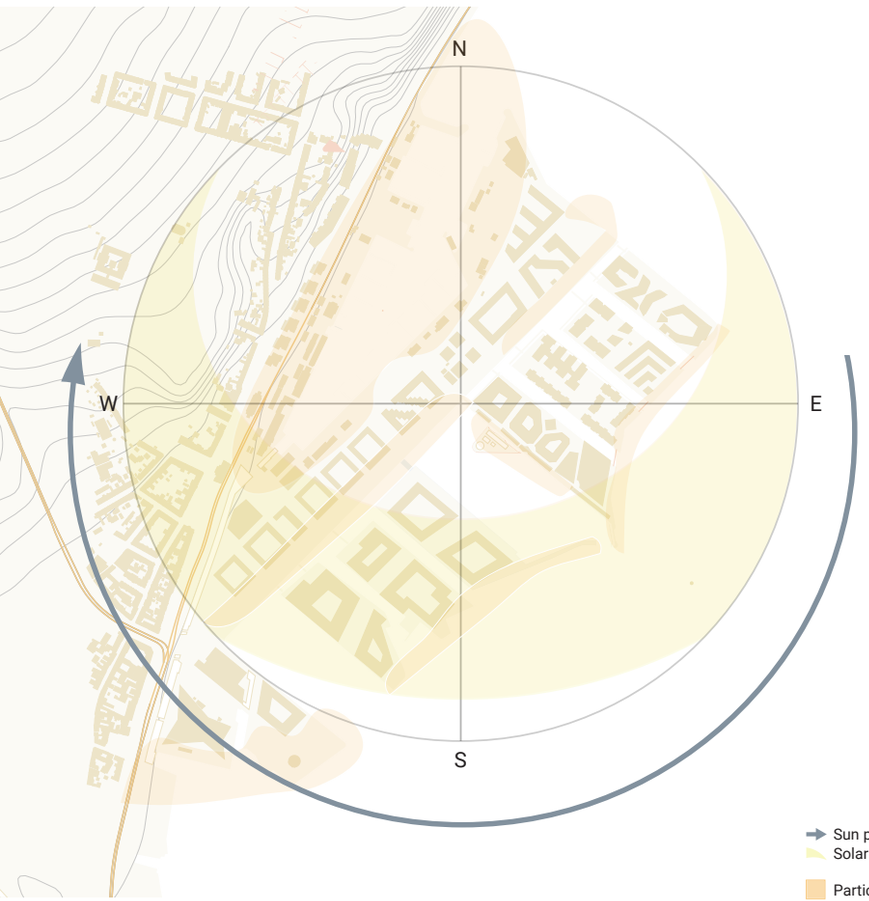


Funnel effect



Corridor effect

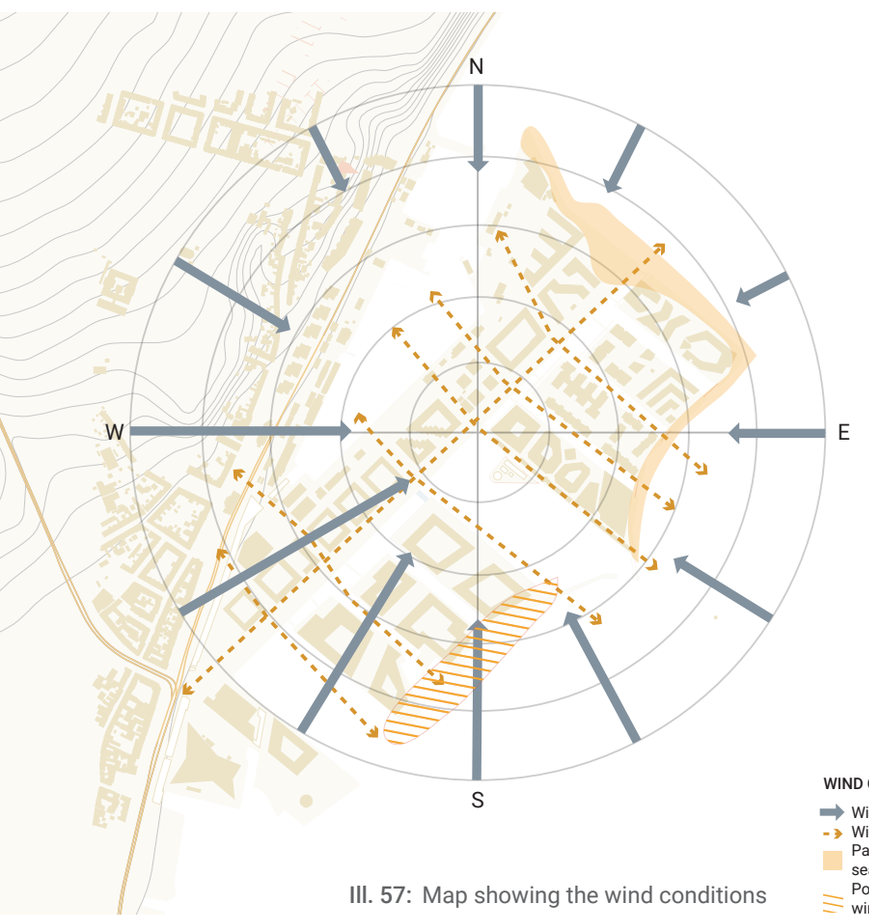
Ill. 55: Examples of building shapes that can create unpleasant wind experiences in public spaces (illustration based on figure in; Bjerg, 2012, p.24)



III. 56: Map showing the sun conditions

SUN EXPOSURE AT AARHUS Ø

The many tall buildings result in a lack of direct sunlight in many outdoor spaces at Aarhus Ø. The areas to receive most sun is the waterfront stretched as they are not shaded by the buildings (Apendix II). These areas hold a potential to become pleasant urban spaces to enjoy.



III. 57: Map showing the wind conditions

WIND CONDITIONS AT AARHUS Ø

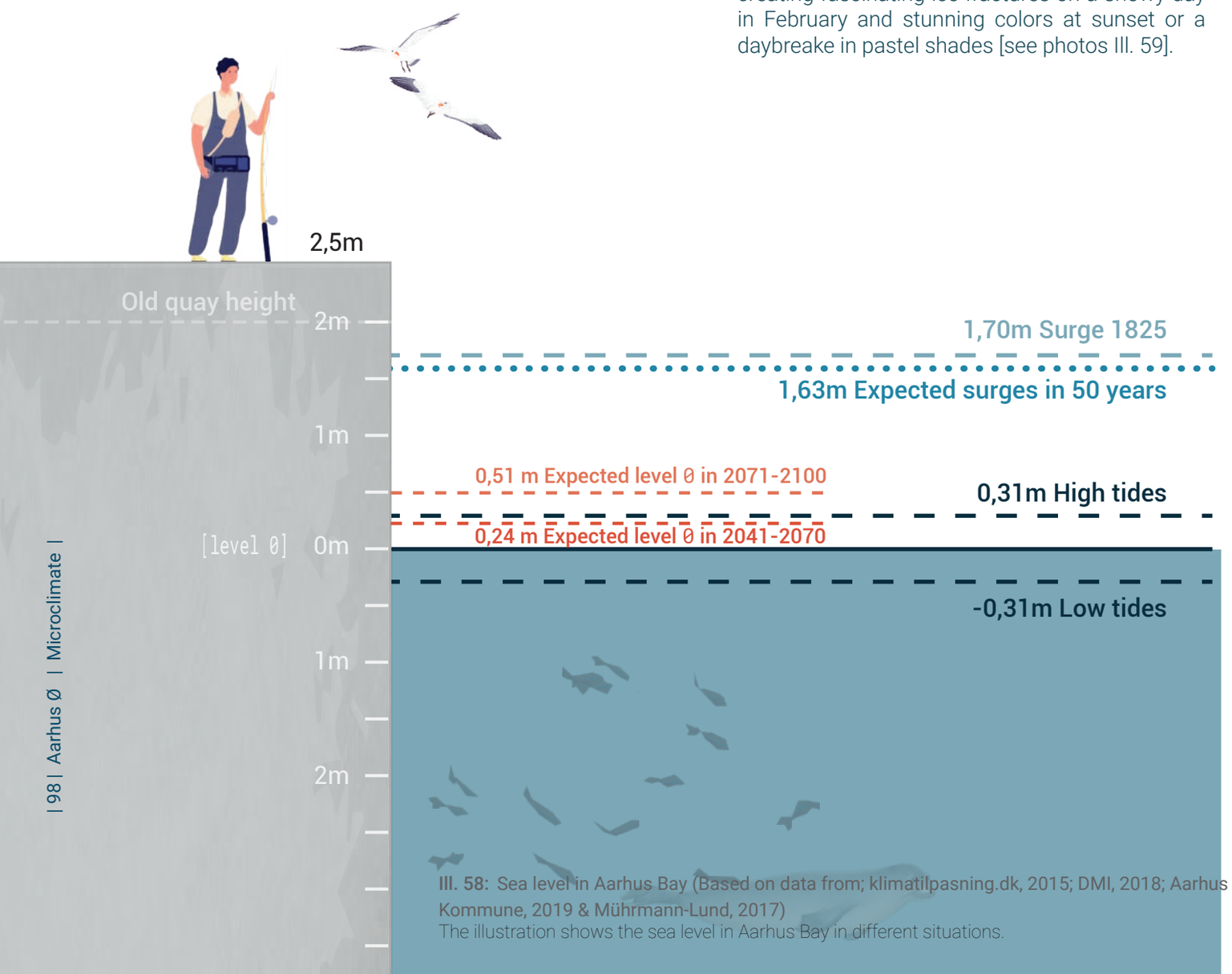
In the map the wind direction is illustrated with the blue arrows – the longer the arrow the more frequent is the wind coming from that direction (see windrose Apendix II). The dominant wind direction in Denmark is from west which means that Aarhus Ø is often sheltered from the wind by the city of Aarhus. When the wind comes from the seaside the shape of the buildings can create strong winds as the wind is caught in the strait streets between the tall buildings. The turbulent winds pose a challenge to the good outdoor spaces at Aarhus Ø.

THE CAPRICIOUS WATER

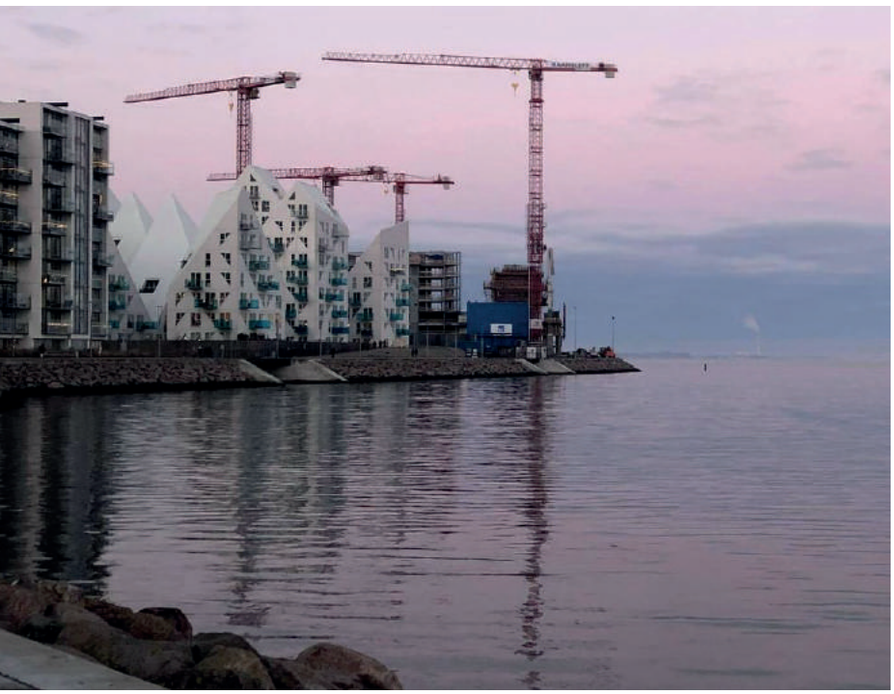
One of the greatest recreational assets of Aarhus Ø is the water that surrounds the district (Clauson-Kaas, 2011; Jensen, 2009). At the same time as the ever-changing appearance of the sea fascinates us and is a great attraction in the area, it also forms some challenges when living side by side with it. Preventing the former harbor areas from flooding during surges and secure the area against rising sea levels due to climate changes is some of the challenges that a coastal area as Aarhus Ø is facing (Aarhus Municipality, 2019f). In the prosses of transforming the former container harbor into a livable new district in Aarhus the quay was heightened with 0,5 meters to taking the predicted rise in sea level into account as a product of the climate change (klimatilpasning.dk, 2015). It is also important to have in mind that the sea level also changes during the day, the month, the year and responds to the weather. The height of tides in Aarhus bay varies from -0,31 m at its lowest to +0,31m at its highest in the winter months. The level of the water has two periods in 24 hours, meaning high tides twice a day and similar low tides twice a day. (DMI, 2018)

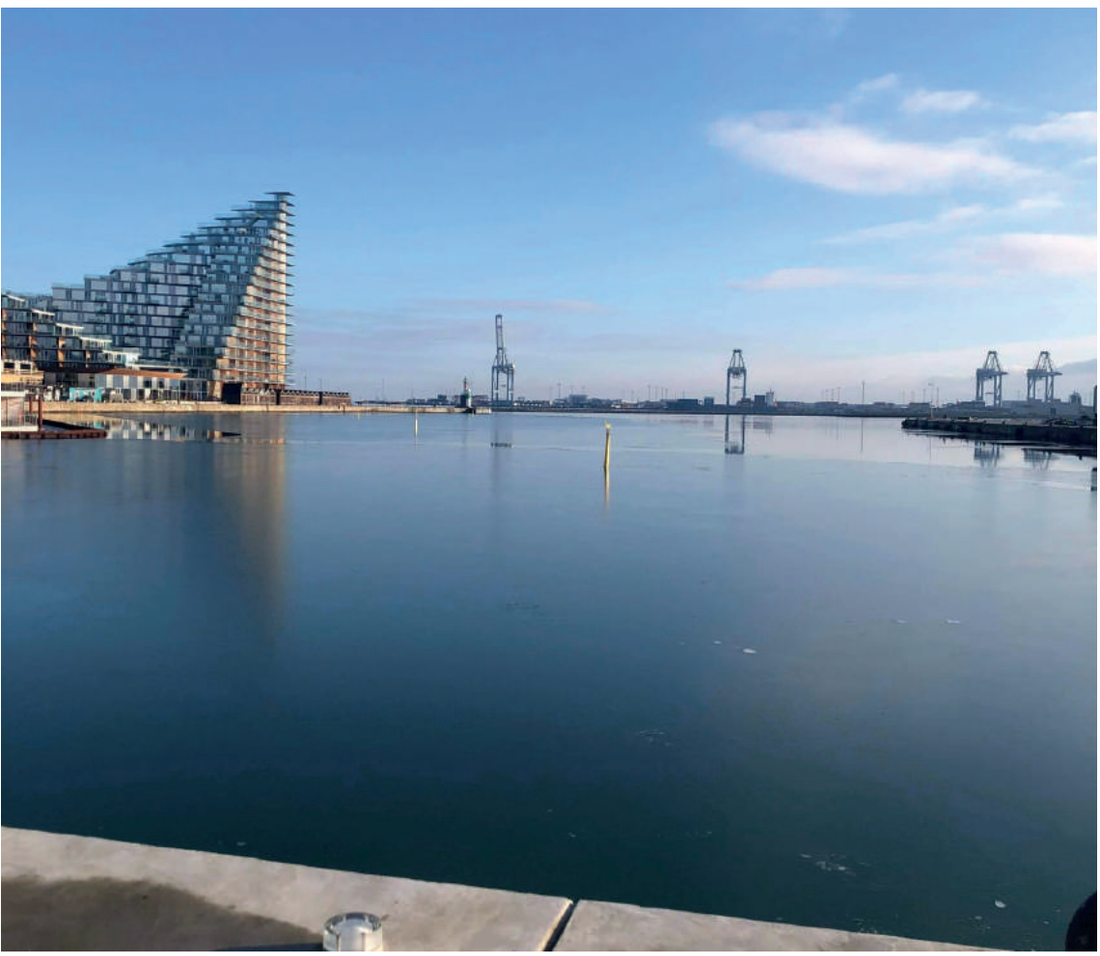
The sea level can also be significant higher if the weather conditions allow (factors as wind, water level in the bay, tides and more) and lead to surges threatening to flood the area. The general number of surges will be increased in the future as a result of global warming. Based on a 100-year event, a storm surge with a water level of 1.63 m can be expected to occur in Aarhus Bay every 8 years in 2050 (Aarhus Municipality, 2019f). The levels of the sea is illustrated in Ill. 101 below.

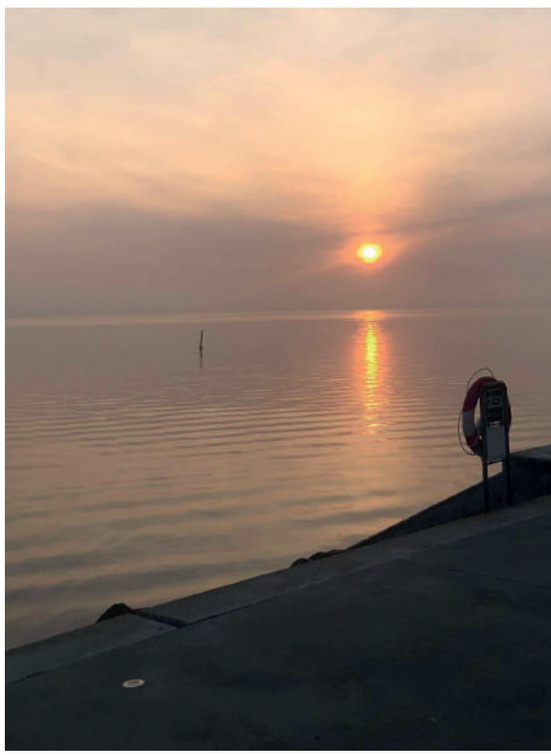
The changeable conditions and appearance of the is one of the things that makes water an attraction and it can change the appearance of an area completely – light blue and inviting one day, rough dark and dangerous the next day to creating fascinating ice fractures on a snowy day in February and stunning colors at sunset or a daybreake in pastel shades [see photos Ill. 59].



Ill. 58: Sea level in Aarhus Bay (Based on data from; klimatilpasning.dk, 2015; DMI, 2018; Aarhus Kommune, 2019 & Mühlmann-Lund, 2017)
The illustration shows the sea level in Aarhus Bay in different situations.







Ill. 59: Fotos form Aarhus Ø showing the athmosphere by the water

Ill. 60: Photo showing Basin 7 on a sunny day

Frontages affecting Public Spaces

The public spaces at Aarhus Ø differs in scale. The spaces are defined by the characteristics of the surroundings. The height of the buildings, the density, materials, shifting in facades and strict layout are all factors influencing the human experience of the different public spaces at Aarhus Ø. (The observations are based on Gehl's (2010, 2017) readings and methods but used in our own way.)

Our experience of the public spaces is close related to the form, placement and frontages of the buildings surrounding the spaces. Every public space at Aarhus Ø has been analyzed and is characterized to be dominated by four different frontages. A collage of the four different frontages is illustrated and further explained below.

1. SURFACE MEETS GROUND

The high frontages intersect directly with the hard ground which leave the public space to be perceived as a dead end. The frontages are experienced larger and higher because of the missing buffer zone which leave the public space to feel smaller. The frontages do not offer any activities and therefore no one uses the space. The translation from building to the streetscape/public space is significant and directly where the building touches the ground [Ill. 61].

2. INTERSECTION IS SOFTENED

The high frontages are experienced in a different scale when objects as bike parking, beds with plants or others become in front of the buildings making distance to the building. This leaves the public space feel more welcoming. It does not offer any activities and are therefore not used but it softens the edge. The translation from building to the streetscape/public space is more fluent [Ill. 62].

3. ACTIVITY CREATES HUMAN SCALE

The active frontages with stores, restaurants, outdoor serving, or public park areas offer a human scale to the public spaces. It invites to use the space, leaving places to sit and stay, and it downsizes the high buildings surrounding the public space. The translation from building to the streetscape/public space is much vaguer fluent creating a natural transition from building to public realm [Ill. 63].

1

Ill. 61: Frontage collage: Surface meets ground
The transition from building to the public space is significant and directly where the building touches the ground.

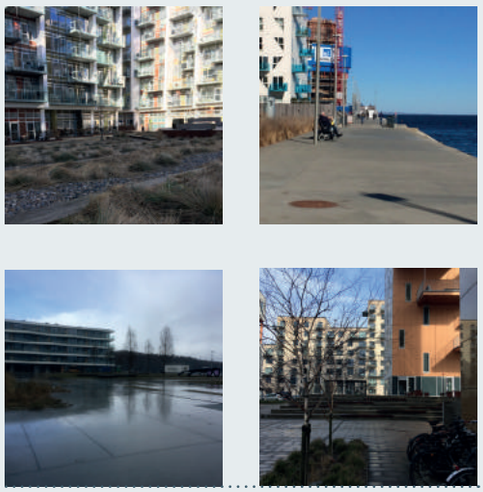
2

Ill. 62: Frontage collage: Intersection is softened
The transition from building to the public space is more fluent.

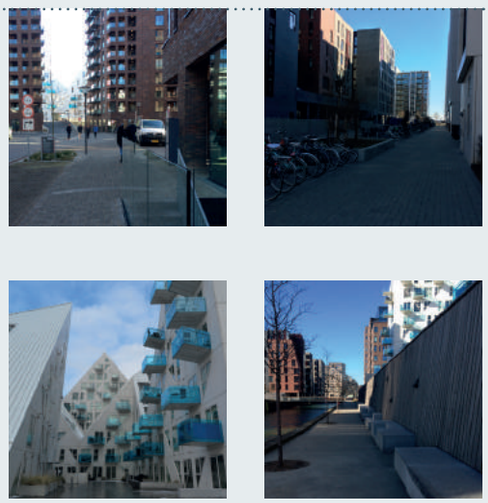
3

Ill. 63: Frontage collage: Activity creates human scale
The transition from building to the public space is much vaguer fluent creating a natural transition from building to public realm.

Ill. 64: Map: Frontages and public spaces at Aarhus Ø



Ill. 65: Photos of wide open public spaces at Aarhus Ø



Ill. 66: Photos of enclosed public spaces at Aarhus Ø

Ill. 67: Photos of mixed public spaces at Aarhus Ø

As earlier mentioned, the high buildings influence the public space. Due to the height and materials the appearance of the buildings affects the impression of the public space. Therefore, it is important to look at the way frontages affects the spaces in between buildings [see Ill. 103].

The width of the space is important when dealing with high buildings. The public spaces are defined through the impression of open wide space and enclosed space. The frontages are a factor that enhance the impression. The public space is split into 3 categories: Impression of open wide public space, enclosed public space, and a mix.

PUBLIC SPACE: WIDE OPEN

The open wide public spaces at Aarhus Ø are placed along Basin 7, The Island Line and Bernhardt Jensens Boulevard. These public spaces are perceived as welcoming and leaves space for sunlight. The frontages are both active at Basin 7, but the frontages do not necessarily have to be active, because the space is wide and open [Ill. 65].

PUBLIC SPACE: ENCLOSED

The enclosed public spaces at Aarhus Ø are placed at The Iceberg, the "House of generations" and the "Warehouses". These public spaces are perceived as cold, narrow, and unwelcoming. The frontages are straight to the ground or softened, but the materials and the high buildings close the public space. The absent of sun light enhance the feeling [Ill. 66].

PUBLIC SPACE: MIXED SPACE

The mixed public space is where the space is wide, but constraint by buildings and thereby feels enclosed. The mixed public spaces at Aarhus Ø are placed at the youth housing, the "Harbor Islet" and along the promenade. The height of the buildings and the frontages encloses the space, but when walking around in the public space is does not become cold [Ill. 67].

Public Life

III. 68: Map: Frontages and public spaces at Aarhus Ø

Public life is close related to the feeling of the public space. The public life happens around the activities an d public spaces in the city. The map illustrates where people are observed to stay and to walk through site visits.

The analysis indicate that people are using Bernhardt Jensens Boulevard as a transit public space. The green spots and parks encourage to stay, especially along the promenade at Basin 7 and the Marina. The public spaces between the housing areas are poorly used due to the shadows created by the high buildings.

Observing people lingering to stay is only observed on the northern part of Aarhus Ø. This shows that it mostly in the part of Aarhus Ø that are constructed, that public life can be found. The Ø line is used by a few but is also still partly hidden due to the construction.

In general, the public life is happening along the promenade and the active frontages, where these public spaces support public life.

Conclusion

It is observed how the public life is centered around public spaces that are offering some sort of activities and opportunities to take stay. The public life is also most present at places that is in close relation, or a part of, the pedestrian paths at Aarhus Ø, being mainly the Boulevard and the promenade, where there is a flower of people. People also gather around places with relation to water activities or access.

Ill. 69: Photos of public life
The collage showing spaces with public life at Aarhus Ø observed when visiting

People at Aarhus Ø

The people at Aarhus Ø were interviewed through a 'Heart Interview'. The interview consisted of four questions for eleven coincidental bypasses to answer at Aarhus Ø.

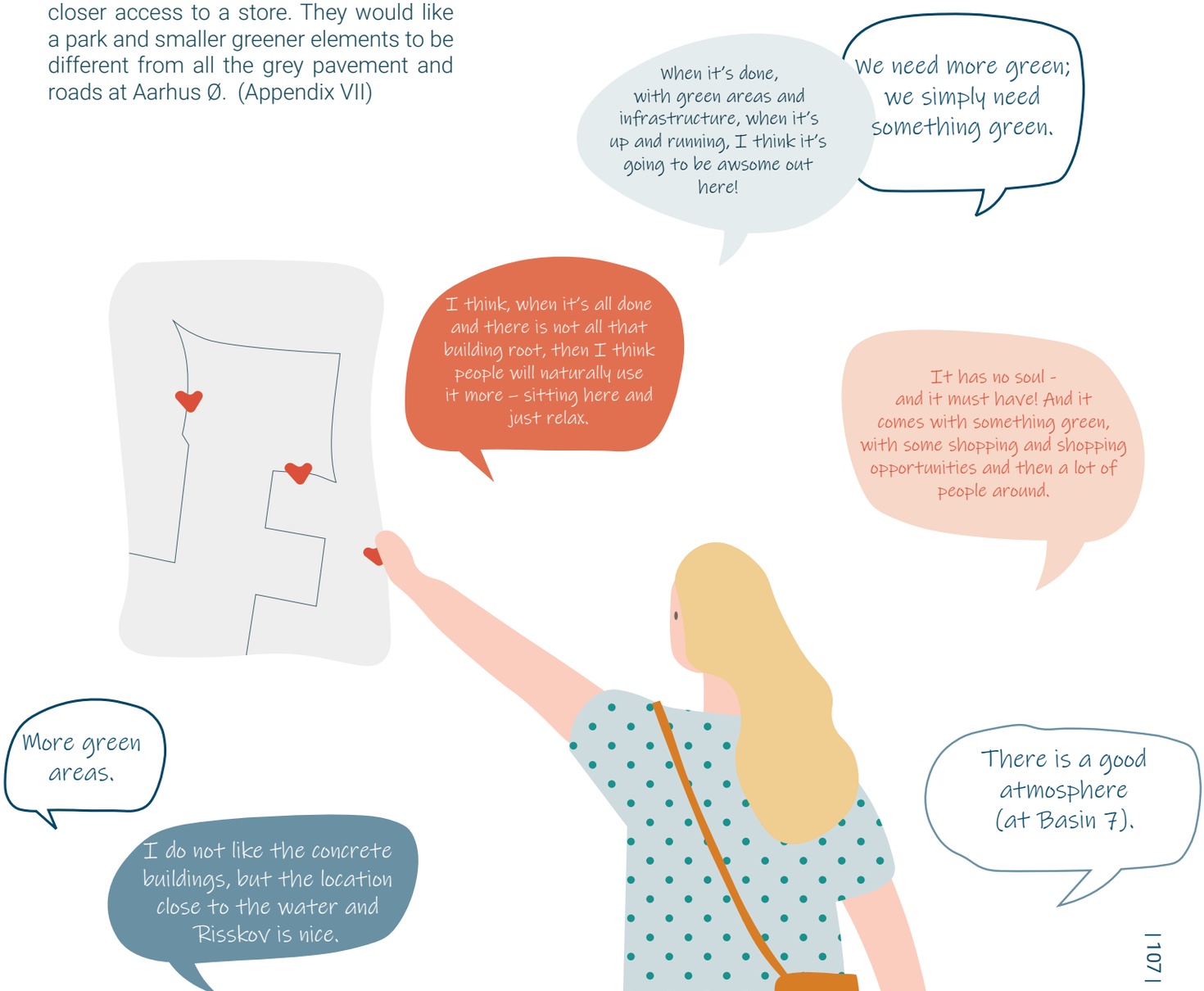
The questions where about which urban spaces at Aarhus Ø the different people found as the best to stay. They had to post a heart to the spaces they liked, and afterward the questions were about why they liked the space, and which spaces in Aarhus they liked and would like Aarhus Ø to imitate. The interviewed consisted of both visitors and residents.

HEART INTERVIEWS WITH PEOPLE AT AARHUS Ø

The general tendency was that people were fond of walking along the quayside and all the qualities connected to the water. The visitors used Aarhus Ø as a route to walk, and the attraction of the environment at Basin 7. The people were also fond of the marina and the opportunity to look at the boats and the harbor life. (Appendix VII)

The residents were glad of the view and the to live close to water and to the city center. The only thing they thought where missing, was more green spots and a closer access to a store. They would like a park and smaller greener elements to be different from all the grey pavement and roads at Aarhus Ø. (Appendix VII)

Only one visitor associated Aarhus Ø as a place with high buildings and without the opportunity for life. The person only visited Aarhus Ø because of a specific function. The interview showed that the small scale and environment of Basin 7 and the marina where the common public spaces that people were attracted to. (Appendix VII)



The text in the speech bubbles is based on the interview with people at Aarhus Ø, but it is not direct quotes. The interviews can be found in appendix VII.

III. 70: Serial vision map
Showing the route and locations for the serialvision

SERIAL VISION

The serial vision (Cullen, 1961) is an analysis that focus on the experience of a specific cityscape. In this case, the stretch of 'Bernhardt Jensens Boulevard' [III. 70] at Aarhus Ø is chosen because of the importance of the road as the main road and entrance to the new city district, but also as one of the most dominant public spaces.

The serial vision shows the Boulevard from the entrance points at the large intersection with 'Kystvejen' (1) or from Navitas (2) passing by the Bestseller building (3). Moving towards Aarhus Ø along the boulevard and waterfront on the right side (4), passing Basin 5 and Pier 3 (5, 6), then Basin 7 (7, 8, 9) towards Pier 4 (10, 11). It ends at the end of the boulevard at the quayside (12). The boulevard is and important mobility corridor at Aarhus Ø. The walk of the serial vision is 1,2 km long and it took 23 minutes to walk.

From the pictures [III. 71] it is seen how the road is feeling long feels being endless when you look at the long strait stretch. The first part of the stretch is under construction and therefore the horizon is so far away, that the buildings only change a little in size walking forward. The buildings change drastically in scale going from small housing to skyscrapers at the end of the boulevard. Only few things break up the straight and long road: The intersection with 'Kystvejen' at the beginning, the road-crossings along intersecting with the path, the two basins (Basin 5 and Basin 7) and the landmark (city gate) by Dorte Mandrup.

When passing Pier 3 and especially after passing the landmark, people feel drawn to visit Basin 7 and turn right, away from the boulevard. Therefore, the stretch form Basin 7 to the end of the road is less used by visitors.
The serial vision gives an impression on how a visitor or resident meets the site, and what materials, pavements, facades, scale, and atmosphere the bypasses face along the long road of 'Bernhardt Jensens Boulevard' at Aarhus Ø.

Entrance from Kystvejen

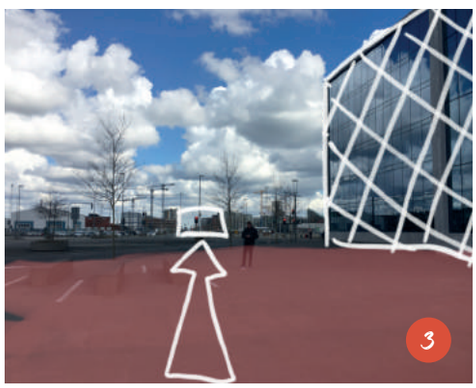
Intersection of boulvard at Pier 3

Corridor continues...

Entrance from Navitas

'Endless' boulevard passing the unbuilt Pier 3

Signage at Basin 7 luring in



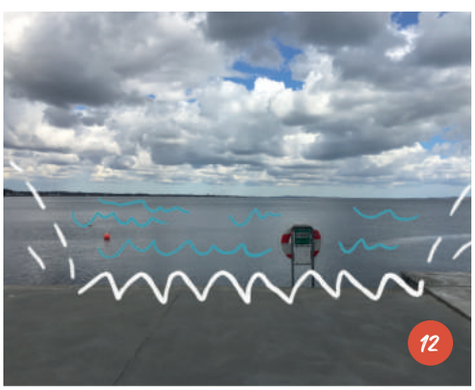
Open space at the Bestseller building

The 'city gate' by Mandrup breaks up view

Finally seeing the end

Start of 'endless' boulevard by Basin 5

'City gate' creates a feeling of entrance



Finally reaching the untouchable water

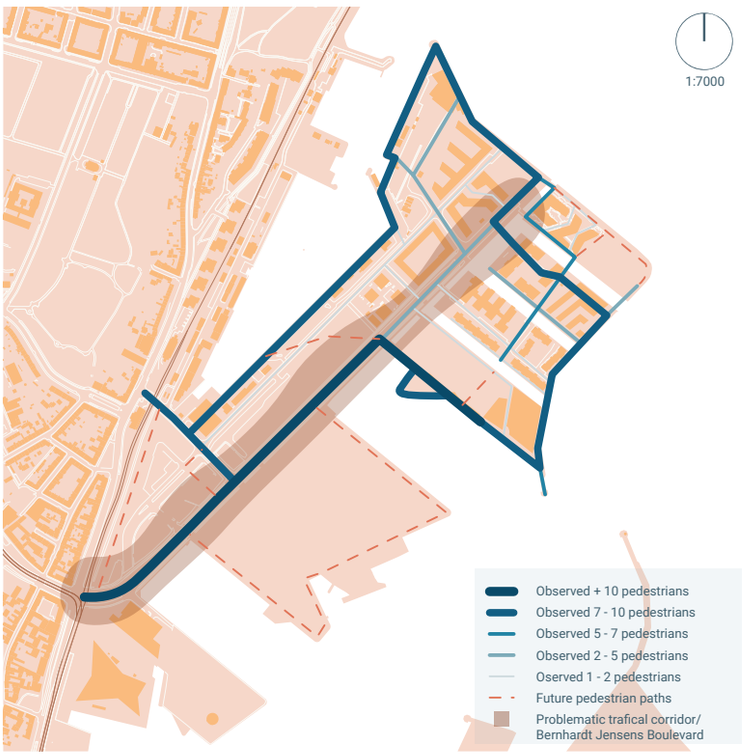
Ill. 71: Serial vision
The photos is taken April 7 following 'Bernhardt Jensens Boulevard from the city to the end of Aarhus Ø.

Moving around Aarhus Ø

Aarhus Ø is characterized by the straight main road, 'Bernhardt Jensens Boulevard', which is the entrance point connecting to the inner city of Aarhus. The boulevard is a public transit space. It segregates the different speeds of movement between people, cyclists, and vehicles.

The boulevard has been heavily discussed due to the straight structure. The road is used for illegal car racing, which makes the residents insecure.

As the following analysis indicates Bernhardt Jensens Boulevard is the main corridor for people to use Aarhus Ø in different mobility modes. This means that is it important to secure that the different speeds of movement do not collide.



III. 72: Map of pedestrian movement

Pedestrians

The pedestrians are walking along Bernhardt Jensens Boulvard as a transit space to reach the northern part of Aarhus Ø. The attraction at Basin 7 and the walk along the promenade attracts people and leads the visitors through the area.

Only few people walk in between the buildings, assuming to be residents. Due to construction the pedestrians must take detours to get around the promenade leading into the build areas. The green park of the area 'Ø-linjen' is hidden and is therefore not highly used. The pedestrians walk along it because of the construction detour.

In the future Aarhus Ø is expected to get more paths and extend the promenade.

III. 73: Map of cyclist movement

Cyclists

The cyclists are only prioritized with cycle lanes at the large roads of Bernhardt Jensens Boulvard and Hjortholmsvej. The indicates that cycling is for transit at Aarhus Ø. Getting from a to b. The island lacks paths along the promenade which can be seen from the observed cycle path people use.

Aarhus Ø offers only few public cycle parking. The private parking above ground is in addition to the housing. Single cycles were observed parked along the roads. This indicates that people need more cycle parking opportunities in relation to the roads. It becomes less attractive for visitors to cycle to Aarhus Ø.

III. 74: Map of public transport

Public transport

The public transport at Aarhus Ø is not well connected to the inner city of Aarhus. Only one bus route drives to the Aarhus Ø and it is listed as an alternative route with three stops every half an hour. The bus is driving along 'Dagmar Petersens Gade' close to the marina, so residents at the piers must walk to the other side western part to catch the bus.

In the future the municipality of Aarhus want to improve the connection between Aarhus Ø and the inner city with establishment of the light rail to Aarhus Ø. Two light rail stops are planned to secure transport for all housing areas at Aarhus Ø including the future areas.

III. 75: Map of vehicles

Vehicles

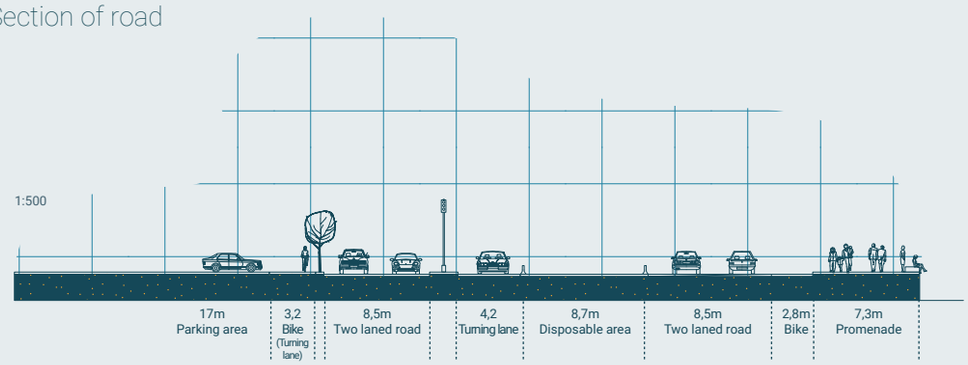
The vehicles driving to Aarhus Ø drives along Bernhardt Jensens Boulevard which is the main road to the island. The road is wide due to the former ferry landing and harbor functions and therefore designed for heavy traffic. The vision of the masterplan for Aarhus Ø focused on the boulevard as a straight road beneficial for vehicles to drive without obstacles.

Aarhus Ø are designed to easily be accessed by vehicle and therefore is dominated by roads. Due to the ongoing construction at the island the roads are beneficial.

All private parking is planned as underground parking, and the island only offers few public parking for visitors.

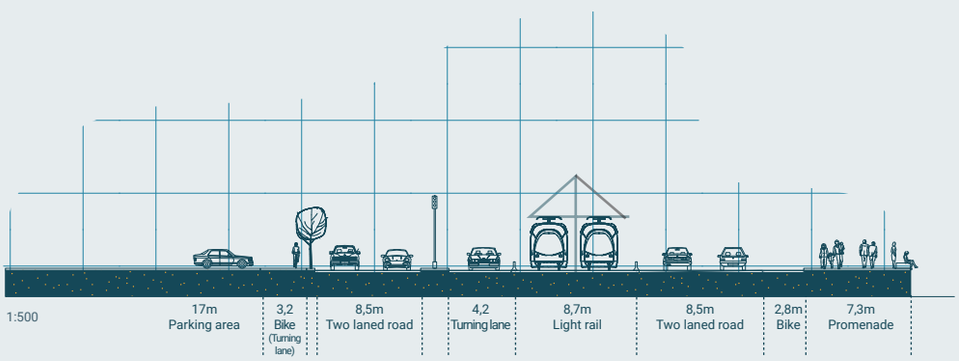
Future mobility

Section of road



TODAY

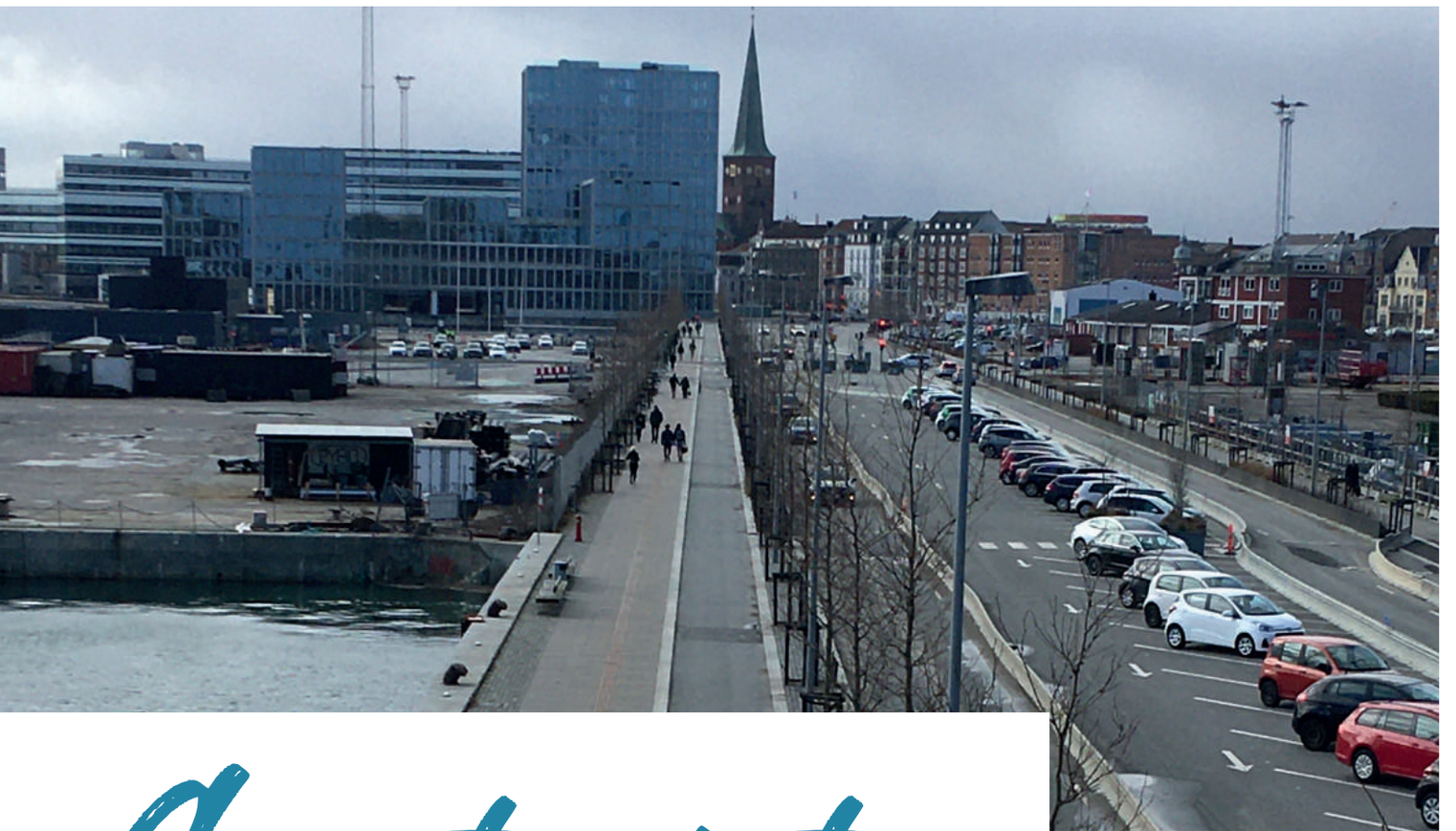
III. 76: Road Section 1:500, today



FUTURE

III. 77: Road Section 1:500, future

The former ferry landing and industry at Aarhus Ø has left the main road to be wide. This width form the basis of the future mobility mode at Aarhus Ø which is the extension of the light rail.



Ill. 78: View of Bernhardt Jensens Boulevard from Out look by Dorte Mandrup

Constraints

UNSAFE MAIN ROAD

One of the largest constraints at Aarhus Ø is the large main corridor at Bernhardt Jensens Boulevard. At the main corridor different mobility modes meet; Vehicles, cyclist and pedestrians which is necessary to reach the built environment at Aarhus Ø. Bernhardt Jensens Boulevard is a straight long road which often is used to illegal car racing due its straight structure. To make the road safer to soft traffic, the old hierarchy of the road needs to shift from being a transit road for the ferry to become a public space on behalf of the soft users. The straight structure of the road should be interrupted and offer more crossings for pedestrians to cross safely.

POOR ACCESS TO WATER

The quality of Aarhus Ø is the close connection to the harbor and thereby water. People walk along the promenade to experience the bay of Aarhus and the activities in relation to the water. Today the promenade at Aarhus Ø does not offer a lot of opportunities to engage with the water. It is essential to enhance the descents at the quayside and utilize the benefits that the water has.

ONGOING CONSTRUCTION

Aarhus Ø is a new city district which is still under construction and is going to be an active construction site also in the years to come. The construction sites create barriers and back sides. It blocks the view and connection to the promenade and the northern part of Aarhus Ø from the city of Aarhus. The construction areas are poorly lightened and makes it hard to get an overview at night. This can cause people to feel unsafe around the construction sites at night. Therefore, it is essential to focus on the accessibility and create a safe environment around the construction site. The accessibility becomes crucial in the future due to the construction of the inner part of Aarhus Ø at the entrance point. If the entrance point is blocked by construction, it will cut off the existing public life at the established part of Aarhus Ø.

BUILDING HEIGHTS

The building heights at Aarhus Ø are higher than the rest of Aarhus with an average height of 12 floors. The heights of the buildings become a constraint to the public spaces and public life in

III. 79: Poor access to the water

III. 80: Ongoing construction

between the built environment. The height creates public spaces with large dark shadows and has an impact on the microclimate of the public space. When working with the high starchitecture buildings at Aarhus Ø, the building mass can of cause not be changed and should not. Therefore, it is essential to focus on the public spaces with better microclimatic conditions. These public spaces have potential for public life.

DISCONNECTED FROM THE CITY OF AARHUS

The large road along the coast of Aarhus, Kystvejen, is a barrier to Aarhus Ø. The large road is an important traffic road in Aarhus. The road ends at the marina right after the connection to the roads to Aarhus Ø. This leaves Aarhus Ø to be an end point or dead end, and Kystvejen disconnects Aarhus Ø physically from the inner city of Aarhus. Therefore, it is important for Aarhus Ø to connect to the inner city of Aarhus by connecting to the existing paths from the city and creating new paths if needed. Aarhus Ø have to attract people to the 'dead-end´ island by enhancing the water as a quality to secure public life. .

GREEN AREAS AND PUBLIC SPACE

The physical space of Aarhus Ø is strategical planned to have large plazas and straight lines of boulevards and canals. The former vision of Aarhus Ø was without a green aspect which can be seen today. The construction sites also leave no space for green assets to grow because of

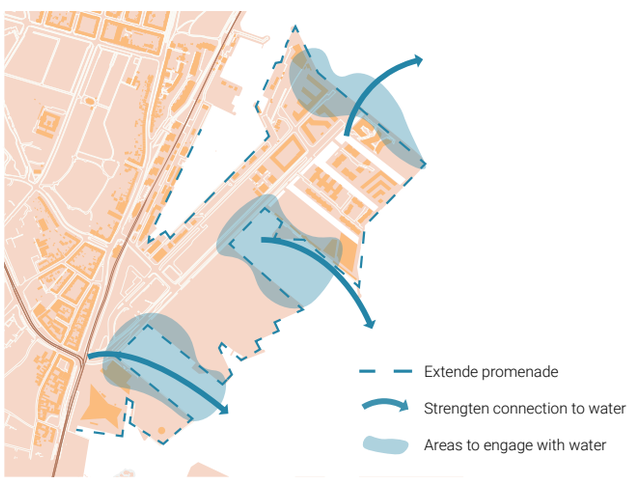
III. 81: Building heights

III. 82: Disconnected from the city of Aarhus

III. 83: Green areas and public space

the developers wish to build to the construction boundaries. This is to utilize the square meters. The users of Aarhus Ø wish for a greener approach. Therefore, it is essential to implement green initiatives in the municipality plans to force the developers to invest in green public spaces which creates an attractive public life at Aarhus Ø.

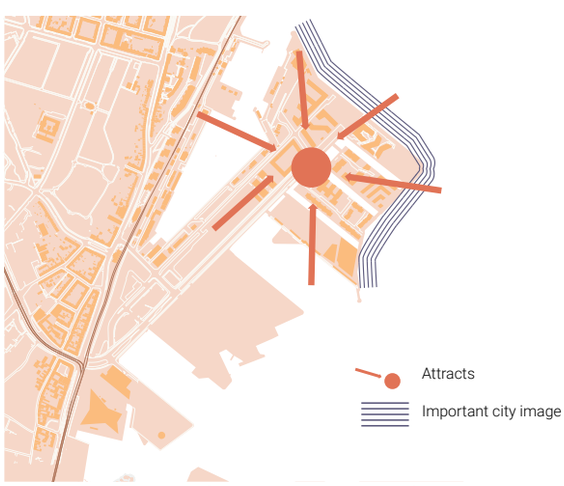
Potentials



III. 84: Map: The blue assets potentials

THE BLUE ASSETS

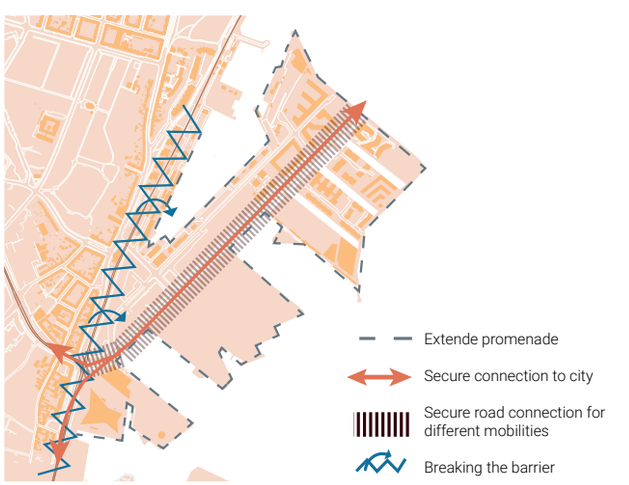
The water is as mentioned a big quality at Aarhus Ø and thereby a potential. The blue assets are characteristics for Aarhus Ø, and it could be a large potential to strengthen the connection to the water. Implementing more activity along the water, securing the promenade, and offering opportunities to engage with the water at the quayside.



III. 85: Map: Starchtecture potentials

STARCHITECTURE

The building projects of starchitecture at Aarhus Ø are characteristic for the cityscape. The potential of starchitecture is to compel visitors, residents, and other users to Aarhus Ø which secure attractions so the island does not become an end point, but a place to be. The starchitecture has the potential of branding Aarhus internationally, and the position along the bay is the entrance to the city of Aarhus by water.



III. 86: Map: Connecting public life potentials

CONNECTING PUBLIC LIFE

The proximity to the inner city of Aarhus has the potential to secure connections through paths to the city center and thereby attract the public life to Aarhus Ø, strengthen the mobility and extending the promenade of the city. The intersection between the water and the attractions at Aarhus Ø has the potential to create a new way of engaging with the water in Aarhus. This adds a new value to the city of Aarhus.

Concluding on the analysis

Through the analytical approach of 'Heartchitecture' the focus has been on the livability aspect of Starchitecture. The analysis introduces the city of Aarhus and the new city district of Aarhus Ø to set the scene. Aarhus Ø is the most planned district in Aarhus with several stakeholders to consider. The reason starchitecture projects are a part of the characteristics of Aarhus Ø, is because of the plans and business model of Aarhus Ø. The first plans visioned the district with explicit buildings along the harbor front to brand the city of Aarhus by the waterside. This allowed the area to be higher than the rest of the cityscape in Aarhus which can be seen today. The business model for Aarhus Ø has also been a factor in implementing starchitecture because the developers have a higher chance to win the competitions for the building plot by hiring starchitects.

The analytical approach of 'Heartchitecture' investigates Aarhus Ø through the cityscape in relation to the microclimate, the public space, and the public life to develop some tangible constraints and potentials for the municipality and developers to address and enhance public life at Aarhus Ø.

The constraints and potentials are the result/ output of 'Heartchitecture' and is thereby the conclusion on how to enhance public life at Aarhus Ø with the cityscape of starchitecture.

When considering the constraints and potentials it is essential to focus on the main entrance to Aarhus Ø, Bernhardt Jensens Boulevard. Today the road is intended for vehicles and feels unsafe for the soft users. To enhance the public life, the road needs to become a public space on behalf of the soft users. Furthermore, should the straight structure of the road be interrupted to limit speed, and offer more crossings for pedestrians to cross safely.

Aarhus Ø has the advantage of the location by the bay, but today the promenade at Aarhus Ø does not offer a lot of opportunities to engage with the water. It would be a large potential to strengthen the connection to the water. Implementing more activity along the water, securing the promenade, and offering opportunities to engage with the water at the quayside.

The construction of Aarhus Ø is ongoing and will be in the future to. Therefore, it is important to focus on the accessibility to the city district of Aarhus Ø and to create a safe environment around the construction site.

Starchitecture is a potential and characteristic of Aarhus Ø. The potential of starchitecture is to compel visitors, residents, and other users to Aarhus Ø which secure attractions so the district does not become an end point, but a place to go, be and stay. The building heights at Aarhus Ø is not to be changed. The plans for the district intend for the buildings to be at a certain height, so to enhance the public life it is important to focus on the public spaces with better microclimatic conditions at Aarhus Ø. These public spaces leave improved conditions for the public life to unfold.

Aarhus Ø has a proximity to Aarhus city center but is physically disconnected to the inner city of Aarhus due to the main road of Kystvejen. The proximity to the inner city of Aarhus has the potential to secure connections through paths to the city center and thereby attract the public life to Aarhus Ø, strengthen the mobility and extending the promenade of the city.

Lastly, the residents of Aarhus Ø wish to implement more green into the district. The former vision of Aarhus Ø was without a green aspect which can be seen today. Therefore, it is essential to implement green initiatives in the municipality plans to force the developers to invest in green public spaces which creates an attractive public life at Aarhus Ø.

The analysis, formed by the analytical approach of heartchitecture, will be used in the next chapter as a stepping point to developing a Public Life Strategy.


18

A strategy For public life at Aarhus Ø

PUBLIC LIFE STRATEGY

Experiences from both investigating the cross field between starchitecture and livability, and the hidden Heartchitecture at Aarhus Ø, had been gathered through the previous chapters. These findings are synthesized into a strategy for public life at Aarhus Ø, targeting spatial interventions to secure and further develop public life.

Ill. 87: Summer activities at Aarhus Ø
Photo from Aarhus Municipality, 2018a.

A vision on behalf of public life

Aarhus Ø is this new city district where the Starchitecture buildings fights for attention and where more and more residents are added to the population each year. Thousands of people live and spend their everyday life at Aarhus Ø. In these dense urban areas, where people live on way fewer square meters than in the suburb, people drag out their activities into the public realm, creating public life.

Nevertheless, public life does not follow along with the buildings when constructing an entirely new district. It takes time and is supported by the right conditions; it will bloom and evolve.

Since 2012, where the first resident moved in, Aarhus Ø has been fighting to create public life, matching the rest of Aarhus. By implementing the harbor bath in 2018 at Basin 7, Aarhus Ø finally managed to get noticed by its public life. More people started to visit the area, and locals began to spend more time in their own neighborhood.

Now the remaining Aarhus Ø is up for construction, and it is important to learn from the mistakes done in the early phases and the success at the current stage when developing the inner part of Aarhus Ø.

This strategy aims to benefit from the existing public life at Aarhus Ø, securing it through the upcoming construction and support its existing qualities. Furthermore, it will build upon experiences from earlier when developing the rest of Aarhus Ø.

About

our strategy For Public life

This strategy builds upon our observations on Aarhus Ø, case studies of residential harbors, interviews, and literature studies upon public life and starchitecture. Those findings are merged into three themes, further elaborated out to eight focus areas regarding public life on Aarhus Ø.

Aarhus Ø has the past 20 years been under an extreme transformation from a container dock to a residential harbor located in the second largest city of Denmark.

This new city district served many critics for lacking quality public spaces at its early stage, but public life has found its way to Aarhus Ø as the area devolved over time. Several activities are now happening at Aarhus Ø, owing to an increased focus on "public life before buildings" introduced in the 'Development plan for Basin 7' in 2017. Now, half of Aarhus Ø is entirely constructed.

However, through this thesis, we have located a potential risk to the existing public life, as the inner part of Aarhus Ø in the following 10 - 15 years is under construction.

That is why we find it crucial to intensify the focus on the public life at Aarhus Ø. Both present in what is already established and by drawing upon previous experiences from the existing Aarhus Ø.

In brief, this strategy aims to 1; strengthen the existing public life, 2; secure existing public life during construction, and 3; further develop the public life on Aarhus Ø.

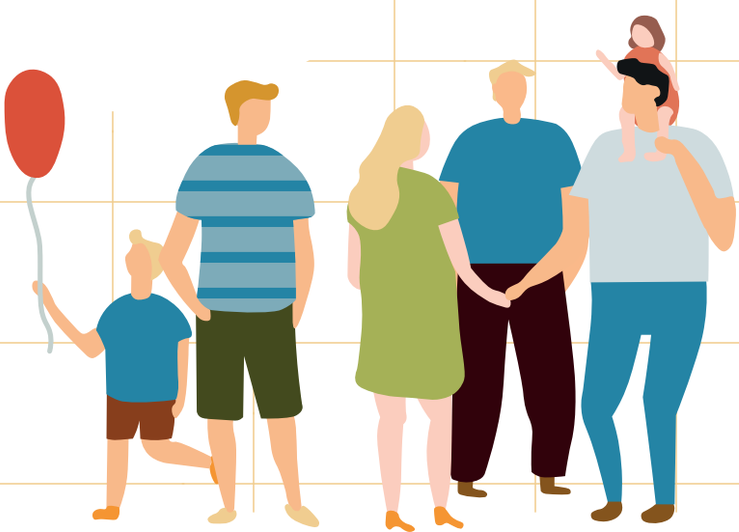
The structure of the Strategy will be unfolded and explained at the pages to come, giving an overview of the different elements and the time perspective (if it is after or under the construction phases).

"Public Life is what people create when they connect with each other in public spaces - the streets, plazas, parks and city spaces between buildings. Public Life is about the everyday activities that pople naturaly take part in when they spend time with each other outside their homes, workplaces and cars" (Gehl, 2019, p. 6)

For whom?

The strategy for public life at Aarhus Ø, is to be seen as a strategy for the municipality and developers at Aarhus Ø.

This strategy works around three main themes to cover our findings. Each theme consists of several focus areas and suggested solutions for supporting, securing, and developing public life, which respectively Aarhus Municipality and future developers are advised to take into account to strengthen public life at the remaining Aarhus Ø, now and in the future.



Let us guide you!

In this page the structure of the Public Life Strategy will be presented and described to give an overview of the remaining chapter.

The text below will explain the structure and it is further unfolded in the diagram on the opposite page [p.125].

STRUCTURE OF STRATEGY FOR PUBLIC LIFE

The findings from the analysis in constrains and potentials has led to the development of the strategy. Chosen main themes are selected on behalf of what we consider best covers most of our findings from the analysis.

The three main themes address the conditions at Aarhus Ø today. The strategy further unfolds these main themes by setting the scene for the current conditions at Aarhus Ø, and suggesting eight focus points for supporting public life. For each of these focus point, we have pointed out some suggested solutions to support and further develop public life at Aarhus Ø, and they are summed up in a map under the respective main theme.

The suggestions pointed out for each main theme and the underlying focus points is summed up and added to the site of Aarhus Ø in a 'Public Life' map, indicating where these suggestions should be applied to Aarhus Ø to enhance the public life.

ADDITION TO STRATEGY: PUBLIC LIFE STRATEGY UNDER CONSTRUCTION PHASE

The pink boxes in the diagram [Ill. 88] revolves around the same focus points as the previous, but the suggested solutions target initiatives to be done with and under the construction phases. Through this part of the strategy, developers and construction workers can contribute to the overall strategy for supporting and further develop public life at Aarhus Ø.

EXEMPLYFING THE PUBLIC LIFE STRATEGY

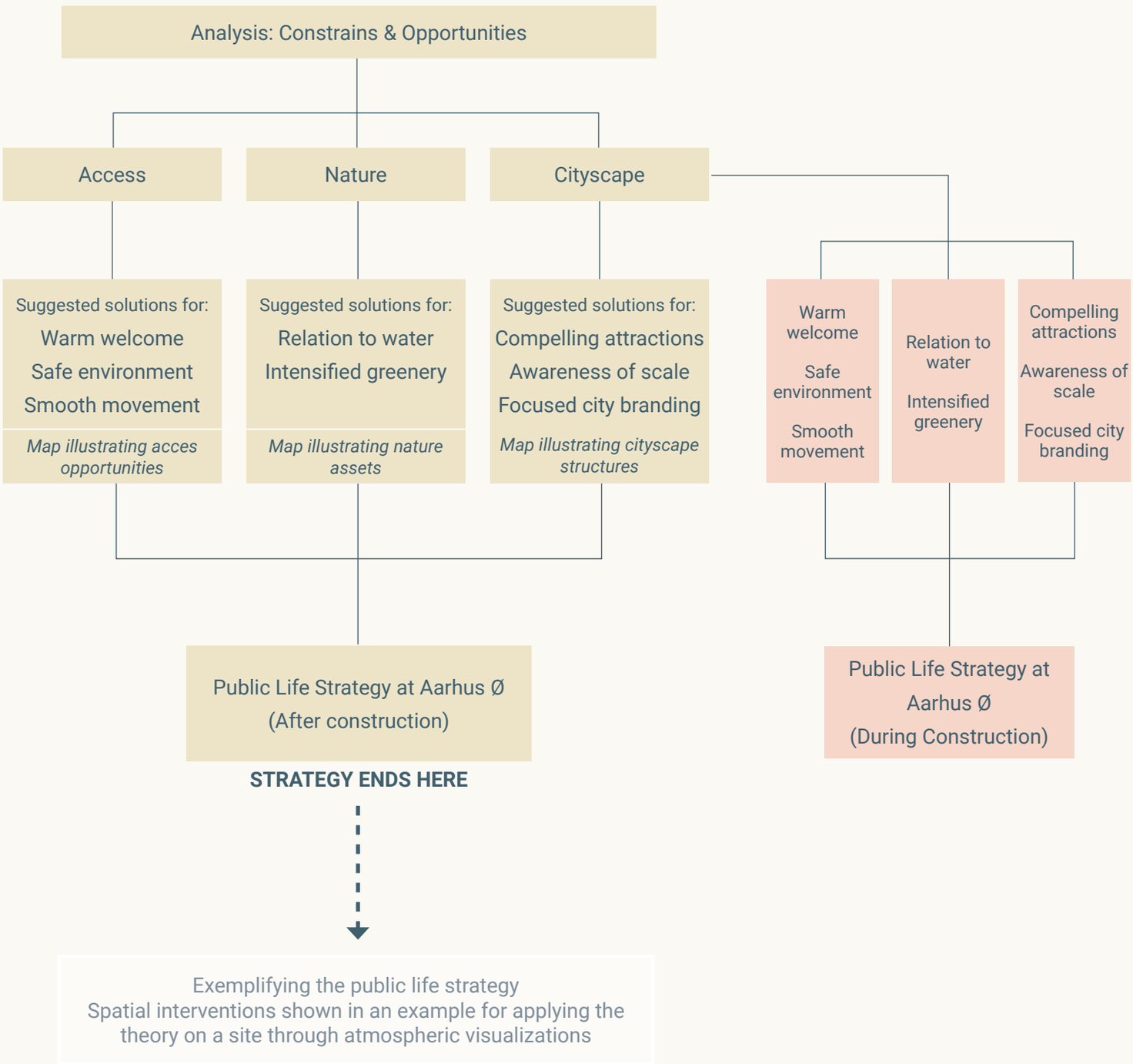
As an extension besides the strategy of public life, a minor site of interest, picked based on the Public Life Strategy map, is used to exemplify how to implement the strategy in a design suggestion.

PUBLIC LIFE STRATEGY AFTER CONSTRUCTION PHASE

Securing public life at Aarhus Ø after construction phase

PUBLIC LIFE STRATEGY UNDER CONSTRUCTION PHASE

Supporting exising life at Aarhus Ø during construction



III. 88: Diagram illustration the structure of the Public Life Strategy

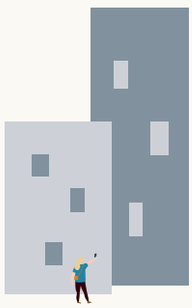
The three main themes

This strategy works around three main themes to cover our findings. Each theme consists of several focus topics and suggested solutions for supporting, securing, and developing public life, which respectively Aarhus Municipality and future developers are advised to consider strengthening public life at the remaining Aarhus Ø, now and in the future.

These themes are as follows:

> Access
Easy access for every-one

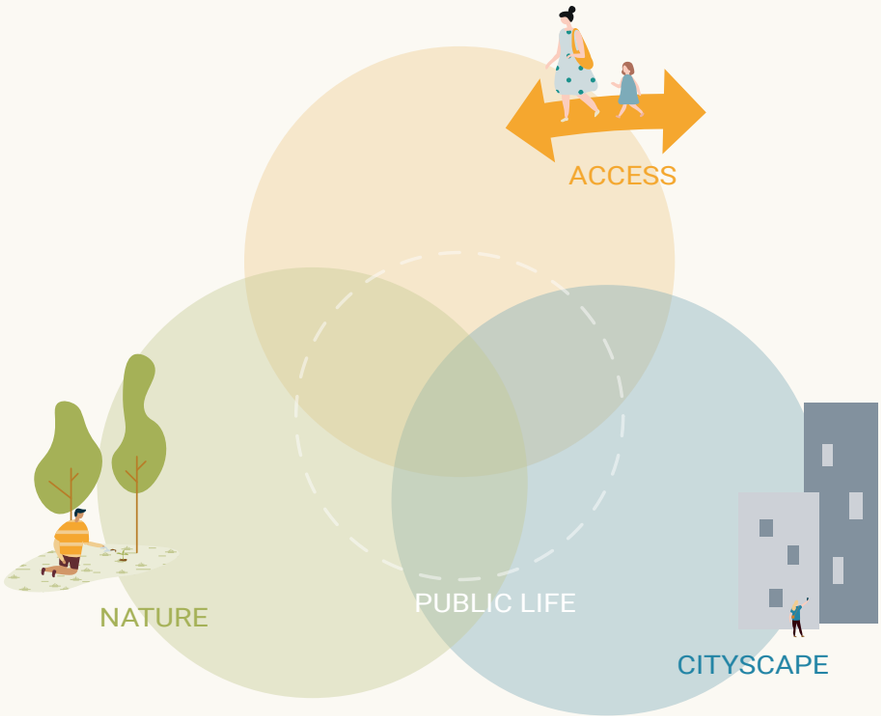
> Nature
Recreational values of nature



> Cityscape
Awareness of build structures

Ill. 89: Illustrations of access, nature and city

These three themes will be unfolded at pages 132 to 149.



Ill. 90: Diagram of overlapping themes

THE PRINCIPLE OF OVERLAPPING THEMES

This strategy for developing public life at Aarhus Ø is a written extension of various theories, case studies, and fieldwork on public life. The strategy revolves around three main themes, which we consider to cover most of our findings. It is not to be seen as a strategy including every aspect of livability, but as a starting point for Aarhus Municipality and future developers at Aarhus Ø, to increase the focus on public life and provide better conditions for it to grow.

These themes depart from various directions by activating both landscape design, high-dense constructions, and livability. When evolving the themes into focus topics, some elements of a focus topic might be relevant in another. Not as redundancy, but as a multifunctional purpose.

Within the themes, several interventions can be done through the field of urban design. Some might affect public life, and some might not. At some point, themes will be overlapping. For instance, when lowering the promenade to increasing the physical contact to water, both the access to water is increased, as well as the benefits from recreational values of nature.

This relation between the themes is illustrated in the diagram below [Ill. 90] with circles indicating; access, nature, and the cityscape. These circles show that interventions can be done within a single theme or concerning each one of the themes, as illustrated in the middle area. A fourth element of' Public life' is added to the diagram to illustrate that interventions can happen within all three themes without necessarily resulting in enhancing public life.

Therefore, we will not make suggested solutions for every possible intervention which can be done as urban designers within the themes, but only point out those we, through our thesis, find could contribute to enhancing the public life at Aarhus Ø.

8 Focus points

Under the three main themes Access, Nature and Cityscape, the following 8 focus points have been set up, to dig deeper into which spatial elements influence the public life.

1 > Warm welcome
Inviting both vistors and locals in

When developing a new city district, it takes time to lure people in, and even longer to incorporate using new public space into their mindsets (Sim, 2019). People are attracted by existing facilities, the promenade, and the architectural appearance of the area, as these connect to the area with a purpose. An appealing entrance can make people linger, even if they have no pressing reason to stay (Gehl, 2010).

Maintaining the flow of people entering Aarhus Ø, should be done by enhancing the main entrance, and the main corridor liking to existing activities, should be varying and an attraction in itself.

2 > Safe environment
Sheltered and protected from crimes

As public life is happening outside the traditional safe environment of a home, public spaces have to be protected as well in relation to both traffic, crimes and weather (Gehl 2017; Sim, 2019). At Aarhus Ø speeding is a returning problem which concerns the population and creates a barrier through the area.

To attract public life to both existing and future public spaces, the local environment should be protected from both crimes and weather explosions, and the traffic hierarchy should be considered and match the users of the public space.

3 > Smooth movement
Helping easy access for everyone

Good public places are accessible, and a place where people are prioritized in the cityscape, for public life to unfold (Gehl, 2010; 2017). The streetscape is a place for everyday flow, and at streets with less traffic, the public life is given conditions to bloom, whether it is through a car-reduced streetscape, or road profiles separating soft and hard road user. (Appleyard, 1980)

Towards a smooth movement, it should be determined where different road users are prioritized, while still making every function accessible for everyone.

4 > Relation to water
Physically linking to the bay

People have all-time been fascinated by and drawn by water (Clauson-Kaas 2011, Jensen 2009), and Aarhus Ø is no excuse. Water has a considerable attraction value, and the water has become a tremendous architectural tendency in city planning. It contributes with both visual, spatial, and recreational values in the cityscape and economic benefits (Clauson-Kaas 2011; Jensen 2009).

The water is also one of the most significant recreational assets at Aarhus Ø and already attracts people to the area. Utilizing the relation to water by an increased physical contact would make even more people seek the area, for its proximity to the water.

5 > Intensified greenery
Trees and vegatation in general

Access to green areas has a positive effect on the quality of life, and it influences the overall livability in a district (Gehl, 2010). In dense areas, the opportunities to enjoy green spaces are often limited to fewer and smaller spaces (Sim, 2019). Therefore, it is important to make the best out of the spaces available and create various functions, activities, and spatiality in the green spaces.

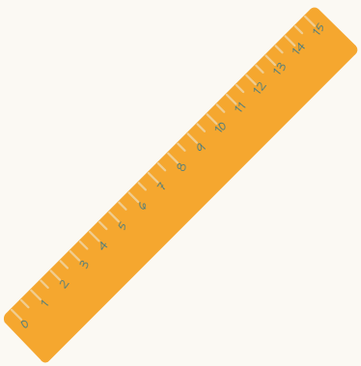
When asking the residents and visitors at Aarhus Ø (Appendix IV) and unfolding the hearing statement in present plans (Aarhus Municipality, 2020b) a common wish for the district was more greenery.

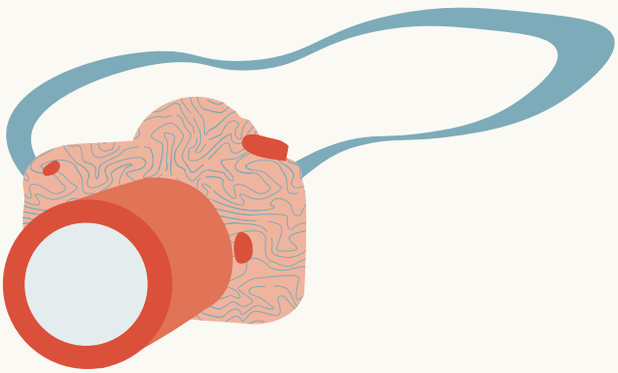
An intensification of greenery at Aarhus Ø would add to the general perception of the area as being greener, whether it is through activating edge zones, implementing green traffic islands or parks.

6 > Compelling attractions
Functions and activites for people

A good public space is where both optional and social activities take place (Gehl 2010). Attractions worth visiting was mentioned several times by user of Aarhus Ø, as something which makes an area even more attractive. Whether these attractions are essential functions, like supermarket, school or public transportation, or leisure activities like the harbor bath, sports facilities or restaurants, people are drawn upon them (Hestbek, 2021; Schrøder, 2021; Appendix VII)

Locating functions and activities near both each other and public places, would create a natural flow of people, creating a solid foundation for a blooming public life through attractions (Sim, 2019).





7 > Awareness of scale
Softening the high-dense structures

High dense build areas do challenge livability, through the conditions for public spaces (Chiu, 2019). The lack of a human scale is one of the things that are lowering the quality of public spaces, as it makes users feel small, forlorn, and exposed. (Sim, 2019; Gehl, 2010; 2017). To create better conditions for public spaces at Aarhus Ø, the tallness of the built environment needs to be softened to offer a more human scale experience (Sim, 2019).

By implementing different spatial interventions to break up the contrast between horizontal and vertically surfaces, the perception of human scale could be increased by shifting the focus to human scale elements close to public life.

8 > Focussed City Branding
Branding through starchitecture and livability

Aarhus Ø is characterized by its eye-catching architecture and several outstanding buildings by famous architects. The starchitecture has become a trademark for the district and attracts visitors to Aarhus Ø, and a willful way of branding Aarhus, seen from the sea (Hestbek, 2021). A corresponding way to brand a city, is targeting existing and future residents by a livable neighborhood (Chiu, 2019; Gehl, 2010).

By branding through both starchitecture and livability, Aarhus Ø could generate a city image targeting both visitors, existing and future residents.

Access

Easy access For everyone

When you enter Aarhus Ø today, it is either through Bernhardt Jensens Boulevard, arriving from south and west, or through Hjortholmsvej, arriving from the north. The most used entrance is at Navitas at the beginning of Bernhardt Jensen's Boulevard. The public transport at Aarhus Ø is served by one bus route arriving every half an hour, and otherwise, you will have to walk from the light rail stop at Navitas, 1,4 km from the end point of Aarhus Ø.

The long road of Bernhardt Jensens Boulevard is the main corridor at Aarhus Ø, but the long and straight road can feel unsafe for pedestrians due to the traffic and difficulties crossing the road. Aarhus Ø experience problems with street racing at the long road stretch at night. The many empty construction sites and the unused inner harbor areas make the long boulevard seem unsafe at night.

Bernhardt Jensens Boulevard is furthermore an uninspiring [Ill. 91] road, but still the main corridor to Aarhus Ø. There is no sidewalk on the left side of the road, and the crossing opportunities for pedestrians and cyclists are limited due to concrete blocks in the middle section of the road. Due to obstacles from the construction site, it is hard to drive along the road for both vehicles and cyclists.
The path system for soft road users is disconnected due to construction sites, and thereby people are using the same route when walking and cycling along Bernhardt Jensens Boulevard.

Another issue is the direct exposure to the wind created by the proximity to open water and the linear grid structure of building plots. This combination creates an uncomfortable microclimate due to the many wind tunnels and lack of shelter.

The architecture attracts visitors, who follow the progress at the construction sites, walks along the water, takes a dip at the harbor bath, or eats at the small cafes along the basin.

Ill. 91: The long, wide road profile of Bernhardt Jensen Boulevard

1.

AN INVITING ENTRANCE

People tend to visit Aarhus Ø to enjoy a walk and use the facilities as the harbor bath, cable track, and promenade. This flow of people is essential for public life in the area. People in the cityscapes attract others to both visit and stay.

Suggested solutions for an inviting entrance:

- **Enhance the main entrances,** at Bernhardt Jensens Boulevard and Hjortholmsvej to keep leading visitors to the area [Ill. 98] by characteristic architecture of Aarhus Ø or elements guiding to attractive public spaces.

- **Make the long boulevard structure more variating and enjoyable,** by shifting in shape and size, integrating places to stop and either enjoy the view, play or stay for a while [Ill. 92.].

- **Keep a good connection for people arriving,** both by foot and public transportation. This can be done through securing frequent routes both for pedestrians, the bus and in the future by the light rail [Ill. 98], and wide sidewalks in the area [Ill. 93].

- **Make attractions accessible for the public** so that visitors will keep coming to the area, supporting local functions and activities as the harbor bath, cable park, restaurants, and cafes [Ill. 98].

Site specific suggested solutions are marked on the map [Ill. 98] at the following page.

Ill. 92: Variating structure making route more interesting to follow at Enghave Brygge

Ill. 93: Wide sidewalk allowing interactions while walking

2.

A SAFE ENVIRONMENT

At Aarhus Ø, there have been several worries concerning safety in the area, both in relation to the protection from speeding vehicles at Bernhardt Jensens Boulevard and the unsafe feeling of traveling in the area at night. Furthermore, most of the area is very windswept with long shadows from the tall buildings, making the public life center at areas of shelter and sun.

Suggested solutions for an inviting entrance:

- **Prevent speeding at Bernhardt Jensens Boulevard,** by implementing obstacles in the road profile, making it more challenging to use the long, straight road for racing [Ill. 94].
- **Create better crossing opportunities,** by traffic lights and pedestrian crossings, especially at the main nodes as Bernhardt Jensens Boulevard and at functions attracting public life, as Basin 7 and the future school, and in continuation of future light rail stops [Ill. 98]
- **Benefit from places with good sun and wind conditions,** when developing public spaces to create better conditions for public life, as those are places where people prefer to stay.
- **Light up the streetscape** to make the area feel safer to walk by at night by implementing lightning solutions at every street, including areas without buildings yet, and near the marina [Ill. 95]

Site specific suggested solutions are marked on the map [Ill. 98] on the following page.

Ill. 94: Green road chicane

Ill. 95: Integrated lightning solutions

3.

AN EASY MOVEMENT

People tend to visit Aarhus Ø to enjoy a walk and use facilities like the harbor bath, cable track, and basin 7. This flow of people is important for the public life in the area, as people in the cityscapes attract others to visit and stay.

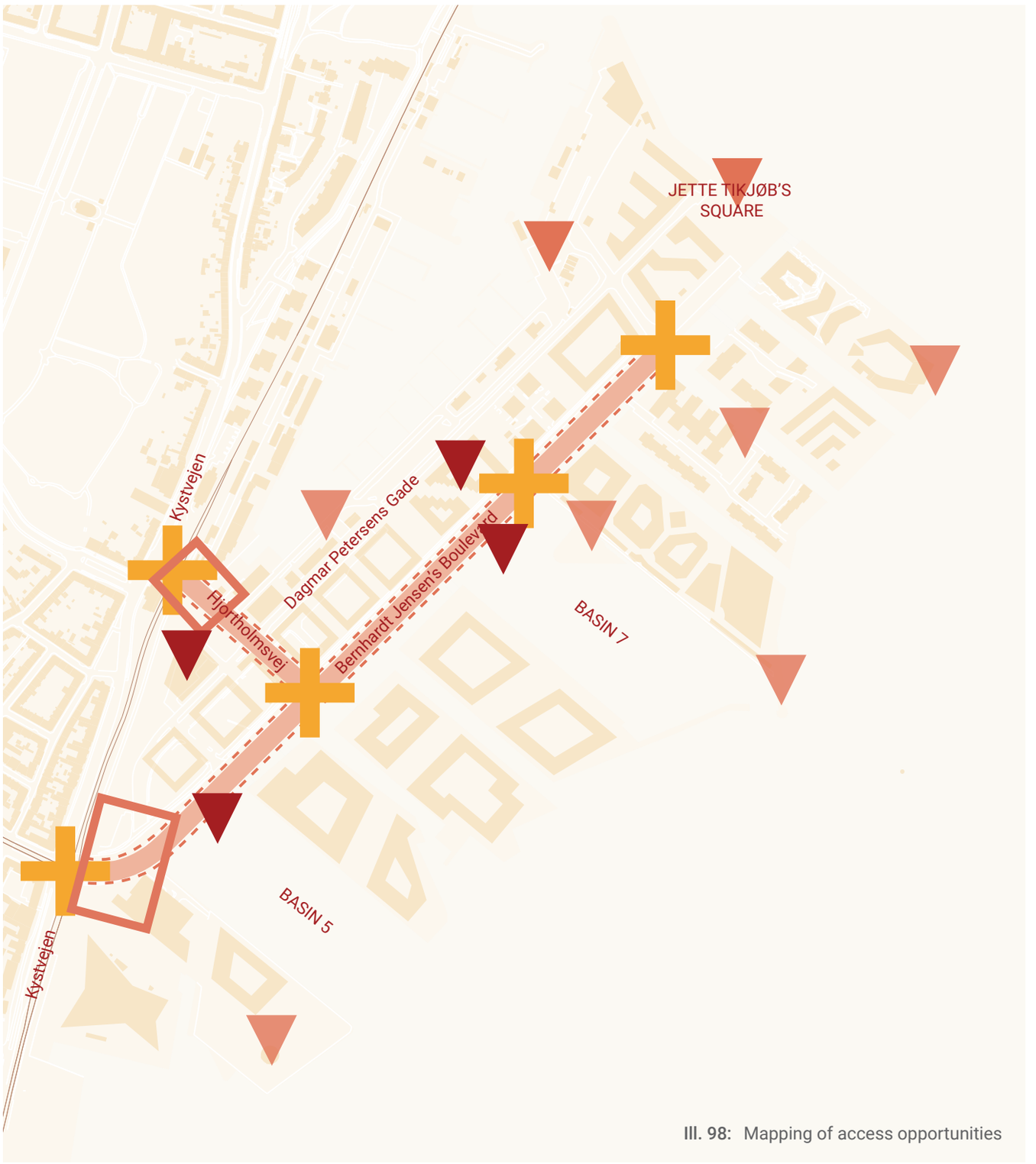
Suggested solutions for an inviting entrance:

- **Make functions accessible for everyone** by integrating ramps when shifting in levels [III. 96].
- **Make walking interesting** by breaking up Bernhard Jensens Boulevard's long straight structure and integrate activities and places to stay to make it appear shorter [III. 97].
- **Secure direct connection for cyclists** by maintaining the straight structure of the cycle path, and further extending the cycle path to the main functions at Aarhus Ø and both sides of Bernhardt Jensens Boulevard [III. 98]
- **Only prioritize vehicles at main connections**, as Bernhardt Jensens Boulevard, Hjortholmsvej, and Sverigesgade, by traffic lights to control the different flows and underground parking.

Site specific suggested solutions are marked on the map [III. 98] on the following page

III. 96: Different levels accessible throgh ramps

III. 97: Guiding variation in pavement



III. 98: Mapping of access opportunities

Entrance areas streghten by town gate of buildings or wayfnding to public life

Safe crossing at nodes where cars are prioritized

Potential, future attractions

Rigistred public life well connected for pedestrians

Roads where cars are prioritezed

Path prioritizing a straigth bike flow

Nature

Benefit From recreational values

One of the biggest and most eye-catching recreational areas is the sea. Today the water is a huge part of the district as Aarhus Ø reaches out into Aarhus bay with incorporated canals at the piers. The view of the water and the possibility to walk along the water attracts people to Aarhus Ø.

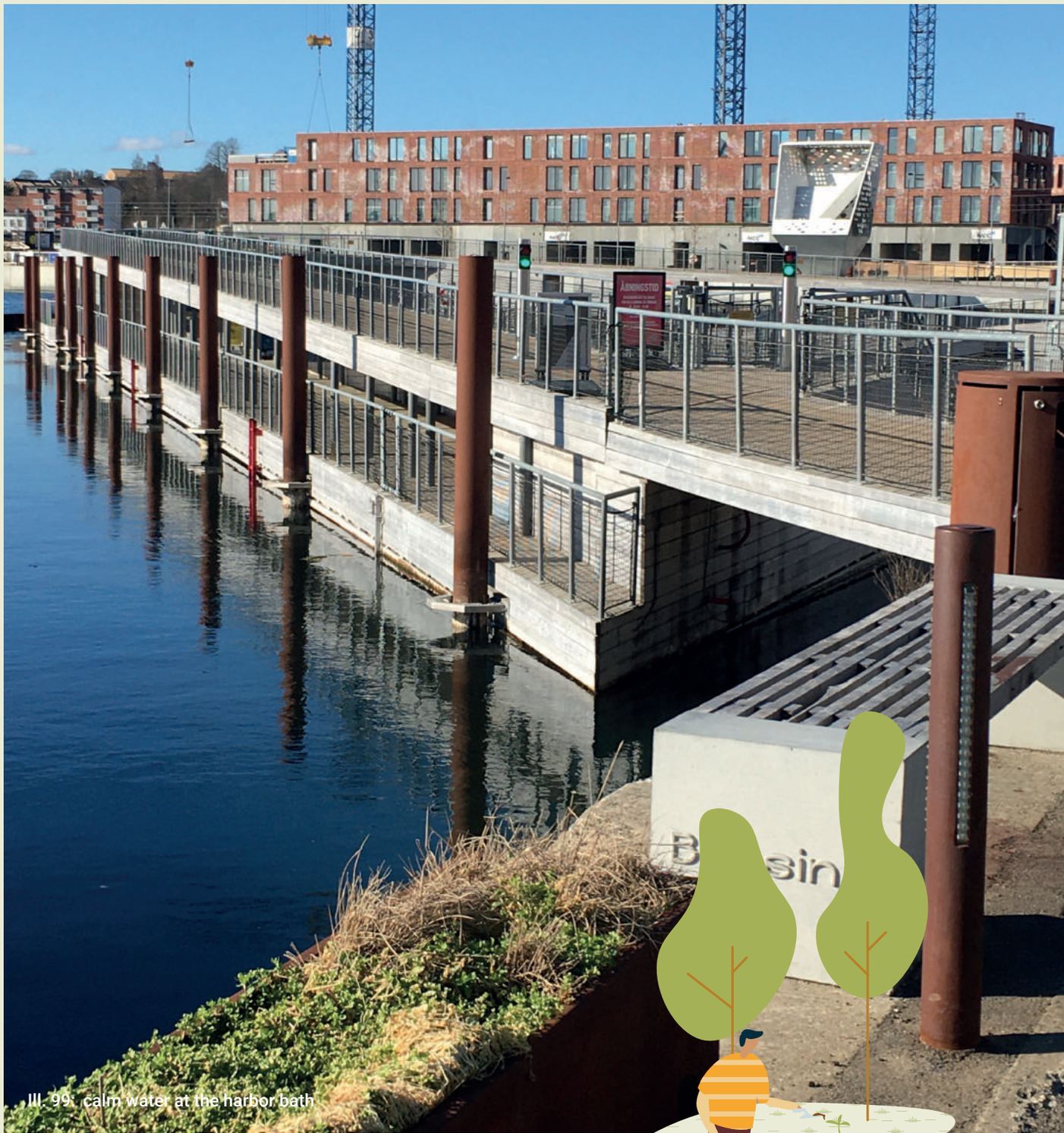
A fundamental structural aspect of Aarhus Ø is the promenade, following the quayside around the area. Together with the harbor bath, this is one of the preferred visiting spots for locals and visitors.

When walking along the canals and promenade, the quayside only variates a little, and access to the water is limited. Aarhus Ø is elevated two meters above water level to prevent flooding, making the physical connection to the water minimal, even though Aarhus Ø is surrounded by water.

The only places at Aarhus Ø where people can touch the water are at the harbor bath, the marina and at the end of the bathing jetty at Jette Tikjøbs Plads [Ill. 104]. But still, the water attracts public life, and people are more likely to stop at places with the possibility of interacting with water - even if they have to conquer the breakwaters.

When asking the residents and visitors at Aarhus Ø (Appendix xxx), a common wish and a focus in the 'Development Plan for Inner Aarhus Ø' was more greenery. At present, there are two green areas at Aarhus Ø;' Jette Tikjøbs Plads,' a 1,5 ha area of grass divided into three lawns with concrete elements for seating, and' the Ø-line,' a tightly programmed park designed to facilitate a variety of different activities.

Lastly, both sides of Bernhardt Jensens Boulevard have trees for every twelve meters, but because the trees are still relatively young and surrounded by cobblestone, it does not seem that green after all.



Ill. 99: calm water at the harbor bath

4.

A RELATION TO WATER

People tend to visit Aarhus Ø to enjoy a walk and use the facilities as the harbor bath, cable track, and xxx. This flow of people is important for the public life in the area; people in the cityscapes attract others to visit and stay.

Suggested solutions for relations to water:

- **Strengthen the physical connection to water**, by lowering the quayside either with steps, ramps, or similar, to make people able to touch and interact with the water [Ill. 100].
- **Keep having activities in the basins [Ill. 104]**, such as the cable park, SUP boards, and harbor bath [Ill. 101]
- **Locate public places near water**, as people prefer to stay at places with views, either at activities or nature values [Ill. 104].
- **Let water affect the public spaces**, by lowering parts of the quayside to flood in the winter and fall, where the use of the spaces is not as extensive as in the summer and springtime [Ill. 100].

Site specific suggested solutions are marked on the map [Ill. 104] on the following page.

Ill. 100: Designmeanttobeflooded

Ill. 101: Basinfacilitationsevaralactivities

5.

AN INTECIFIED GREEN

A general wish upon the residents of Aarhus Ø is the implementation of more green in the area.

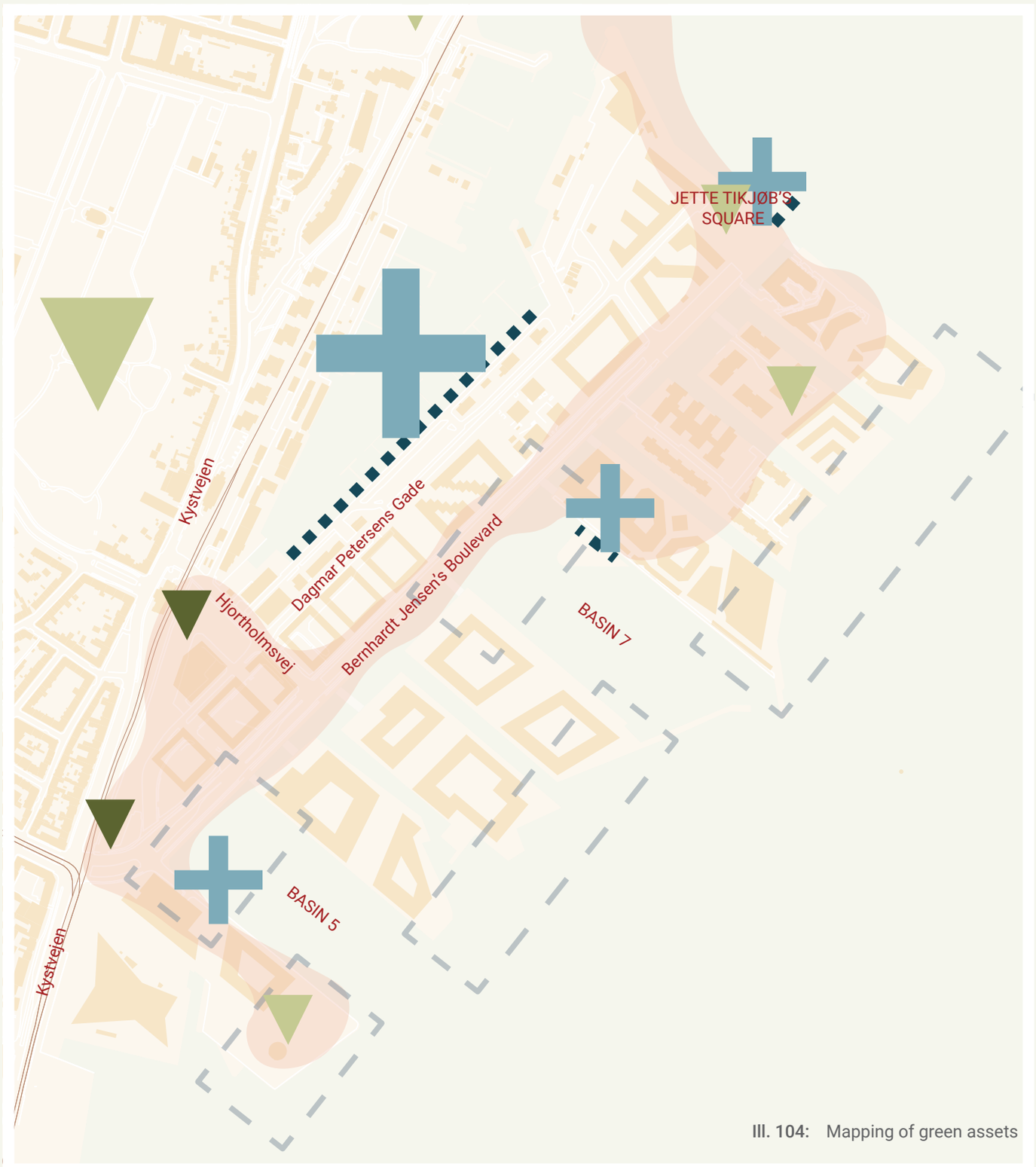
Suggested solutions for an intensified green:

- **Make elevated front gardens,** so that private activities can be dragged out in the urban spaces, without having by-passers feel they are invading a private space. The other way around, make some privacy for the resident.
- **Make a clearly visible connection between green areas,** to make the overall impression of Aarhus Ø seem greener and guide people to those areas.
- **Benefit from sheltering trees,** to improve the microclimate created from the long corridors [Ill. 104].
- **Soften paved areas through smaller green structures,** to make the paved areas less dominant and the overall perception of the cityscape more interesting [Ill. 102]
- **Activate left-over spaces and edge zones,** by plants and smaller recreational oases to benefit previously unused spaces [Ill. 103]
- **Make the green element seem more massive,** all year round, by planting on tiny hillocks to intensify the overall perception of the area [Ill. 102].

Site specific suggested solutions are marked on the map [Ill. 104] on the following page.

Ill. 102: Greneryonhillocks

Ill. 103: Greenery breaking up surfaces



Ill. 104: Mapping of green assets

Exsisting water activities

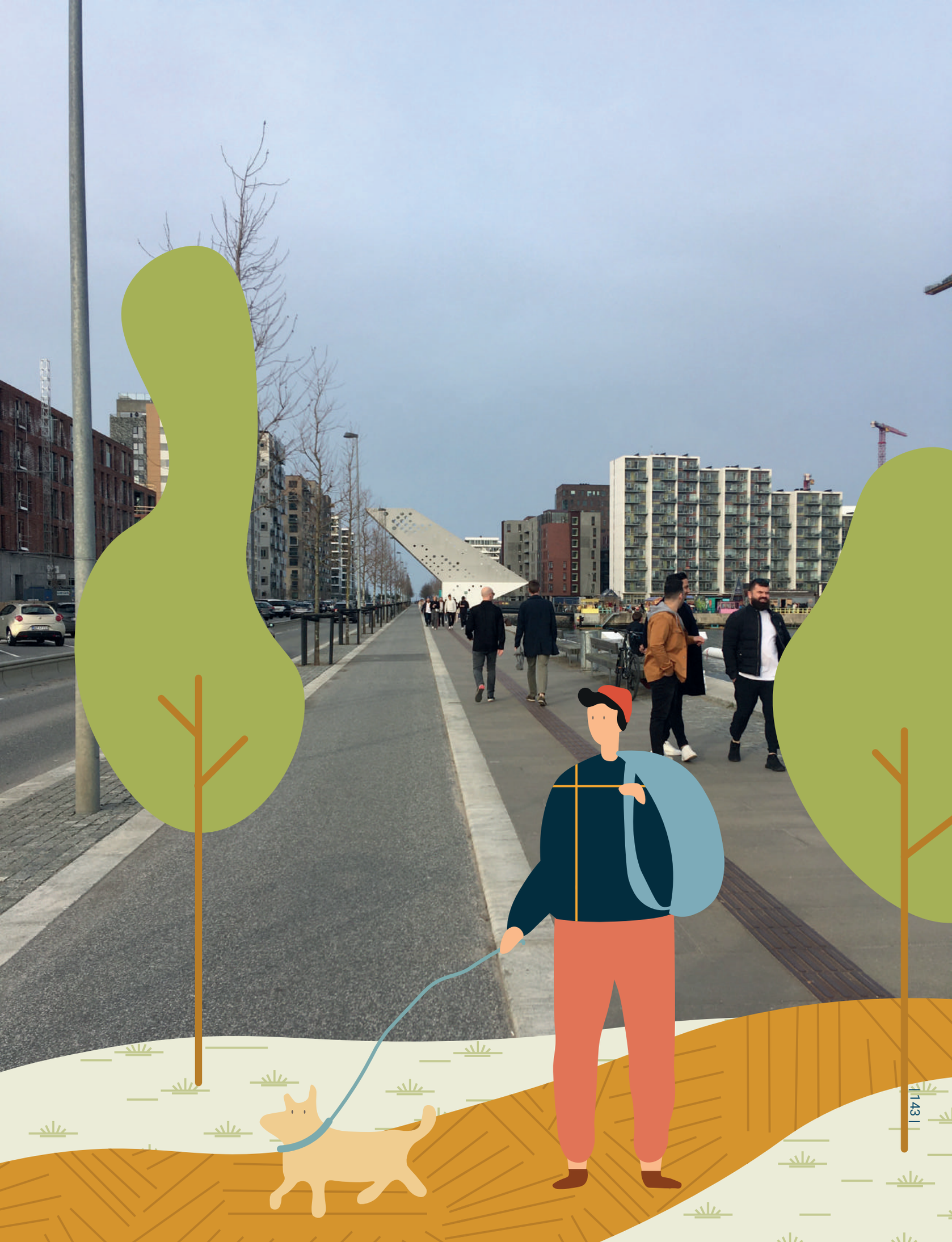
Possible location for public space with open water view and good sun conditions

Physical contact to water

Future green public places

Exsisting green public places

Strengthen visual connection bewteen green values



Cityscape

Awareness of the build structure

Northern part of Aarhus Ø is dominated by buildings with 12 floors or even taller (Lighthouse 2.0 will be 142 meters), and the human scale is absent from most places except from Basin 7 (that are working as a 'living building fence'). The high buildings also block the view of the sky, giving a claustrophobic feeling when walking between the buildings. The lack of the human scale has been heavily criticized as one of the main issues at Aarhus Ø (Aarhus Municipality, 2020a; Søby, 2016; Rasmussen et al., 2020; Schrøder and Størup, 2019).

On the other hand, many buildings have active frontages with large glass facades making them open looking. Even though the buildings are tall, they are layered with structures as windows and floors, breaking up the tallness.

Furthermore, the buildings at Aarhus Ø offer various exciting architecture, but the urban landscape is of less architectural quality and tends to be uninteresting, which offer little qualities to the cityscape. The buildings and the urban landscape do not 'talk together' and do not take the surroundings into account.

The cityscape uses maritime elements and materials to blend into its surroundings by the water. Today Basin 7 is a major attraction at Aarhus Ø. The harbor bath, the cafés, food stalls, and the cable park attracts many different people, creating a lively environment at Basin 7.

At Aarhus Ø, there are also smaller shops and cultural offerings such as a theatre, the marina, and sports clubs. The Ø-line offers various activities such as fitness, playground, and gardening. At the marina, the sail sports center offers different activities on the water.

Ill. 105: Photo of AArhus at Basin 7

6.

ATTRACTIONS WORTH A VISIT

Different functions and activities attract both visitors and locals to the public spaces of Aarhus Ø. Whether it is to take a dip in the harbor bath, buy a cup of coffee at the coffee stand, or to sit by the harbor front enjoying the view of either the calm bay or an attempt to keep standing at the cable park.

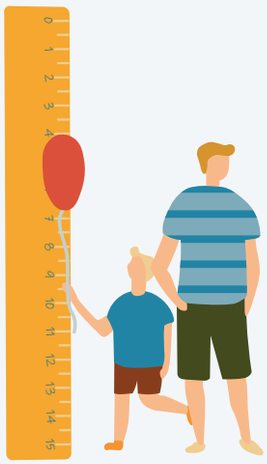
Suggested solutions for attractions worth a visit:

- **Implement successful, temporal solutions**, in the future development at the public spaces, create a foundation for public life at an early stage of the development phase, and the location is then printed in people's minds and linked to the specific function [Ill. 111]
- **Integrate public functions with greenery** and along the water to link it to the recreational values of nature [Ill. 107]
- **Link functions to activities**, to make them more likely to be used. This link could be cycle parking near the light rail stop, seating opportunities near cafes and restaurants providing take-out, or kayak storage near bathing jetties.
- **Allow shops, cafés, and restaurants to use parts of the sidewalk,** by making spaces wide enough for both pedestrian flow and seating [Ill. 106]

Site-specific suggested solutions are marked on the map [Ill. 111] on the following page.

Ill. 106: Living building fence


Ill. 107: Extended out-door serving



7.

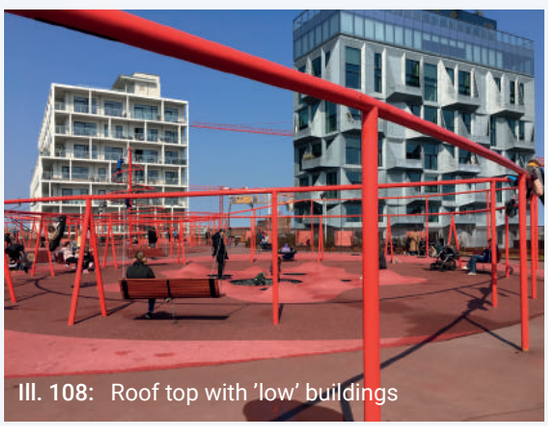
A HUMAN SCALE

At Aarhus Ø, buildings of six stories or less are more an exception to the rule. Therefore, it is essential to work around ways to break up the scale.

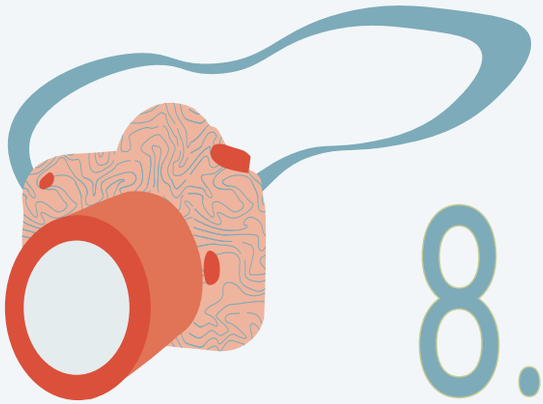
Suggested solutions for breaking up the scale:

- **Place public spaces near buildings with active frontages**, to make people relate to activities along and inside of the buildings, to target their attention.
- **Place trees closer to high building facades,** instead of in the middle of public spaces, to make a gradual reduction from the build to the treetop to the ground.
- **Point streetlight down and use low lighting solutions as bollards,** instead of lighting up the buildings, as this makes the public space seem more intimate.
- **Gather public furniture in small niches** to create intimacy and make people focus on each other instead of the high buildings.
- **Make public space with open sides**, like near the water, where the open wide space equalizes the high surroundings.
- **Explore the possibility for public spaces on rooftops,** as being higher up creates the sense of low build areas [Ill. 108].

Site-specific suggested solutions are marked on the map [Ill. 111] on the following page.



Ill. 108: Roof top with 'low' buildings



8. ATTRACT BY BRANDING

Aarhus Ø is well known for its starchitecture and its different appearance from the rest of Aarhus. This diversity has made the area stand out from the rest of Aarhus and has been used for branding the city for being an area worth visiting and a place where visionary property buyers live and invest.

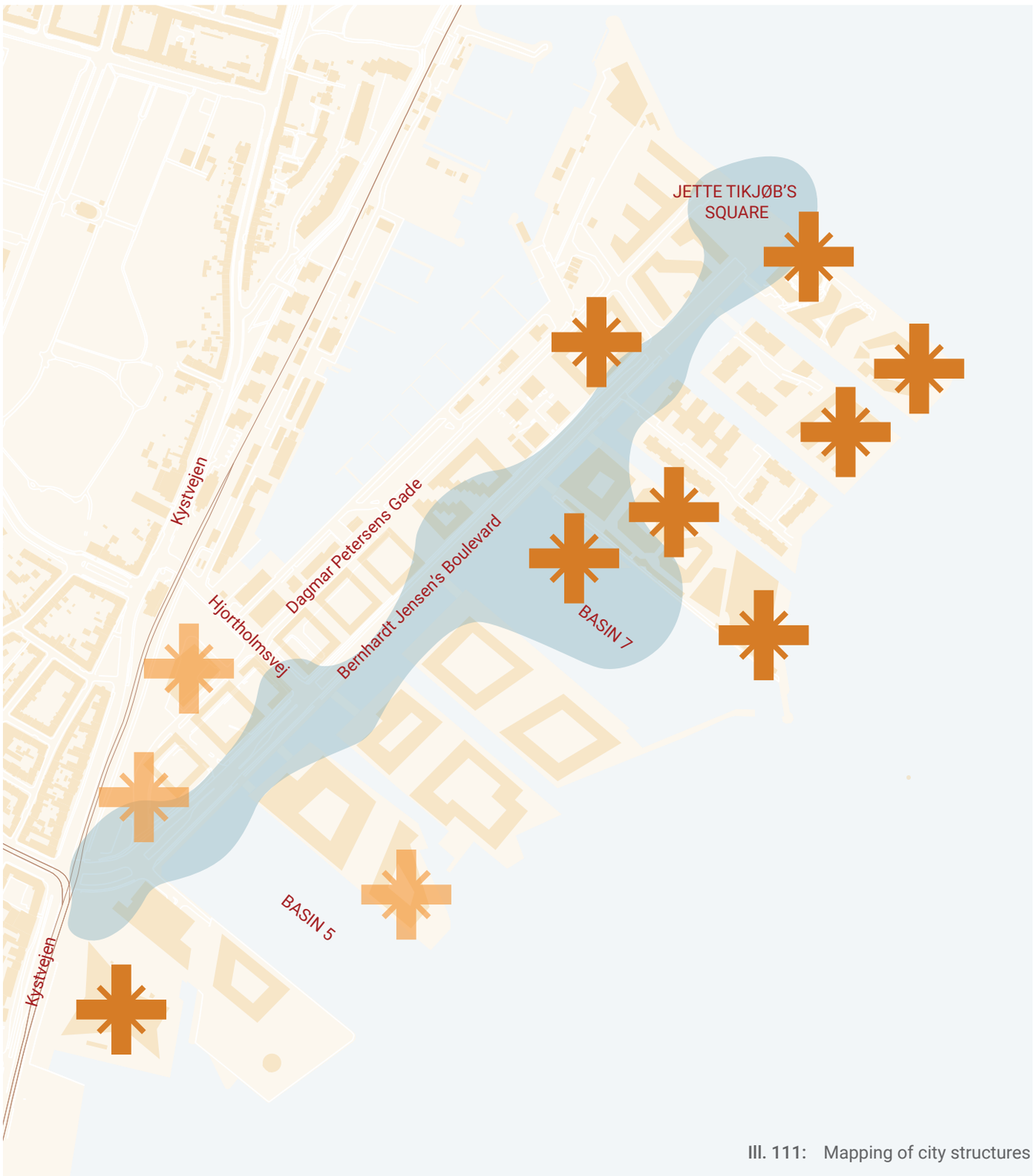
Suggested solutions for attracting by branding:

- **Keep branding through starchitecture,** as this through the years has helped Aarhus Ø to get worldwide publicity and reach the top visit lists in Aarhus at VisitAarhus.dk [Ill. 105].
- **Implement starchitecture projects**, when developing the remaining areas at Aarhus Ø to create a coherence between the different stages, and strengthen the overall impression of Aarhus Ø as a city district of starchitecture.
- **Decide when to implement elements of starchitecture**, as the diversity between the generic and the extraordinary makes the architecture stand stronger.
- **Make room for starchitecture**, when developing the cityscape by respecting the main vision of the architect, giving the starchitecture space or letting it reflect upon its surroundings [Ill. 110].
- **Brand Aarhus Ø through public life**, as this is a parameter people seek and prioritize higher and higher [Ill. 106].

Site-specific suggested solutions are marked on the map [Ill. 111] on the following page.

Ill. 109: Area known for its public life

Ill. 110: Landscape relating to nearby starchitecutre



III. 111: Mapping of city structures

Exsisting starchitecture

Possible location for future starchitecture, as town gate or solitary element

Public life as citybranding, placed along main corridor

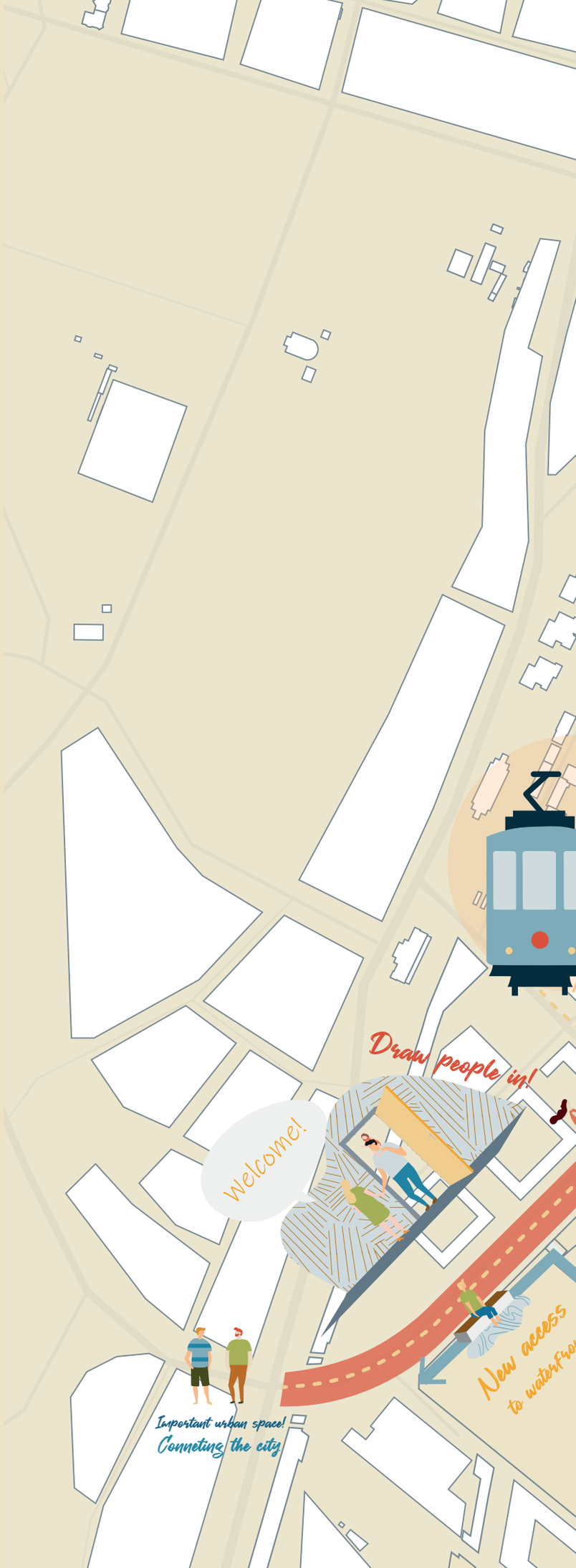
After Construction

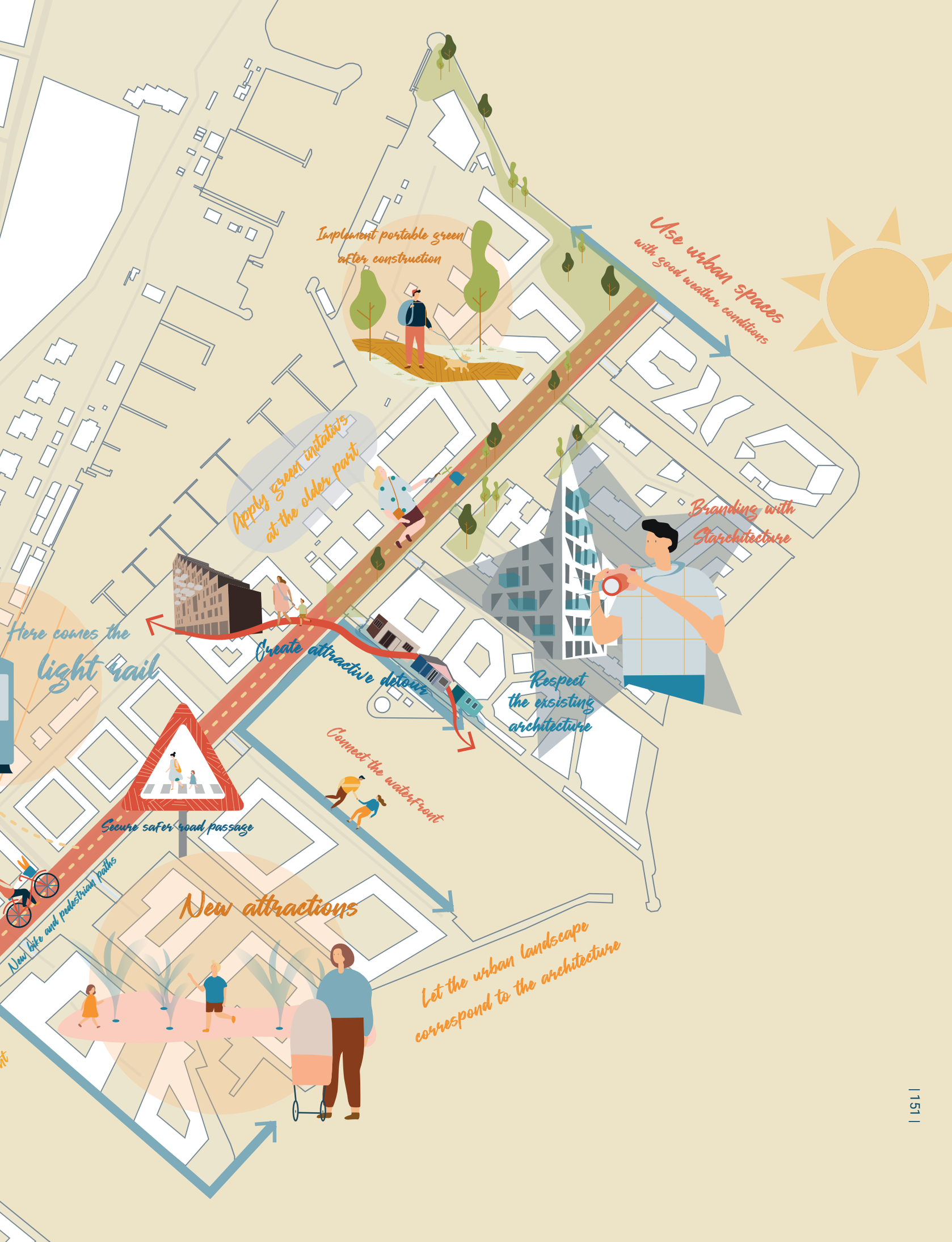
The map is an illustrative summary of essential considerations to secure public life on Aarhus Ø in the future.

The main points from the suggested solutions are selected and brought to plan. After construction, it is crucial to secure access along the main corridor to connect to the the built environment at Aarhus Ø.

Extending the promenade and focusing on the close connection to the water, is benefitial to create public life at Aarhus Ø. It is essential to focus on the areas with sun exposure to accommondate for the high buildings.

After construction is about securing the future public life at Aarhus Ø.




Implement portable green after construction
Use urban spaces with good weather conditions
Apply green initiatives at the older part
Branding with Starchitecture
Here comes the light rail
Create attractive detours
Respect the exsisting architecture
Connect the waterfront
Secure safer road passage
New bike and pedestrian paths
New attractions
Let the urban landscape correspond to the architecture

Securing Public life During Construction Phases

To make a strategy for public life at Aarhus Ø, it is important to count in, that there are many unbuild sites that are to become construction sites in the future. Aarhus Ø being affected by construction in many years to come is why this additional strategy for securing public life under the phase of construction is being added to the overall strategy. The public life needs to be thriven in the long phase of construction, so it is already well established when Aarhus Ø is fully build in about 10-15 years.

FOUR PHASES OF CONSTRUCTION

The entire area of Aarhus Ø had to be built from scratch to turn from a container dock to a residential harbor. Pier 4 is fully developed at the end of 2022, as the area at the entrance of Bernhardt, Jensens Boulevard, with Navitas and the Bestseller building. The rest of the area is about to be developed through the following years.

To create an overview of the development process, Aarhus Ø has been divided into four development areas (our division based on readings from the section 'Plans and Policy at Aarhus Ø') classified by areas fully developed in 2022. This classification is areas with a current development plan, areas where a development plan will be worked out, and an area where the only prospect is the light rail track. In this strategy, the last-mentioned area is called the link between, as it touches all the other areas and links Aarhus Ø to the rest of Aarhus through Bernhardt Jensen Boulevard.

A
> Fully etablished in 2021
Pier 4, Navitas and the Bestseller building

B
> Development planed
Inner Aarhus Ø and Pier 2

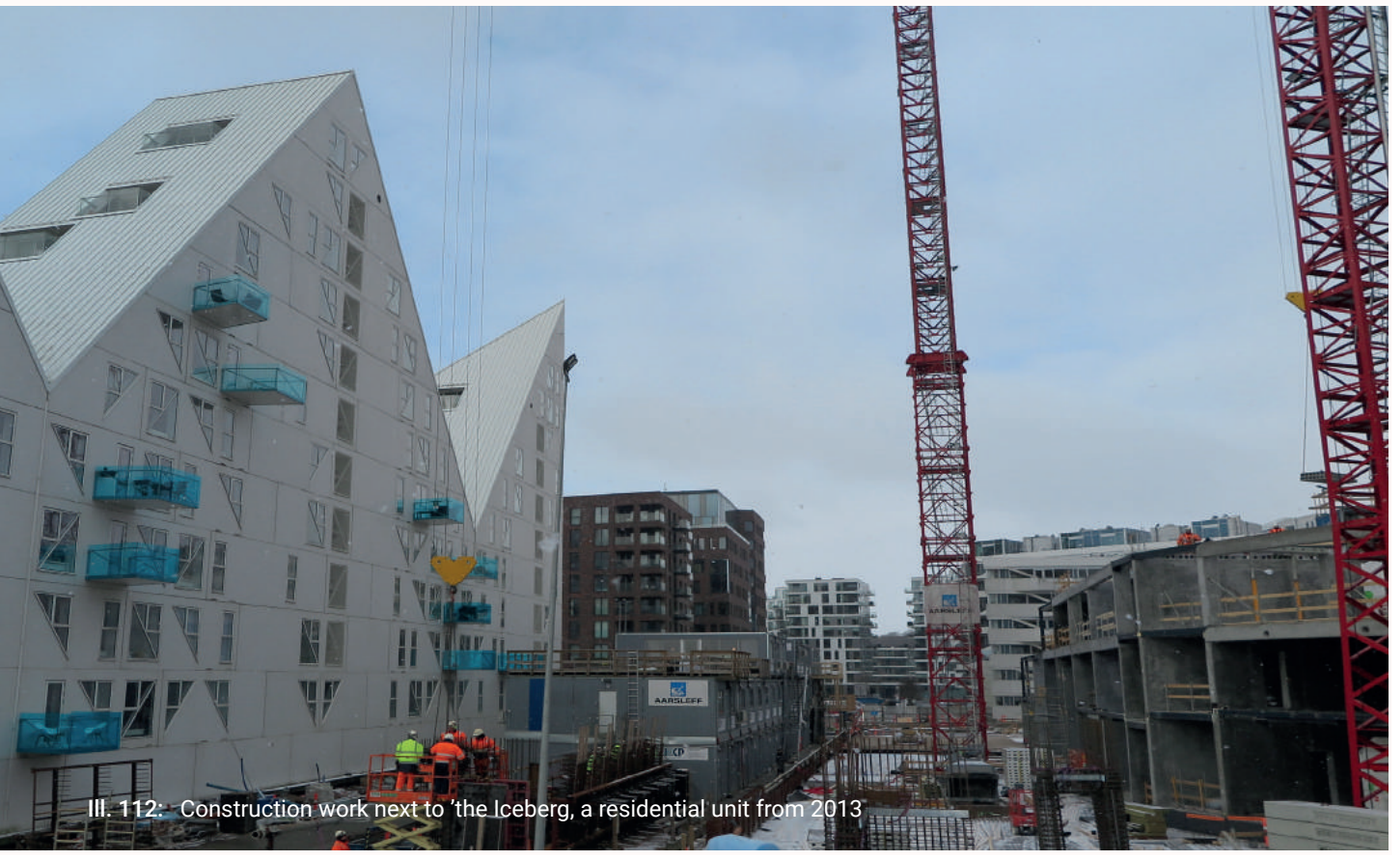
C
> Up for planning
Pier 3

D
> The link between
Bernhardt Jensens Boulevard

Cutting through Aarhus Ø is Bernhardt Jensens Boulevard, which we have decided to define as 'the link between', as it touches all the other development areas and connects Aarhus Ø to the inner city. This area is the only one without either a development plan or the intention of making one. Here the focus is the infrastructure since Bernhardt Jensen Boulevard is the main connection and where the new light rail line is planned to run in the middle.

Nevertheless, we see great potential in developing this area as a place supporting public life. It supplies different areas of Aarhus Ø, it already has a high flow of people and contains the ideal qualities for a place to stay in relation to sun, wind and its close water connection. Furthermore, it links Aarhus Ø to the inner city, which creates an opportunity to keep attracting people to the area while making Aarhus Ø an integrated part of the rest of Aarhus.


BERNHARDT JENSENS
BOULEVARD
INNER AARHUS Ø
PIER 4
NAVITAS AND
BESTSELLER
PIER 3
PIER 2



Ill. 112: Construction work next to 'the Iceberg, a residential unit from 2013

Supporting existing public life at Aarhus Ø during Construction

In the early days of Aarhus Ø, it was decided that the construction of the residential harbor was to start at Pier 4, the northern part of Aarhus Ø. This decision was made to maintain the possibility that the existing industry at the inner part of Aarhus Ø could continue despite the constructions at Pier 4.

The following page will present a guide of initiatives that could be done 'during construction' to secure existing public life in the development areas. This guide is for developers and construction workers to use while developing a new city district, aiming to create 'public life before buildings,' with an already well-functioning public life to retain.

It is a construction site, but still also a residential area where people have been living since 2012, therefore those two actors have to be able to live side by side.

This section revolves around the same focus topics as the previous, but the suggested solutions target initiatives to be done with and just next to the building fence. Through this part of the strategy, developers and construction workers can contribute to the overall strategy for supporting and further develop public life at Aarhus Ø.

Ill. 113: Narrative graffiti at Enghave Brygge

1 > WARM WELCOME

There will be a time where the outer appearance of inner Aarhus Ø might turn into a facade of building fences and construction work.

Suggested solutions to Warm welcome:

- Lore people in through compelling building fences with paintings, posters, or information about the ongoing construction.
- Secure access through the main entrance through Bernhardt Jensens Boulevard at all times.
- Keep bus routes in services until the light rail is in full service.
- Keep activities at Aarhus Ø reachable for visitors through short-term temporary parking placed at non-build sites up for construction.

Ill. 114: Cycle path along construction

2 > SAFE ENVIRONMENT

A construction site is often linked to a perception of danger - and for a good reason. Heavy machinery, building elements, and construction workers on duty are not to be combined.

Suggested solutions to create a safe environment:

- Make a clear distinction between construction work and public life.
- Heavy traffic should be separated from other road users, especially soft users.
- The construction site needs to be well lit at night, and dark corners should be avoided.
- Implement transparency in building site fences to avoid unsafe corners.

Ill. 115: Constrcution work invading sidewalk

3 > SMOOTH MOVEMENT

Many people come and go to Aarhus Ø every day, so it is important to maintain connections on-site and keep transit clear in the area.

Suggested solutions to help easy access for everyone:

- Paths for pedestrians and cyclists should never be blocked by heavy machinery, building materials, or left-over from the construction work.
- When possible, existing passages should be kept free between construction sites.
- Limit the number of parked vehicles at unauthorized places by using future construction sites for temporary parking until underground parking are finish.
- Guide people through signage when the traditional paths are moved.

Ill. 118: Dead end used as view point

4 > RELATION TO WATER

Water is one of the biggest attractions at Aarhus Ø and an integrated part of public life which should be kept in mind when developing new areas.

Suggested solutions to secure access to water:

- maintain the connection to the waterfront, even if it is just through a small passage.
- If debarring access to the waterfront, avoid dead ends enabling the flow of people to continue people to be able to enjoy walks along the water.
- when starting construction of the inner areas of Aarhus Ø, if possible, the promenade and waterfront should be finished first to attract public life through the water's recreational values to the newly built area.

Ill. 116: Portable green elements

5 > INTENSIFIED GREENERY

Often greenery is the last element implemented in the development because heavy construction work might ruin the vegetation under the development process. However, green assets soften the cityscape and have a positive effect on people's mental stage.

Suggested solutions to intensify the green values:

- place greenery along the building fences to soften its appearance.
- be aware of existing green elements
- use portable green element, as this creates an opportunity for shifting the location of, e.g., a tree without damaging its roots
- when construction is done, implement the greenery in the developed area

Ill. 117: 'Living building fence'

6 > COMPELLING ATTRACTIONS

Many activities are blooming, and still more functions are added to the area, which attracts public life to Aarhus Ø. Construction work should endeavor not to make these attractions less.

Suggested solutions to attract people:

- maintain the connection to existing functions and activities to keep attracting people
- make the construction an attraction by making minor parts of the building fences transparent
- add attractions to the construction through initiatives as 'living building fence'.
- successful temporary activities should be relocated in the area when the respective area is up for development.

Ill. 119: Trees along building fence

7 > AWARENESS OF SCALE

Construction often includes sky-high cranes, tall buildings, and heavy construction elements flying over our heads. This atmosphere might make the by-passer feel very small, but the focus can be shifted with the right distractions.

Suggested solutions to address the Awareness of scale:

- make space between pedestrian paths and the building fence
- place lower elements as one story container functions, trees, and seating opportunities along the building fence to make the difference between the horizontal and vertical lines seem less sharp

Ill. 120: Signage promoting construction

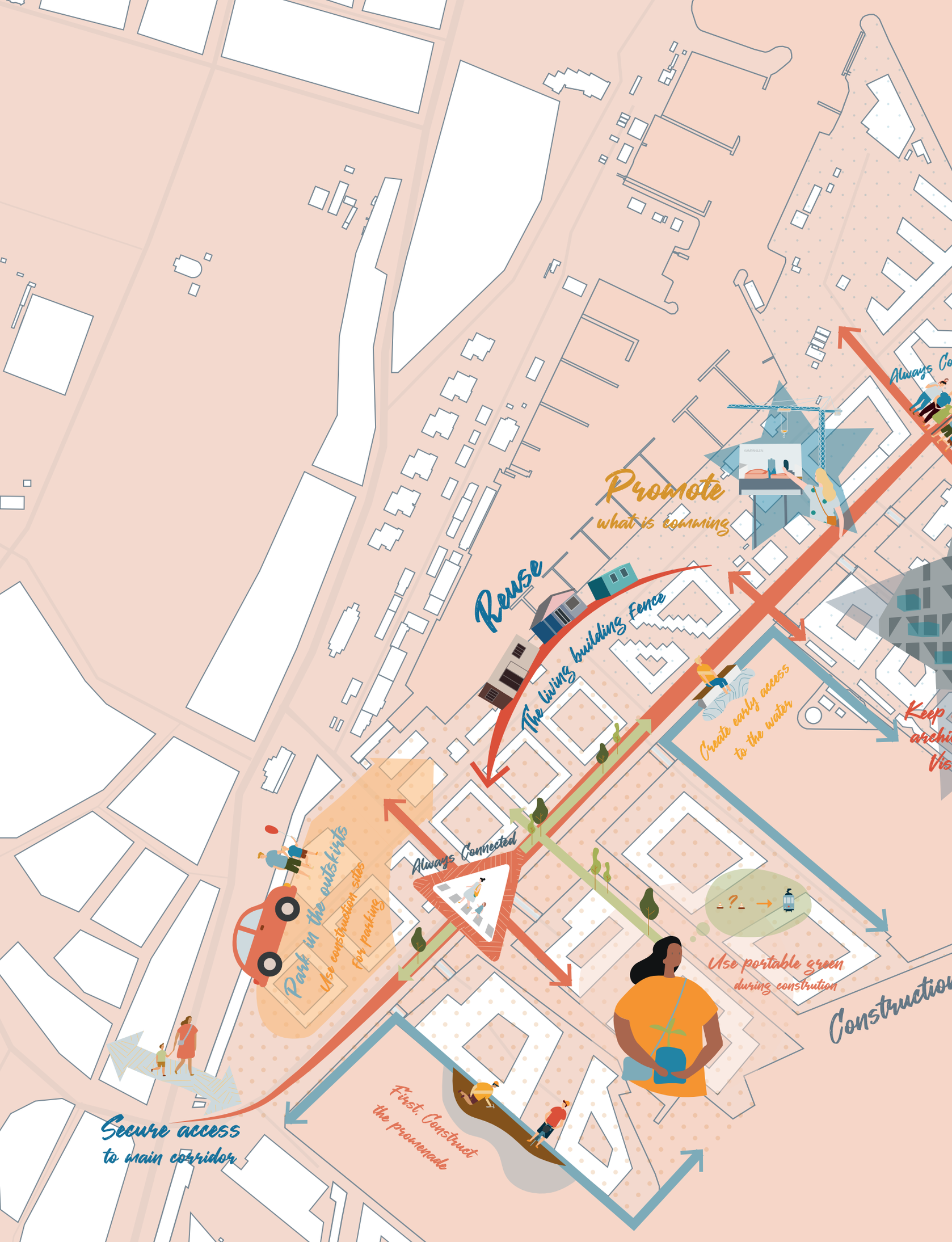
8 > FOCUSED CITY BRANDING

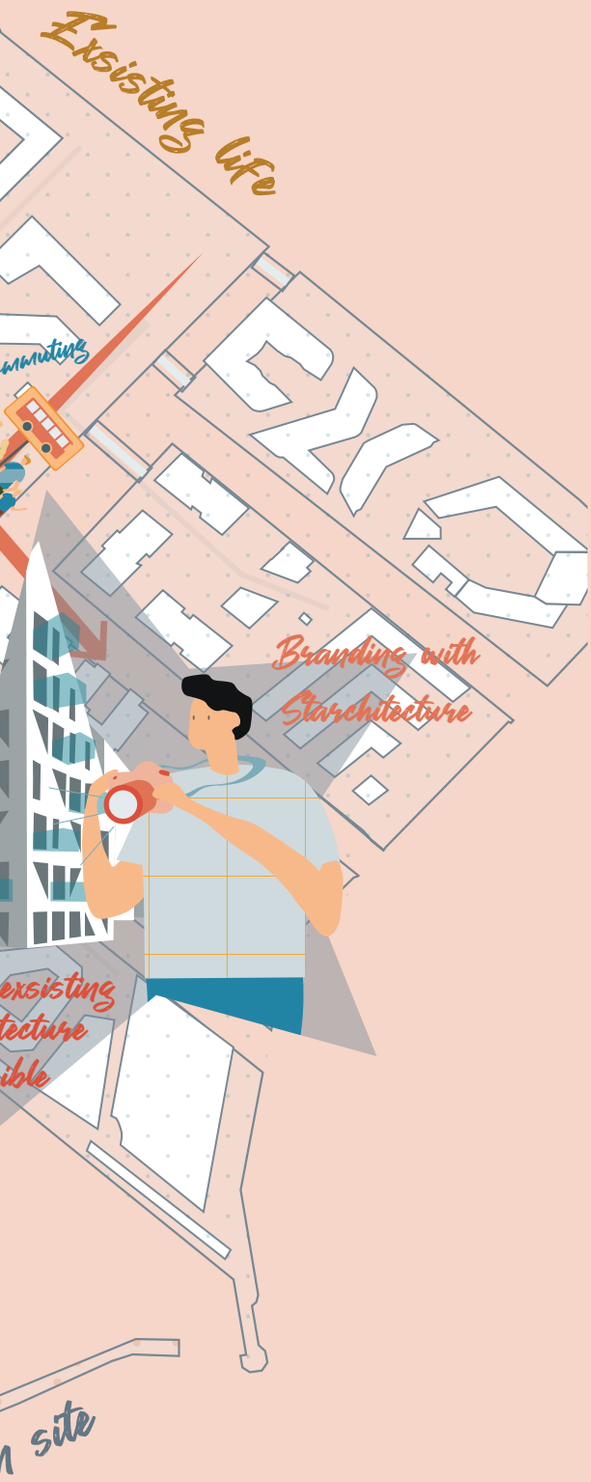
The Starchitecture at Aarhus Ø has become a trademark for the area. This image should still be in focus when constructing the remaining area.

Suggested solutions to brand Aarhus Ø:

- keep attracting people to Aarhus Ø through interesting architecture.
- keep promoting the future buildings and public spaces through signage to brand the future development at Aarhus Ø

Ill. 121: Interesting building fence, free paths and access to water at Enghave Brygge


Always Co
Promote
what is comming
Reuse
The living building Fence
Create early access
to the water
Keep
archi
Vis
Always Connected
Park in the outskirts
Use construction sites
for parking
Use portable green
during construction
Construction
First, Construct
the promenade
Secure access
to main corridor



During Construction

The map indicates important considerations to secure public life during construction at Aarhus Ø.

The main points from the recommendations are selected and brought to life. During construction, it is crucial to secure access along the main corridor to connect to the existing public life at Aarhus Ø and avoid the area being isolated from the rest of Aarhus.
This concern is based on the placement of the construction site, which can become a barrier to public life.

It is equally important to implement different initiatives which can create public life by reusing the existing and working with the opportunities and constraints of construction sites.

Example of Spatial Interventions

AFTER CONSTRUCTION

These pages show an example of how the suggested spatial interventions from the 8 focus points from the Strategy could be realized, presented in a visualization of two places at Bernhardt Jensen Boulevard.

III. 122: Exemplification of public place at Bernhardt Jensens Boulevard by Basin 5

EXEMPLIFYING THE 8 FOCUS POINTS OF THE PUBLIC LIFE STRATEGY AT TWO SPACES:

Warm welcome
Greated by agreen public place at the beginning of Bernhardt Jensen Boulevard.

Safe environment
Pedestrians and bicycles are separated from car traffic by green elements.

Smooth movement
Public life will not interfere with the traffic flow. Integrated ramps for access to water for all.

Relation to water
The access to water is extended through boardwalks at different levels, making a physical connection to water at any sea level.

Intensified greenery
Make a more apparent separation between cars and the bike path. Furthermore, the light rail trace will be green.

Compelling attractions
The increased access to water is used as an attraction for the area.

Awareness of scale
The openness lets visitors enjoying the view of either the iconic architecture in the areas or the aesthetic view over water.

Focused city branding
Brand through enhancing public life by locating and locating the new spatial interventions at the beginning of the Aarhus Ø, affecting the outer appearance.

III. 123: Exemplification of Bernhardt Jensens Boulevard by Pier 3

Final remarks

THESIS END

If you want to know what almost half a year of exploring the hidden Heartchitecture at Aarhus Ø led to; you should continue reading this chapter.

Conclusion

This thesis has investigated the theoretical Crossfield between starchitecture and livability to locate the potential of public life at Aarhus Ø. This has led to an analytical approach of heartchitecture which have helped to target our analysis in locating conditions in relation to placement, attractive features and movement for public life. On a strategic level, we have been scrutinizing plans and interviewing experts to understand the political dynamics. All in favor of locating how to present our findings and add public life to the political agenda.

As an extension to our understanding, case studies have been conducted at four different residential harbors.

The methods mentioned above seeks to reach the overall aim, which are as follow:

This thesis aims to reveal the potentials for public life at Aarhus Ø by investigating the relation between livability and starchitecture. The relation is explored through our developed approach of Heartchitecture and the findings are used to develop a site specic strategy to secure and further develop public life today and in the future to come.

Aarhus Ø has been under massive critique for lacking public life and quality public spaces and being dominated by starchitecture as a playground for competing architects. That led us to ask ourselves if there might be a relation between the structure of high build areas of starchitecture and a missing basis for public life. Through literature studies of starchitecture and livability, we found that these fundamental structures of high-density starchitecture areas are not the best conditions for livability. However, some interventions and smart decisions can still make these conditions better, as active ground floors, layered buildings, and overall diversity.
Well aware of Aarhus Ø's reputation of being the most planned area in Aarhus Municipality, we examined grey literature upon the area, and to deepen our understanding in the political agenda/dynamics, we supplement with expert interviews with representatives from Aarhus Municipality and the Joint Council of the Peri-Urban Harbor Areas.

Through an overview of the existing plan system, we found that livability, to a higher extend, is integrated into newer strategies and has been put into practice, both through plans and design. We saw an increased demand for taking livability into count in both the municipality plan and several development plans, but it was not anywhere to find; how to do it. A representative from Aarhus Municipality expressed that the overall purpose of developing Aarhus is to create an area attractive for both residents and developers. He further added that the ultimate criteria for success were to create livable city districts, where people seek and appreciate to live. Nevertheless, the requirements for developers have only been concerning functions, architectural aesthetic, and price when choosing whom to build on Aarhus Ø.

As we went to look for these conditions on Aarhus Ø we found, over time, public life has evolved in few places on Aarhus Ø along the

promenade, basin 7, and the harbor bath. Common for the areas were their location next to the water, a relation to activity or scenery, with sun-exposed, sheltered opportunities to stay. Basin 7 and the harbor bath was the first development project to focus on the concept of 'public life before buildings,' and it is noteworthy how popular this place is, even though it is basically a building fence, covering a construction site on its fourth year.

Through literature studies, interviews, case studies, and fieldwork, we gathered knowledge about the public life at Aarhus Ø and new residential harbors with high-dense build structures and elements of starchitecture. Foremost the intention was to use these experiences from the first stage of Aarhus Ø, benefit from the success, and avoid making the same mistakes as the construction continues on the inner part. However, as we dogged into the area, we located a potential thread for the existing public life, linked to the construction phase, as these massive building projects are prolonged processes and require extensive time and planning. Next are the building plots closest to the center of Aarhus, creating an entrance covered in building fences for the following minimum of three years. This scenario is a risk to the existing public life at Aarhus Ø, as it might block the main corridor to the area leading the public to surrounding areas. Furthermore, the perception of an unsafe environment related to the construction might follow.

The public life on Aarhus Ø has been with a vague increase through its first ten years, until 2018 and the establishment of the harbor bath, and when threatening the main corridor, the public life is at risk. Therefore, we found it crucial to gather our finding upon public life on Aarhus Ø, passing it on to local authorities and developers, to make awareness to the future constrain. These findings are elaborated through a 'Strategy for public life at Aarhus Ø,' and evolved temporal dimensions of initiatives in which can be done to, 1) strengthen the excising public life, 2) secure public life during construction phases, and 3) further develop public life at Aarhus Ø in the future.
The strategy presents suggested solutions divided into three main themes: access, nature, and the city. Within these themes are focus areas revolving around creating a warm welcome, easy movement, a safe environment, access to water, intensified green experiences, luring attractions, human scale, and branding of the city.

Lastly, selected focus areas are applied on an area not up for any other development that establishes a light rail track, appurtenant stops, and functions. The infrastructural changes require extensive construction work as well. Thus, we see this as an opportunity to add additional design solutions supporting the future development of public life at Aarhus Ø.

When the area is fully developed, close to 12,000 residents will be located, and a greater part of these residents decide on either renting or buying a home when the area is still a construction site. This choice is a venture and an investment in a conception, as current policy plans can only pledge the built environment and not public life, as this is just more fluid and depends on multiple factors. Therefore, we found the need for a common tool for local authorities and developers to consider when continuing the development at Aarhus Ø. To work for a common goal will not only give Aarhus Municipality something to pin the developers on. Furthermore, it could be used to make it more attractive to invest in and develop public life. A strategy creates clarity upon that to do both on a greater strategic level and, on a minor scale, relating to every single construction site.

Reflection

OUR GAP

Prior to our research phase, we raised the question of livability in areas of starchitecture, as well-known research claims public life is blooming in areas of six stories or less. Our gap originated from an astonishment regarding if it indeed was a lost cause to work with livability and public life in high-dense areas (more specific areas of starchitecture). Instead of basing our thesis on specific research that points out a specific problem, we seek the link between two different research fields. This take made our research phase longer than expected, and the first part of our thesis much more comprehensive than first intended.

STARCHITECTURE VS. HIGH-DENSE AREAS

In many cases, starchitecture and high-dense buildings have some of the same effects on the urban environment. While, in relation to city branding, starchitecture has advanced in its publicity and extraordinary appearances. When we decided to focus on starchitecture, it was an attempt to make our field of research as specific as possible, but instead, it made it even more extensive. Cities are a mix of a variety of building forms, and as our research evolved, we had to realize that we still had to investigate the same difficulties as in high-dense areas, which left us with an even more extensive research field of unfolding both starchitecture, livability, and high-dense area in order see if we would find a connection.

ADDING THE EFFECT OF 'DURING CONSTRUCTION'

As we developed our analysis, we found that the present construction sites highly affected our output which let us to ask the question, if this was also the case for the public life. We found construction perspective fascinating, as these constructions sites has been a big part of Aarhus Ø, and continue to be so for the following 15 years. Therefore, we started to locate the constraints of public life in relation to areas during construction and decided to implement it in our strategy. The construction perspective was not an intention from

the beginning, but as the topic kept returning, it became an integrated part of our thesis.

LIVABLE STARCHITECTURE

Our initial idea builds upon interventions to add to the surrounding of starchitecture. We later realized that starchitecture is a big part of the cityscape, as it affects the entire area as it pushes the standard for; how high and what appearance is the new normal. Therefore, we extended our research field to an area of starchitecture instead. This led us to take a more strategic approach to our site, moving away from a design concept of add-on solutions to an overall strategy for the area.

OUR WAY TO ACCESS LIVABILITY.

As mentioned in the literature study, there are several ways of both understanding and working with livability. It is variable based on the respective fields, settings, and places in the world, and it is used to both measure and evaluate everything from countries to streetscapes. In this thesis, the assessment of livability was based on livability as the way livability is presented in the cityscape, understand and work around actions and preferences of people, and how buildings affect the practice. This approach made our project result in interventions done to the urban landscape supporting public life. If in instead, our focus had been regarding livability indexes, the research might have led us to a more user-oriented approach concerning contributions to how the rating of the index could rise. This choice might have led us to different themes and a changed choice of presented media for the final product.

TRANSFERABILITY

All over Europe are redeveloped harborfront projects as Aarhus Ø. Industries are pressed out of the city or to other parts of the world due to increased demand for residential units close to the city center. Experience from this thesis might be transferable to other projects, especially suggested solutions concerning the construction phase, as these elements are very similar despite different development projects. Regarding suggested solutions for strengthening and further developing public life, we would recommend local authorities to consider which focus areas are relevant for their site and if further should be added. Especially concerning the site-specific solutions, as a key element is a relation between activities and functions, the road hierarchy, main entrances, etc., as their location is essential for the output. Furthermore, the choice of a strategy builds upon having a common mean to a goal, and we do not think it would have the same effect if it were generic.

PUBLIC CORONA LIFE

We investigated the public life on Aarhus Ø through the Covid-19 pandemic, which might have affected the analysis of the existing public life. At the beginning of our thesis, Denmark was locked down, schools were closed, and people worked from home. Until 21th of April restaurants and cafes was still closed. This has most likely affected the amount of people in the outdoors and the way in which the public spaces are used. Working from home gave people the possibility to work flexible hours and use long breaks for outdoor activities. More people saw the potentials in using public facilities at different seasons and times of the day. On the other hand, people's behavior in relation to each other have changed in order to not be contagious. Bigger gatherings are forbidden and avoided, so people tend to seek alternative public spaces, when the traditional are overcrowded. This could have affected our analysis.

References

A

Aarhus Municipality, 2021a. *Teknik og Miljø*. [online] Available at: https://www.aarhus.dk/om-kommunen/teknik-og-miljoe/ [Accessed 18 may 2021]

Aarhus Municipality, 2021b. *Aarhus I tal*. [online] Available at: https://ledelsesinformation.aarhuskommune.dk/aarhus-i-tal/default.aspx?doc=vfs://Global/AARHUS-I-TAL/Befolkning-Oversigt.xview [Accessed 30 March 2021]

Aarhus Municipality, 2020a. *Udviklingsplaner*. [online] Available at: https://aarhusoe.dk/om-aarhus-o/udviklingsplaner/ [Accessed 18 May 2021]

Aarhus Municipality, 2020b. *Udviklingsplan for indre Aarhus Ø.* [pdf] Available at: https://aarhusoe.dk/media/44234/2020_juni_up_indre-aarhus-oe_mini.pdf [Accessed 18 February 2021]

Aarhus Municipality, 2020c. *Bystrategi, Arealudvikling og Almene Boliger.* Available [online] at: https://www.aarhus.dk/om-kommunen/teknik-og-miljoe/bystrategi-arealudvikling-og-almene-boliger/ Accessed 18 may 2021

Aarhus Municipality, 2020d. *Boligprognose for Aarhus Kommune 2020-2030.* [online] Available at: https://www.aarhus.dk/media/40589/boligprognose-2020-2030.pdf [Accessed 30 march 2021]

Aarhus Municipality, 2020e. *Aarhus Ø*. [pdf] Available at: https://aarhusoe.dk/media/44512/20200717_folder_aarhusoe_dansk.pdf [Accessed 14 April 2021]

Aarhus Municipality, 2019a. *Sådan styres Aarhus.* Available [online] at: https://www.aarhus.dk/demokrati/politik/byraadet/saadan-styres-aarhus/saadan-styres-aarhus/#1 [Accessed 18 may 2021]

Aarhus Municipality, 2019b. *Hvem kan stille op til byrådet.* Available [online] at: https://www.aarhus.dk/demokrati/politik/byraadet/en-plads-i-byraadet/hvem-kan-stille-op-til-byraadet/ [Accessed 18 may 2021

Aarhus Municipality, 2019c. *Byrådets medlemmer*. Available [online] at: https://www.aarhus.dk/demokrati/politik/byraadet/byraadets-medlemmer/ [Accessed 18 may 2021]

Aarhus Municipality, 2019d. *Fællesrådene.* Available [online] at: https://www.aarhus.dk/demokrati/faa-indflydelse/faellesraadene/ [Accessed 18 may 2021]

Aarhus Municipality, 2019e. *Planstrategi 2019.* Available [pdf] at: https://deltag.aarhus.dk/sites/default/files/documents/Forslag%20til%20Planstrategi%202019.pdf [Accessed 18 may 2021]

Aarhus Kommune, 2019f. *Aarhus må ruste sig mod voldsomme klimaforandringer.* [online] Available at: https://www.aarhus.dk/nyt/teknik-og-miljoe/2019/august-2019/aarhus-maa-ruste-sig-mod-voldsomme-klimaforandringer/ [Accessed at 20 May 2021]

Aarhus Municipality, 2018a. *Historie og vision.* [online] Available at: https://aarhusoe.dk/om-aarhus-o/historie-og-vision/ [Accessed 18 February 2021]

Aarhus Municipality, 2018b. *Lokalplanprocessen I Aarhus Kommune.* Available [online] at: https://www.aarhus.dk/media/19167/lokalprocessen-i-aarhus-kommune_web.pdf [Accessed 18 may 2021]

Aarhus Municipality, 2018c. *Udviklingsplan for Basin 7.* Available [pdf] at: https://aarhusoe.dk/media/5499/1661069-2376555-1-pdf.pdf [Accessed 18 may 2021]

Aarhus Municipality, 2017a. *Lokalplan nr. 1034.* Available [pdf] at: https://docplayer.dk/62096440-Aarhus-kommune-lokalplan-nr-1034.html [Accessed 18 may 2021]

Aarhus Municipality, 2017b. *Kommuneplan 2017.* Available [pdf] at: https://aarhus.viewer.dkplan.niras.dk/plan/2#/ [Accessed 18 may 2021]

Aarhus Municipality, 2008a. *Lokalplan nr. 815.* Available [pdf] at: http://docplayer.dk/11460655-Aarhus-kommune-lokalplan-nr-815.html [Accessed 18 may 2021]

Aarhus Municipality, 2006a. *'De bynære havnearealer - Dispositionsplan for de nordlige områder.* [pdf] Available at: https://aarhusoe.dk/media/5502/dispositionsplan.pdf [Accessed 30 May 2021]

Aarhus Municipality, 2006b. *Højhuspolitik.* [pdf] Available at: https://www.aarhus.dk/media/9402/hoejhuspolitik.pdf [Accessed 30 May 2021]

Aarhus Municipality, 2005. *'Kvalitetshåndborg for de Bynære Havneareal'.* [pdf] Available at: http://www.urbanmediaspace.dk/sites/default/files/pdf/kvalitetshaandbog_for_de_bynaere_havnearealer.pdf [Accessed 30 May 2021]

Aarhus Municipality, 2004. *Aarhusmodel for borgerinddragelsen.* [pdf] Available at: https://www.aarhus.dk/media/4397/aarhusmodel-for-borgerinddragelse.pdf [Accessed 30 May 2021]

Aarhus Municipality, 2003. *Helhedsplan for De Bynære Havnearealer.* [pdf] Available at: https://aarhusoe.dk/media/5498/helhedsplan-for-de-bynaere-havnearealer.pdf [Accessed 30 march 2021]

Aarhus Stiftstidende (2019). *Læserbrev: Kære byrådspolitiker – pas på når der byudvikles.* [online] Available at: https://stiften.dk/artikel/l%C3%A6serbrevk%C3%A-6re-byr%C3%A5dspolitiker-pas-p%C3%A5-byen-n%C3%A5r-derbyudvikles?fbclid=IwAR1K4XOpZ4ZMGXu3EBxGGK1h7G-19v8ATCFAMQ5WARVqberf1zDj4scwtxNw [Accessed 9 January 2021]

Alaily-Mattar, N., Ponzini, D. & Thierstein, A. *About Star Architecture - Reflecting on Cities in Europe.* 1st ed. New York: Springer

Andersen, A. A., 2018. *Urbanisering*. [online] Available: https://faktalink.dk/urbanisering [Accessed 14 May 2021]

Andersen, L., 2014. *"Da Aarhus og havnen fik vokseværk" – Et kort historisk udblik af havnens første år.* [online] Available: http://blog.byhistorie.dk/da-aarhus-og-havnen-fik-voksevaerk-et-kort-historisk-udblik-af-havnens-foerste-aar/ [Accessed 12 February 2021]

Andersen, M. L. & Møller, J., 2021. *Bedre Byskik.* Nykøbing Sjælland: Bogværket

Askehave, I., Prehn, H., Pedersen, J. & Pedersen, M., 2015. *Problembaseret læring.* [pdf] Available at: https://www.aau.dk/digitalAssets/148/148026_pbl-aalborg-modellen_dk.pdf [Accessed 18 May 2021]

Appleyard, D. 1980. Livable streets - Protected neighborhoods?. [e-journal] *The Annals of the American Academy of Political and Social Science*, 451, pp. 106-117. Available at: http://www.jstor.org/stable/1043165 [Accessed 18 February 2021]

Appleyard, D. 1978. Livable streets: Protected neighborhoods. [e-journal] *Ekistics*, 45(273), pp. 412-417. Available at: https://www.jstor.org/stable/43623623?seq=1 [Accessed 18 February 2021]

B

Berlingske, 2005. *Historien bag Sluseholmen.* [online] Available at: https://www.berlingske.dk/bolig/historien-bag-sluseholmen [Accessed 30 April 2021]

Bjerg, S. N., 2012. *Vindmiljø i arkitekturen*. [pdf] Available at: https://adk.elsevierpure.com/ws/portalfiles/portal/39545731/Vind.pdf [Accessed 25 March 2021]

Blindkilde, T., 2020. *Nu bliver Lighthouse-tårnet på 142 meter en realitet på spidsen af Aarhus Ø.* [online] Available: https://byens-ejendom.dk/article/nu-bliver-lighthouse-taarnet-paa-142-meter-en-realitet-paa-spidsen-af-aarhus--30120 [Accessed 19 May 2021].

Braae, E., 2009. *Århus Havn*. Aarhus: Arkitektskolen i Aarhus, pp. 75-105

Braae, E., 2003. *Ruinløse industrilandskaber*. Aarhus: Aarhus Universitetsforlag, pp. 9-46

By&Havn, n.d. *Århusgadekvarteret - meget mere end et sted at bo.* [online] Available at: https://byoghavn.dk/nordhavn/aarhusgade-kvarteret/ [Accessed 31 April 2021]

By&Havn, 2013. *Enghave Brygge er Sydhavnens 'missinglink'.* [online] Available at: https://byoghavn.dk/enghave-brygge-er-sydhavnens-missing-link/ [Accessed 31 April 2021]

C

Carlsberg, N. & Christensen, S. M., (2001). *Mellem oase og storby*. Copenhagen: Museum Tusculanums Forlag, pp. 156-187.

Chiu, R. L. H., 2019. *Liveable Cities/Urban Liveability.* The Wiley Blackwell Encyclopedia of Urban and Regional Studies. Chichester: John Wiley & Sons, pp. 1-7.

Clauson-Kaas, J., Dalsgaard, A., Fotel, F. and Thuesen, L.B., 2011. *Sundhedsaspekter ved regnbaseret rekreativt vand.* [pdf] Available at: https://naturstyrelsen.dk/media/nst/Attachments/rekreativt_vand.pdf [Accessed 15 April 2021]

CF Møller Architects, n.d. *Aalborg Havnefront.* [online] Available at: https://www.cfmoller.com/p/-da/Aalborg-Havnefront-i2005.html [Accessed 15 May 2021]

CNN, 2019. *20 beautiful European cities with hardly any tourists.* [online] Available at: https://edition.cnn.com/travel/article/beautiful-european-cities-few-tourists/index.html?fbclid=IwAR3x0gbQTJCgsCIQIh0qHub7Ui-H3L3x5mSZb1IpIAoYKuoGJa63_pTyZR9U [Accessed 28 March 2021]

Cullen, G., 1961. *The Concise Townscape.* Butterworth Architecture. New York: The Architectural Press

D

DMI, 2018. *Tidevandstabeller for Danmark.* [online] Available at: http://www.dmi.dk/hav-og-is/temaforside-tidevand/tidevandstabeller-for-danmark/ [Accessed at 23 April 2021]

Dansk Arkitektur Center, 2018. *Sluseholmen.* [online] Available at: https://dac.dk/da/viden/arkitektur/sluseholmen/ [Accessed 30 April 2021]

Dansk Arkitektur Center, 2017. *Teglholmen.* [online] Available at: https://dac.dk/viden/arkitektur/teglholmen/ [Accessed 31 April 2021]

Danmarks Statistik, 2021. *Kommunedetaljer - Aarhus.* [online] Available at: https://www.dst.dk/da/Statistik/kommunekort/kommunefakta/kommune?kom=751 [Accessed 28 march 2021]

Deshpande, T., 2018. *Starchitecture: Is it a worthwhile concept?.* [online] Available at: http://squareone.blog/starchitecture-is-it-a-worthwhile-concept/ [Accessed 24 January 2021]

E

Engholmene.dk, n.d. *Om Engholmene*. [online] Available at: https://engholmene.dk/ [Accessed 31 April 2021]

F

FOSTER + PARTNERS, n.d. *30 St Mary Axe.* [online] Available at: https://www.fosterandpartners.com/projects/30-st-mary-axe/ [Accessed 13 May 2021].

G
Gehl, 2019. *Defining Public Life in San José.* [e-book] København: Gehl Institute. Available at: https://issuu.com/gehlarchitects/docs/san_jose_pl_handbooks [Accessed 13 May 2021]

Gehl, J., 2010. *Byer for mennesker.* Nykøbing Sjælland: Bogværket

Gehl, J., 2017. *Livet mellem husene.* 7th ed. København: Arkitektens Forlag

Gehl Architects, n.d.a. David Sim, Author at Gehl. *Gehl People.* [online] Available at: https://gehlpeople.com/people/david-sim/ [Accessed 13 May 2021]

Gehl Architects, n.d.b. *Life Between Buildings.* Gehl People. [online] Available at: https://www.pps.org/article/jgehl [Accessed 13 May 2021]

Grøning Arkitekter, n.d. *Enghavebrygge – Masterplan.* [online] Available at: http://groning-arkitekter.dk/enghave%20brygge%20-%20masterplan%202.html [Accessed 31 April 2021]

H
Harms, H., 2008. *Changes on the Waterfront - Transforming Harbor Areas Comparison and Evaluation of Waterfront Developments in Two Contexts: San Francisco Bay Area and Hamburg, Germany.* [pdf] Available at: https://iurd.berkeley.edu/wp/2008-02.pdf [Accessed 14 February 2021]

Hensel, M. U., & Turke, J. P., 2015. *Grounds and Envelopes: Reshaping Architecture and the Built Environment.* 1st ed. New York: Routledge

Hestbek, S., 2021. *Interview with head of development in Aarhus Municipality.* Interviewed by the authors. [Microsoft Teams] 19 March 2021 (See Appendix VI)

Hill, J., 2017. *Appraising Starchitecture.* [online] Available at: https://www.world-architects.com/en/architecture-news/insight/appraising-starchitecture [Accessed 14 May 2021]

Højlund, B. & Nabe-Nielsen, F. S., n.d. *Vikingetiden i Skandinavien - Aarhus.* [online] Available at: https://www.vikingeskibsmuseet.dk/en/professions/education/viking-knowledge/the-viking-age-geography/vikingetiden-i-skandinavien/aarhus [Accessed 14 February 2021]

J
Jastram, T., 2015. *Ny skole på Teglholm i gang.* Dagens byggeri. [online] Available at: http://www.dagensbyggeri.dk/artikel/86089-ny-skole-pa-teglholm-i-gang [Accessed 31 April 2021]

Jensen, M. B. and Fryd, O., 2009. *Den blå by - udfordringer og muligheder.* [pdf] Available at: https://ign.ku.dk/partnerlandskab/filer/blst_nr88.ashx [Accessed 24 April 2021]

K
Kaal, H., 2011. *A conceptual history of livability. City - Analysis of Urban Change, Theory, Action*, 15(5), pp. 532-547.

Klimatilpasning.dk, 2015. *Huse på Aarhus Havn klarer høj vandstand.* [online] Available at: https://www.klimatilpasning.dk/cases-overview/huse-paa-aarhus-havn-klarer-hoej-vandstand/?fbclid=IwAR1gaH-m2zwSpl9X3NpQLSKCzZXPFFZd-domw7AjVl_wCpaakXkeP6uHD37YU [Accessed 13 May 2021]

Knudstrup, M. & Hansen, H., 2005. *The Integrated Design Process (IDP) – a more holistic approach to sustainable architecture.* [online] Available at: https://vbn.aau.dk/ws/portalfiles/portal/1624830/The_Integrated_Design_Process__IDP____A_more_holistic_approach_to_sustainable_architecture [Accessed 18 May 2021]

L
Lighthouseaarhus.dk, n.d. *Danmarks højeste boligbyggeri.* [online] Available at: https://lighthouseaarhus.dk/ [Accessed 30 April 2021]

Lonely Planet, 2016. *Lonely Planet's Best in Europe 2016.* [online] Available at: https://www.lonelyplanet.com/articles/best-in-europe-2016 [Accessed 28 March 2021]

Lynch, K., 1960. *The Image of the City.* Massachusetts: Massachusetts MIT Press

M

Macmilland Dictionary, 2007. *Starchitect.* [online] Available at: https://www.macmillandictionary.com/buzzword/entries/starchitect.html [Accessed 24 January 2021]

Madsen, H. H., 2017. *Aarhus Ø-beboere slår alarm: Dobbelt så mange beboere som forventet*. Aarhus Stiftstidende. [online] Available at: https://stiften.dk/artikel/aarhus-%C3%B8-beboere-sl%C3%A5r-alarm-dobbelt-s%C3%A5-mange-beboere-som-forventet?fbclid=IwAR1mI-UNcONFldWKozBU5jK2pQ_cFRU5sNVyoAoNirxxR8mOYdNyJjHQaRdA [Accessed 14 March 2021]

Miljøstyrelsen, n.d. *Historiske Baggrund Skort (SDFE)*. Miljøministeriet [online] Available at: https://miljoegis.mim.dk/cbkort?profile=miljoegis_vandrammedirektiv2011&fbclid=IwAR3WBtUypeaDKTqXxqEQ0tGwtCuOuUy8baE8vi3Tt8Uaf8Bu-tPVdc81994 [Accessed 28 march 2021]

N

National Geographics, 2017. *National Geographic Traveller (UK) reveals The Cool List: 17 must-see destinations for 2017.* [online] Available at: https://pressreleases.responsesource.com/news/92154/national-geographic-traveller-uk-reveals-the-cool-list-must-see-destinations/ [Accessed 28 march 2021]

NVP, n.d. *Enghave Brygge smelter sammen med resten af byen.* [online] Available at: https://npv.as/enghave-brygge-smelter-sammen-med-resten-af-byen/ [Accessed 31 April 2021]

NiA, n.d. *Aarhus Ø - En ny del I Aarhus.* [online] Available at: https://nyiaarhus.dk/arhus-o/ [Accessed 28 march 2021]

P

Petersen, H. M., 2017. *Molslinjen A/S.* [online] Available at: https://denstoredanske.lex.dk/Molslinjen_A/S [Accessed 12 February 2021]

PPS, 2008. *Place making heroes - Donal Appleyard.* [online] Available at: https://www.pps.org/article/dappleyard [Accessed 21 March 2021]

Prostep, 2012. *Aarhus Ø.* [online] Available at: https://propstep.com/da/by-guide/aarhus-oe/ [Accessed 31 April 2021]

Prostep, 2019. *Nordhavn.* [online] Available at: https://propstep.com/da/by-guide/nordhavn [Accessed 31 April 2021]

R

Rasmussen, U., Nielsen, H. S., Møller, S., Østergaard, T. A., Vestergaard, L., Wolthers, L., Harving, H., Rahder, P., Giversen, J., Størup, P., Kruuse-Andersen, T., Christensen, N., Falkenberg, F., Sørensen, P. H. and Christiansen, J. S., 2019. *Læserbrev: Kære byrådspolitiker – pas på når der byudvikles.* Århus Stiftstidende. [online] Available at: https://stiften.dk/artikel/l%C3%A6serbrevk%C3%A6re-byr%C3%A5dspolitiker-pas-p%C3%A5-byen-n%C3%A5r-derbyudvikles?fbclid=IwAR1K4XOpZ4ZMGXu3EBxGGK1h7G19v8ATCFAMQ5WARVqberf1zDj4scwtxNw [Accessed 9 January 2021]

Retsinformation, 2020. *Bekendtgørelse af lov om planlægning.* [online] Available at: https://www.retsinformation.dk/eli/lta/2020/1157 [Accessed 03 May 2021]

Retsinformation, 2003. *Bekendtgørelse af Århus-konventionen af 25. juni 1998 om adgang til oplysninger, offentlig deltagelse i beslutningsprocesser samt adgang til klage og domstolsprøvelse på miljøområdet.* [online] Available at: https://www.retsinformation.dk/eli/lta/2020/1157 [Accessed 03 May 2021]

Rye, J., 2019. *På toppen af Aarhus Ø.* [online]: Available: https://jyllands-posten.dk/jpaarhus/ECE11116092/paa-toppen-af-aarhus-oe/?fbclid=IwAR3YPZBwxvHmb9XkfeTaiqq0FbUEAzJ2cPEp7EbLzzvuoq5AzVgZjZVArGM [Accessed 27 maj 2021]

S

Schrøder, J., 2021. *Interview with president of the Joint Council of Aarhus Ø and the Peri-Urban Harbor Areas.* Interviewed by the authors. [Microsoft Teams] 23 March 2021 (See Appendix VI)

Schrøder, J. and Størup, P., (2019). *Læserbrev: Fællesrådets ønsker til udviklingen af Aarhus Ø.* Århus Stiftstidende. [online] Available at: https://stiften.dk/artikel/l%C3%A6serbrev-f%C3%A6llesr%C3%A5dets-%C3%B8nsker-til-udvikling-af-indre-aarhus-%C3%B8 [Accessed 9 January 2021]

Sim, D., 2019. *Soft City: Building Density for Everyday Life.* Washington DC: Island Press

Smith, H. & Ferrari, M. S. G, 2012. *Waterfront Regeneration - Experiences in City-building*. New York: Routledge

Sluseholmen.dk, n.d. *Sluseholmen.* [online] Available at: https://sluseholmen.dk/ [Accessed 30 April 2021]

Søby, M.,, 2016. *Aarhus Ø er et misfoster.* [online] Available at: https://jyllandsposten.dk/jpaarhus/debat/breve/ECE9121189/aarhus-oe-er-et-misfoster/ [Accessed: 15 January 2021]

T

Teglholmbrygge.dk, n.d. a. *Nyt område med byliv, kanaler, promenade og den grønne kile.* [online] Available at: https://teglholmbrygge.dk [Accessed 31 April 2021]

Teglholmbrygge.dk, n.d. b. *Teglholmbrygge - Historie.* [online] Available at: https://teglholmbrygge.dk/historie/ [Accessed 31 April 2021]

Teglhusene.dk, n.d. *Historien om Teglholmen.* [online] Available at: https://teglhusene.dk/teglholmens-historie [Accessed 31 April 2021]

Trap Danmark, 2019. *Aarhus Kommunes befolkning og boliger.* [online] Available at: https://trap.lex.dk/Aarhus_Kommunes_befolkning_og_boliger [Accessed 18 march 2021]

V

Visit Aarhus, 2021. *Om Aarhus Ø.* [online] Available at: https://www.visitaarhus.dk/om-aarhus [Accessed 28 march 2021]

Visit Aarhus, n.d. *Arkitektur of byrum.* [online] Available at: https://www.visitaarhus.dk/explore/attraktioner-cid3/arkitektur-og-byrum-cid4 [Accessed 28 march 2021]

Visit Aarhus, n.d. *Arkitektur of byrum.* [online] Available at: https://www.visitaarhus.dk/explore/attraktioner-cid3/arkitektur-og-byrum-cid4 [Accessed 28 march 2021]

Illustrations

Ill. 1: The harbor front of Aarhus Ø 2
Ill. 2: Public Life at Basin 7, Aarhus Ø 7
Ill. 3: The harbor bath at Basin 7 14
Ill. 4: The inner yard of 'The Iceberg' 15
Ill. 5: Table of phases related to objectives and methods 20
Ill. 6: Figure showing the principle of IDP 21
Ill. 7: Questioning the gap between starchitecture and livability 28
Ill. 8: "Museo Guggenheim de Bilbao, Spain, Bilbao, Spain" :
Photo by Jorge Fernández Salas on Unsplash (Salas, 2017) 29
Ill. 9: "City of London, United Kingdom" :
Photo by Ed Robertson on Unsplash (Robertsen, 2017) 30
Ill. 10: "The Shard, London, United Kingdom" :
Photo by Florian van Duyn on Unsplash (Duyn, 2018) 31
Ill. 11: "Shibuya Crossing, Tokyo, Japan" :
Photo by Grzegorz Kaliciak on Unsplash (Kaliciak, 2020) 32
Ill. 12: "Aerial view of the dense urban area of Hong Kong on a sunny day" :
Photo by Manson Yim on Unsplash (Yim, 2021) 34
Ill. 13: "Copenhagen Nyhavn (City Clock)" Photo by City Clock Magazine, 2013 38
Ill. 14: Jomfru Ane Parken Aalborg, Denmark 38
Ill. 15: Life at the harbor bath at Basin 7 42
Ill. 16: Harbor area at Nordhavn, Copenhagen. 46
Ill. 17: Nordhavn, Copenhagen. Starchitecture integrated in harbor front developement 48
Ill. 18: Sluseholmen, Copenhagen. Straight system of canal, deviding areas into islands 49
Ill. 19: Teglholmen, Copenhagen. Inner basin and school yard integrated in public space 50
Ill. 20: Enghave Brygge, Copenhagen.
Quayside as urban space with activities and green elements 51
Ill. 21: The harbor at Nordhavn in relation to starcitecture 53
Ill. 22: : Map: Denmark, Aarhus Municipality, cities, and connections 56
Ill. 23: Diagram showing the deomographics of Aarhus
(based on information from; Trap Danmark, 2019) 59
Ill. 24: Grap showing thefuture expected increase in the population of Aarhus
(based on information from; Trap Danmark, 2019) 59
Ill. 25: "Aarhus Å ved Ceresbyen 2019" Photograph by Antonsen, 1934 60
Ill. 26: Photo: Terrasse Houses in Aarhus 60
Ill. 28: Photo showing the ongoing construction at Aarhus Ø 61
Ill. 27: Ongoing construction in the South Harbor Quarter 61
Ill. 29: Map showing the places referd to in the text 62
Ill. 30: Photomapping A 63
Ill. 31: Photomapping B 63
Ill. 32: Photomapping C 64
Ill. 33: Photomapping D 64
Ill. 34: Photomapping E 65
Ill. 35: Map showing the diffrent districts 65

Ill. 36: Statements and utterings from the public opinion 67
Ill. 37: Photo of the entrance when arriving at Aarhus Ø 69
Ill. 38: Aarhus Harbor 1842 - 1899 71
Ill. 40: Aarhus Harbor 1980-2001 71
Ill. 39: Aarhus Harbor 1953-1976 71
Ill. 41: Aarhus Harbor today 2021 71
Ill. 42: Timeline showing the development of Aarhus Harbor (timeline based on data from; Aarhus Kommune, 2018; Andersen, 2014, Blindkilde, 2020; Højlund, n.d.& Petersen, 2017) 72
Ill. 44: The illustration demonstrates the difference between Odder and Aarhus Ø 75
Ill. 43: The Iceberg 75
Ill. 45: Diagram of average housing prices 75
Ill. 46: The distribution of the buildings of Aarhus Ø 75
Ill. 47: Map: Key locations and bounderies in relation to the plannning of the Peri-Urban Harbor Areas 79
Ill. 48: Plan heiraki at Aarhus Ø (based on Aarhus Municipality 2020c) 80
Ill. 49: Map: Development Areas at Aarhus Ø 81
Ill. 50: District plans at Aarhus Ø 83
Ill. 51: Building heights and topography of Aarhus Ø and Aarhus City 92
Ill. 52: Map showing the buildings at Aarhus ø 93
Ill. 53: Illustration showing starchitecture buildings at Aarhus Ø 95
Ill. 55: Examples of building shapes that can create unpleasant wind experiences in public spaces (illustration based on figure in; Bjerg, 2012, p.24) 96
Ill. 54: Weather conditions (illustration based on figure in; Bjerg, 2012, p.16) 96
Ill. 56: Map showing the sun conditions 97
Ill. 57: Map showing the wind conditions 97
Ill. 58: Sea level in Aarhus Bay (Based on data from; klimatilpasning.dk, 2015; DMI, 2018; Aarhus Kommune, 2019 & Mührmann-Lund, 2017) 98
Ill. 59: Fotos form Aarhus Ø showing the athmosphere by the water 99
Ill. 60: Photo showing Basin 7 on a sunny day 100
Ill. 61: Frontage collage: Surface meets ground 101
Ill. 62: Frontage collage: Intersection is softened 101
Ill. 63: Frontage collage: Activity creates human scale 101
Ill. 64: Map: Frontages and public spaces at Aarhus Ø 102
Ill. 65: Photos of wide open public spaces at Aarhus Ø103
Ill. 66: Photos of enclosed public spaces at Aarhus Ø 103
Ill. 67: Photos of mixed public spaces at Aarhus Ø 103
Ill. 68: Map: Frontages and public spaces at Aarhus Ø 104
Ill. 69: Photos of public life 105
Ill. 70: Serial vision map 108
Ill. 71: Serial vision 109
Ill. 72: Map of pedestrian movement 111
Ill. 73: Map of cyclist movement 111
Ill. 74: Map of public transport112

Ill. 75: Map of vehicles 112
Ill. 76: Road Section 1:500, today 113
Ill. 77: Road Section 1:500, future 113
Ill. 78: View of Bernhardt Jensens Boulevard from Out look by Dorte Mandrup 114
Ill. 79: Poor access to the water 115
Ill. 80: Ongoing construction 115
Ill. 82: Disconnected from the city of Aarhus 115
Ill. 83: Green areas and public space 115
Ill. 81: Building heights 115
Ill. 84: Map: The blue assets potentials 116
Ill. 85: Map: Starchtecture potentials 116
Ill. 86: Map: Connecting public life potentials 116
Ill. 87: Summer activities at Aarhus Ø
Photo from Aarhus Municipality, 2018a. 120
Ill. 88: Diagram illustration the structure of the Public Life Strategy 125
Ill. 89: Illustrations of access, nature and city 126
Ill. 90: Diagram of overlapping themes 127
Ill. 91: The long, wide road profile of Bernhardt Jensen Boulevard 133
Ill. 92: Variating structure making route more interesting to follow at Enghave Brygge 134
Ill. 93: Wide sidewalk allowing interactions while walking 134
Ill. 95: Integrated lightning solutions 135
Ill. 94: Green road chicane 135
Ill. 97: Guiding variation in pavement 136
Ill. 96: Different levels accessible throgh ramps 136
Ill. 98: Mapping of access opportunities 137
Ill. 99: calm water at the harbor bath 139
Ill. 101: Basin facilitation sevaral activities 140
Ill. 100: Design meant to be flooded 140
Ill. 103: Greenery breaking up surfaces 141
Ill. 102: Grenery on hillocks 141
Ill. 104: Mapping of green assets 142
Ill. 105: Photo of AArhus at Basin 7 145
Ill. 107: Extended out-door serving 146
Ill. 106: Living building fence 146
Ill. 108: Roof top with 'low' buildings 147
Ill. 110: Landscape relating to nearby starchitecutre 148
Ill. 109: Area known for its public life 148
Ill. 111: Mapping of city structures 149
Ill. 112: Construction work next to 'the Iceberg, a residential unit from 2013 154
Ill. 113: Narrative graffiti at Enghave Brygge 155

Ill. 114: Cycle path along construction 155
Ill. 115: Constrcution work invading sidewalk 155
Ill. 118: Dead end used as view point 156
Ill. 116: Portable green elements 156
Ill. 117: 'Living building fence' 156
Ill. 119: Trees along building fence 157
Ill. 120: Signage promoting construction 157
Ill. 121: Interesting building fence, free paths and access to water at Enghave Brygge 157
Ill. 122: Exemplification of public place at Bernhardt Jensens Boulevard by Basin 5 160
Ill. 123: Exemplification of Bernhardt Jensens Boulevard by Pier 3 161