A Critical Curiosity

*How urban design can create the framework
for a vibrant community of quality and proximity
in a capitalist-driven society*

Master's Thesis 2022
Emma Solvang & Mie Patrzalek

Mie Patrzalek   *&*   Emma Solvang

Abstract

The Master's thesis, *A Critical Curiosity*, concerns the design of a new urban neighborhood situated at the southern part of Godsbanearea-lerne, Aarhus C (Denmark). For several decades, Godsbanearealerne were responsible for the transport of goods, which have left histori-cal traces and a cultural-historical heritage at the area.
The motive power behind this thesis is rooted in a wondering of how city planning can be less capitalist-driven and more people-inclu-sive. Therefore, this thesis investigates how to design for people at eye-level, what generates a sense of belonging, and how a city can be organized with the aim of including the residents in the process of creating a city - a neighborhood.
The design proposal taps into the historical heritage and bridges the industrial area and the new modern district while offering the new urban neighborhood, Bysporet, rooted in neighborliness and com-munity. A neighborhood that provides a sense of belonging and sets the framework for an everyday life of high quality. A neighborhood facilitating meetings between people, and urging the local resident to be an active part in shaping and developing the area.
The proposed design intervention, Bysporet, is developed through an iterative design process founded in literature studies, interviews and questionnaires, analyses, and case studies.

Preface

This thesis, *A Critical Curiosity*, is accomplished as a 30 ECTS Master's thesis in *Urban Design* at the faculty of *Architecture & Design* at *Aalborg University*. The project takes place at the southern part of Godsbanearealerne in Aarhus C (Denmark). The thesis is based upon a desire to challenge and improve the capitalist-driven way of planning and designing cities and comes up with a suggestion for a masterplan containing a new neighborhood.
We would like to thank and express our gratitude towards our su-pervisor Cecilie Breinholt Christensen for her constructive guidance and supporting mindset throughout the supervisions in the thesis.
A special thanks to the employees, Mads Peter Laursen and Thor Vingolf Nielsen from *Institut for (X)*, who spent their time on giving insider knowledge about Institut for (X) and Godsbanearealerne as well as their inputs to our thesis. This has been very useful and valuable for the project.

Through this chapter the overall structure of the thesis will be illustrated and described. This will be followed by an elaboration of the main focus of this thesis emphasized in our motivation and the initial problem statement of this project.

01

Prologue

Ill. 01 A view along the green wedge at Godsbanearealerne
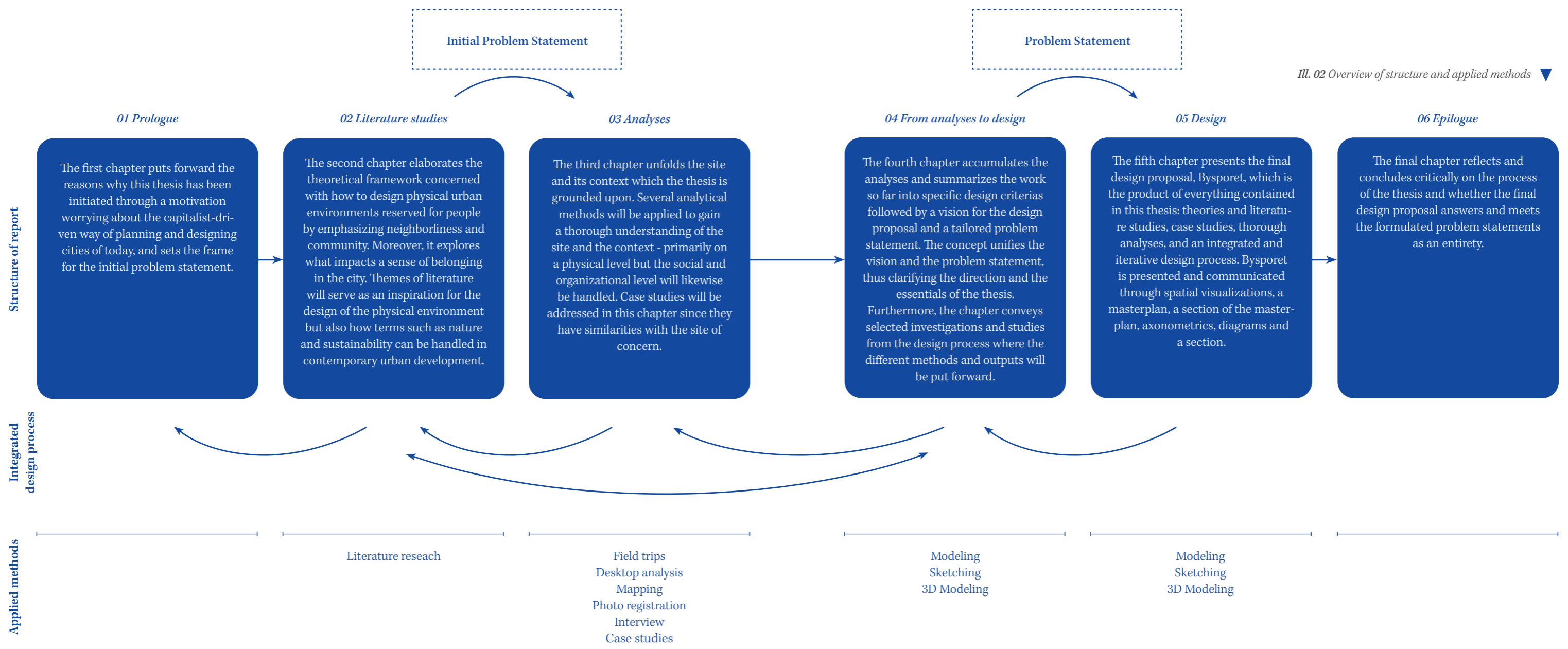
How to Read this Thesis?

Reading guide

This is a thesis from the Master of Engineering, Urban Design, at Aalborg University and consists of six main chapters. The diagram below creates an overview of the structure of the thesis and the applied methods of each chapter. The thesis is composed through the Integrated Design Process by Mary-Ann Knudstrup that represents an iterative process going back and forth between the chapters (Knudstrup, 2004).

Throughout the thesis sources will be referred to by use of the Method of Harvard, meaning that the surname of the author(s) and year of publication will appear in the text. The reference list at the end of the thesis holds the necessary information about each source.

Illustrations will be turned towards north and exceptions will be marked with an arrow pointing towards north. Illustrations will be marked with one of following indications, a filled or outlined triangle, to identify if the illustration is made by the authors or an external source. The owner of each illustration will be referred to in the illustration list at the end of the thesis.
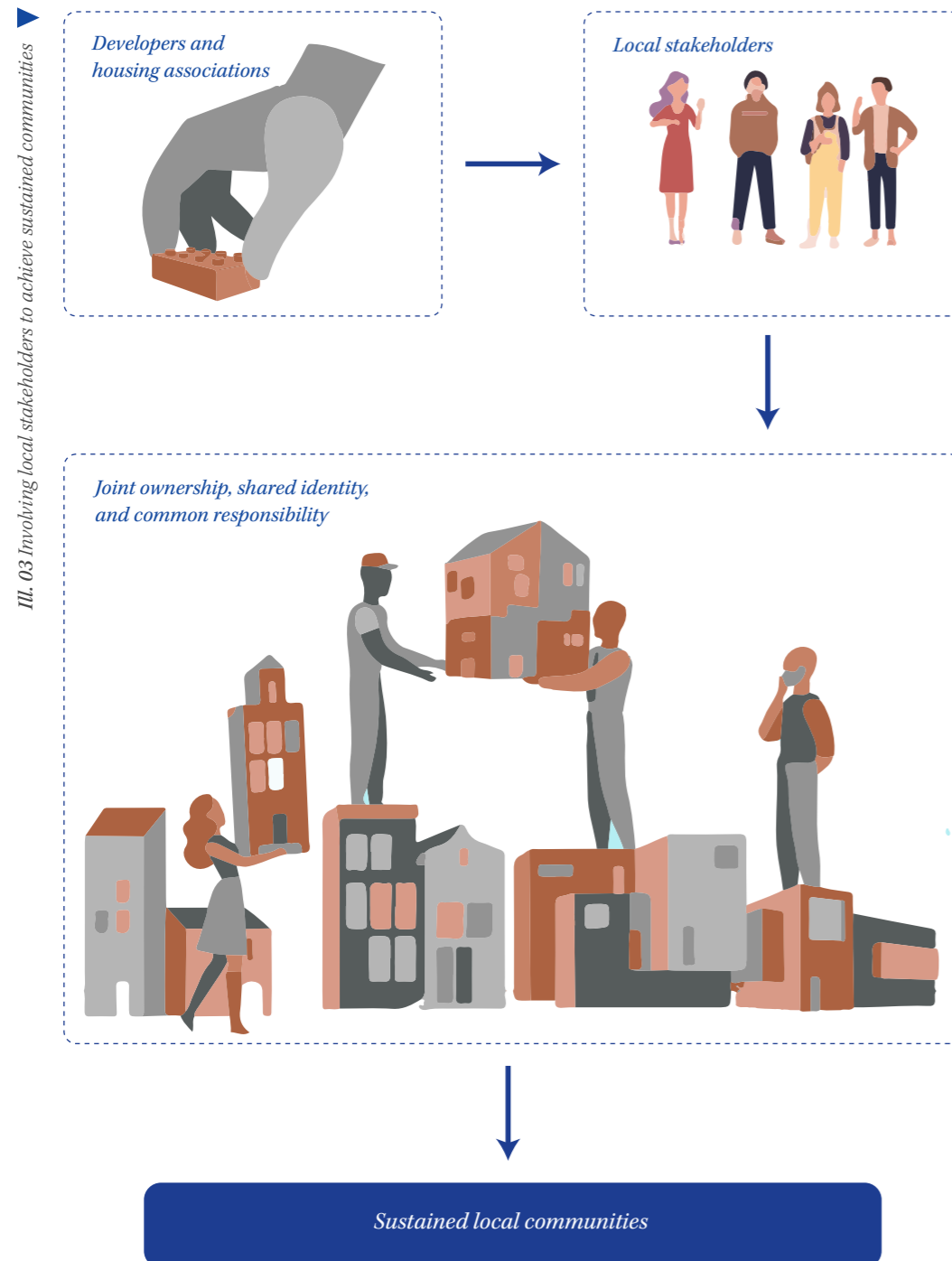
▶ illustration made by authors
▷ illustration made by external source

Initial Problem Statement

Problem Statement

Ill. 02 Overview of structure and applied methods ▼

Structure of report

01 Prologue

The first chapter puts forward the reasons why this thesis has been initiated through a motivation worrying about the capitalist-driven way of planning and designing cities of today, and sets the frame for the initial problem statement.

02 Literature studies

The second chapter elaborates the theoretical framework concerned with how to design physical urban environments reserved for people by emphasizing neighborliness and community. Moreover, it explores what impacts a sense of belonging in the city. Themes of literature will serve as an inspiration for the design of the physical environment but also how terms such as nature and sustainability can be handled in contemporary urban development.

03 Analyses

The third chapter unfolds the site and its context which the thesis is grounded upon. Several analytical methods will be applied to gain a thorough understanding of the site and the context - primarily on a physical level but the social and organizational level will likewise be handled. Case studies will be addressed in this chapter since they have similarities with the site of concern.

04 From analyses to design

The fourth chapter accumulates the analyses and summarizes the work so far into specific design criterias followed by a vision for the design proposal and a tailored problem statement. The concept unifies the vision and the problem statement, thus clarifying the direction and the essentials of the thesis. Furthermore, the chapter conveys selected investigations and studies from the design process where the different methods and outputs will be put forward.

05 Design

The fifth chapter presents the final design proposal, Bysporet, which is the product of everything contained in this thesis: theories and literature studies, case studies, thorough analyses, and an integrated and iterative design process. Bysporet is presented and communicated through spatial visualizations, a masterplan, a section of the masterplan, axonometrics, diagrams and a section.

06 Epilogue

The final chapter reflects and concludes critically on the process of the thesis and whether the final design proposal answers and meets the formulated problem statements as an entirety.

Integrated design process

Applied methods

Literature research

Field trips
Desktop analysis
Mapping
Photo registration
Interview
Case studies

Modeling
Sketching
3D Modeling

Modeling
Sketching
3D Modeling

Inhabiting the City

Motivation

Developers and housing associations

Local stakeholders

Joint ownership, shared identity, and common responsibility

Sustained local communities

Today, one of the trends concerning urban development is urbanization, where more and more people move from rural areas to cities. This means that 85% of the Danish population live in the city, which causes a local increase of inhabitants (Busck et al. 2020). An increase leading to density and diversity in the major cities, resulting in a changed composition of inhabitants and prefered type of dwelling. Several of the major cities in Denmark are planned and designed at the expense of a capitalist-driven way, where profit and capital are the dominating motive power (Valeur, 2021). The capitalist-driven way has resulted in developers and private stakeholders taking control of urban development, hence perceiving the city as a means to establish a good business (Andersson, 2021). As a consequence, this has implied different constraints and challenges such as monotonous and pale cities reserved for motoring and overconsumption. Due to the absence of human-scale design, the public spaces in the cities seem to lack quality and affiliation. The motivation of this thesis stresses the importance of considering urbanization as an opportunity to debate the substance of the future city. How does it provide quality? What does it afford? However, it is inevitable to avoid increasing density in cities and therefore, it is necessary to study new ways of inhabiting cities.

The urban developer and architect, Rasmus Andersen, points out that the public facilities of the city (cultural meeting places, leisure activities, sport facilities, etc.) lag behind the growth of housing facilities. Fellowships and communities are in demand but spaces and frameworks facilitating them are missing (Andersen, 2019). Creative director Lars Lundbye states that it is human nature to search for fellowship and community, hence we are dependent on each other. However, the 20th century has induced a consumer minded real estate market that gives the individual pride of place (Lundbye, 2019). Lundbye criticizes the consequences of individualization and the developed capitalism, seeing it has dissolved communities in spite of these being key in defining us as humans. Besides neglecting communities, issues such as overconsumption and environmental problems have become societal trends. This has caused resistance worldwide - a social movement concerned with creating relations and communities, and

sharing resources. According to Lundbye, the real estate market has serious troubles, following the demands of the social movement. Developers or housing associations are designing housing facilities and they consider places for community without actually knowing what makes a good community. He suggests that local identity, sense of belonging, fiery souls[1], influence, and joint ownership are key in facilitating sustained communities (ill. 03)(Lundbye, 2019). Managing director of Plushusene, Martin Kring, responds to the critique from Lundbye and says that having a local host is another way of ensuring community (Kring, 2019).

Stating that a life of quality is associated with community, relations, and a sense of belonging, implies that this is what the physical framework of our cities should be able to offer. Andersen highlights that fellowships and communities exist in various scales and degrees of intimacy, and the physical design of our cities needs to accommodate this distinction (Andersen, 2019). A holistic approach that equips our cities to afford communities in different scales, seeing they are dependent on one another and together create cohesion. Andersen emphasizes that humans need a local neighborhood that facilitates cultural exchange, development, and institutions in terms of fostering meetings across. Moreover, buildings that group different kinds of activities and uses gather a diverse group of people, thus creating a local node. This is what generates meeting places, living cities and cohesion (Andersen, 2019).

In addition to this, it is of relevance to have the term sharing in mind, since establishing communities are linked with shared facilities.

"*It is time for designers to evolve and develop new shared typologies which move beyond the idea of sharing as a socially luxurious commodity towards an inclusive culture which values diversity.*" (Space10, 2018)

The distinction between necessary facilities in the private home and facilities suitable for sharing are vital in terms of inhabiting the city and the local environment, hence being an integrated part of a local community.

[1] *Fiery souls: The term refers to the Danish word 'ildsjæle' and characterizes an enthusiastic, authentic, and passionate person that possesses motive power and is dedicated to organize and launch their ideas and projects.*

Hallo,
come on
urban development 2022!
We are able to create
something that is greater.
You have every opportunity
in Aarhus Municipality to try
to make a great quarter.
You have almost failed, but you
have a little part left, where you
can try to show that you dare
something and that you are able
to create a great city!

The driving force behind this thesis emanates from challenging the capitalist-driven way of planning and designing cities of today. This has induced a critical mindset and an eagerness to improve cities and investigate how we inhabit the cities. The challenges of urbanization become more and more actual and should be seen as an opportunity rather than a hindrance to design living cities of quality. According to us, it is about time to change direction from developing cities based on *profit* to cities for and to the *people*. It is necessary to raise the view and strive towards a holistic approach concerning the development of our cities. It is our belief that the professional field, Urban Design, is able to design and shape permanece in the fluid and adaptable. Urban design has the potential to facilitate and emphasize the life that unfolds in the city and thereby create cities for people based on sustained communities, a sense of belonging, and joint ownership. To us, it is important to pay attention to local communities and site-specific qualities in order to create opportunities for local engagement and co-creation to unfold.

Therefore, the initial problem statement for this thesis is:

How can urban design challenge the capitalist-driven way of planning and designing cities, and contribute to an urban development that invites the citizens to participate and engage in their neighborhood?

This chapter investigates different literature studies about how to design physical urban environments for people. The chapter consists of two main theories: A City Favoring and A Sense of Belonging in the City, three different theoretical themes: Urban Nature, Transitions, and Sustainability.

Literature Studies

02

A City Favoring People

This theoretical investigation seeks to understand how cities are designed for people. First, it offers a definition of the city anchored in different statements of this concern. Second, it investigates life in cities and the importance of having neighbors based on the book, *Soft City* (2019) by David Sim, who is an Urban Expert and former Partner and Creative Director at Gehl Architects (Gehl, n.d.). Third, it discusses the importance of the composition of the physical environment and how the built structures impact the in-between urban spaces. Besides Sim, this section includes the Danish architect and city planner, Jan Gehl, who investigates how the physical environment influences outdoor activities. Finally, it focuses on what is important to include in the planning process when designing and developing cities inspired by insights mainly from Jan Gehl and Simon Glinvad Nielsen, writer and partner in Living-Cities. The theoretical investigation is rounded off by concluding on how the knowledge is influencing the thesis.

What is a city?

It is a fact that more and more people move to settle in the city which refers to the trend: urbanization. To understand the attraction of living in the city and what it can offer, it is sensible to ask the same question as the famous American architectural reviewer and scientist, Lewis Mumford, did in 1938: '*What is a city?*' (LeGates & Stout, 2003). A city cannot simply be defined by its geographical size and population size. It is necessary to involve sociological aspects, seeing that life lived in cities is contributing to the understanding of what a city is, and what to expect of it. This thesis emphasizes Mumford's concern and is studying the social functions of the city and how to design people-oriented cities. Many have contributed to the discussion of what a city is, and it seems to be a complex matter.

Mumford himself considers the city as a place where humans can express themselves, develop their personality, and carry out their social life. "*The city in its complete sense, then, is a geographic plexus, an economic organization, an institutional process, a theater of social action, and an aesthetic symbol of collective unity.*" (Mumford, 2003: 94). He believes that the human aspect of cities is the core. The famous poet, William Shakespeare, joined in on perceiving the city as a social matter when he wrote "*the people are the city*" (LeGates & Stout, 2003: 89). The Nobel-Prize winning economist, Paul Romer, is of the firm belief that defining the city depends on the point of view - the profession: "*To urban economists, a city is a market for labor superimposed on a market for land. To sociologists, a city is a big social group. To the architects who became urban planners, a city is*

a big building" (Romer, 2013: 5th paragraph).
This point of view, that the definition depends on the individual and its profession, is hard to disagree with and it might influence the city planning negatively if it causes a neglection of the human aspect. Mumford emphasizes that acknowledging the social aspect, when planning the city, is crucial: "*Most of our housing and city planning has been handicapped because those who have undertaken the work have had no clear notion of the social functions of the city.*" (Mumford, 2003: 93).

The presented definitions of the city are carefully chosen and enriching for this urban-oriented thesis, since they highlight that the physical spaces and structures are not defining the city - hence the people and the social interactions are key when seeking an answer to the question: what is a city?
From an Urban Designer's point of view, this thesis perceives the city as *a complex spatial unit that holds multiple and various social interactions, and where the physical environment influences daily life*. Thus, this thesis understands the importance of the social aspects, but believes the physical environment is supporting, framing, and enhancing the social aspects of the city. Therefore, the city is a matter of both social and physical structures.

Being neighbors

The following chapter dives into the book, Soft City by David Sim (2019). Soft City draws attention to life in cities, connecting people to one another, and creating cities that are for people - a focus of great relevance due to the rapidly increasing urbanization. Hence, an opportunity to challenge and rethink city planning in order to unfold the potential of the city and design with the agenda of creating high quality of life. "*Cities have the potential to be places of beneficial interaction and platforms for connection, consciously juxtaposing the differences as they densify and diversify. We can create ever-evolving, gentle urban symbioses, discovering opportunities for healthier, more sustainable, more enjoyable and more meaningful relationships, by being neighbors.*" (Sim, 2019: 6). Sim stresses that the key to a meaningful and people-oriented urban development depends on *being neighbors*.
Being neighbors is highly relevant in the urbanizing, diversifying and densifying world. The mixture of dense and diverse environments creates opportunities. Opportunities for creating gentle urban symbioses, healthier and more sustainable relationships, enjoyable and meaningful situations, and urban communities where we are each other's neighbors (Sim, 2019).

"*Neighborhood is not a place; it's a state of mind*" (Sim, 2019: 13). This means that neighborhood reflects a relationship. In society, relationships are present in many ways: relationships between people, people and planet, and people and place (Sim, 2019).
To be someone's neighbor is not necessarily easy, seeing that people are different and have different priorities, needs, behaviors, and so forth. Thus, it is a relationship that can cause issues as well as advantages. "*If we better understand what conditions make for being good neighbors, we can then better accommodate density, difference, and change. We can embrace these as beneficial opportunities rather than unfortunate challenges.*" (Sim, 2019: 13)

Sim argues that the thesis of his book "*comes down to a simple equation: Density[1] x Diversity[2] = Proximity[3]*" (Sim, 2019: 12). The equation is not that simple after all, since the terms are not measurable but depend on the embodied experience.
The combination of density and diversity increases the presence of people, places, and daily needs within an affordable distance. Furthermore, it creates the ability of providing physical proximity, referring to being close to people and places and making use of common resources, and foregrounding shared identities. Physical proximity eases the daily necessary activities and foregrounds social interaction. Common resources refers to public spaces, institutions, hospitals, public transport etc, and is therefore necessary in order to have physical proximity. The shared identity occurs as a result of density, diversity, and proximity seeing that the residents in a local community make use of the same facilities, places, and resources. Density, diversity, and proximity are essential when discussing urban life and quality of urban environments because of the potential of creating a sense of belonging. It creates a collective identity which is of great importance and value since it is inclusive (Sim, 2019).
Besides having a social and practical advantage, density has an economical advantage. Along with density comes lower costs of e.g. infrastructure. More people means more customers in the different shops, thus setting the frame for a good, thriving, and diverse urban environment. These advantages make up for the crowded living conditions and provide quality to the urban life, thus cityscapes become attractive places to live (Sim, 2019). Whether it is an attractive place to live, one might argue, depends on how a city is dense. A city can be dense in the vertical axis (ill. 05) or

[1] *Marked by compactness,* [2] *The inclusion of people of different races, cultures, etc.,* [3] *Being very near*

horizontal axis (ill. 06) which impacts the cityscape and urban spaces that are shaped in between. The way a city is dense, influences how it is perceived and experienced at eye level, thus density does not necessarily equals quality.


Ill. 05 Seattle City


Ill. 06 Copenhagen City

Setting the physical framework

The physical composition of the built environment is of great importance in terms of staging informal meetings, offering comfort and convenience, and balancing the public and private sphere. The physical composition, the co-location of different activities, eases the daily activities thus decreasing the time spent on traveling. Hence, the physical composition of the built environment is key in establishing an urban neighborhood of quality and proximity based on diversity and density (Sim, 2019).
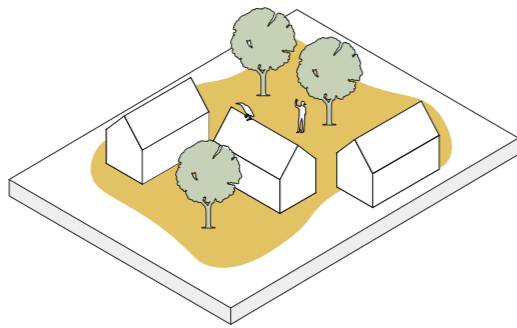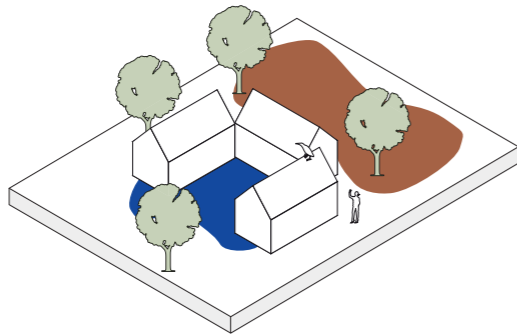
When designing the physical environment, it is important to have different kinds of buildings accommodating different uses. Hence, attracting a variety of people and creating a diverse environment in proximity. Different uses and users contribute to a safe neighborhood, seeing that there are people at all hours. "*Different kinds of residents and users are at home and awake at different times of the day, which is particularly important for crime prevention*" (Sim, 2019: 38). The journalist and urban planner, Jane Jacobs, addresses that the mix between old and new buildings contributes to socio-economic diversity. Diversity in the physical structures should also include small buildings, seeing they have a certain ability to address the human scale by changing the feel of the place and adding vitality (Sim, 2019).

The physical structures are important when creating spaces of public or private character. If buildings are freestanding, there is no clear backside or frontside (ill. 07), thus no public or private side of the building. If buildings, on the other hand, are arranged in a system (ill. 08) and in cohesion with one another, it is possible to establish a clear difference between the backside and frontside (Sim, 2019).

Jan Gehl adds another layer to the discussion of what makes a physical environment of quality. In his book *Livet mellem husene* (2017), he emphasizes that different kinds of outdoor activities are affecting the quality of the physical environment. To simplify, he divides the outdoor activities into three different categories: *necessary activities, optional activities,* and *social activities* (ill. 09).

Necessary activities are activities that one cannot prevent from carrying out - they are mandatory:
- Going to school/work
- Shopping for groceries
- Waiting for the bus

Gehl calls these necessary activities for everyday activities, and given that they are necessary, the physical environment will only affect these slightly. These activities take place every month of the year independent of the external circumstances. However, if the physical environment is of high quality, the necessary activities will happen to the same extent, but time spent on these activities is most likely longer (Gehl, 2017).

The optional activities are those one chooses to act out if desired and if the circumstances allow it:
- Going for a walk
- Enjoying a view
- Sitting and appreciating the warmth from the sun

It could be all kinds of activities that one could imagine, if the external conditions are pleasant and if the place and weather is tempting. Optional activities are key when planning a new district or city, seeing they are dependent on a pleasant physical environment that provides recreational areas for these to take place. If the physical environment is not of high quality, it will only be the necessary activities that take place (Gehl, 2017).

The social activities cover all sorts of activities that take place in the presence of other people:
- Kids playing
- Conversations
- Common activities

The most pervasive social activity is passive communication where one observes and hears other people. Social activities do often appear as a result of the two other types of activities, seeing people find themselves in the same place, pass by one another, or simply appear within the same range of vision. Thus, it is adequate to say that this type of activity happens automatically when people are using the same places therefore, a place of high quality does indirectly support social activities (Gehl, 2017).

It is of importance to design public spaces of high quality, in order to encourage these different types of activities. When these different types of activities are present, a diverse urban life is unfolding, the place is utilized multifariously, and a completely different and vibrant cityscape is created.

Life between buildings comprises all three types of activities as well as diversity, and complexity that in all compose attractive and meaningful public spaces in the city. Life in the street serves as an inspiration - to watch and hear others may inspire one to do certain actions. Life creates experiences. If cities are dull and monotonous the need to experience cannot be fulfilled. To experience people is different from experiencing buildings - people are in motion, talking and doing different things which creates new situations in the same places, thus a rich variation of sensory stimulation occurs (Gehl, 2017). Every moment is special, seeing it will never be the exact same experience a few seconds later. Living cities are cities with people and these are always eventful and pleasing. Hence, it is not the exciting shapes and colors of buildings that makes a living city - it is the people. However, the design of the physical structures, the shapes, the materiality, and the colors are important in terms of creating an attractive environment (Gehl, 2017).

Low quality	High quality

Necessary activities

Optional activities

Social activities
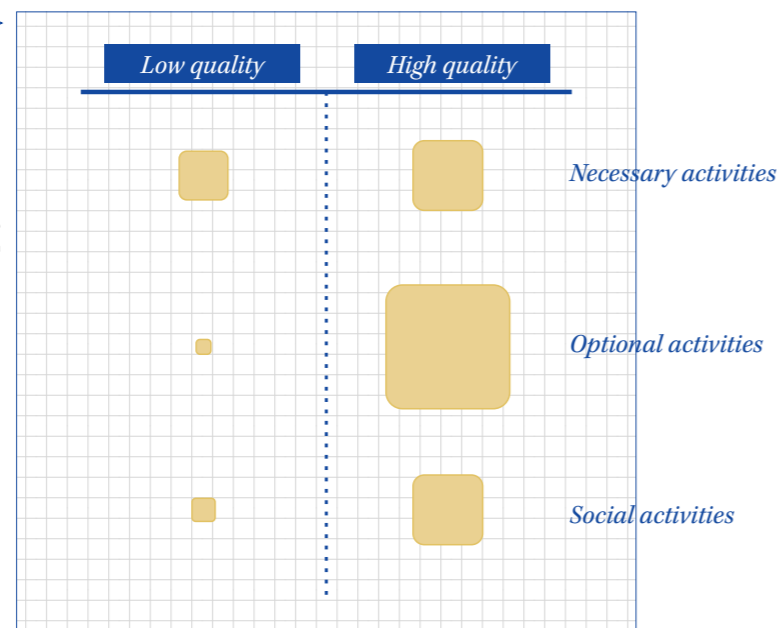
How do we then design for life?

The physical planning of cities is of great importance in terms of influencing activities, providing high quality in urban places, and thereby creating living and vibrant cities. According to Simon Glinvad Nielsen, urban spaces of high quality exist when different people with different errands and different backgrounds meet and engage in the life surrounding them. It is key that these meetings are made possible and the involvement is paid tribute to in order to urge cohesion and life in cities (Nielsen, 2018). Nielsen emphasizes that "*the glue in any city is the contact between people*" (Nielsen, 2018, own translation) and suggests that the future cities should focus more on relations than the built environment. The American urban researcher, Bruce Katz, elaborates that including people fosters democracy and brings new solutions to the table, since diverse and interdisciplinary voices are heard (Nielsen, 2018). Jane Jacobs is of the opinion that cities only have the capability to offer something for everyone, if they are created for and by everyone. It is adequate to say that human involvement is in demand with the agenda of creating urban spaces and cities of high quality. Nielsen wishes that our cities "*continue to surprise and inspire us. That our conversation with them is never coming to an end*" and believes that this requires planning cities on the basis of relations (Nielsen, 2018, own translation).

According to Gehl, when designing a residential area, it is of importance to think of the spaces between the buildings to the same degree as in the city. When the public spaces are carefully designed in cohesion with the building structures, it is possible to create territories, transitions, and different kinds of spaces which establishes a greater affiliation between the resident and the areas outside the home. The resident will mostly feel at home in the spaces related to the home and thereby, inhabit the city. It is of great importance that the transitions between different types of common outdoor spaces are soft and fluent, whilst the transition from more private areas to public areas are clearly communicated without being unwelcoming (Gehl, 2017).

From writing to executing

This theoretical investigation has identified a city as a complex spatial unit wherein a variety of social interactions happens - a place that gathers different people. The urbanization is causing the cities to densify, thus living in close relation to others is inevitable. This thesis argues that living closely together has the potential of creating local communities and establishing a neighborhood. It requires that the physical environment is shaped to accommodate this. As Urban Designers it is crucial that we undertake the responsibility of shaping frames that:
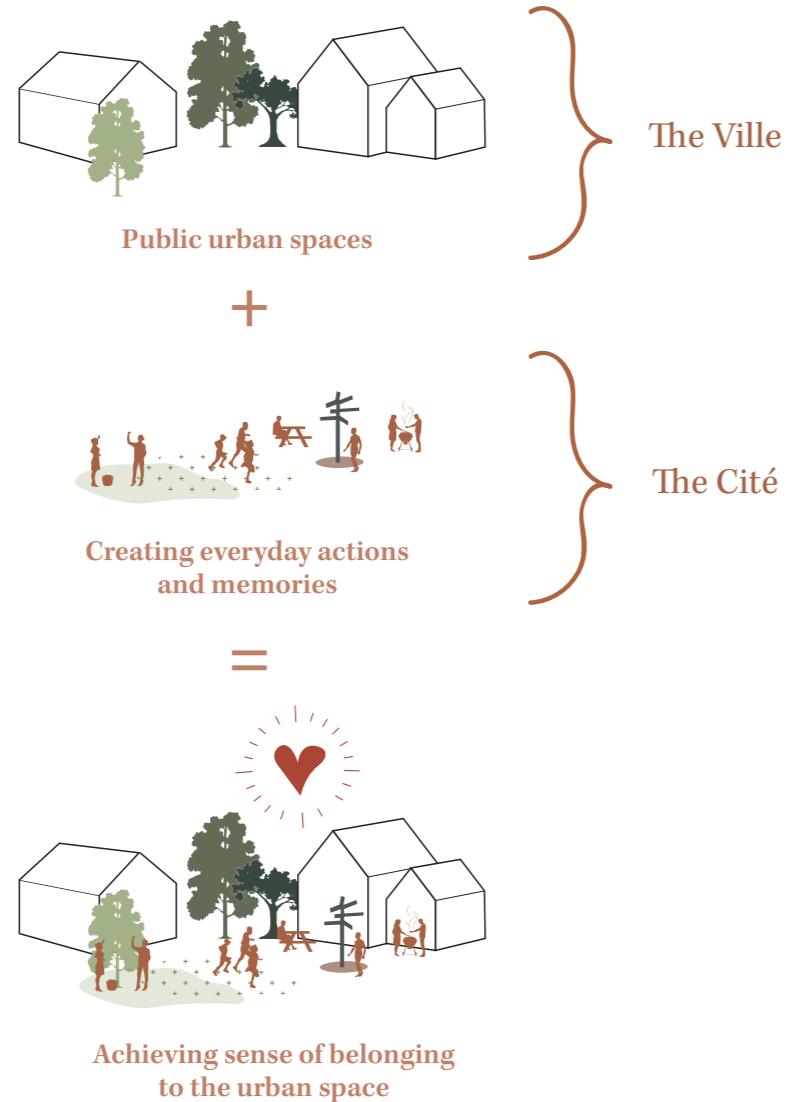- Favor people
- Accommodates different uses
- Is of quality when experienced in eye level

In other words, diversity, density, and proximity are keywords when designing a neighborhood of high urban quality which in this thesis will be at the southern part of Godsbanearealerne in Aarhus. It is key that it becomes a neighborhood for formal and informal meetings and a framework that addresses the human scale when striving for a liveable, safe, and diverse city. This will be incorporated by implementing functions and common facilities in the urban environment that target different kinds of activities. We believe that cities are for people, thus they should be a part of shaping our cities.

A Sense of Belonging in the City

Theory

The Ville

Public urban spaces

+

The Cité

Creating everyday actions and memories

=

Achieving sense of belonging to the urban space

As urban designers we have the competences to create the frames of our cities. We are able to impact the living life through the design of the physical environment but we cannot guarantee the life performed in it. It is out of our hands and up to the individual whether the person takes part in the living life, assuming the person feels at home and has a sense of belonging in the city.

To create physical frames that support a sense of belonging , entails a crucial and decisive responsibility, which can be hard to manage. This theoretical chapter strives to unfold what makes us feel at home and feel like we belong to a place in the city, and how the design of the physical environment influences this. The chapter goes into depth with theoreticians such as the sociologist Richard Sennett and the architect Juhani Pallasmaa.

The feeling of home

A home is our base and our territory, feeling safe from potential danger from outside. A home is impacted by our individual needs of territory, which is often related to a physical dwelling attributed value and importance by the individual. A dwelling becomes an expression of personality and is our subjective and phenomenological space being the underlying basis for meeting the surroundings (Christensen, 2017). According to Pallasmaa (1995:133) "*A home cannot be produced at once, it has its time dimension and continuum and is a gradual product of the dweller's adaptation to the world*".

Thus, this time dimension indicates that in order to achieve the feeling of home, a process must be undergone, where a physical object is associated with an emotional value from the individual to create a social and personal sense of belonging. This will often take place through different everyday actions, meaning a home becomes a state of relation between the human and the object. Through this gradual process, the feeling of home will start to grow, expressing the personality and identity of the individual (Christensen, 2017). Thereby, the feeling of home will bear the mark of having attached a personal, social, and emotional affiliation to a physical object.

But to feel at home is not just something happening in the private dwelling. It happens likewise in the public urban environment where people create experiences and memories in different kinds of urban spaces. Through time, people will start to build up an emotional value to those urban spaces which will make them feel like they belong in the city (Ill. 10). Thus, the physical and social environment of the city constitute the frames for belonging to a place.

The urban environment

The sociologist Richard Sennett is passionate about how urban environments are designed, and how they affect the people living in them. He believes that the urban environment has direct consequences to the social environment and how people dwell in the city. He distinguishes the city in two words: *The Ville* and *The Cité* which adds another layer to ill. 10. The Ville refers to the designed and built urban environment and The Cité represents the lived experience, the feelings connected to neighbors and strangers, and the attachment to a place in the city. In other words, it has similarities to a physical body and a spiritual soul influencing each other and making one able to feel at home (Sennett, 2018).

According to Sennett, clearly defined and gated communities and urban environments restrict you from meeting others. This is what Sennett defines as *the Closed City* which is segregating and controlling the environment. He claims that contemporary city planning is failing to create cities enabling people to have fulfilling lives when The Ville is closed for the possibilities to grow and become a matter of political economy (Sennett, 2018). A claim having similarities to some of the rigid planned and structured cities in Denmark of today's with a top-down planning approach. An approach which is often ruled by developers and private stakeholders striving for profit and growth - instead of cities with a bottom-up planning approach that consists of spirited and active urban initiatives launched by impassioned citizens.

The current top-down approach often creates monofunctional environments without connecting the numerous inherent identities or contributing to a sprouting public environment (Byrummonitor, 2018). What are the alternative and realistic suggestions to this way of planning and designing cities? A question that might be difficult to answer, however this thesis investigates how to challenge and improve the current way of designing our cities, where the focus of profit and growth should be changed into quality and cohesion.

In continuation of the definition of The Closed City, Sennett criticizes the effect of various digital apps such as Google Maps enabling people getting from A to B. This is consistent with his remark: "*freedom of movement was equated with speed of movement*" (Sennett, 2018: 182) where time becomes a pivotal factor of our navigation in the city. In his opinion, these apps make the city too user-friendly and friction-free since they limit one's ability to sense the city, use their intuitions, and to encounter unpredictability.

Sennett sees the encounters with resistance as pivotal to learn and navigate in the city. He emphasizes that getting lost is often how we learn (The New Yorker, 2018). The Danish architect Steen Eiler Rasmussen substantiates that "*it is not enough to see the architecture. You must experience it, feel how it is formed [...] and live in the spaces of the building and feel how they shut around you*" (Rasmussen, 1957: 33, own translation).

As a contrast to the Closed City, Sennett argues that a city must embrace differences, enhance spatial invitations, and promote equality. He defines the ideal as *the Open City* having the purpose to "*free people from the straitjacket of the fixed and the familiar, creating a terrain in which they could experiment and expand their experience*" (Sennett, 2018:9). It is an ideal where planners experiment with the design of the city to make it possible for the residents to actively display their differences, to meet strangers, and to cope in the city.

In his book, *Building and Dwelling* (2018), the nub is that an open and healthy city is not just something one designs. If architects and planners are given too much control and responsibility, The Cité will suffer. On the other hand, with too much faith in the citizens, The Ville will wither. Creating the Open City is a hard and demanding process requiring participation, adaptability, and patience from both planners, designers, citizens, developers and private stakeholders to face the unfamiliar and reach an agreement. If this process succeeds, it would be possible to create The Ville with spaces for frictions and encounters, even at the border of different neighborhoods and thereby stimulate and activate The Cité (Sennett, 2018).

To feel at home in urban spaces is connected to people taking ownership of the physical environment which according to Sennett "*seems to emanate from how we dwell and who we are*" (Sennett, 2018:14). It corresponds to the home as being a gradual process depending on the social og personal aspects stated in the previous section. Dwelling, experiencing, and feeling in the city are never static. It is an individual stream that flows with consciousness making one aware of the context, sensing the physical circumstances and embodies a thought. When the physical circumstances change, our consciousness begins to stream. Here our individual differences manifest themself, making it challenging but also interesting for urban designers to shape a city, satisfying differences and individuals which will be taken into consideration in this thesis.
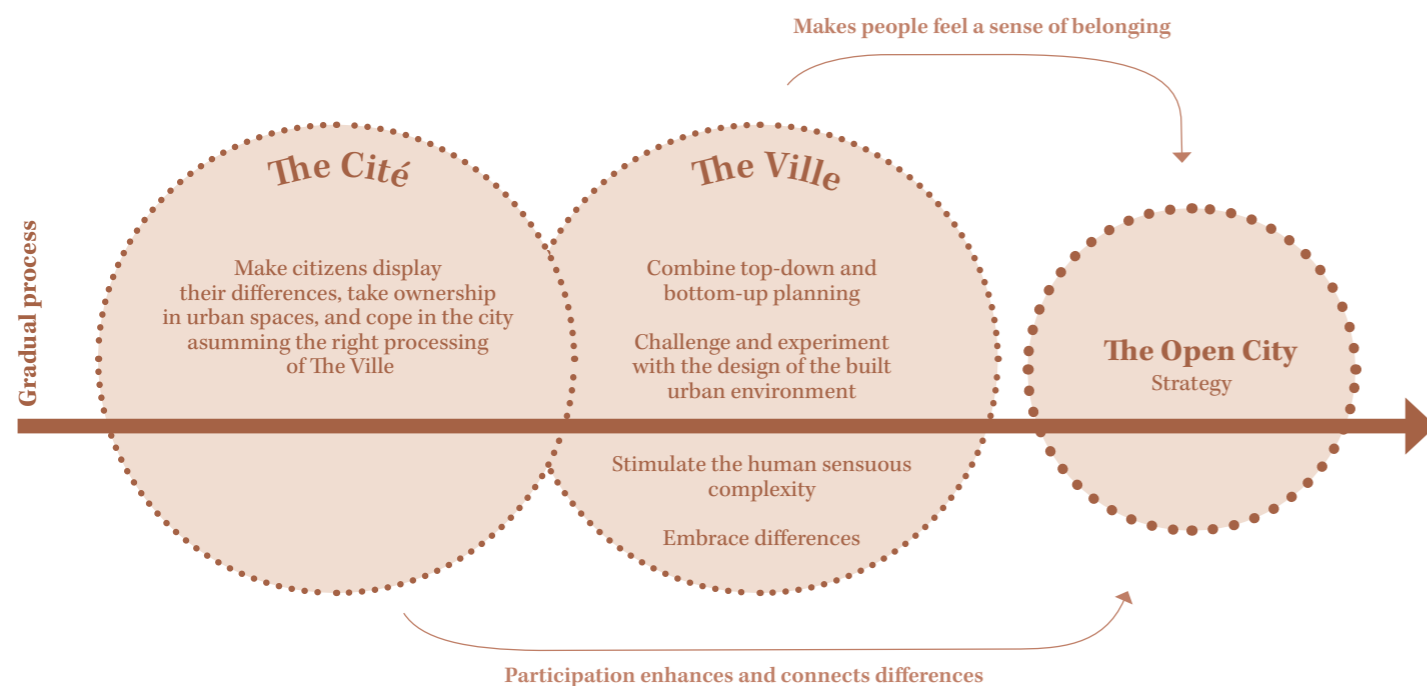
Bodily consciousness in the city

An important and often neglected prerequisite to planning and designing, is the knowledge of the human sensory perception, making you conscious of your bodily existence in the physical environment. The architect, Juhani Pallasmaa, speaks in favor of the evident relation between the architecture (The Ville) and the human (The Cité). The relation between the physical and the spiritual, the material and the mental, and the unconscious and the conscious prioritization of the senses and the interactions between, are crucial to the character of the architecture and the built environment to secure a sense of belonging in the city (Pallasmaa, 2015). A position consistent with Jan Gehl expressing that "*Knowledge of the human senses, their modes of function and areas of function is a crucial prerequisite for the design and dimensioning of all shapes of urban spaces and buildings*" (Gehl, 2017:59, own translation).

Pallasmaa expresses today's cities as being cities of the eye dissociated with the body, contributing more or less to a sensorial distancing and existential alienation. An alienation where people do not feel at home, due to their missing emotional relations to the physical and social environment, which becomes a missing ability to cope and dwell in the city.

Our modern technological world has made the eye the center of the sensed environment - a development that the modernist architect, Le Corbusier, approves and supports with his statements: "*I do only exist in life, if I can see*" (Corbusier, 1991:7) and "*Architecture is a plastic. I mean by 'plastic' what is seen and measured with the eyes*" (Corbusier, 1959:191). According to Pallasmaa, the body and the senses have been neglected when designing and planning our cities through the years. It has caused a kind of imbalance in our sensorius apparatus and entailed an increasing feeling of loneliness, isolation, and distance. In his opinion, urban planning with a top-down approach is starting to become something business people control and manage, without any knowledge and appreciation of the relation between human and architecture (Kulturmagasinet Fine Spind, 2017).

Even though the eyesight has allowed us to see impressive and sensational architecture, the eyesight dominates the remaining senses and does not entirely encourage affiliation. On the contrary, some architecture and urban environments of today have made our bodily consciousness, memories, and dreams homeless (Pallasmaa, 2015). Modern architecture becomes flat due to the missing

Makes people feel a sense of belonging

The Cité

Make citizens display
their differences, take ownership
in urban spaces, and cope in the city
asumming the right processing
of The Ville

The Ville

Combine top-down and
bottom-up planning

Challenge and experiment
with the design of the built
urban environment

Stimulate the human sensuous
complexity

Embrace differences

The Open City
Strategy

Gradual process

Participation enhances and connects differences

Ill. 12 Interpretation of the Open City ▲

texture caused by machine-produced materials and the fear of tracks from wear, instead of materials from nature mirroring history as well as age (ill. 11). The technology hides the process of the creation of the material and does not disclose the history behind the material - no matter if it is the use of reflecting glass doubling the world or the monotonous and vertical concrete buildings lacking identity and texture. Pallasmaa states:
"*The lack of anchoring of the construction in the materiality and the craftsmanship's reality, reduces the architecture as settings for the eyesight - a scenography that is exposed of the authenticity of the material and the craft*" (Pallasmaa, 2015:53, own translation)

In his book, *Arkitekturen og Sanserne* (2015), he emphasizes the importance of the sense of feeling as the link to experiencing and understanding the world. All of the senses are specializations of skin tissue and some kind of expansions of the sense of feeling.
Experiencing the built environment entails different kinds of sensing the surfaces and shapes whether it is by touching, listening, smelling, tasting or seeing. The built environment is not just a visual seduction - it helps to understand our condition of life and to reconcile the perception of oneself with the experience of the surroundings. Therefore, Pallasmaa points out a need for a critical view concerning the dominating role of eyesight, when the built environment is created. When designing urban environments, Pallasmaa contends to identify oneself with dwelling and empathize with a place, instead of following standard procedures, regulations, and budgets. Even though the eyesight dominates, it stimulates tactile sensory perceptions and is able to support the other of the senses. Thus, the interplay between the senses is important to change the experience and perception of the world, so we create a sense of belonging. This is outlined by Pallasma as a sensuous architecture (Pallasmaa, 2015).

"*A fascinating architectural experience involves a lot of senses; spaciousness, texture, and dimensions which are measured with the eyes, the ears, the nose, the skin, the tongue, the bones, and the muscles. The architecture confirms our existence, human experience of being in the world which is fundamental to experience oneself*" (Pallasmaa, 2015:68, own translation)

The sensory perception and meetings with the surroundings are integrated through the body. By taking a walk in nature, the interplay between the senses is obtained where the eyesight collaborates with the remaining senses and

brings a satisfactory and healing effect. When the eyes touch foreign surfaces in the forest floor, the tactilities from leaves at the trees, and the bended contour of the terrain becomes linked to the memories of the sense of feeling. A coherent and meaningful stimulation of the senses will arise. We remember with our bodily memory as much as our brain and nervous system and therefore "*Any place can be recalled, at least to some extent because it it unique but also because it has impacted our body and created sufficient associations to become a part of our personal world*" (Bloomer & Moore, 1977:107 translated from Danish).

How can the design of the physical environment then make us belong to a place?
There is no doubt that the rigid urban top-down planning of today is to some extent sensuous deprivation, and contains some challenges in terms of making people feel at home and building up a sense of belonging. Therefore, it is in our belief time to rethink the modern way of designing and planning our cities and balance the conditions between profit and quality which this thesis will be based upon. As mentioned in this theory, the physical environment (The Ville) has an underestimated impact on human behavior, and the perception of oneself and the surroundings. As urban designers we need to pay better attention to the relation between architecture and people. We need to adapt and identify ourselves with dwelling and empathize in the urban environment when we design. The ideal is the Open City where we dare to challenge and experiment with the design of our cities and urban spaces to make room for diversity (ill. 12). The physical environment must affect human sensuality and the interplay between the senses to become more aware and conscious about bodily existence. To create a framework with room for changeability and human diversity is not tantamount to idealized materplans based on regulations and budgets. It is a gradual process reminding us of the pleasure of exploring the city, meeting strangers, observing the living, and being curious about ourselves.

Urban Nature, Transitions, and Sustainability

Themes

The presented theories *A City Favoring People* and *A Sense of Belonging in the City* are supported with the following literature studies which are categorized into three thematics of relevance to this thesis. These have the purpose to highlight and unfold the themes: *Urban Nature, Transition from Home to City,* and *Sustainability.*

Urban Nature

The American ecologist, Frederick Steiner, describes the concepts *Landscape Urbanism* and *Urban Ecology* in his text *Landscape Ecological Urbanism* (2011). Landscape Urbanism is a concept coined by Charles Waldheim, professor of Landscape Architecture, and Urban Ecology is defined by Richard Forman, professor of Landscape Ecology, and the french biologist, Michel Godron. Departing in these two concepts, Steiner is offering a synthesis, *Landscape Ecological Urbanism*, a strategy that combines the two concepts and foregrounds cultural and natural processes when creating new territories, which will be elaborated in this section.

Landscape Urbanism revolves around the interaction between landscape and city, and argues that landscape should be the fundamental building block when designing cities. In traditional urbanism, the shaping and designing of cities were controlled by structures: roads, buildings, and walls - thus neglecting nature. Nature appeared as green left-over spaces in between the built environment or as decorative ornaments. Landscape Urbanism emphasizes that cities should be designed and organized through linking cultural and natural processes (Steiner, 2011).

Urban Ecology is about increasing the ecological focus on landscapes and urban regions. It is a scientific study "*that emphasizes an interdisciplinary approach to understanding the drivers, patterns, processes, and outcomes associated with urban and urbanizing landscapes*" (Steiner, 2011: 336). It is about creating ecological equality in the ecological systems within the city. Thus, the study of Urban Ecology is useful in terms of evaluating the resources of the city and how these can be used to support ecological coherence (Steiner, 2011).
"*Urban ecology research indicates what should be obvious: people interact with other humans and with other species as well as their built and natural environments. The city is a humandominated ecosystem. Landscape urbanism projects [...] illustrate how designing with nature can improve the quality of cities for people, plants, and animals.*"
(Steiner 2011: 336).

Landscape Ecological Urbanism is a combination of the two latter concepts - an approach that underlines the importance of developing new methods and strategies of designing and planning cities so they become favorable for people, fauna, and flora. The reason behind the necessity of discussing new ideas and approaches of designing and planning cities, is the increasing social and environmental challenges following the ongoing urbanization. If planning strategies are not challenged and innovated, the present consequences (increasing energy use and greenhouse gas production, water and air pollution, loss of valuable habitat etc.) will continue (Steiner, 2011). Landscape Ecological Urbanism aims to design and plan cities with an approach that foregrounds and emphasizes ecosystems instead of decreasing them. It underlines that understanding the value of nature in cities will provide an increased value to urban life whilst abating the environmental issues that the contemporary world is facing (Steiner, 2011). Perhaps, it is about time we acknowledge that cities are not just habitats for people - but for fauna and flora too, and start including this in the city planning. The courses of action are many and initiate a collaboration between different professional disciplines. In this thesis Landscape Ecological Urbanism will be incorporated in terms of including zones preserved for nature, natural materials, and sharing resources.

Transitions

This theme unfolds the importance of dealing with transitions from the private dwelling to the public city. Recently, Peter Bur Andersen, partner and creative director at BRIQ, participated in the debate about how to create living cities. He stresses that "*we need places that extend the feeling of home to the streetscape*" (Andersen, 2022, own translation) and exemplifies that these places could be offices, green space, playgrounds, or other facilities that afford meetings. It is not a simple task - actually it is quite difficult to succeed in creating places where people want to be and it requires a site specific approach. He emphasizes that thorough analyses and planning are key in creating new urban neighborhoods with character and atmosphere (Andersen, 2022). This requires a deep understanding of the DNA of the site in order to design meaningful spaces that build on top of the local heritage. Another important aspect of creating attractive spaces is the transparency of the character of spaces. Who does it address? Is it of public or private character?
A public space is considered a place that is accessible for everyone to stay or move in, and a private space is, on the other hand, open to the ones permitted access (Birch, 2008).
"*Public space is important to urban sociologists who recognize that it serves as a setting for community activities or public life [...] it can be a magnet for community organization [...] it can provide a unique identifiable reference that reinforces a sense of belonging to a community*" (Birch, 2008: 118). Public spaces have a great value in terms of framing urban social life and reflecting the contemporary attitude and community values. They include parks, streets, and squares which together can be referred to as the public realm (Garvin, 2002). Implementing sidewalks and promoting visual transparency will increase human activity and thereby increase the chance for meetings and interactions between people.
Neighborhoods offering public spaces and a mixed use (residential, commercial and institutional etc.). This is contributing to social interchange, feeling safe thus creating an attractive housing area and nourishing community life - a sustained neighborhood (Jacobs, 1961).
The architect, urbanist, and teacher, Bob Allies explains that both private and public spaces are needed. It is important to have a private space that the individual is in control of, and can use for own purposes. At the same time, it is key to have spaces that are shared between people - between neighbors. These spaces are providing a common identity and responsibility, and invites the residents to be a part of a community (Allies, n.d.). Allies argues that "*the most successful urban environments are those where the distinction between the public and the private is entirely unambiguous, where the dividing line between one and the other is completely clear*" (Allies, n.d.: 3rd paragraph). The reason for this is that a clear distinction communicates the responsibility of maintaining the space. However, it is not that simple since the types of spaces cannot be narrowed down to exclusively being either public or private. Moreover, spaces of semi-public or semi-private character exist as well and have the potential of both connecting and separating the public realm from the private.

The importance of implementing public spaces is clear. Public spaces appear in many scales with different uses and designs, and if it is malleable, it invites the users to take ownership in defining it.
This thesis strives to create a neighborhood where community is foregrounded while it invites the locals to take initiative, responsibility, and participate in shaping their residential area. Therefore, this thesis will focus on implementing public spaces at different scales and with different atmospheres. Moreover, the relation and transition between the public and the private spaces are key in creating a successful urban environment.
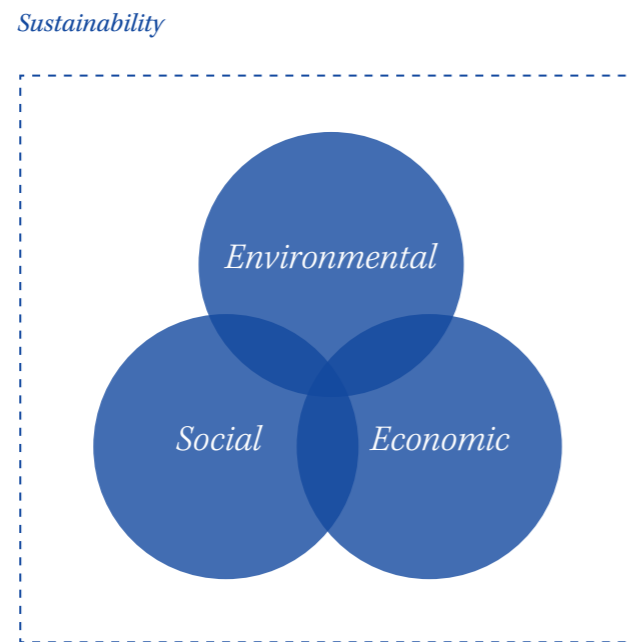
Sustainability

"*Achieving sustainability, which fundamentally relates to the ability to sustain humanity, civilizations, and ecosystems on Earth, is one of the most important objectives of a society and its people.*" (Rosen, 2020: 15).

Discussing sustainability is difficult due to the fact that it covers a wide range of different issues, thus making it hard to measure whether sustainability is achieved or not within a given case. However, it is of importance to keep striving towards making cities more and more sustainable in order to afford better lives and environments for people, fauna, and flora. Due to the wide range of issues that sustainability addresses, it is necessary to induce a holistic and comprehensive approach (Rosen, 2020). Before diving into ways of approaching sustainability it is relevant to discuss what the term encompasses.
Sustainability is usually defined through three dimensions: *environmental , economic,* and *social* (ill. 13). This gives sustainability a multidimensional perspective that deals with balancing these dimensions. However, this is challenging seeing they affect one another and are often in tension, thus they have an interconnected nature. The three dimensions are linked to a broad range of professions, hence urging interdisciplinary cooperation (Rosen, 2020).

Environmental sustainability concerns the fact that life is dependent on the Earth and its ability to maintain resources. Environmental issues such as decreasing biodiversity, deforestation, and destruction of natural habitats as a consequence of city development affects sustainability. It can force animals to migrate and cause emission and waste to be released into the environment (Aghbashlo & Rosen, 2018). These pollutants affect the air quality, and the health, and well being of living species. In this regard, climate change is one of the biggest challenges related to environmental sustainability. Therefore, it is crucial to be aware of reducing the emission of greenhouse gasses (Rosen, 2020).
Economic sustainability is important in terms of providing resources, service etc. needed by people. It is important for a society to experience economic growth and development in the long run. However, focusing on economic growth is not always sustainable. In a wealthy country, it might be more sustainable to develop the economy rather than increasing it, in terms of preserving resources and capacities for waste disposal (Rosen, 2020).
Social sustainability covers health, equity, cultural development, and other factors which are hard to define. The

meaning of social sustainability might change over time, since it depends on the living standards and societal situation in the contemporary world. The two most important factors in societal sustainability are equity and health. Equity requires a balanced distribution of wealth between nations and intergenerational increase of life quality. Human health and well-being requires access to healthy and clean food and drinking water, safe waste disposal, and a safe environment without dangerous substances causing diseases (Rosen, 2020).

The term, *Sustainable Development*, depicts a development that fulfills the needs of the contemporary society and implies actions that improves the quality of life and is possible to maintain in the future. Moreover, the term distinguishes between what should be developed and what should be sustained, relating to the three dimensions of sustainability. Factors to be developed are quality of life, education, equity, wealth distribution, jobs, security etc. Whereas factors to be sustained are resources, eco-systems, habitats, biodiversity, cultures, climate stability, etc. (Rosen, 2020).
To translate a theoretical definition of sustainability into practical situations is a challenge. Therefore, to make sustainable development comprehensive, hence ensuring it to be implemented into e.g. planning, it has been formulated into achievable policies and strategies. These are known as The UN Sustainable Development Goals and are divided into 17 broad goals for the periode 2015-2030 (Rosen, 2020).

Sustainability is a multidimensional term comprising economic, social, and environment sustainability. It is a complex matter and hard to measure and conclude upon. Nevertheless, it is important for all living species and societies to deal with the term and incorporate it in the future development of our world. This thesis will not take its point of departure in specific sustainable development goals, but rather focus on the following:

- Including new nature and preserving existing nature as an aesthetic and recreational value.

- Challenging the capitalist-driven way of devel oping cities by focusing on economic development instead for economic growth

- Designing a socially inclusive and diverse neighborhood with initiatives that is believed to provide high quality of life.

The essentials of the Literature Studies

Cities are planned and designed at the expense of a capitalist-driven way, where profit and capital are the dominating motive power

It is human nature to search for community, and spaces that are shared between people provides a common identity and responsibility

Local identity, sense of belonging, fiery souls, and joint ownership are key in facilitating sustained communities

The physical environment should afford different kinds of buildings accommodating different uses

Addressing a variety of people creates a diverse environment in proximity Small buildings have a certain ability to address the human scale

Different kinds of outdoor activities are affecting the quality of the physical environment

The cities only have the capability to offer something for everyone, if they are created for and by everyone

To feel at home in urban spaces is connected to people taking ownership of the physical environment

The physical and social environment of the city constitute the frames for belonging to a place

The Open City makes it possible for the residents to actively display their differences, to meet strangers, and to cope in the city

The body and the senses have been neglected when designing and planning our cities through the years

Including zones preserved for nature, natural materials, and sharing resources

Extend the feeling of home to the city

Spaces should be of transparent character

Public spaces have a great value in terms of framing urban social life and reflecting the contemporary attitude and community values

It is important to have a private space that the individual is in control of, and can use for own purposes
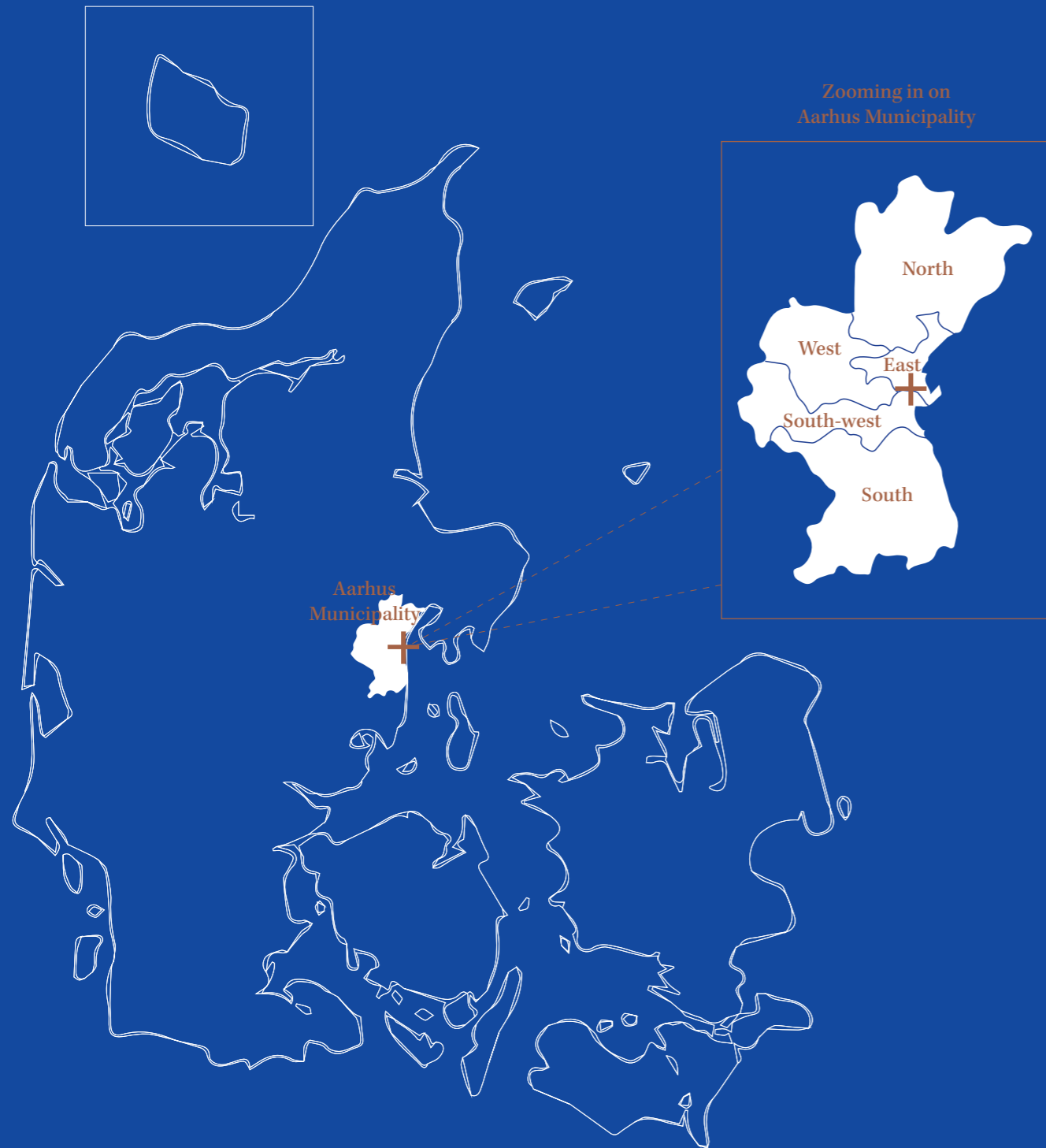
In this chapter, a range of different analyses zoom in and unfold the southern part of Godsbanearealerne in various layers and give a thorough understanding of the project site and its surrounding context. Furthermore, three case studies will be investigated.

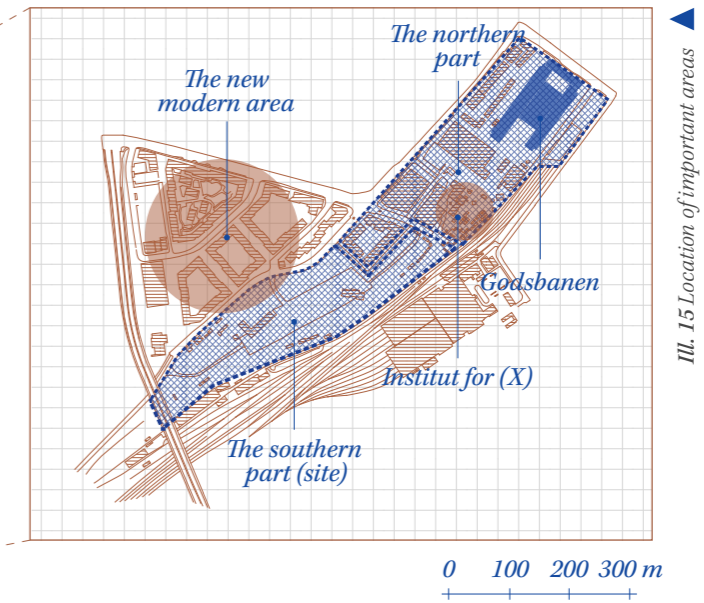# Analyses

03

Ill. 14(a) A glimpse through the urban environment at Institut for (X)

Zooming in on
Aarhus Municipality

North

West

East

South-west

South

Aarhus
Municipality

Exploring Godsbanearealerne

Choice of site

The northern
part

The new
modern area

Godsbanen

Institut for (X)

The southern
part (site)

0   100 200 300 m

The site for this thesis is the southern part of Godsbanearealerne located in Aarhus, Denmark and has a size of approximately 51.000 m². We have chosen to work at this site for various reasons. First, it is a site of high relevance since it is situated in the neighborhood, *Brokvarteret*, in the center of Aarhus (cf. The Surrounding City, p. 46). This area is under development and the Municipality of Aarhus is currently working on developing this exact site which will be covered through this chapter. At the moment, most of the site is a temporary car park surrounded by leftover spaces and plots under construction. Additionally, the site contains a kindergarten, a shelter, and a few containers.

Second, we are dedicated to challenge the capitalist-driven way of developing cities, thus our design proposal will appear radically different from its surroundings, but with the intention of establishing a dialogue and creating urban cohesion within the context.

At last, we are convinced that shaping 'the good city' requires involvement from fiery souls or future residents in order to make the most adequate frames for the future neighborhood. A bunch of fiery souls are already present at the creative district Institut for (X), closely related to the site of this thesis, and we consider this as an obvious opportunity to be inspired and encouraged by their creative and cultural initiatives.

To clarify different areas mentioned through this chapter, the location of Kulturproduktionscenteret Godsbanen (Centre of Culture and Production), the area of Godsbanearealerne divided into a northern part and a southern part, the area of Institut for (X), and the new modern area have been mapped above (ill. 15).
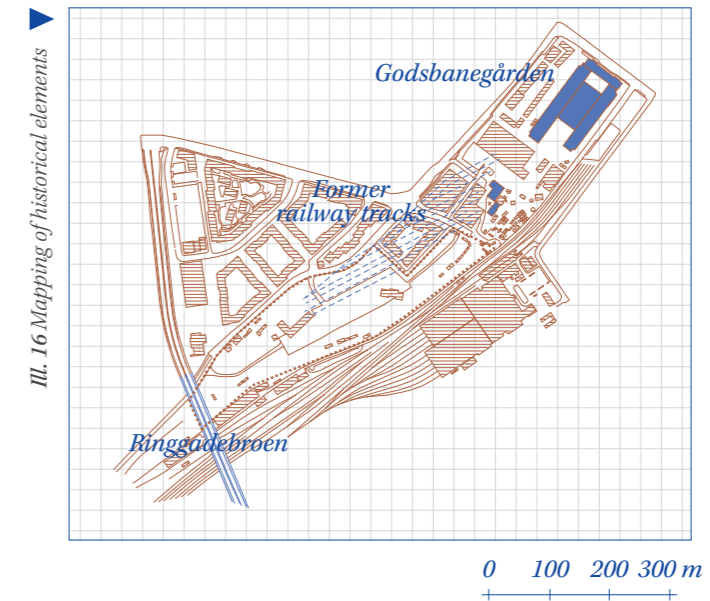
Through the chapter, the site will be marked on every illustration with an orange outline.

Where It All Started

History

The former humid meadow, *Mølleeng*, was the area where Godsbanearealerne were later to be built. The construction of Godsbanearealerne arose concurrently with the planning of central districts of Aarhus in the 1890's. The creation of Godsbanearealerne was a part of a technological and industrial paradigm with traffic and industrialisation as a focal point.
The timeline presents a historical overview concerning the development of Godsbanearealerne through the ages where relevant points of development are emphasized (Christensen, n.d. and Thomsen & Due, 2009)

Ill. 16 Mapping of historical elements

Godsbanegården

Former railway tracks

Ringgadebroen

0   100   200   300 m

1923

Concurrently with the industrialisation and the need of goods transportation, the main building Godsbanegården, the two associated stores, and other historical buildings was built as a terminal with administration and rooms for expedition for ingoing and outgoing trains. The terminal became the third biggest in Denmark and was the major employer in Aarhus, where wares such as grains, wood, bricks, and fertilizer were freight.

1938

The characteristic and crowded bridge of iron and concrete, Ringgadebroen, was completed and managed to connect the southern and northern traffic of Aarhus above the former forty railway tracks at Godsbanearealerne.

2000 - 2002

For several decades, Godsbanearealerne was responsible for the transport of goods, which followed the technical and material development from hand to machine power. After being out-matched by trucks, the freight traffic stopped, and DSB left the plot.

A study trip to Helsinki inspired the Committee of Culture to transform Godsbanegården into a cultural center, which was consistent with a new culture policy that secured better conditions of production for artists in Aarhus. In 2005, Realdania granted 50 mio. Danish crowns to support the transformation of Godsbanegården.

2007 - 2010

A deal between the Municipality of Aarhus and DSB was signed, and in 2008 the municipality took over the northern part of Godsbanearealerne measuring 43.000 m² inclusive the area of the buildings at 10.500 m².

The first sod of the cultural center of production named Godsbanen was cut. The opening of Godsbanen happened two years later.

2013 - 2017

The Municipality of Aarhus bought up the rest of Godsbanearealerne in south nearby Ringgadebroen, by which they then owned more than 100.000 m².

The development plan of Godsbanearealerne was published focusing on the further development of the area.

2021

The construction of new buildings for the Architecture School (Aarhus Arkitektskole) in Aarhus at Godsbanearealerne was accomplished.

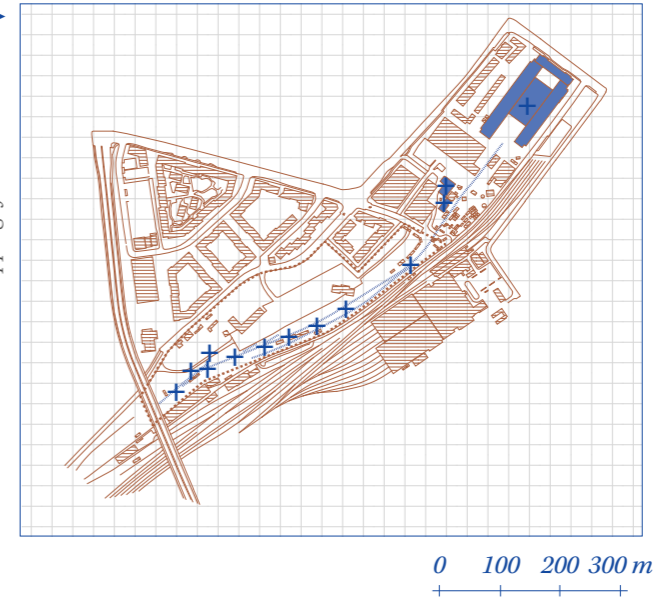*Ill. 17 Historical timeline of Godsbanearealerne* ▲

Traces from the Past

History

0   100   200 300 m

Today, Godsbanearealerne are to a great extent impacted by the former industrialization and the history of transporting goods. Different historical traces such as old railway tracks, railway chocks, and railway points are still present in the area and express a part of the historical cultural heritage. In this thesis these traces from the past will be respected and maintained, and serve as active design features to stage the industrial history and former use of the site. At the same time it will support and create coherence to the culture-historical atmosphere, which is already represented today at the northern part of Godsbanearealerne. Furthermore, The Municipality of Aarhus has expressed that preserving the cultural heritage is of importance, which will be elaborated further in the following section.

A Top-down Vision

The Development Plan
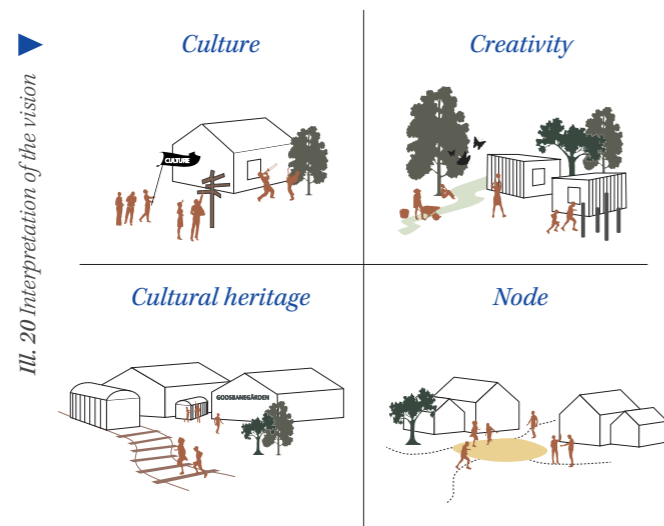
According to the Municipality Plan, the city of Aarhus must persist to be attractive by continuing to develop, renew, and be sustainable at several levels. On a general level, the Municipality Plan aims to improve the quality of the city and provide better settings for everyday life, where the diversity and the quality of the public spaces in the city must grow, and thereby strengthen the communities. Citizenship is likewise a key issue with a focus of developing the city with room for and accommodating the needs of everyone (Aarhus Kommune, 2017 a).

In relation to Godsbanearealerne these aims from the Municipality Plan are valid. Today and in the following years, Godsbanearealerne are to a great extent impacted by development. This chapter briefly constitutes an overview of the future development of Godsbanearealerne by diving into the Development Plan of the area from 2017 (Aarhus Kommune, 2017 b) while there has not yet been formulated a district plan yet.

Concurrently with the increasing demand of housing, business property, and buildings for educational and cultural purposes, the Municipality of Aarhus bought the local areas at Godsbanen in 2008 (cf. Where It All Started, p. 40). The purpose of the area is to develop a new and central district in connection to the city center. The overall vision of Godsbanearealerne is to create a new vibrant district in constant transformation and development. The vision is named Aarhus K and stands for (ill. 20):

Culture (Kultur)
Culture is different habits in ongoing transformation

Creativity (Kreativitet)
Creativity refers to the desire and ability to creative something new

Cultural History (Kulturhistorie)
Cultural history is all what the history has left behind and what to build upon

Node (Knudepunkt)
Node is focal points to life, curiosity, experience, and traffic

This involves a new district with a diversity of functions where differences, creativity, and culture blossom while addressing the identity, provided by the culture-historical heritage. Godsbanearealerne is going to be developed in two phases:

Phase 1 - The northern area
The northern area of Godsbanearealerne is already undergoing transformation in close cooperation with a number of stakeholders from the local community. The objective is to create a vibrant urban life characterized by culture, creativity and innovation, such as the new Architecture School and preservation of the local businesses, driven by entrepreneurs

Phase 2 - The southern area
The central and southern area of Godsbanearealerne have not yet been disposed of and determined in detail for future development. But the Development Plan enhances the area to be marked by a green wedge, smaller urban spaces for recreational purposes, and temporary activities mixed with housing.

To realize the vision, the municipality of Aarhus has held a number of processes of participation with citizens, users, and additional stakeholders. The processes have resulted in four strategic fields for the future development of both the northern and the southern part of Godsbanearealerne:

▢ Strategy of identity
The new Aarhus K must be based on the local history and favor the people who have been involved in bringing life to the area throughout the years. Furthermore, different cultural nodes should be implemented it terms of facilitating an open and diverse area

▢ Strategy of urban life
Aarhus K must consist of various offers of housing, educational and cultural institutions, businesses, entrepreneurship, temporary projects and urban spaces. The offers must embrace a wide range of residents and users, giving them the opportunity to occupy and use the urban spaces, thus ensuring a dynamic, concentrated, and varied urban life.

▢ Strategy of involvement
The local stakeholders of Aarhus K, consisting of owners, tenants, users and neighbors, will be involved in the development of the quarter and its urban spaces to ensure a democratic dialogue. Bydelskontoret has been established to coordinate the involvement of relevant stakeholders and their contributions.

▢ Strategy of culture and creativity
The cultural heritage of Aarhus K must be retold by reusing the raw materials, existing buildings, and emphasizing the spirit of the place, which are to be preserved in both private and public projects, so the physical structures are maintained. The experimenting and changeable creativity is sustained in the northern area of Aarhus K and is complemented by new creative institutions and businesses.

This thesis has taken the intentions from the Development Plan into consideration through the process of developing the site, represented at the southern area of Godsbanearealerne. We are aware that this idealized approach in such development plans, can be easier to write and harder to meet and accomplish at the end of the day. As an example, the daily manager of Institut for (X), Mads Peter Laursen, represents a part of the involvement of local stakeholders and has witnessed this on his own. Through an interview (Appendix 01) he expresses: "*We have experienced that when we bring inputs to a tender, it is almost always too late since everything has been well on the way, meaning we are asked too late. If the Municipality of Aarhus, on the other hand, involved us early so we actually are able to have time to think of something reasonable, then the municipality can include it in the tender before it is sent out.*" (Appendix 01, own translation). In this case, the gap between top-down planning and bottom-up planning becomes clear, meaning that we need to be critical to the written words. Thus, we highly agree with Laursen that: "*the Development Plan is brilliant because the fluffy is on top, but then the huge colossus is below consisting of law and money working against quite a lot*" (Appendix 01, own translation). Of course technical and economical parameters must be included to make the development of the area realistic, but how these are combined with the idealized and fluffy is something we are striving for with this thesis.

How the design proposal relates to the intentions of the Development Plan, will be reflected and evaluated upon in the last phase of the thesis (cf. Challenging the Critical Curiosity, p. 144).

D₁

The Old Town

C₁

Ceresbyen

C₂
C₃

City Center

C₄

C₇
C₅

Brokvarteret

C₆

Aarhus K

D₅

Kolonihaverne

Cultural belt   Districts   Site   Destinations   Starting point

Latinerkvarteret

D₂

D₃

D₄

0   100   200   300 m

The Surrounding City

Districts

The southern part of Godsbanearealerne is a part of the domain, Aarhus K (cf. A Top-down Vision, p. 44) which is situated in the neighborhood Brokvarteret. Brokvarteret is a newly built area consisting of modern architecture and is mainly a residential area with a few businesses in between. Godsbanearealerne lay in close relation to the newly established Ceresbyen, the cultural belt, and the crowded and dense city center (ill. 21).

Aarhus K stands in contrast to the surrounding context due to its experimental and creative identity. It is located in exciting, diverse, and sproutling surroundings and has great potential to bridge the city center with Brokvarteret, Ceresbyen and the Old Town.

C

Cultural destinations

The site is situated in close relation to the cultural belt - a zone where different cultural facilities are to be found: the famous art museum ARoS, Kunsthal Aarhus, the music venues Atlas and Voxhall, the cultural center Godsbanen, and the old historical part of the city. These cultural destinations are reachable within a distance of 450 - 1000 meters from the marked starting point (ill. 21).

D

Attractive Destinations

The surrounding city holds multiple destinations of interest. These destinations range from important buildings, such as the magnificent Aarhus Cathedral built around the year 1200 and Aarhus Station, to recreational sites, such as the Botanical Gardens and Aarhus Waterfront.

These attractive destinations are reachable within a distance of 1200 - 2000 meters from the marked starting point (ill. 21).

Dissolving the blocks

Clear and tight structure

New modern area

Dissolving the blocks

Massive buildings

The dense parameter blocks

Surrounding morphology

Morphology in Aarhus

0   100   200   300 m
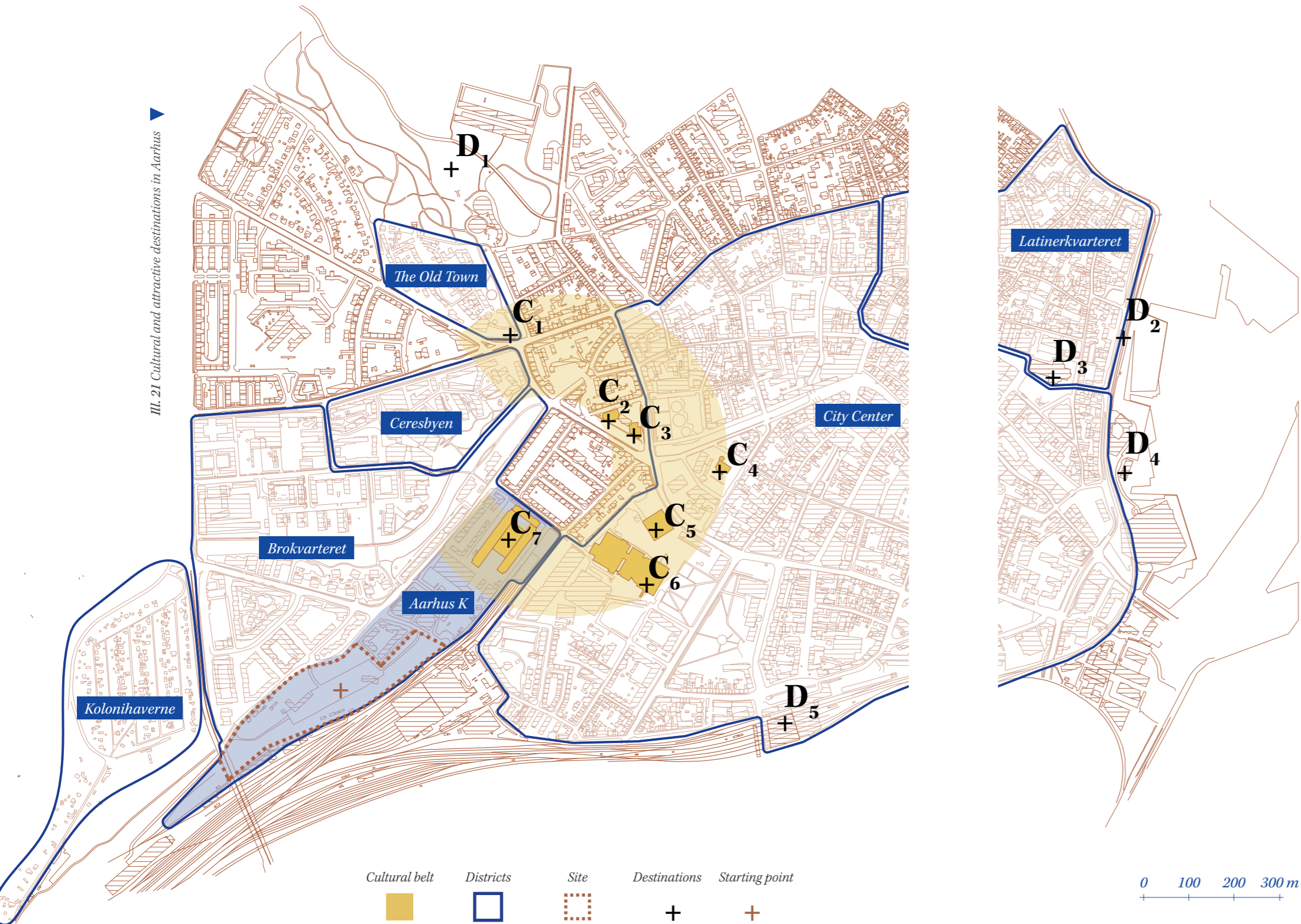
The Surrounding Morphology

Figure map

The built structures of Aarhus mainly consist of parameter blocks. This typology has the advantage of creating dense areas in the city whilst offering a private urban space for the resident to use.
Towards east, the parameter blocks are arranged closely and appear very dense, thus clarifying the location of the city center. The privat urban spaces in the middle of these blocks are limited. Furthermore, the streets are narrow and figure in a twisting infrastructural network.
Towards west, the parameter blocks appear lighter, seeing they have a clearly defined privat urban space in the middle, and is mixed with cane buildings and broken up parameter blocks. The streets are wider, compared to the city center, and arranged in a clearly defined network which creates separate neighborhoods and conveys a clear and tight structure. The building structures are dissolving into smaller volumes towards the north, testifying to a recreational area together with the historical old city center of Aarhus.

The morphology surrounding the site is ranging from massive building structures, implying industrial buildings, institutions, and other big scale buildings, to very small single building structures being allotment gardens (ill. 22). Furthermore, a new modern neighborhood is rising in continuation of the site with tower blocks, parameter blocks, and compound blocks. These building structures create several controlled views with sight lines towards the site.

This showcases that the site is connected to different morphologies and city structures, and taps into a diverse urban life. The site has the potential of bridging these different areas and typologies where it would be obvious to continue the sight lines, thus creating cohesion.
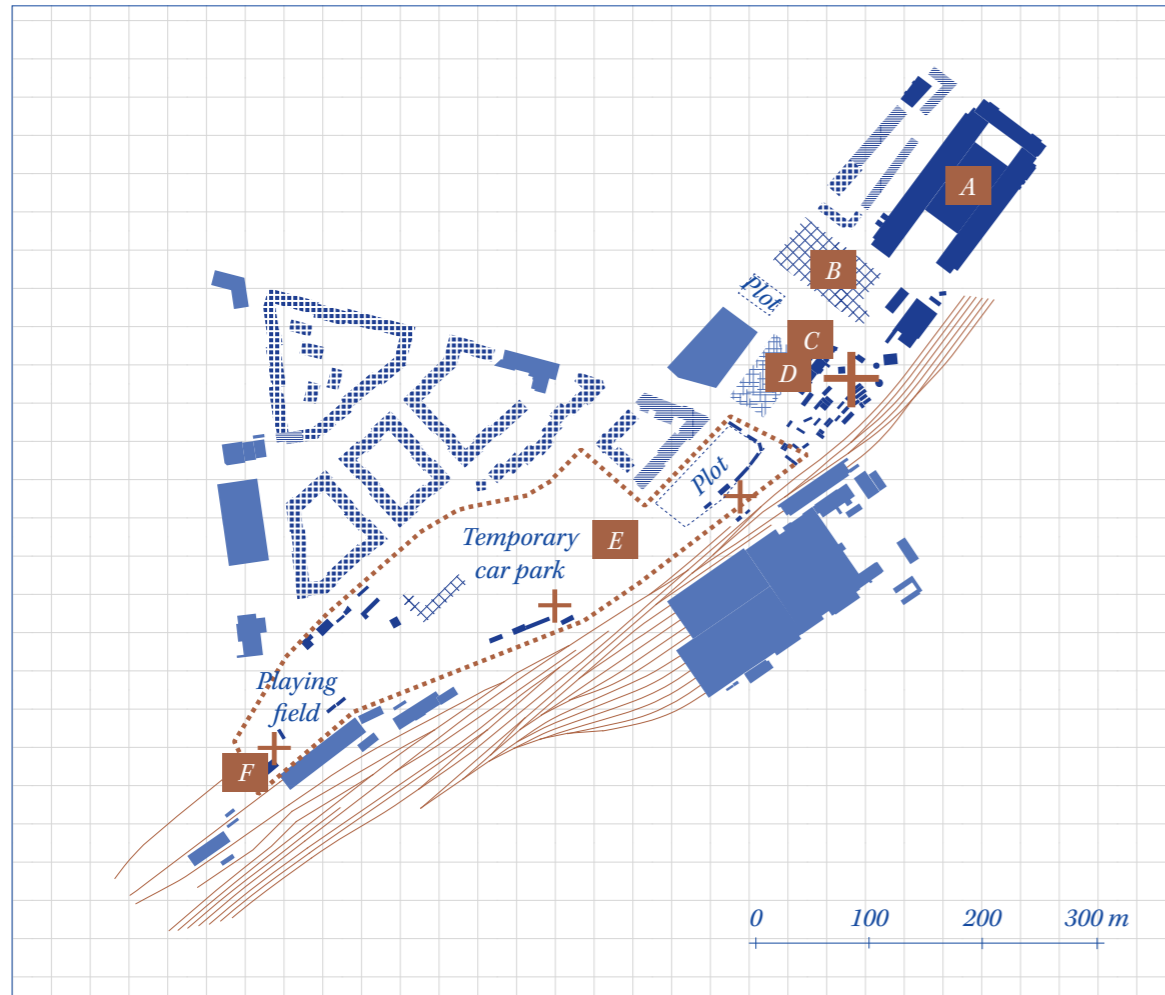
What Does the Neighborhood Offer?

Facilities

Legend:
- *Residential*
- *Culture*
- *Business*
- *Residential and business*
- *Institution*
- *Car park*
- *Public space*

Map labels: *Plot*, *Plot*, *Temporary car park*, *Playing field*

Scale: 0   100   200   300 m

At present, the vacant site mainly consists of an extensive temporary car park and a lot of leftover space (ill. 24). The site is also represented by a daycare center (Børnely), the shelter (Spor 7), a temporary playing field, and a few minor cultural facilities, primarily driven by local fiery souls working in personalized containers such as Bygning K and Aarhus Volume.

The local area, surrounding the site, is mainly pieced together by residential and business facilities comprising similarities to the segregated and gated Closed City (cf. A Sense of Belonging in the City, p. 25). Furthermore, the northern-western part of the surrounding context consists of several cultural facilities, public spaces, and the Architecture School in Aarhus. This testifies to a diverse utilization which brings lots of activity, life, and dynamic to the area supporting and harmonizing with the vision of Aarhus K, which must be continued and integrated at the site. Some of the most relevant facilities at the site and in the context have been mapped with letters and will be unfolded to the right.

A *Kulturproduktionscenter Godsbanen*

The closed freight train station is transformed into a cultural center of excellence with theater, concerts, markets, restaurants, workshops, and project locals (Aarhus Kommune, 2017 b).

D *Bydelskontoret*

A natural place for coordinating and involving the engagement of the stakeholders in the development of a diverse urban life at Godsbanearealerne (Aarhus Kommune, 2017 b).

B *The Architecture School*

A newly built academic school housing 600 students focusing on architecture and experimenting about design in a research and creative context (Byens Netværk, 2021).

E *Spor 7*

A shelter for socially marginalized people that offers fundamental needs such as food, shower facilities, and warmth. Most importantly, Spor 7 provides intimacy and community to the ones that are challenged in the society (Socialkompasset, 2022).
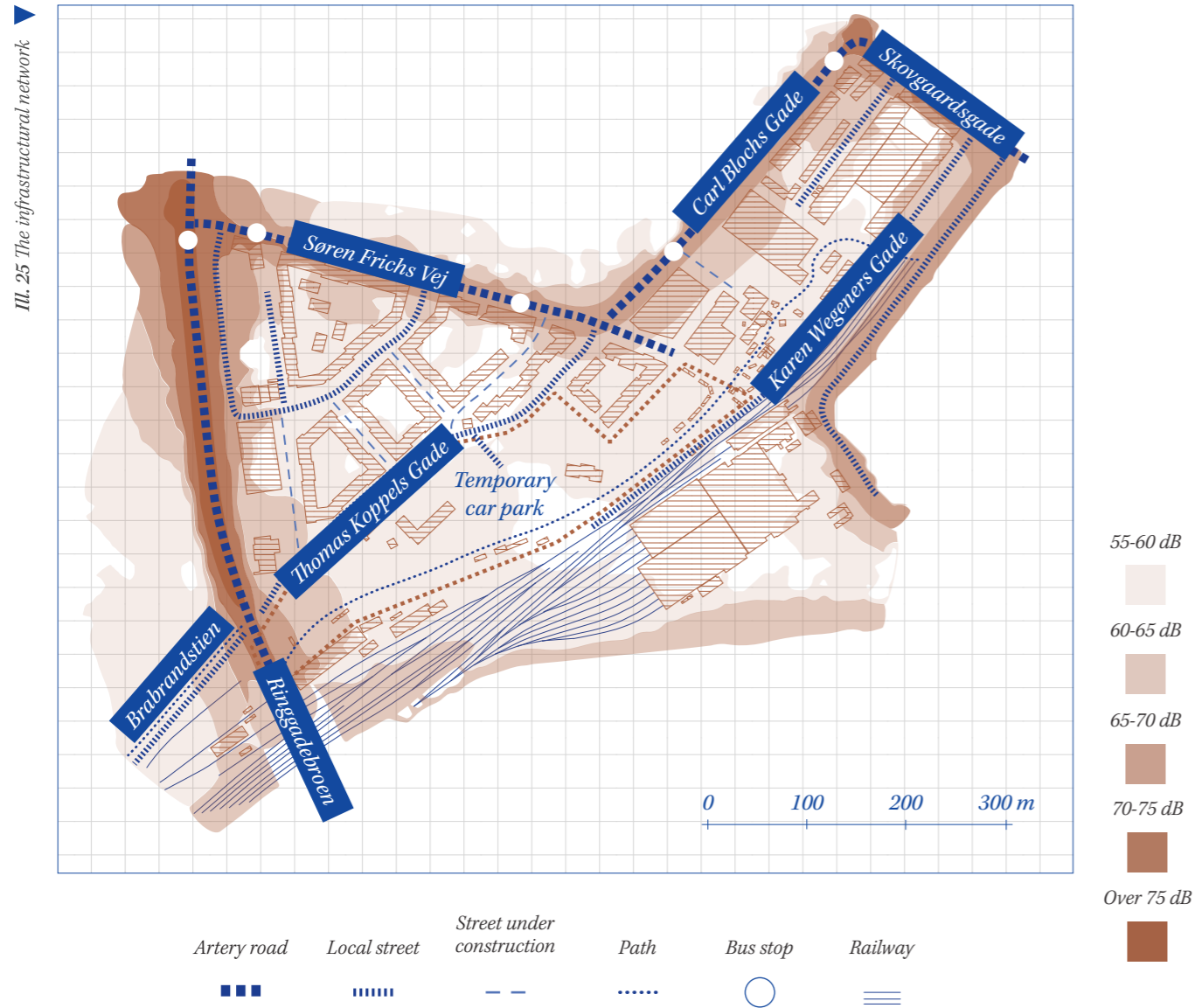

C *Institut for (X)*

A not-for-profit and independent culture association centralized around culture, education, and business arising from citizen initiatives in 2009 (Institut for (X), n.d.)

F *Aarhus Volume*

A new culture house and music venue, located underneath Ringgadebroen, accommodating art exhibitions, concerts, techno festivals, and markets which is a gathering point for the culture (Aarhus Volume, 2021).

The Network of Transportation

Infrastructure

Carl Blochs Gade

Skovgaardsgade

Søren Frichs Vej

Karen Wegeners Gade

Thomas Koppels Gade

Temporary car park

Brabrandstien

Ringgadebroen

55-60 dB

60-65 dB

65-70 dB

70-75 dB

Over 75 dB

0	100	200	300 m		

Artery road | Local street | Street under construction | Path | Bus stop | Railway

The site is well connected to the surrounding city and accessible lengthwise towards north with a few transverse streets under construction and the local street Thomas Koppels Gade leading to the temporary car park at the site. Towards south the site is connected to Karen Wegeners Gade where a car park is located. These local streets are linked to artery roads causing a little noise to the site of no importance. The artery roads are accessible for soft mobilities, given that they have cycle paths and sidewalks.

To the south of the site, the railway branches and a significant and recreational path, named the green wedge, flows. The green wedge is marked by rail lines reserved for soft mobilities and has the potential to be connected crosswise to Brabrandstien and Thomas Koppels Gade to create a better accessibility for soft mobilities. Towards east, the green wedge leads to Aarhus Congress Center which connects Godsbanearealerne to the city center of Aarhus. Thus, the design proposal will facilitate and prioritize the soft mobilities and restrict the heavy mobilities without compromising technical necessities.

The Density of the Surroundings

Building heights and percentages

> 300%

201-300%

101-200%

< 100%

0	100	200	300 m	

1-2 floors | 3-4 floors | 5-6 floors | 7 + floors
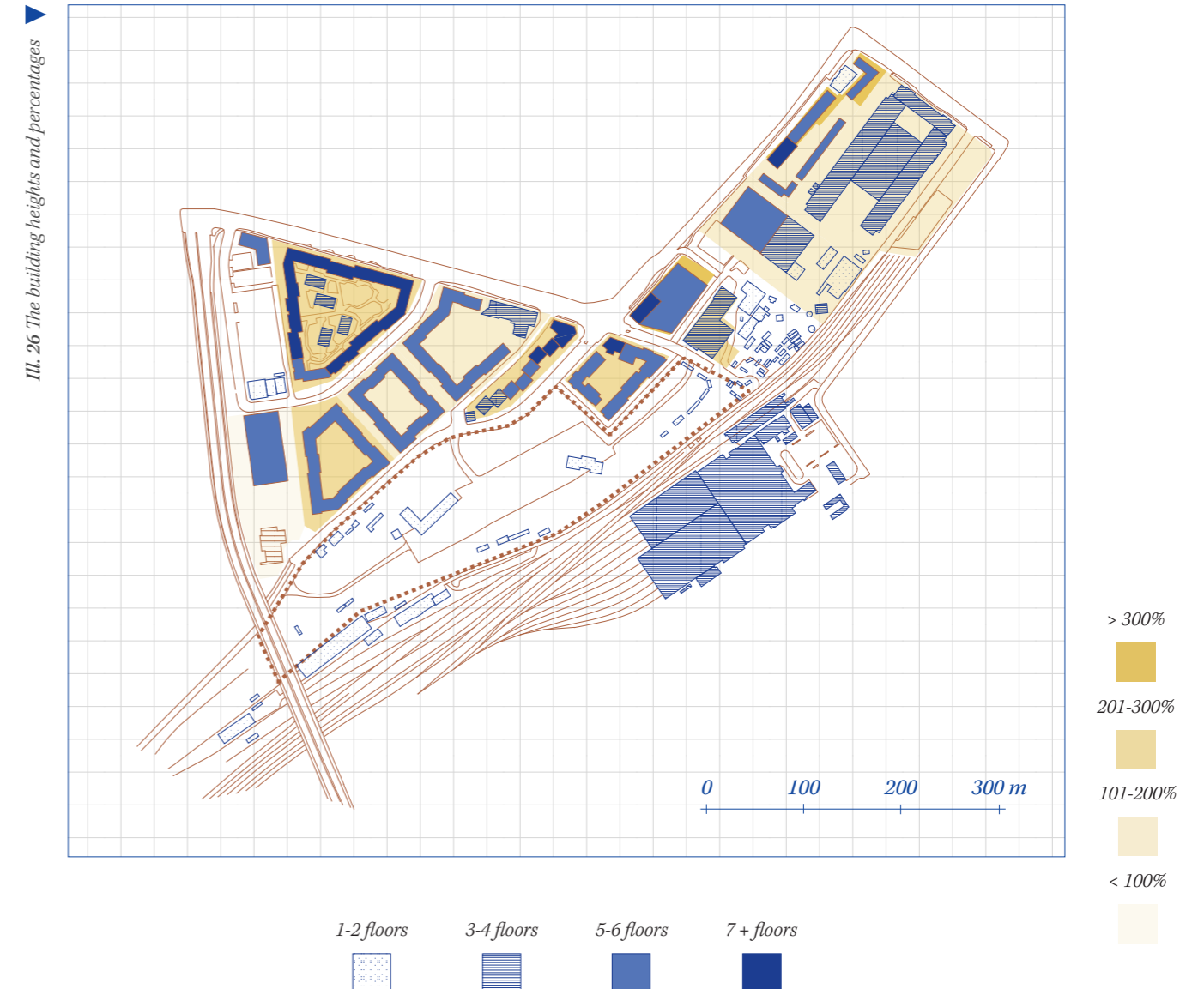
At the site and at Institut for (X) the building heights are one-two floors allowing a great amount of sun to enter the project site. Generally, the heights of the buildings are lowered towards the train tracks in south, which ensures good sun conditions and shows consideration for the green wedge.

The buildings in the new residential area towards north are mainly five to six floors high. The design proposal of this thesis must correspond to the existing building heights and strive to offer buildings as low as possible along the train tracks to maintain the sun conditions, favor the green wedge, and accommodate the human scale. The building percentage of the context is measured in terms of understanding the density and appropriate building percentage of the project site. The average building percentage is found to be 223% (Appendix 02) which implies a relatively dense context that could indicate a top-down planning strategy (cf. Inhabiting the City, p. 13). This thesis intends to be realistic about the building percentage, but emphasizes the importance of including space for a pleasant public environment as well.
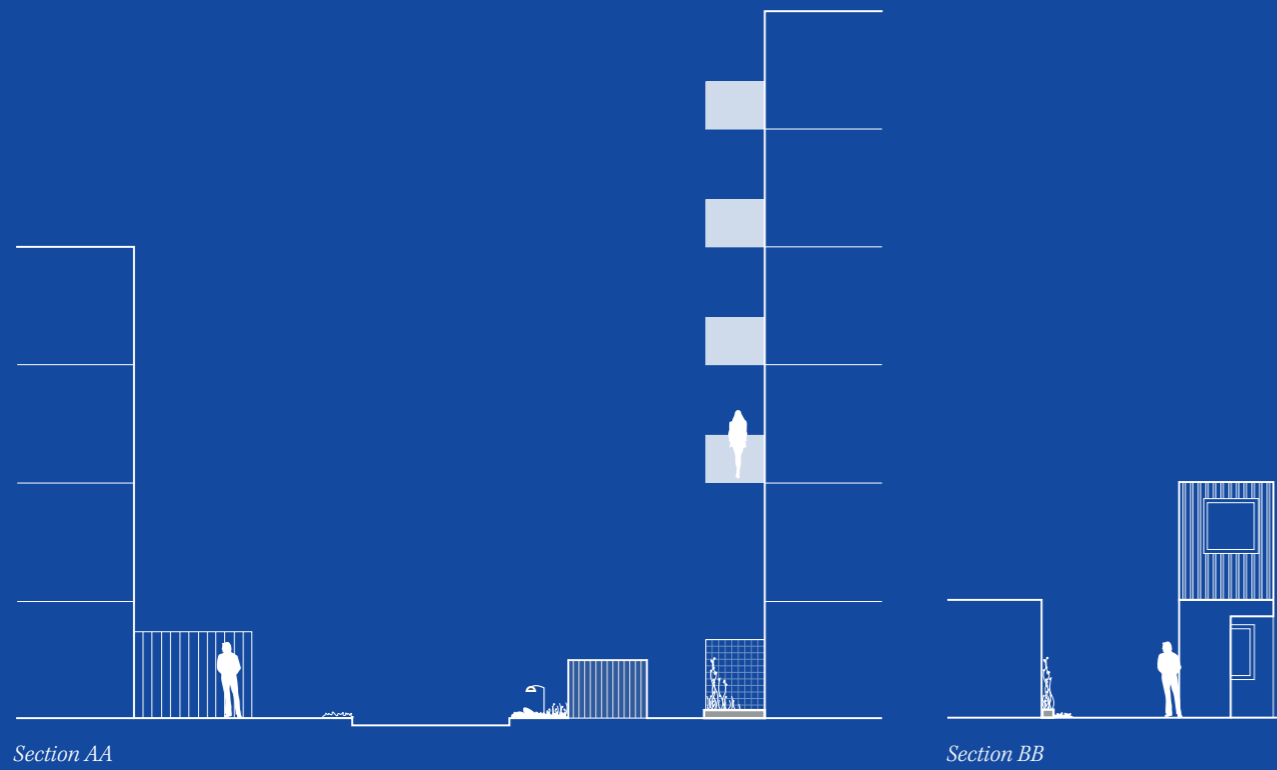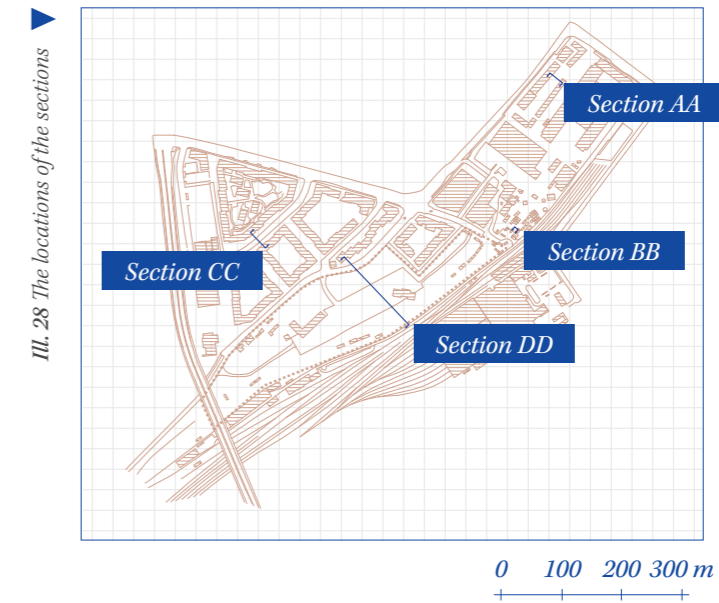
Section AA
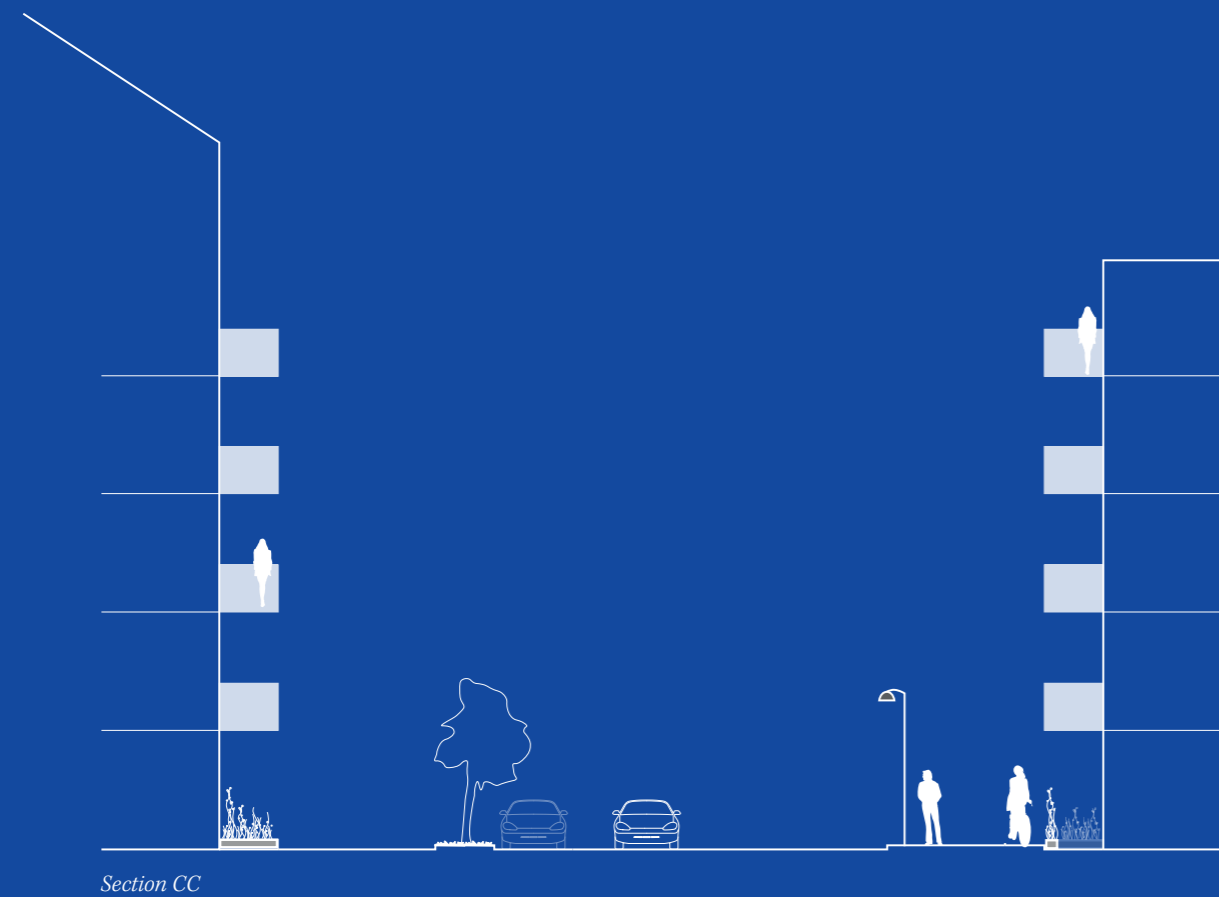
Section BB

Section CC

Section DD

The Surrounding Spatiality

Sections

Section AA

Section CC

Section BB

Section DD

0   100   200 300 m

Section AA goes through a relatively new housing area in north-east of Godsbanearealerne, located side by side with Godsbanen. The two buildings in the section are four and six floors high leaving a squeezed semi-private space in between lacking greenery and personality.

Moving to Institut for (X) with section BB, the space in-between the containers looks squeezed as well, but it does not feel like it when being there due to the height of the containers. The facades are different from one another and the pavement stones are laid in an organic pattern, and the proportions are generally addressing the human scale.

Section CC is showcasing the proportions at the new residential area in north. Even though these buildings are high, the scale is broken down with the use of raised beds, trees, balconies on both sides, and a variation of the surface. This space is more comfortable to find oneself in compared to section AA.

The project site shown at section DD does not contain any housing facilities yet, and appears as a big open space which is hard to relate to. Only small hills of soil, grass, and stacked stones are breaking the wide horizontal surface and creating useless pockets.

When designing the project site, it is important to be aware of the scale and ensure it is broken down - hence addressing the human scale.

The Presence of Nature

Green and blue structures

Aarhus Å

	Recreational			The green
Water	artery	Forest	Greenery	wedge
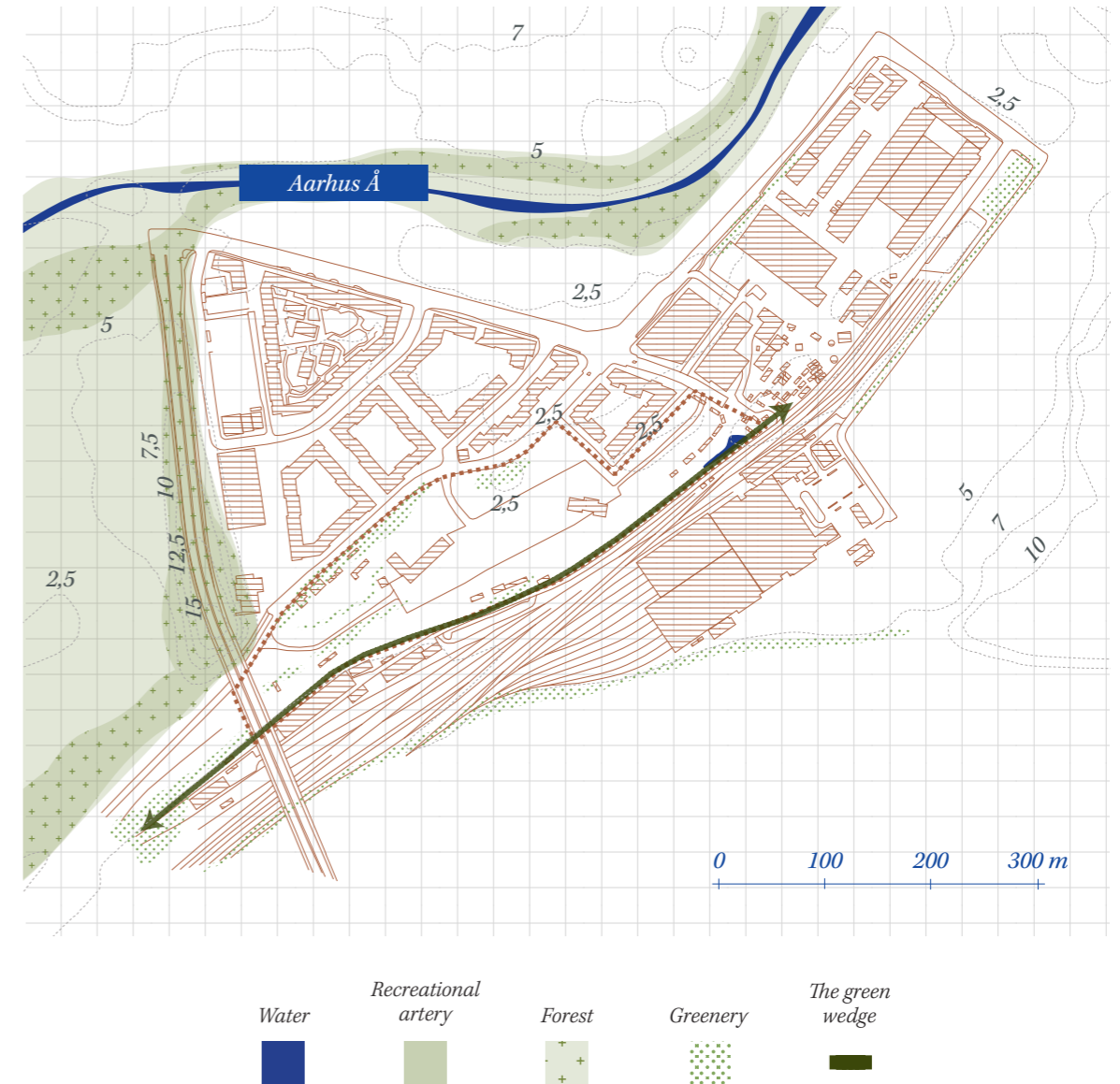
The site is situated close to a green recreational artery stretching from west to east above the site. Aarhus Å (Aarhus Stream) runs through the recreational artery and is a 32 kilometer long stream. This green area is accessible for soft mobility and is a green breathing space in the presence of nature (ill. 30).

At the site, smaller green pockets occur but they lack quality and are not connected. Along the southern boundary of the site stretches the green wedge. Today, the wedge is a path for soft mobility marked by train tracks with a minimal amount of greenery along it, while providing a sightline through the site (ill. 31). In extension of the green wedge is a local retention pond but the water is green of algaes and vegetation and needs maintenance (ill. 32).

The Municipality of Aarhus intends to transform the green wedge into a sprouting green recreational connection in the future (Aarhus Kommune, 2017 b). There is a potential in connecting, enhancing, and strengthening the green wedge and implementing new green pockets at the site. Thus, creating cohesion to the nearby recreational artery offering both vegetation and water. Furthermore, the green wedge is an opportunity to implement a recreational path that conveys the historical identity of the site.

Potential Flooding

Water management

Aarhus Å

7

2,5

5

5

2,5

2,5

7,5

10

2,5

2,5

5

7

12,5

10

15

2,5

| 0 | 100 | 200 | 300 m |

10 - 20 mm   *20 - 40 mm*   *40 - 60 mm*   *60 - 80 mm*   *80 - 100 mm*   *Critical points*   *Existing pond*
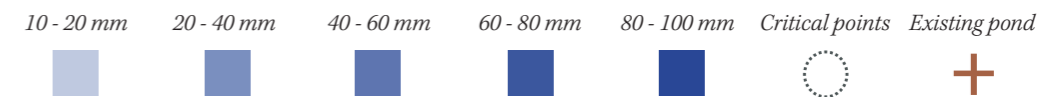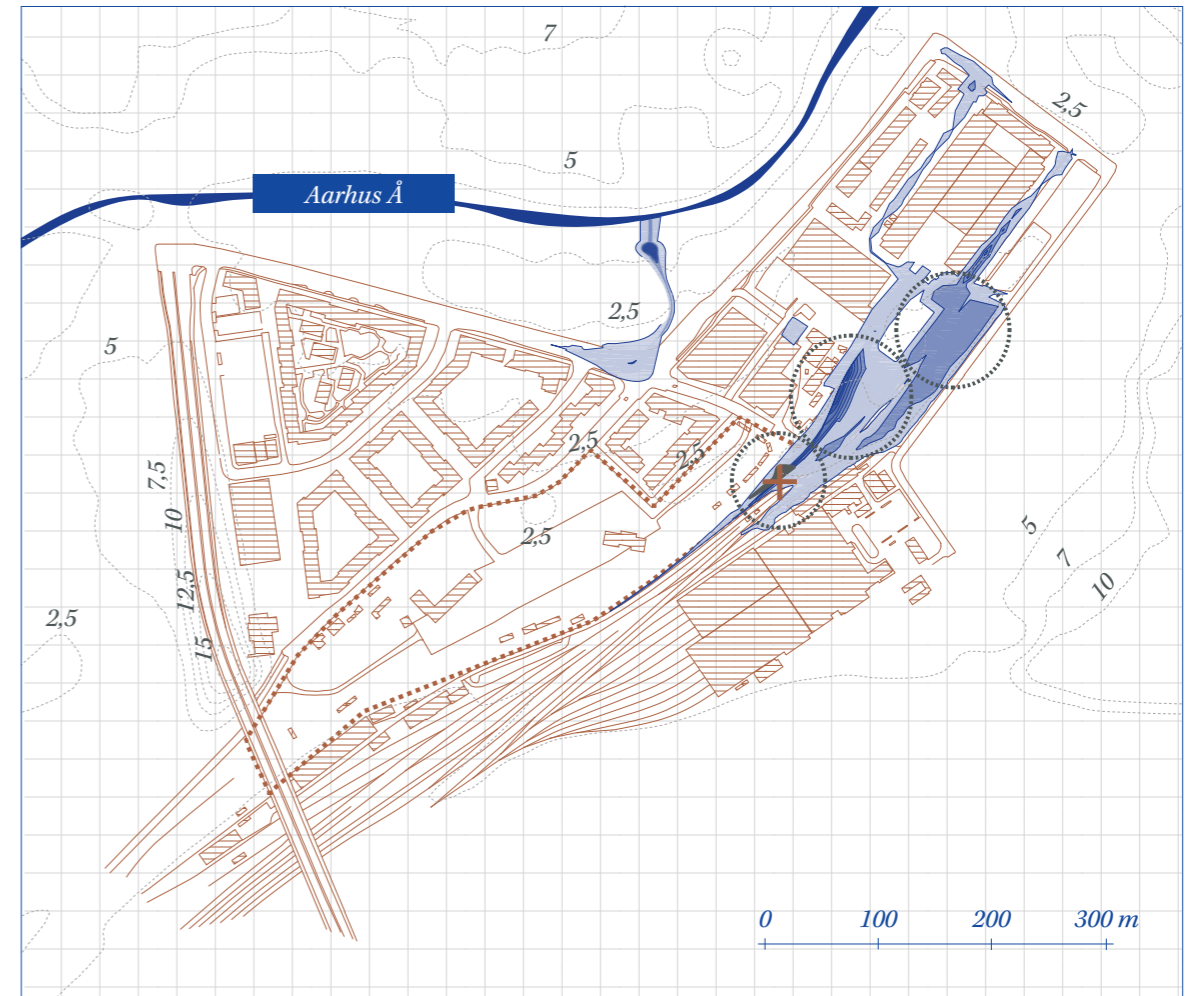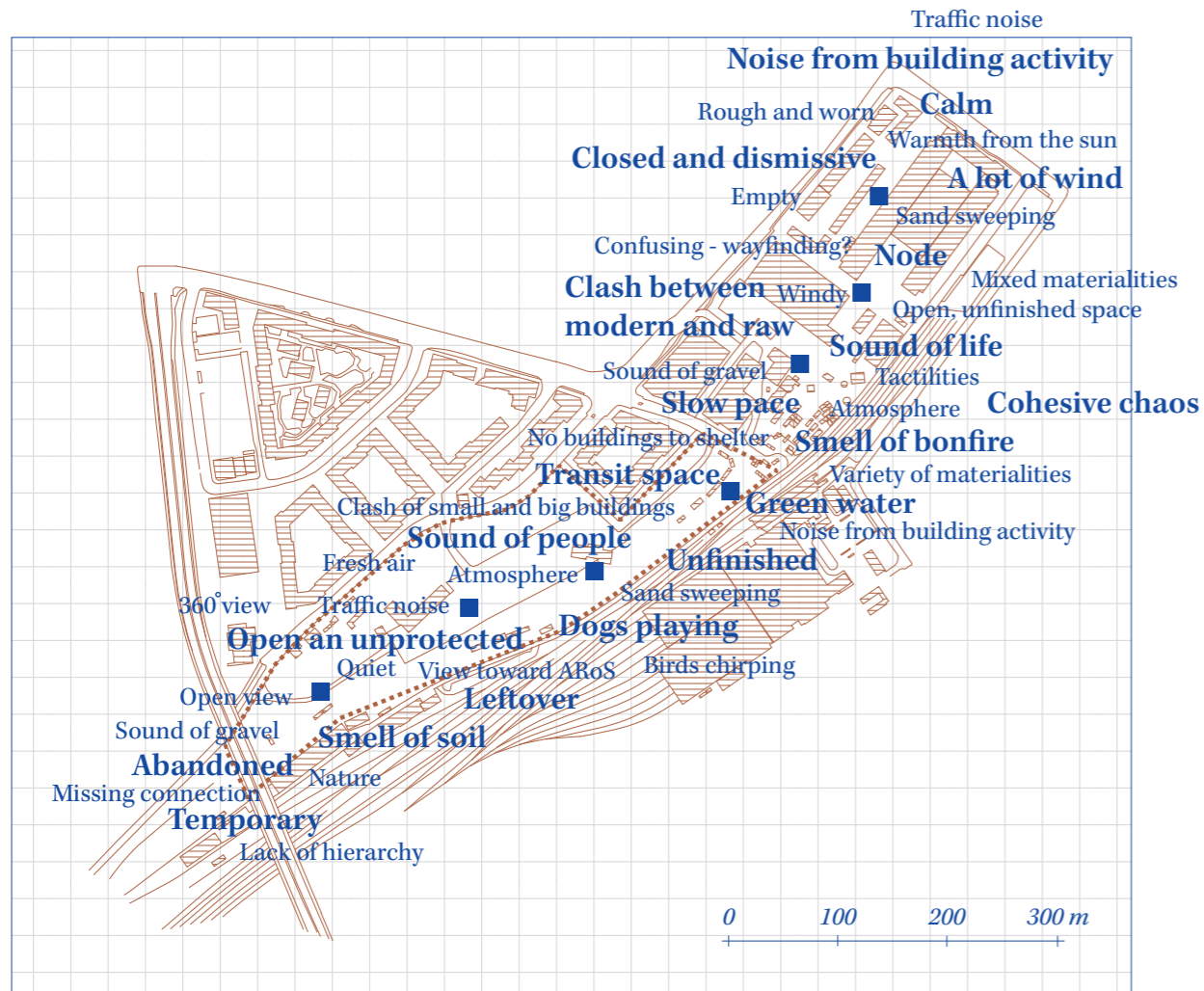
By looking at the risk of flooding at the low-lying terrain at Godsbanearealerne, it becomes clear that there will be some critical points where the water from rainfall events will be collected (ill. 33). These areas are primarily located in the intersection between the southern and northern part of Godsbanearealerne where an existing retention pond is already placed to collect rainwater (ill. 32).

Since the soil at Godsbanearealerne consists of clay, sand, and gravel from moraines, it is not suitable for filtration of rainwater due to the impermeable soil conditions and hard surfaces (Geus, n.d.). To address this problem, the engineering company Niras has made a strategy for draining to handle the rainwater at the southern part of Godsbanearealerne both in everyday cases and extreme cases (Niras, 2017). In general, Niras recommends implementing rain beds and detention ponds at different plots along the site in order to collect the rainwater in everyday cases. In extreme cases, it is key to delay the water in order to avoid risk of flooding in Aarhus Å. Therefore, the rainwater from the beds and ponds should be connected and led to the existing retention pond and further into Aarhus Å. Their calculations for the volume of the ponds shows that 1 hectare plot should be able to hold a detention pond on 226 m^3. (Niras, 2017 and Appendix 03).

Since the southern part of Godsbanearealerne is 51.000 m^2 it should have a volume of 1152 m^3 ponds to manage the rainwater. Therefore, it will be beneficial to integrate local detention ponds as a recreational resource that can be used to create value to urban spaces both in everyday cases and extreme cases.
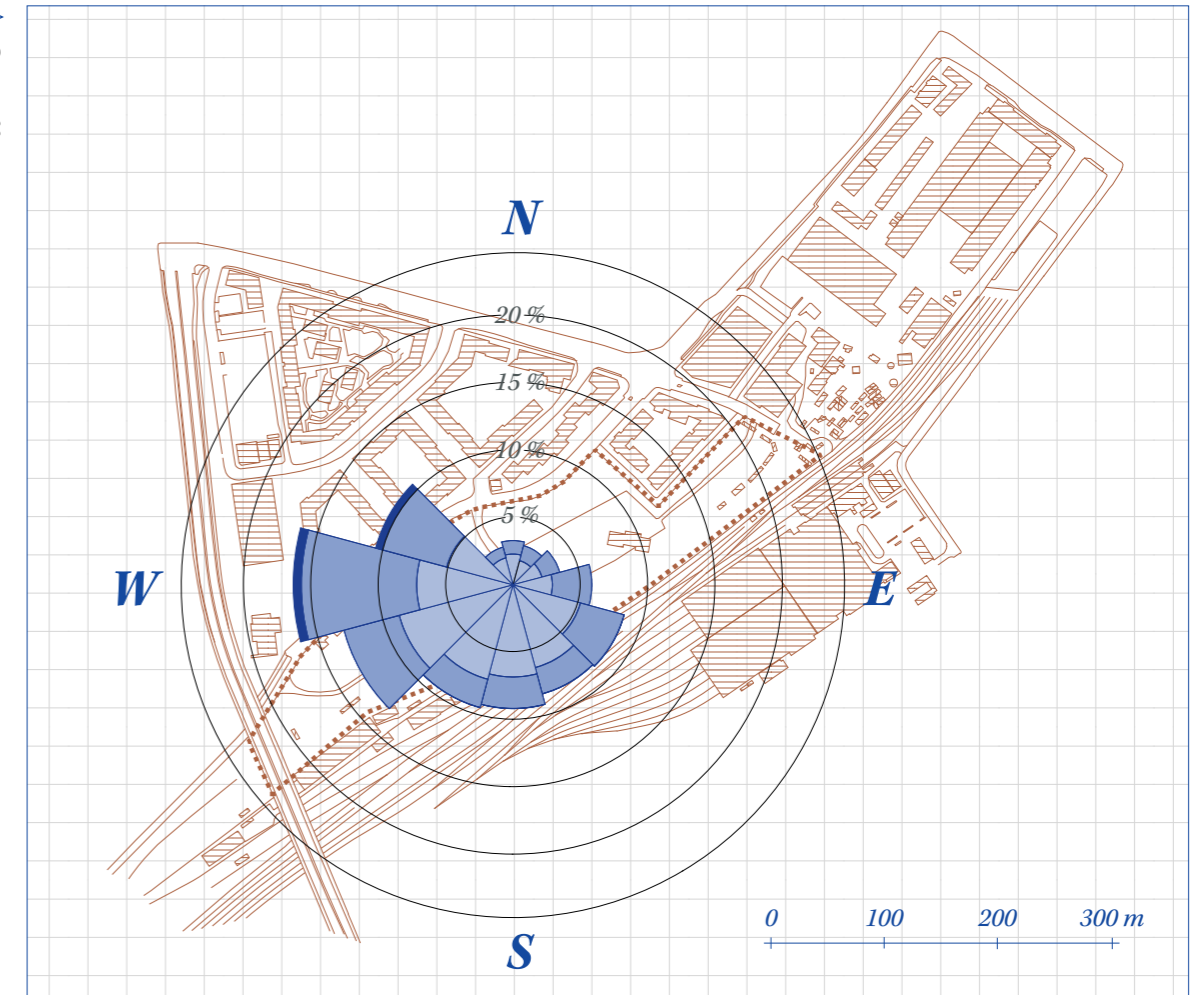
Sensing the Place

Atmosphere

To gain an understanding of how it feels to move around at the site and the closely related areas, we went on a walk from northeast to southwest and wrote down all the impressions we got based on how we were stimulated sensually.

At the moment, the project site does not reflect a clear character, identity, or atmosphere and this investigation led to the conclusion that the site should prolong the identity provided by the history and cultural heritage while developing its own unique identity. Furthermore, the senses should be addressed in terms of creating an atmosphere to ensure comfortable and understandable spaces.

Understanding the Wind

Analyses

| 0 - 5 m/s | 5 - 11 m/s | > 11 m/s |

The wind conditions of the site have been investigated to understand the directions and speeds of the wind. The measurements are based on the windrose from the station in Tirstrup located nearby Aarhus (Cappelen & Jørgensen, 1999). The windrose indicates a strong and dominating wind from the west more than 15 % of the year. The open and empty space at the site enhances the wind conditions with not that many buildings or other interior to create shelters. It creates an uncomfortable environment when the wind speed is strong. This means it will be beneficial that the design proposal breaks down the strong wind to secure a comfortable environment by implementing buildings, nature, and other interiors in the urban spaces.

Paving   *Facade*   *Item*

A

B

C

D

E

F

G

H

I
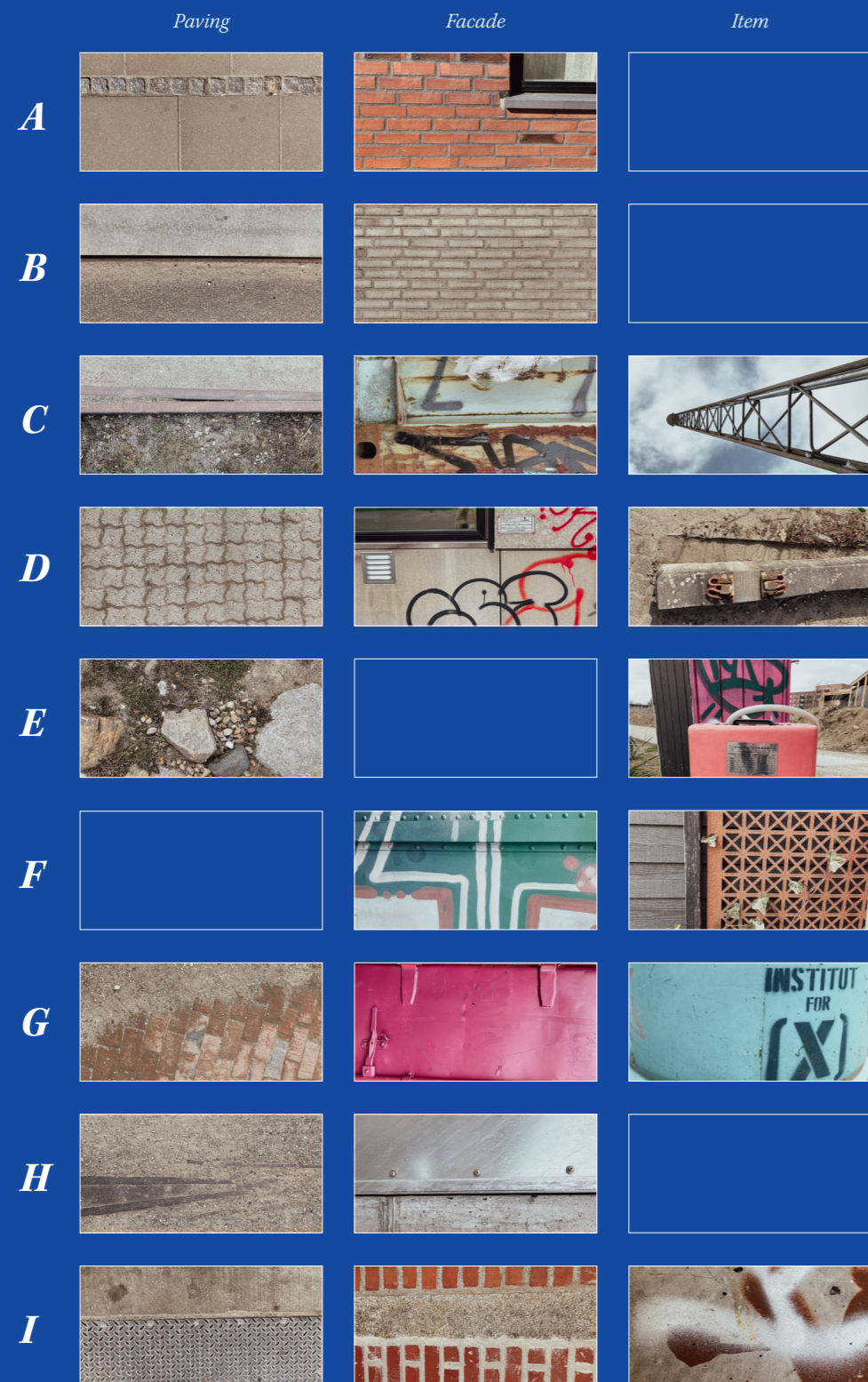
Ill. 36 *The materialities in the surroundings* ▲

Exploring the Tactilities

Materialities

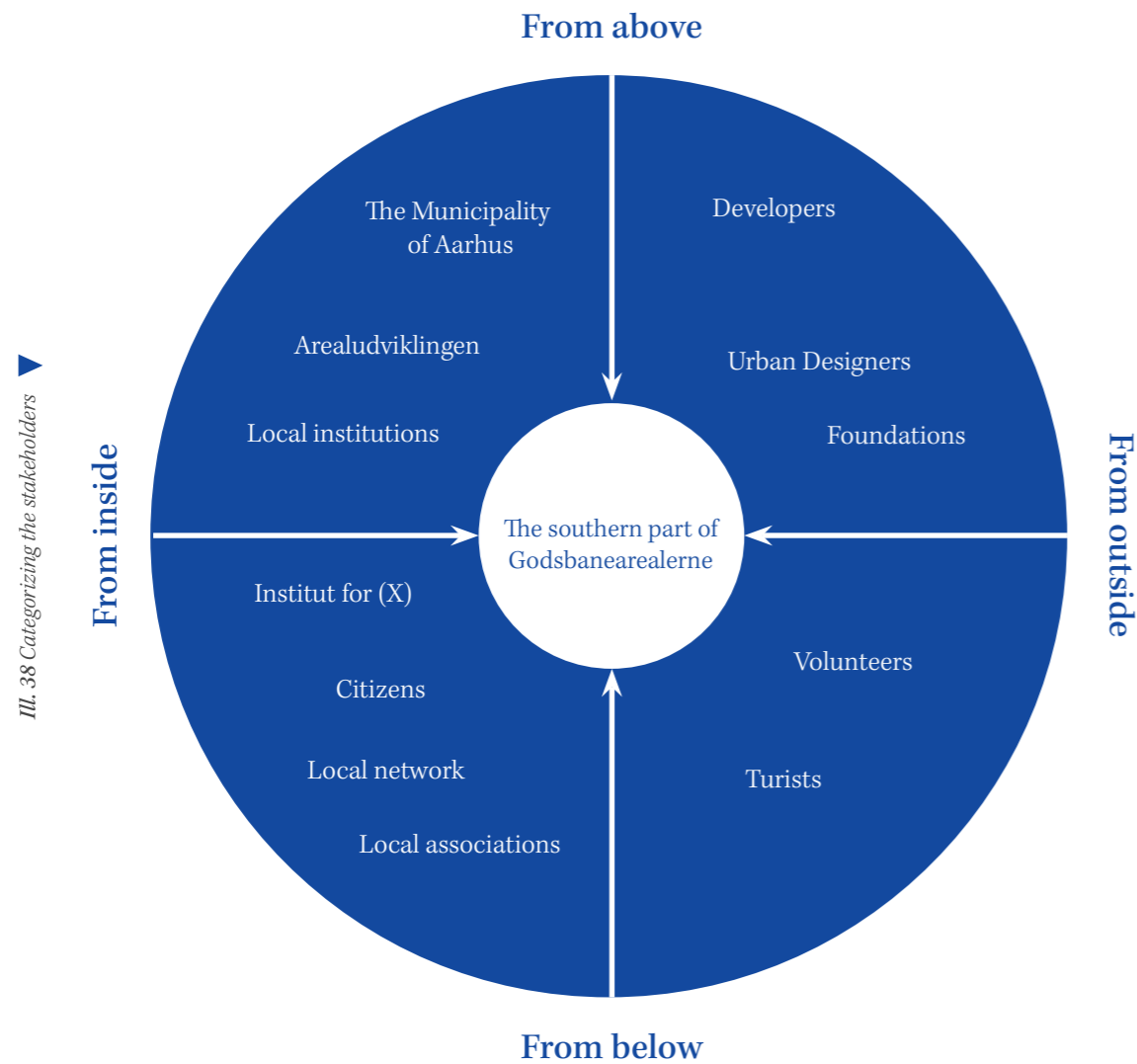*Ill. 37 The locations of the materialities* ▶

0   100   200 300 m
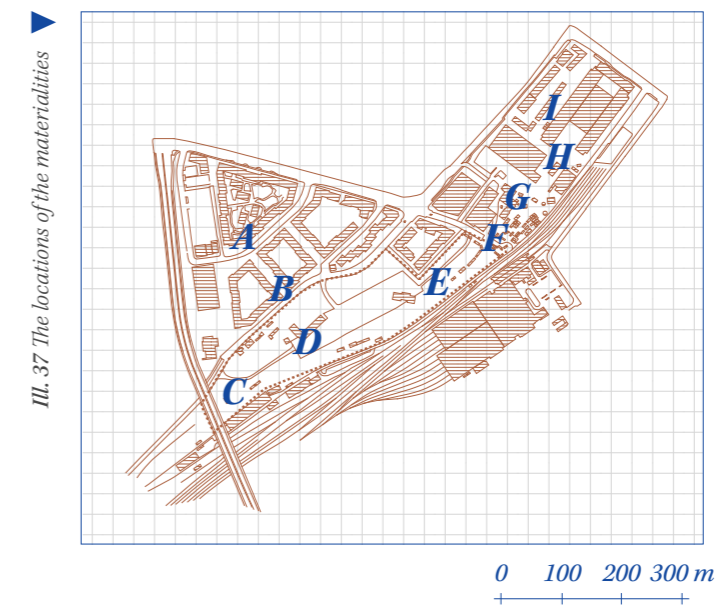
The paving, facades, and special items are investigated moving from the housing area through the site towards Godsbanen, in order to recognize the architectural expressions characterizing these areas (ill. 36 and ill. 37). The new modern housing area consists of modular concrete blocks coated with bricks in different colors and patterns (A and B). The paving of the site is mixed: the recreational path of grass, sand and gravel, the train tracks, and regular paving stones servicing the temporary parking lot. With a minimum of buildings a few facade materials are to be found such as fibre cement and metal (C, D, and E). Moving through Institut for (X), red colored pavement bricks and gravel are used as paving. The facades are mainly metal due to the buildings being containers. Each container is made unique - some with painting and some are covered with wood or other materials. The materialities are varying a lot in this area, thus making a diverse and dynamic identity which is interesting to move through (F and G).
The Architecture School has an industrial look with the huge concrete elements and facade materials of steel and glass (H). It is entering a dialogue with the industrial history of the site and the materialities used at the renovated Kulturproduktionscenteret Godsbanen (I).
This study of materialities will be used as a foundation for connecting the new modern housing area, Institut for (X), and the industrial cultural identity. The project site is the transition between these areas, thus it is important that it manages to bridge and combine them in order to create coherence. Additionally, it would be beneficial to soften up the hard and raw materials by implementing natural and authentic materials such as wood (cf. A Sense of Belonging in the City, p. 24).

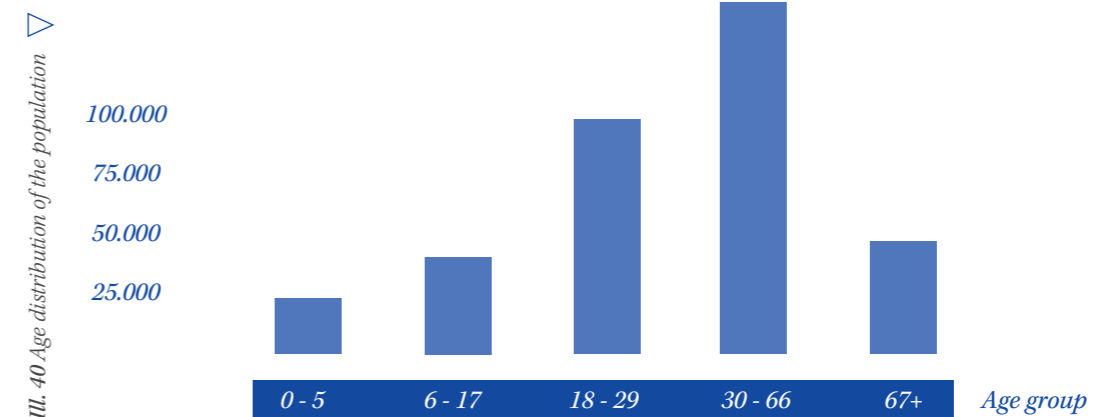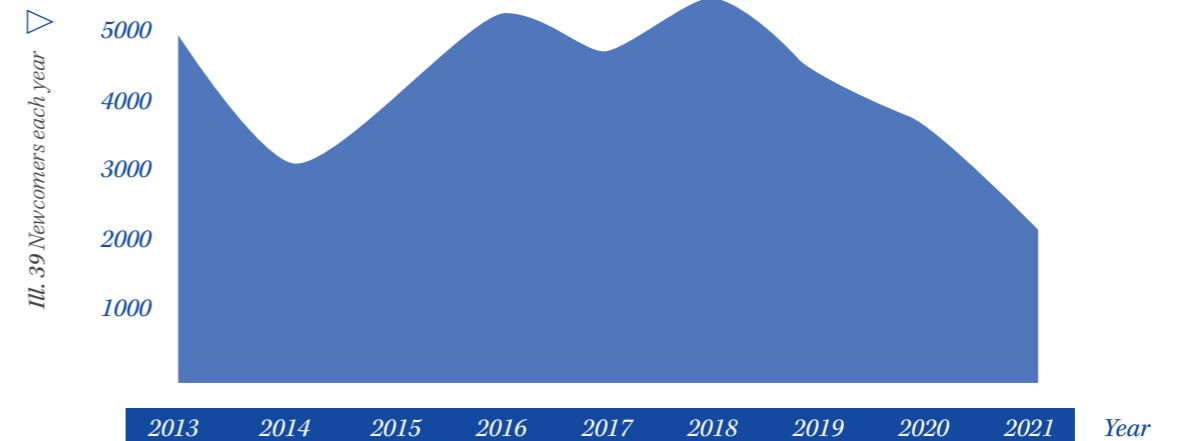INSTITUT FOR [X]

Identifying the Stakeholders

Stakeholders

From above

From inside

The Municipality of Aarhus

Developers

Arealudviklingen

Urban Designers

Local institutions

Foundations

The southern part of Godsbanearealerne

Institut for (X)

Citizens

Volunteers

Local network

Turists

Local associations

From outside

From below

During the investigation of the southern part of Godsbanearealerne it is clear that the area has different users and facilities meaning different stakeholders. Each of the stakeholder has various interests, perspectives, and focus of the future development of what the southern part of Godsbanearealerne must or should contribute with. To get insight into who holds an interest in the area and is impacted by the future development of the southern part of Godsbanearealerne, the stakeholders have been identified and categorized into various groups (ill. 38). The categorization is divided into stakeholders from above, which refers to the decision-makers like the Municipality of Aarhus that set the policies and official frames, and stakeholders from below which refers to the ones that are not decision-makers but act on the basis of the frames. The categorization is further divided into stakeholders from inside which refers to local persons having a relation to the area, and stakeholders from outside which refers to persons visiting the area without having a relation to it.

It is in our belief that the constellation between different stakeholders is valuable for the future development of the southern part of Godsbanearealerne. Even though their perspectives are varying, this is what brings value and makes new perspectives and understandings of the desired development. In this thesis we have been given the perspectives from below and from inside a particular voice which will be unfolded in the following pages.

Citizens of Aarhus

Demography

5000
4000
3000
2000
1000

2013 2014 2015 2016 2017 2018 2019 2020 2021 *Year*

100.000
75.000
50.000
25.000

0 - 5   6 - 17   18 - 29   30 - 66   67+   *Age group*

The population in the Municipality of Aarhus is in development and has experienced an increase in population for many years with an average of 4000 newcomers each year (ill.39). This means that the Municipality today has 355.234 citizens where the age distribution consists of a majority of the age group 30-66 years (ill. 40) (Aarhus Kommune, 2022). This thesis strives to accommodate and embrace a wide age group at the southern part of Godsbanearealerne to achieve a diverse composition of different people that contribute to the local community. At the same time, this will correspond to the Development Plan (cf. the Top-down Vision, p 44) of becoming a neighborhood, embracing a wide range of residents and users. Here, the implementation of different housing types, facilities, and urban spaces can contribute to a dynamic and varied social urban life. This entails an approach with the human scale in mind when designing and planning the design proposal of the southern part of Godsbanearealerne. Furthermore, the voices of the citizens have been brought into this thesis through an online noteboard with questions about Godsbanearealerne which has been accessible from the beginning of the thesis. The layout of the noteboard and statement can be found in Appendix 04 and the responses testifies to a general attitude that the creative and raw atmosphere of the area is unique and must be preserved but with more green and improved accessibility. However, it is not adequate to draw any definite conclusions, due to too few answers. A sample of the responses has been emphasized and is to be found at following pages.

"The areas right now are a kind of organized anarchy where people take up the space with everything they want and have fantasy for, but with a general feeling of responsibility for the area. This creates a great extent of ownership, influence, and responsibility, and that is what makes the area unique"

"With such small apartments, people need space in the sun. Music, experiences, games, cyclings, and walks. Make the city friendly for cyclists and pedestrians. We need to be common about the city, which is already full of loneliness"

"The creative and different environment at Godsbanearealerne is very good and inspiring. There should be more areas where the city offers space for the citizens"

"I dream of leaving it reasonably raw as it is today. With the rusty train carriage and gravel pile where the wild nature dissipates. It is a land of milk and honey of cool locations for the botanist, photoshoots etc."

"We need more openness for the people without fortune"

"It is a shame that there is plans about overbuilding and almost no green breathing holes"

"In spite of the comprehensive building work in the area, I dream that there will continue to be space for art, culture, and creativity in the cracks between the more modern buildings, bottom-up created projects, and not designed by developers, the authority etc."

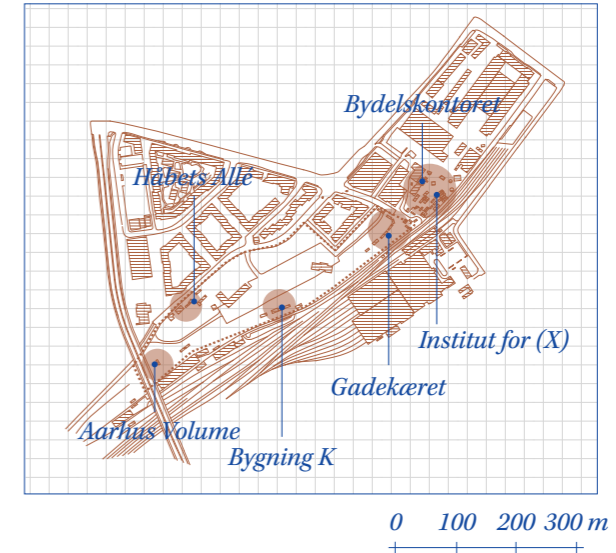*"In some way, I do not feel welcome at Godsbanearealerne. I think it lacks accessibility and inclusion"*

Ill. 41 Statements from the citizens ▲

The Value of Fiery Souls

Fiery Souls

Bydelskontoret

Håbets Allé

Institut for (X)

Gadekæret

Aarhus Volume

Bygning K

0   100   200 300 m

Another perspective that has been taken into account is the independent culture association Institut for (X). This chapter briefly unfolds and describes Institut for (X) as well as how it emerged on the initiative of what we define as fiery souls. Furthermore, the chapter will elaborate and offer a perspective on how fiery souls can be utilized as a resource in urban development projects.

Fiery souls at Godsbanearealerne

The commencement of Institut for (X) arose in 2009 concurrently with the wish to make Aarhus a city of creativity and culture. With inspiration from former culture platforms and urban alternative districts such as *Christiania* in Copenhagen and *Holzmarkt* in Berlin, the establishment of Institut for (X) was formed with the initiative of fiery souls. Institut for (X) became the starting point for the area at Godsbanearealerne and today it is an urban space laboratory working as a bottom-up planning project. The laboratory has given rise to a new sprouting area with containers facilitating different workshops and office purposes (ill. 42). Small urban pockets and hubs are created at Institut for (X) appealing for the human scale, where an unique identity and atmosphere are achieved. Institut for (X) appears as a semi-public attraction in development, where more and more passionate fiery souls turn up, located in named areas such as Gadekæret, Bygning K, Aarhus Volume, and Håbets Allé (ill. 43). The daily

manager Mads Peter Laursen mentioned in an interview: "*The area is about programming the un-programmed, so you intentionally un-programme and make room for something that is not programmed*" (Appendix 01). It gives rise to the unexpected in combination with a dynamic urban life of a broad target group of both young people, families, and elderlies creating a mixed urban area.

Institut for (X) started as a temporary project but due to the great value and anchoring to the area, it became permanent for the next 10 years through an agreement with the Municipality of Aarhus. This means that Institut for (X) is self-organized and financially independent of the Municipality and does not pay rent for the areas. This brings a lot of freedom and space, but the downside of the signed agreement holds a major cost due to the responsibility for maintenance of the area concerning layout of pavement, sewerage etc. At the same time it holds an uncertainty of what the future brings when the agreement expires (Appendix 01).

To continue the future development of Godsbanearealerne, a platform called Bydelskontoret has been established. Bydelskontoret aims to bridge the cooperation between top-down planning and bottom-up planning with the agenda to discuss how urban life and activities can be integrated while Godsbanearealerne are in development.

Through the platform, Institut for (X) are the voice of the citizens and they are able to come up with ideas of how to activate and tap into the creative and cultural environment both during the construction and afterwards (Appendix 01).

The local fiery souls are to a great extent interested in the decisions and choices about the area. However, Bydelskontoret is not always working as a platform with equal voices and easy decisions. Through interviews with fiery souls from Institut for (X), it becomes clear that the involvement and cooperation about the future development of Godsbanearealerne are lacking at some point. As one of the fiery souls expressed: "*Many of the municipal processes take place behind closed doors, which makes it secretive and hard to understand and participate in the process*" (Appendix 01). In some way, it clarifies a missing acknowledgement and willingness to cooperate from the Municipality of Aarhus, where the distance and power structure between top-down and bottom-up planning become conspicuous.

The philanthropic union Realdania has another approach to handle and support fiery souls. With their ongoing campaign called *Underværker* which started back in 2011, they have an agenda of supporting fiery souls in realizing their dream projects and initiatives within the built environment in both major cities, minor cities, and rural areas (Realdania, n.d.). The campaign is characterized by more that 280 bottom-up projects that strengthen the local cohesion and create new communities. Realdania has even supported the fiery souls of Aarhus Volume, located at the southern part of Godsbanearealerne, by providing means to the construction of a stage for future concerts and music events. The manager of Realdania believes that fiery souls have a great societal value and expresses: "*Engagement and creativity can make a huge difference, and enthusiasm has a tendency to rub off. Therefore, fiery souls are indispensable in any local community, both in rural areas and in the city*" (Underværker, n.d., own translation). Furthermore, it becomes clear through the campaign that: "*Relationship and craftsmanship reach far, but support from the municipalities plays a crucial role in the many realized Underværker*" (Realdania, 2021, own translation). The statement corresponds to the unbalanced cooperation in Bydelskontoret where the Municipality in Aarhus are not willing to make Institut for (X) permanent and integrate them as a part of the future development of Godsbanearealerne.

Fiery souls as a resource in urban development

The idea of how Institut for (X) emerged and is well-driven by fiery souls today, is inspiring for this thesis. The potential of fiery souls contain essential and important resources that could bring much value to urban development projects. As in Institut for (X), the fiery souls make roots in the local community and the atmosphere blossoms when you enter the area. There is no doubt that they bring much motive power to Godsbanearealerne and work as generators for the area. The fiery souls are not striving for power or richness, rather they are driven by freedom, genuineness and independence.

From the Urban Designer's point of view, it testifies to an opportunity to integrate the passionate fiery souls constructively and make them participate in the development projects such as the development of the southern part of Godsbanearealerne. The fiery souls can be used as strategic starting points for the urban life and active co-players of the future development of the area, instead of speechless and passive citizens. Therefore, fiery souls must be involved in the decisions while the implementation of them needs to be supported and acknowledged by the Municipality of Aarhus to secure a robust and sustainable organization.

In the following chapters, three case studies concerning alternative urban development and involvement of fiery souls will be introduced as inspirational cases offering perspective to this thesis.

Holzmarkt

Case study

IIl. 45 Mood pictures from Holzmarkt

Architect Members of Genossenschaft für Urbane Kreativitet
Date 2012
Location Berlin, Deutschland
Typology Do-it-yourself buildings
Contractor Members of Genossenschaft für Urbane Kreativitet

The quarter against gentrification

Holzmarkt is a creative and alternative urban quarter in the middle of Berlin, located along the river Spree. The area consists of more than 20 temporary projects and businesses, driven by creative and professional fiery souls working with art, culture, and restoration. It makes Holzmarkt a place to hang out targeting families, young people, locals, and tourists with a wide range of facilities such as urban farming, live music, cafés, yoga, dance lessons, day care etc. (Holzmarkt, n.d.).

The idea behind Holzmarkt was developed in 2012 by the cooperative society *Genossenschaft für Urbane Kreativitet* (Cooperative for Urban Creativity). The aim was to revitalize one of the last vacant fallow lands nearby the river and thereby promote creativity and sustainability in urban development. Thus, Holzmarkt became a resistance to the gentrification that happened in Berlin, where the city went from being a refuge for creative and anarchistic forces after the fall of the Berlin Wall, to a place of development, growth, and increasing rent (Berlin-Guide.dk, n.d.).

What makes Holzmarkt special?

Holzmarkt is a place where artists implement and promote their performances in flexible buildings of recycled materials. The initiatives give something back to the city by being a place for everyone, offering alternatives to the commercial facilities in Berlin.

The urban quarter is a milestone of urban development where the cooperative society plans and develops the area by themselves and secures a sustained development of the area. The society Genossenschaft für Urbane Kreativitet has developed a sustainable financing model consisting of a collaboration between creative entrepreneurs, acknowledged creators, and financially strong supporters. This financing model ensures an artistic freedom of Holzmarkt and offers citizens and investors to participate with exactly one vote each - no matter your investment or background for being a member of the cooperative. In the longer run the aim is to generate yield for the cooperative but the main ambition is to create a self-sustaining micro-society, where creative forces can be unleashed and have free unfolding away from gentrification and civil commitments (Holzmarkt, n.d.).

Why this case study?

Holzmarkt is a great example of a bottom-up project driven by the local community, which draws parallels to the purpose of this thesis. The creative quarter can be seen as a catalyst to challenge and act independently at the expense of the citizens and at the same time achieve a common success for the city. The project succeeds with their sustainable financial collaboration and makes room for people to participate in urban politics and the shaping of their city. Thus, the idea behind Holzmarkt is a democratic, experimenting, and liveable project rather than a profit-oriented project, which serves as an inspiration for this thesis.

Kunstneren Tæt På

Case study

To understand how local communities can grow from the engagement of fiery souls, citizens, and different initiatives, a pilot project called *Kunstneren Tæt På* (The Artist Close By) has been chosen as a case study. The aim of the pilot project was to investigate how art and cultural projects could be catalysts for sustainable development in rural areas (Hele Landet, 2021). The project was organized by the project manager Henk Keizer, a specialist in place and social art, in collaboration with the consultant company *Hele Landet*[1] who has investigated the project and connected physical, social, and organizational structures in the towns. Hele Landet has the mission to recreate the quality of local communities and establish social balance and cohesion. The company works for an increased local value creation by connecting people and resources which was the case in Kunstneren Tæt På (Hele Landet, n.d.).

In the following, the pilot project will be described followed by identifying potentials based on own observations and selected results from Hele Landet. Finally, this will be rounded off by a summary of what this brings to our thesis.

[1] Our relation to the company is that Emma did her internship at Hele Landet (fall 2021) and joined the pilot project throughout her internship.

About the project

Kunstneren Tæt På took place in two small Danish towns called Stadil-Vedersø in Ringkøbing-Skjern Municipality with 783 citizens (Danmarks Statistik, 2022) and Vinderup in Holstebro Municipality with 3311 citizens (Danmarks Statistik, 2022). The project was financially supported by the Municipality of Ringkøbing-Skjern and Region Midtjylland and was a stepping stone towards a robust long-term project (ill. 47).

The project took place from April 2021 to December 2021 where artists in different disciplines from all over Europe were residents in the towns for a month. During their stay, the artists interacted with the local community by sharing ideas and thoughts of the towns (ill. 46). The dialogue-based collaboration between the external perspectives from the artists and the citizens' local self-understanding, gave rise to the making of site-specific art pieces and new narratives in both towns.

Identified potentials

The meeting place (Bystuen)
During the project a temporary physical meeting place called Bystuen was established in empty rooms in the center of both towns. Bystuerne were decorated with a colorful and creative touch and managed by two local passionate town hosts some hours a day. Throughout the pilot project, the temporary meeting places became the setting for meetings between local citizens and artists as well as workshops for the creation of some of the art pieces. Moreover, Bystuerne attracted particularly curious and creative children having the opportunity to unfold their creative skills in collaboration with the local hosts and the artists.
Bystuerne were likewise the frames provided for different self-organized activities and events such as knitting night, movie night, and afternoons with community singing and creative projects for citizens and artists.

Local Town Hosts (Fiery souls)
The local town hosts managing Bystuerne, were two impassioned women with relations to their respective towns and were to a great extent what would be defined as local fiery souls. The management of Bystuerne would not have been possible without their motive power and enthusiasm of creating a freely creative universe in Stadil-Vedersø and Vinderup. Their local knowledge and anchoring to the local community were a great advantage which created trust, commitment, and an open-minded atmosphere among the citizens and the artists. The local town hosts became to a great extent bridge-builders in Kunstneren Tæt På facilitating different activities and meetings between the citizens and the artists held in Bystuerne.
The involvement of the town hosts was not merely as idyllic as laid out, since the progress of Bystuerne gave rise to some unexpected challenges. Both town hosts sacrificed a lot of themself and undertook a great responsibility. Besides managing Bystuerne some hours a day and having dialogues with locals, which depended on planned activities and events, they had several other roles concerning administrative, communicative, and practical tasks in terms of collaborating with the international artists to help them navigate in the unfamiliar towns. This made the town hosts very exposed and vulnerable during Kunstneren Tæt På and induced a weakened performance in parts of the projects.

The local community
Another remarkable potential identified in the small towns during Kunstneren Tæt På was the support and the participation from the local community. During the pilot project the artists were dependent on the participation and commitment from the locals to accomplish the preparation of the different art pieces. Without the support and the attendance from the local community, it would not have been possible for the artists to continue their work in the towns.
In general, most of the locals in both towns were open-minded and curious about the pilot project, given that something unexpected and new were happening in their local area. The society gave backing to the project and were very good at spreading the message of Kunstneren Tæt På as a ripple effect to their neighbors and other local citizens. Their engagement entailed the realization of different site-specific art pieces which resulted in new narratives and common experiences in both towns proceeding after the artists left.

*Ill. 48 Artists in front of Bystuen in Vinderup*

What does it bring to our thesis?
Analyzing the pilot project Kunstneren Tæt På through the glasses of an urban designer, it is clear that the meeting place Bystuen becomes a catalyst for creating local activities and meetings across citizens, artists, and local town hosts in Stadil-Vedersø and Vinderup. In both cases Bystuen was the physical and experimenting element gathering different local communities and constituted the frames for casual and spontaneous events that were organized on the initiative of the local town hosts and local citizens. Bystuerne made it possible to facilitate new communities to grow and became a temporary gathering point in the towns, where the engaged and curious local citizens were unified and shared new narratives and memories. Bystuen is a great example of what role a public meeting place plays in a town and how it can bring people together in an informal and friendly atmosphere. Therefore, the ideas behind the physical meeting place acting as a sprouting bottom-up project driven by local fiery souls and supported from above, are seen as a valuable and inspiring potential in local communities.
In Stadil-Vedersø and Vinderup the initiatives of Bystuerne were realized in the spirit of the two local town hosts. The role as a town host implied openness, curiosity, and the ability to have an investigative and unstructured approach, since they might not know who and how many were going to participate in the organized events. There was a lot of unpredictability which was the conditions of testing the temporary meeting place. The town hosts mastered

the project and were able to act as an important project manager creating new energy, ownership, and life in the towns. The women were initiators and saw opportunities instead of limitations and met both artists and citizens at eye level. However, it is worth mentioning that the responsibility and the different tasks clarified the fragility of the town hosts working as individuals with a limited network and resources to draw on. Therefore, a robust organization is needed if the full potential of local fiery souls are going to be an implemented part of city planning in the future.
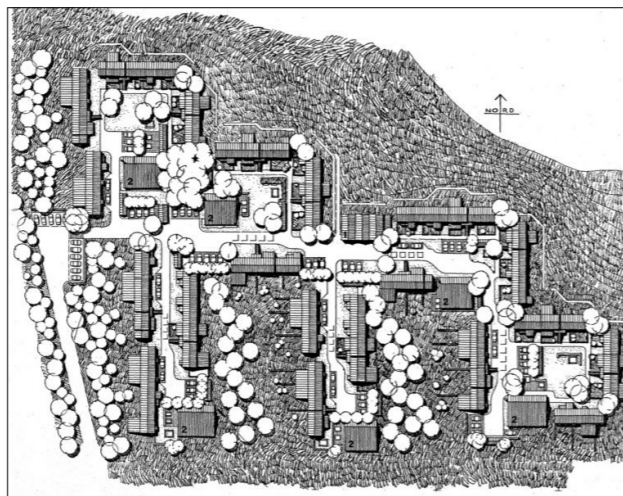
Tinggården

Case study

Architect Vandkunsten Architects
Date 1971 - 1978
Location Herfølge, Denmark
Typology Low-rise
Contractor Larsen & Nielsen A/S

Break with tradition

Tinggården was built in 1978 and offers low-rise, high-density residential architecture which has become a model for this type of architecture. It is a successful non-profit housing experiment where the architecture is used to reinstate the democracy of the residents in a local community (Vandkunsten, n.d.).

The idea for this project came from the competition on alternative housing forms in 1971, held by Danish Building Research Institute, SBI. At that time, technocratic high-rise developments were being built, and the fact that this competition urged architects to demonstrate how architecture could be ideal and flexible at eye level was radical. Kristoffer Lindhardt Weiss, director at Arkitektens Forlag, describes Tinggården as "*a counter-image to the mechanical dwelling*" (Weiss, 2020: 15, own translation)

What makes Tinggården special?

Tinggården is a radical housing project that challenges the building style of its age by emphasizing community and striving to include the residents. The architectural firm, *Vandkunsten*, believes that the residents should have the possibility of shaping their lives and homes.

Tinggården offers 78 homes shared among six clusters with appertaining community houses for the residents to use and be in charge of, small squares, and gathering places (ill. 49). Each cluster has direct access to the surrounding landscape and the whole area has a large communal hall for sharing. The average square meters for a dwelling is 78 m2, but in return a larger amount of common areas and houses are available. The simple homes are designed with flexible walls with rooms in between two flats, which can be added or withdrawn depending on the resident's needs. Besides the innovative plan design, the external expression differed from the norm with prefabricated painted wooden facades, water-scoured brickwork, and roofs with gray eternit.

In 1983-84 Tinggården was expanded to the double (Vandkunsten, n.d.).

Why this casestudy?

Tinggården serves as a great inspiration for this thesis, hence it succeeded in creating a radically different housing area with community, sharing, and involvement of residents as key elements. This thesis is concerned about the development of our cities, and would like to break with the technocratic high-rise development that is still on the agenda of today. Tinggården is a great example and encouragement to explore other ways of dwelling or composing neighborhoods in cities.

The DNA of Godsbanearealerne

Godsbanearealerne is an area in current development
with designated building plots

Godsbanearealerne has a rich cultural-historical heritage
worth respecting and carrying on

Godsbanearealerne is a dynamic cultural hub
offering a variety of facilities and activities

Godsbanearealerne are situated at a low-lying terrain
where water will gather in extreme cases

Institut for (X) is providing urban life of uniqueness to the area

Fiery souls and local stakeholders are rooted and engaged in the area

The existing green wedge provides recreational value

The current buildings at the site are 1-2 floors and ensures good sun conditions
and addresses the human scale

The site represents a large undefined space

The identity of the site is incoherent and unclear

The site is surrounded by very different areas that appears disconnected

The sightlines from the existing context can entail coherence

In this chapter, the content from previous chapters has been converted into several design criterias that form the basis of the further work concerning developing a design proposal. A vision, a revised problem statement, and a concept will be put forward to communicate the direction of the further design process. Furthermore, the design process is explained by highlighting chosen material and summarized at the end.

04

From Analyses to Design

Ill. 50(a) Urban Garden in front of Bygning K ▶

A Neighborhood of Quality

Design criterias

The main points from the previous chapter concerning analyses clarified different potentials and challenges of the site. This has resulted in an urge to develop a meaningful future design of the southern part of Godsbane-arealerne which taps into the surrounding identity and sproutling context. Thus, a design that combines and bridges the context and thereby creates urban cohesion. It requires a realistic design with an experimenting approach inspired by the strategy of The Open City. Furthermore, the design process should be with the citizens in mind in order to provide a physical framework that enables them to gain a sense of belonging. Thus, a careful processing of the transition between private and public is necessary.

The gained knowledge has been converted into the following specific design criterias that works as guidelines through the development of the final design of the southern part of Godsbanearealerne:
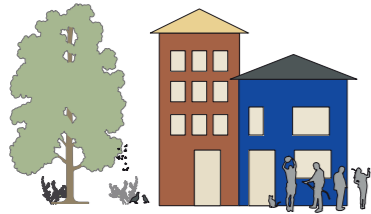
01. The mixed city

Addressing a wide range of residents and users

Inviting to community, neighborliness and social relations
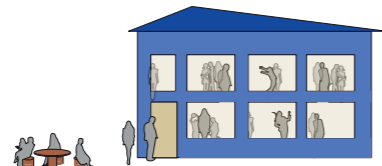
02. Facilities

Offering common facilities that encourages communities

Establishing a physical meeting place like Bystuen that facilitates bottom-up projects

03. Identity

Preserving and emphasizing the historical cultural heritage and the creative identity

Softening the transition from the industrial area to the modern area through materials

Involving fiery souls and local hosts as a motive power, organizers and initiators
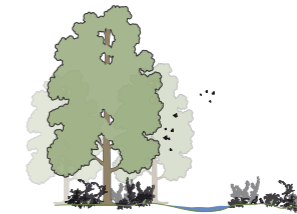
04. Architecture

Extending existing structures and typologies from the context

Respecting the human scale by downscaling buildings

Lowering the heights of the buildings towards south to ensure sun at the site
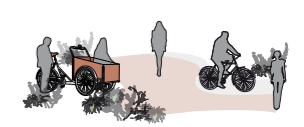
05. Nature

Handling rainwater locally at the site with a recreational value and double utility

Preserving the green wedge

Stimulating the senses through different greenery and natural materials

06. Accessibility

Prioritizing soft mobility and minimize heavy traffic

Implementing flows of different characters and atmospheres

Building upon the existing sightlines and carry on the public path through Institut for (X)

Vision for the southern part of Godsbanearealerne

The southern part of Godsbanearealerne should become a place that rethinks the capita-
list-driven way of planning contemporary cities in terms of including bottom-up projects
and stakeholders from below, and invite them to participate in the shaping of their neigh-
borhood. The site at Godsbanearealerne in Aarhus is becoming a new urban and dense
neighborhood, a mixed city, that provides the framework for an urban life of high quality.
The design of this area is addressing the human scale,
establishing local sustained communities, and wishing to provide a sense of belonging by
inviting the residents and citizens to create relations through community and neighborli-
ness. It is a neighborhood where the residents inhabit the city by using common facilities,
and taking part in local communities. The neighborhood is an ongoing development
- it is considered as a place in process where the residents are expected to
participate in shaping it.
It is a city at eye-level that embraces heterogeneity and diversity while
appealing to the senses. Urbanism and nature is balanced and the area offers recreational
values of different characters and uses natural materials as far as possible. Architecture
and tactility is bringing personality, identity, and quality to the area with a respect for the
existing cultural heritage.
The neighborhood is striving to be a city as well as a residential area - it wishes to be in
dialogue with the surrounding districts and invites the citizens to become a part of this
area as well. A new district that bridges the existing ones nearby, creating urban cohesi-
on, and offers urban qualities, proximity and experiences.

Problem Statement

*How can an urban transformation
at the southern part of Godsbanearealerne in Aarhus
provide physical frameworks that address
the human scale and contribute to a sense of belonging
through neighborliness and local communities?*

Ill. 52 Engaged citizens ▶

The connection between people

| Fiery souls | Recreational value | Sense of belonging | Community | Urban Designers |
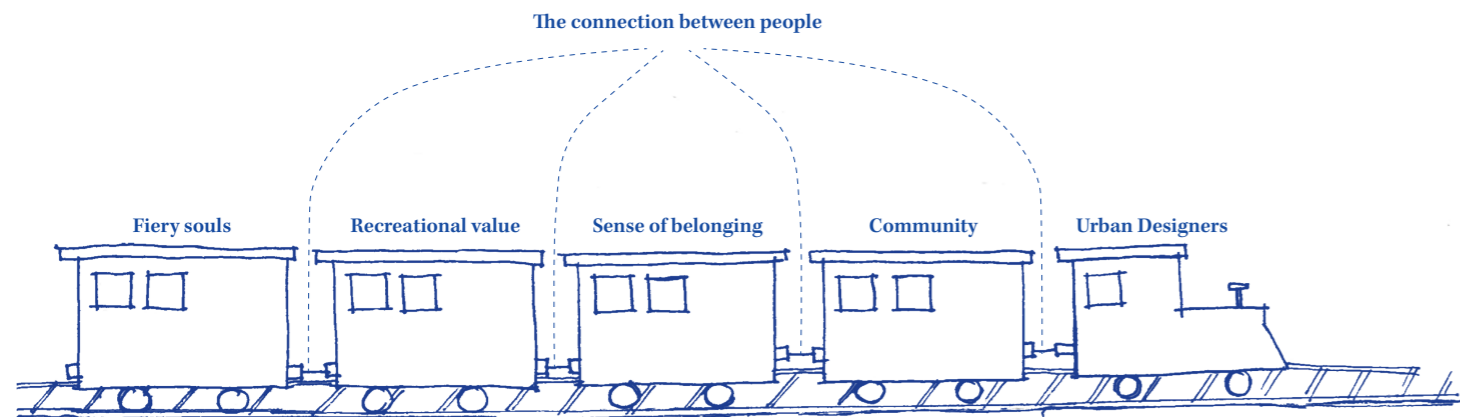
Ill. 53 The concept of the design proposal ▲

Concept

The concept is communicated through the illustration (ill. 53) which showcases a neighborhood (the train) that moves forward and develops over time - thus a continuous process. The train carriages convey design initiatives that the Urban Designers have launched and expect to be the backbone and driving force of the new neighborhood. The driving forces are:

□ *Community*, an area with local communities, neighborliness, and meeting places for the residents and citizens of Aarhus.

□ *Sense of belonging*, a place rooted in its history and cultural heritage, that includes the residents and offers them ownership through common facilities. Moreover, the place distinguishes between public and private zones, and appeals to the senses.

□ *Recreational values*, preserving and enhancing the existing green wedge, adding nature in the streetscape, and embracing rainwater in a recreational manner.

□ *Fiery souls*, encouraging engaged residents and citizens to shape the place by including them in the planning and organization of the neighborhood.

It is the connection between people that links these driving forces, thus the human aspect is the essence in the new neighborhood. It is an experimental concept where profit is backgrounded and the experienced qualities are foregrounded which requires a balanced relationship between top-down and bottom-up planning. The concept behind the design is striving to form a neighborhood that clearly addresses people by working with parameters that we believe are essential for feeling comfortable, at home, and a part of the future shaping and development of the area. Moreover, it is a design that works with soft values, such as tactility, senses, nature, urban life of quality etc. The neighborhood needs time to take root and sprout, but in the longer run it will transpire if new driving forces would make sense to connect.

# Handsketching and Programming

Design process

The design process has existed simultaneously with gaining knowledge from literature studies and conducting analyses. Therefore, the process becomes more aligned with the presented design criterias towards the end. The design process has been an active tool in terms of translating knowledge into design, and the following will provide a glimpse into this process.
From the beginning of the project hand sketching and programming has been used as a tool to translate knowledge into lines (Appendix 05). The following presents four chosen concepts made in an early state. These initial sketches are focussing on principles for programming the site.

Aarhus Volume

Districts *Public stream* *Creative hubs* *Green wedge*

Culture *Housing*

Existing culture *New culture* *Housing*

Housing

Housing

Institutional *Urban life* *Creative and culture* *Green corridor*
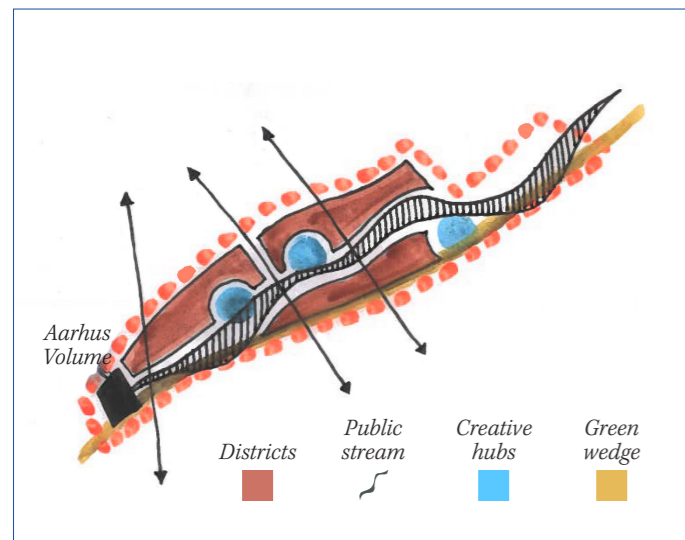
01 Movement

This concept focuses on the movement at the site. It introduces a public space that stretches along the site and grasps onto the green wedge towards the south. Hubs are marked along this public space with the intention of creating small centers and meeting points with different identities. The built environment is oriented towards the public flow.
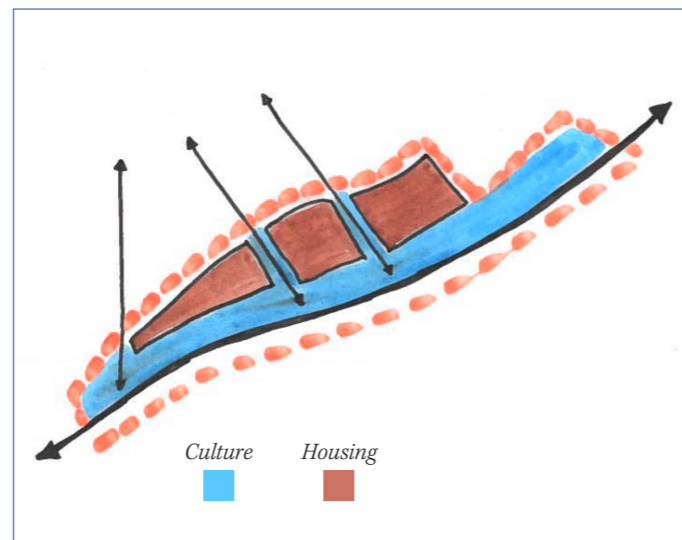
02 Zoning

This design concept divides the site into two zones: a private housing zone, and a public, cultural zone. These zones are connected across and the concept is reflecting the thought of creating a new neighborhood with common cultural facilities being the focal point. Therefore, the cultural buildings are turned towards the surrounding housing area.
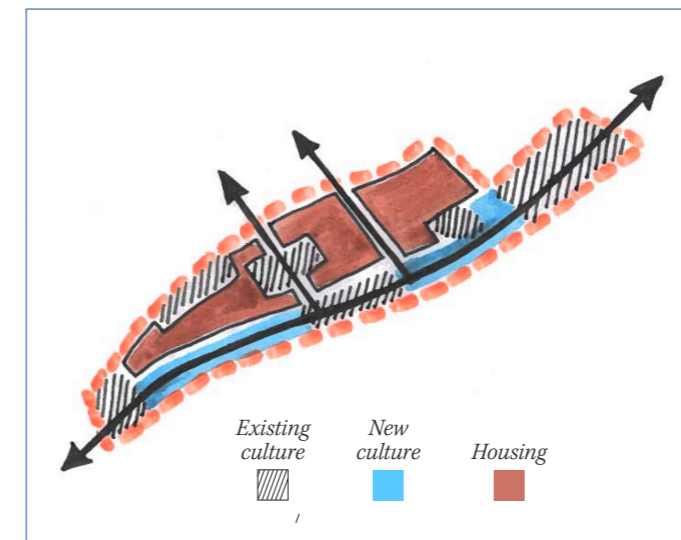
03 Enhancement of the existing

This design concept focuses on preserving the existing cultural hubs and strengthening them by implementing even more cultural facilities along the southern part of the site. This will comprise a long cultural and creative stretch enhancing the present environment.
The accessibility of the site is improved with a new network of infrastructure consisting of green and sprouting pathways reserved for soft mobilities.
The concept is furthermore mixing the cultural environment with housing creating a diverse and multiple neighborhood.
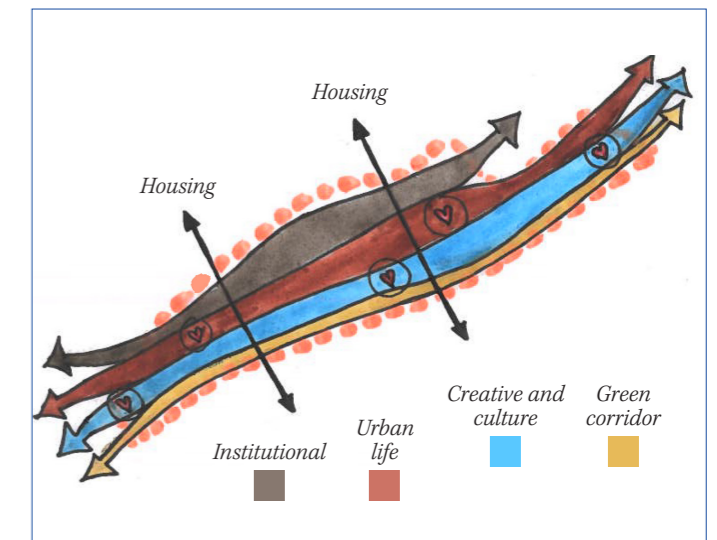
04 Layering

The design concept is layering the site according to different axes. Each axis has an identity and specific use.
The first axis is a green corridor focusing on strengthening the presence of nature and emphasizing the green wedge that runs along the abandoned tracks. The second axis is encouraging creative and cultural initiatives in terms of facilitating urban spaces and buildings that respond to this purpose. The third axis involves the citizens and frames urban life by accommodating shops, cafés, and other social gathering points. The fourth axis is meant for institutional purposes, thus responding to the large buildings structures across the street. The housing structures are implemented across these different axes, thus addressing a diverse group of people and accommodating different needs.

Modeling with Foam

Design process

180 m²   360 m²   672 m²
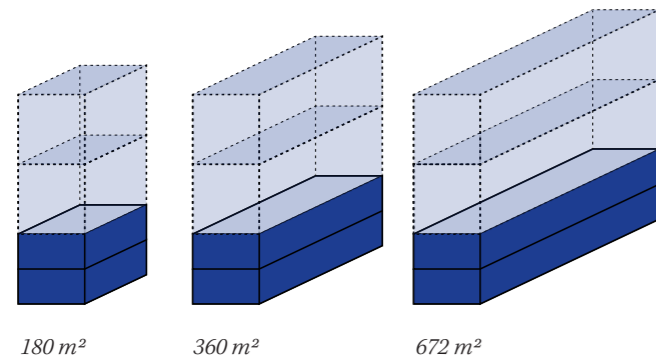
In this section we moved from working with 2D sketches to physical 3D models, thus going from programming the site to spatially designing it. For this study, we worked with three different footprints (ill. 55) in respectively two, four, and six floors in the scale 1:1000. The size of the footprints were decided on the basis of the building sizes of the context.

Model 1: Breaking up the parameter blocks

The second concept resembles the context by mirroring the typology. The parameter blocks are broken up in order to create smaller urban pockets and increase accessibility. This design is also preserving the sightlines which emphasizes the strict morphology. The building heights are lowering towards south.

Model 1: Following the train tracks

The first concept is based on the historical identity of the site. The site used to be occupied by train tracks which is emphasized by placing the buildings along these former tracks. A concept that the small containers at Institut for (X) already follow to some extent. Furthermore, the streets from the context are preserved in terms of creating cohesion and emphasizes sightlines. The buildings are graduating in height and become lower towards the south.

Model 3: Mixing the past and the present

The third concept is combining the latter two while focusing on creating public spaces of different character. Open public spaces are placed towards the centerline of the site and smaller semi-private urban pockets are rising closer to the buildings in terms of creating communities. In this design the sightlines from the context end in a building of public character, thus inviting the residents of the new modern housing area to visit and interfere.
The buildings are becoming lower toward the centerline to address the human scale and emphasize the graduation between public and private.

What did we learn?

The two first concepts were studying two very strict and inflexible morphologies, rooted in the identity of the site and the context. Therefore, the following studies were loosening them up and mixing the morphologies. This design study gave us an understanding of the spatiality at the site and the overall structure. It was an initial study to test out different principles for further work. We came to the conclusion that:

- ▫ The use of broken parameter blocks provided a good connection to the context

- ▫ The sightlines should be continued but ending in an inviting building or public space

- ▫ There should be a public space floating through the site with meeting points attached to it

Upscaling the Modeling
Design process

The next step of the design process was to continue working spatially with the site, but on a different scale. For this study we worked with physical models in scale 1:500.

01 Blocks and tracks

+
Fitting into the context and at the same time breaking up the long facades. Following the former tracks toward the south, thus preserving the cultural heritage.
The building heights are lowering towards the south.

-
The typologies are unconnected and unstructured even though they follow a principle. The overall design is too broken up and the spaces in between are incoherent.

The building percentage is 54% which is too low.

02 Dense low-rise

+
The design consists of dense low-rise buildings that address the human scale. The variety of typologies is attractive to a broad target group. The design prioritizes public spaces turned towards south.

-
The masterplan becomes too dynamic, since it follows many principles which makes it incoherent. The typologies are not related to one another and lack connection.

The building percentage is 76% which is too low.

03 Public space

+
The public space going through the site has potential and is supported by the building heights lowering towards it. Overall the graduation of the building heights is working well and responds to the context. Different squares and meeting points are placed along the public space and creates hubs, identity, and variation in the cityscape.

The mix between public and private spaces is creating a mixed city.
The green wedge is providing quality by being a green breathing space and offering a view.

The overall structure of the parameter blocks broken up by the public space is clear.
-
The design is working with graduating spaces from public to private, but the hierarchy could be even more clear.
The building percentage is 108% which is too low.

Investigating the Spatiality

Design process
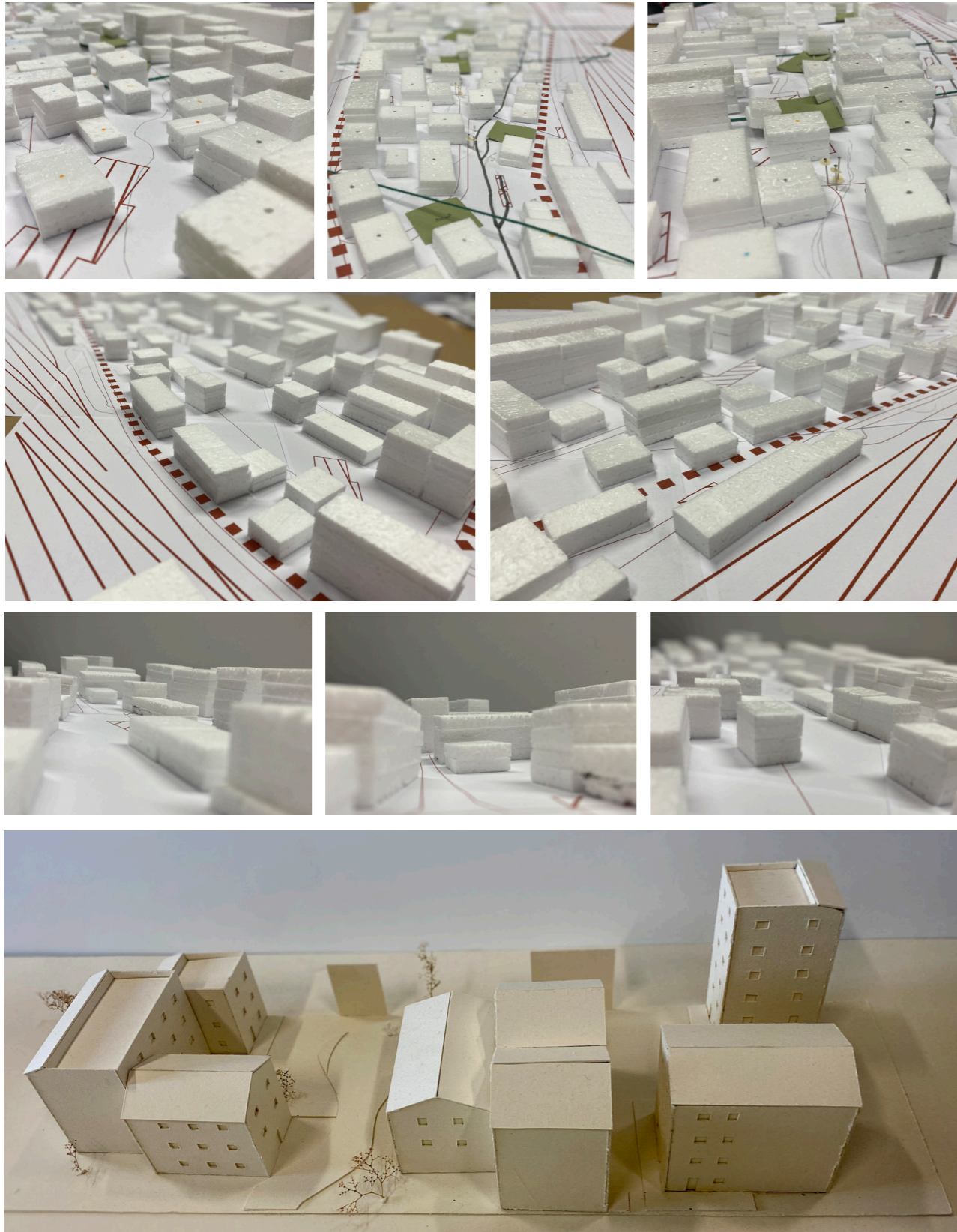
Ill. 60 Studies of models in 1:200 and 1:500
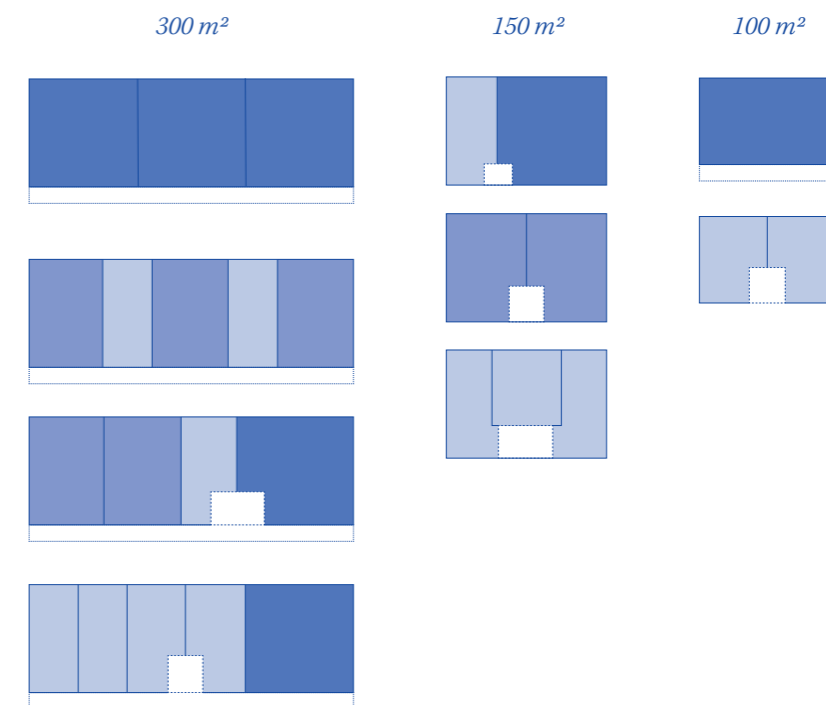

Investigating the Dwelling

Design process

At the same time, the size of dwellings has been reconsidered in relation to the current trend of urbanization. We become more and more people in the city, and therefore we must rethink the size of our dwellings and consider if we can build dwellings that are socially sustainable and contribute to the community (Carlberg, 2022). In Aarhus the average dwelling area per person in square meters is 46 m² (Ritzau, 2020) - no matter if you live alone or with other residents.

With this in mind, the dwellings at the southern part of Godsbaearealerne will be reduced in square meters while offering common facilities as a compensation for the minor dwellings inspired by Tinggården (cf. Tinggården, p. 82). Additionally, public facilities applying to both residents and citizens will be incorporated into the design proposal.

The study of dwellings has led to three different categories of dwellings that accommodate a diverse group of residents such as students, singles and couples, families, and elderly. The dwellings are defined as 45 m², 70 m², and 100 m². These three sizes of dwellings have reformed the actual size of the three types of footprints mentioned earlier. The footprints are now 100 m² divided between 8 x 12,5 meters, 150 m² divided between 10 x 15 meters, and 300 m² divided between 10 x 30 meters which have been workable footprints for the following design process. The types of dwellings have been distributed in different ways among the defined footprints to gain the best utilization. The distribution can be seen in Appendix 06 where different combinations and calculations are to be found of the total square meters for each combination. Furthermore, stairways for the dwellings have been incorporated to secure a possible flow to and from each dwelling.
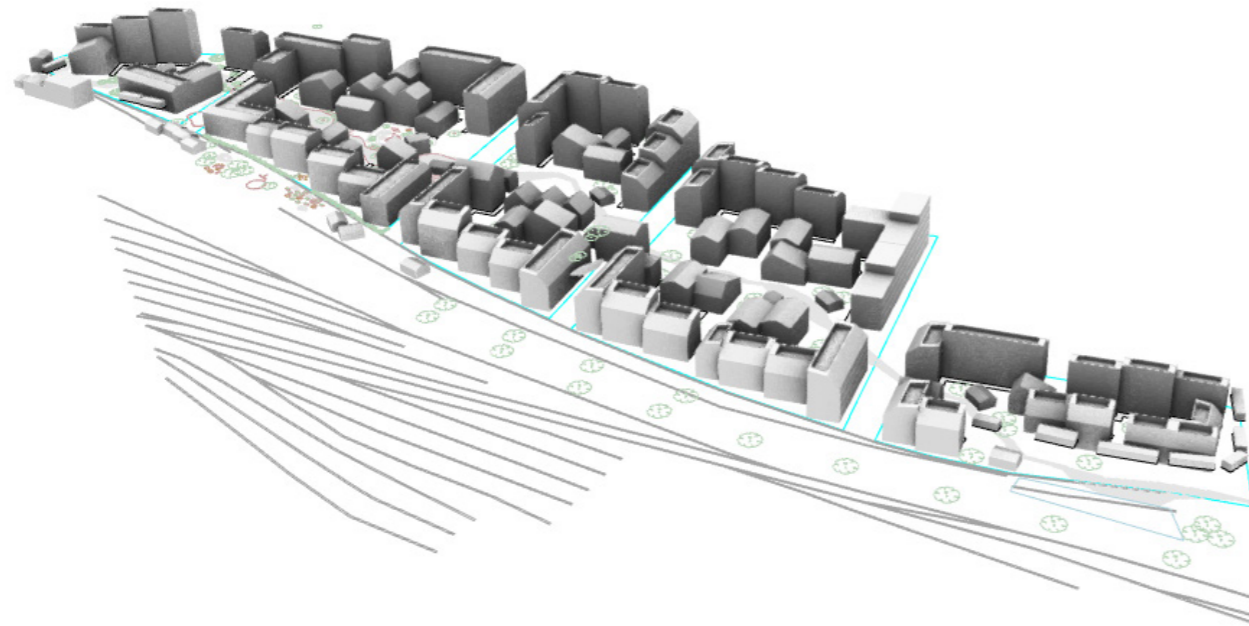
Ill. 61 Studies of mixing the type of dwellings

300 m²   150 m²   100 m²

Going into 3D

Design process

After doing these investigations of concepts, models, and dwellings, we translated the physical models to 3D models in Rhino to investigate the spaces at eye-level. We chose to continue with model 3 from 'Upscaling the modeling', and sketched it with the correct newfound footprints of the buildings. Furthermore, we sketched different infrastructural principles and roof pitches (Appendix 05).

Going into 3D was an important step for our design process, since it forced us to be more accurate and detailed. Besides experiencing the 3D model at eye-level, we could measure the different distances and evaluate the designed spaces from these measurements too.

Furthermore, we had a 3D model of the context which we used to evaluate design studies on building percentages and building heights (Appendix 06) and overall cohesion with the surroundings.

The technical aspects of our design, such as water management, infrastructure (Appendix 05), parking (Appendix 07), and sun conditions (Appendix 08) have been considered through our design process, and in 3D these technical aspects were influencing the final modeling of the masterplan.

The design process has included a wide range of tools in terms of investigating different design opportunities. Sketching, building physical models as well as 3D models have all together led to the final design concept of the thesis. A simplified summations of the design process are to be found at the diagram on the next page.

Ill. 63 A simplified summary of the design process
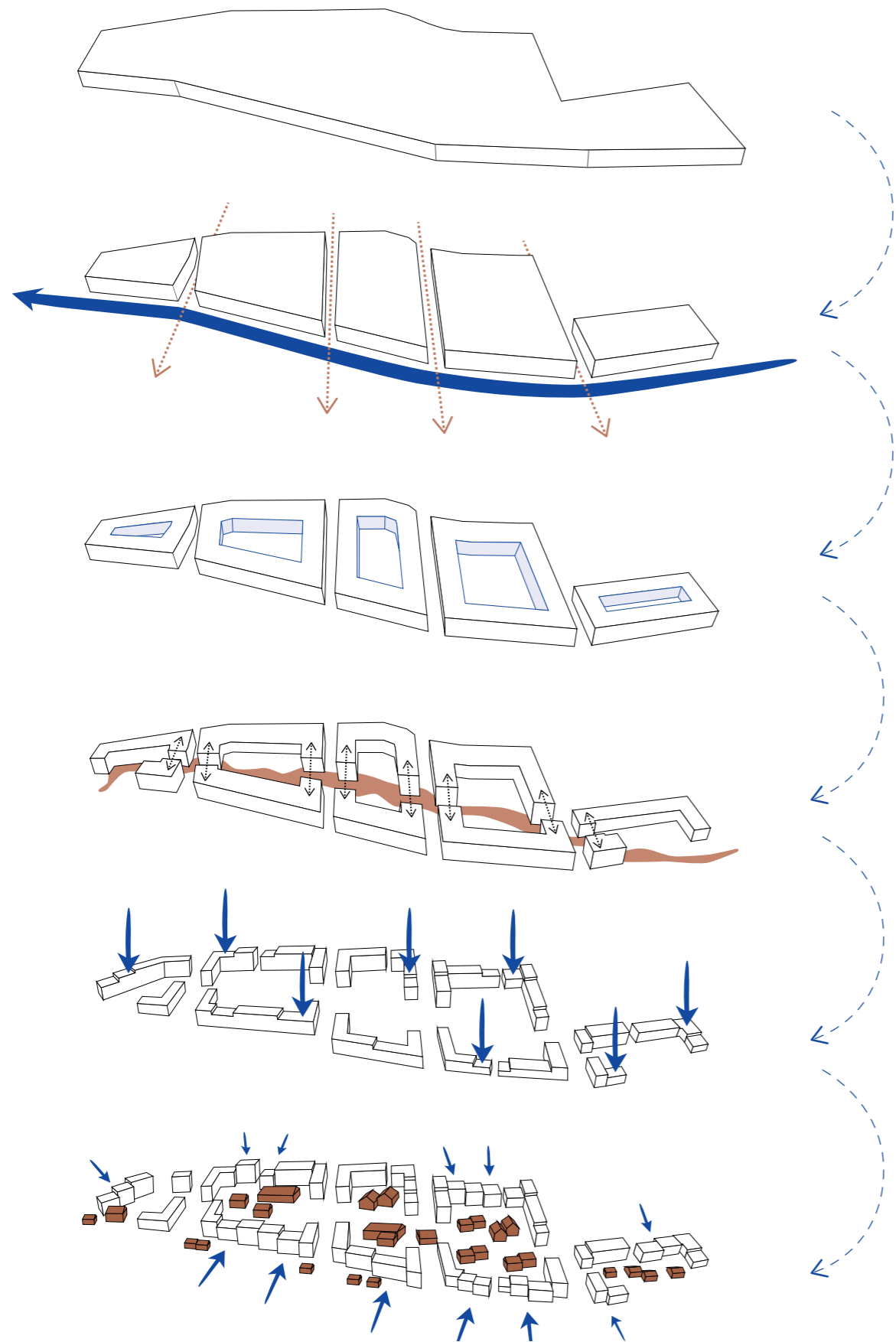
1

Extruding the footprint of the site at the southern part of Godsbanearealerne

2

Using existing sightlines from the context to create five separated volumes

3

Reflecting the typologies from the context by shaping parameter blocks

4

Cutting through the parameter blocks with a public path

5

Downscaling the building structures to accommodate the human scale

6

Displacing the buildings and adding public facilities to activate the site

The design proposal for the southern part of Godsbanearealerne will be presented and explained in this chapter. This implies graphic material such as spatial visualizations, a masterplan, axonometrics, diagrams and sections.
Due to the location of the design proposal in Aarhus (Denmark), the naming of the neighborhood and some of the facilities are in Danish.

05

Design

Ill. 64 The clash between Institut for (X) and the new constructions

Bysporet is a new urban neighborhood in Aarhus City where the residents, creative fiery souls, and citizens meet and engage in a place rooted in its cultural heritage. The visualization showcases a meeting between housing facilities, creative workshops, and the public recreational path, Natursporet, surrounded with a great variety of greenery and a detention pond. Natursporet is marked by preserved train tracks that appear as aesthetic historical traces from the past that secure an easily accessible path for soft mobilities.

Ill. 65 A view of the idyllic Natursporet (Visualization A) ▲

Bysporet is an interpretation of inhabiting the city at the southern part of Godsbanearealerne. The neighborhood is an innovative and ambitious suggestion to inhabit the city in a different way. Bysporet consist of five parameter blocks broken up by the public pedestrian street, Teglgaden. The typology of the buildings are inspired by the surrounding typology. Each block is named *Spor* followed by a number (1-5) and contains a range of housing and public facilities that create the frames of the mixed and open city. The new neighborhood is internally connected by the two through-going paths, Teglgaden and Natursporet, which invites the residents and citizens to take part in the vibrant and living urban environment unfolding at Bysporet.

Visualization   Plan section

0   5   10   20 m

Ill. 66 The masterplan of Bysporet ▲

Teglgaden

Public path

The neighborhood offers two main paths of public character named Teglgaden and Natursporet. These paths are essential for the neighborhood, due to the fact that they invite in the public and ensure a lively and diverse neighborhood.

Teglgaden
The twinning course of Teglgaden addresses pedestrians and invites the residents and citizens to take part in the pulsating public life that unfolds along the path. A variety of facilities, activities, different kinds of stay contributes to a diverse and inclusive urban life.
Teglgaden is connected to Brabrandstien in west and the Congress Centre in east which provides accessibility to the city center. Thus, Teglgaden becomes a central linkage to the rest of Aarhus.
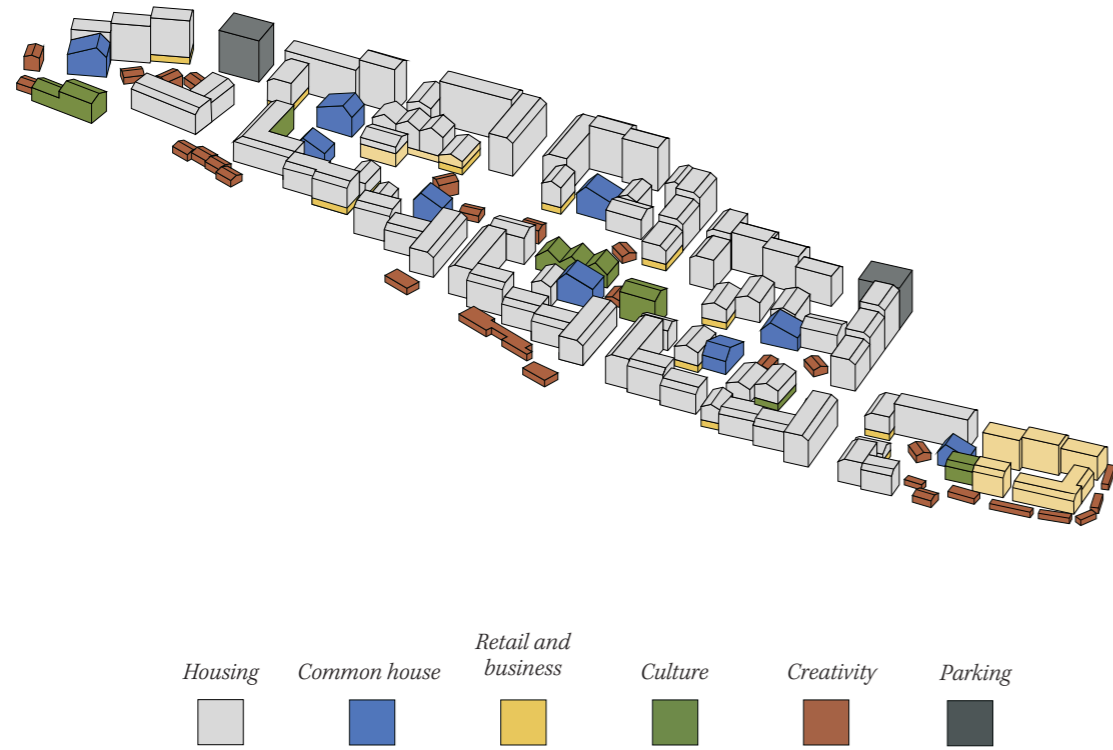
Natursporet

Recreational path
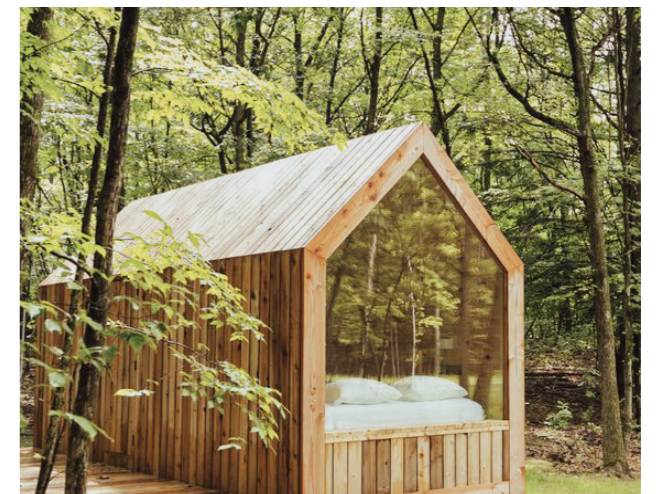
Natursporet
Natursporet is a renewal and extension of the existing green wedge. Natursporet follows the preserved train tracks and offers an inherent and sensuous flow adorned with a variety of greenery. It calls for a recreational walk in the calm surroundings while enjoying the presence of nature. The ateliers placed in Natursporet contributes to a creative atmosphere attracting to people passing by. The path can be utilized by cyclists as well as pedestrians.
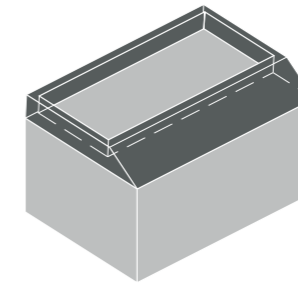
The Diversity of Facilities

Facilities

Housing · **Common house** · *Retail and business* · **Culture** · **Creativity** · **Parking**

Housing
Apartments
Cohousing flat
Owner-occupied flat

Common house
Common kitchen
Dining hall
Offices
Guest house
Bystue
Laundry

Retail and business
Café
Restaurant
Shop
Office
Creative stores
Grocery
Institution
Local retailer
Evening classes

Culture
Bystue
Library
Museum
Hall
Workshop
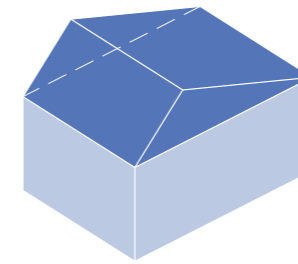Community house
Venue
Spor 7

Creativity
Atelier

Bysporet offers a variety of different facilities that are addressing a mix of private and public use. The main part of Bysporet consists of housing facilities placed at the outer edge of the broken parameter blocks. The housing facilities constitute different types of apartments that are aimed at a wide target group such as students, couples, families, and elderly (this will be unfolded cf. Types of Dwellings at Bysporet, p. 126). The intention is to achieve a diverse and multiple composition of residents that afford meetings and invite them to get inspired by one another. Towards Teglgaden, common houses are offered to the residents in terms of providing a place of common facilities as an extension of the private dwelling. Additionally, it is a place for the residents to engage and interact, and thereby creating relations and communities.

Aside from the private dwellings and common houses, different public facilities for cultural, retail, business, and creative purposes are scattered to activate the area. The public facilities are primarily oriented towards Teglgaden and invites both residents and citizens to explore the atmosphere. The existing containers at Bygning K and Gadekæret are preserved and integrated in the design together with new ateliers located along Teglgaden and Natursporet to sustain the experimenting and unique identity. Each category of facility can afford a variety of functions (ill. 70).
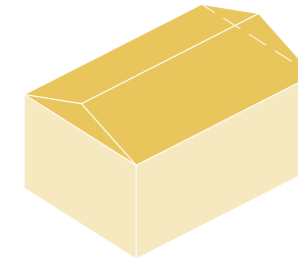
The Organization of Bysporet

Strategy of organization

The organization behind the development and future running of Bysporet has been engineered and planned through a combination of existing initiatives and newly established initiatives. This involves the existing Bydelskontor as well as the newly established Bydelsforeningen and local hosts. The organization of Bysporet has been generated to secure a robust, resistant, and meaningful transformation of the southern part of Godsbanearealerne. The relation between top-down planning and bottom-up planning is balanced and will continue to be, which requires more responsibility from the bottom-up part. This means that public participation and the involvement of fiery souls are going to be integrated, especially in the running and further development of Bysporet, considering it a neighborhood in proces.

The relation between the three parts: Bydelskontoret, Bydelsforeningen, and local hosts and their respective roles in the realization and continuous planning process of Bysporet, are illustrated in the diagram below. The diagram should be understood in relation to the elaboration of the representatives' roles and responsibility on the following page.

Ill. 71 Showcasing when each representatives are active in planning process
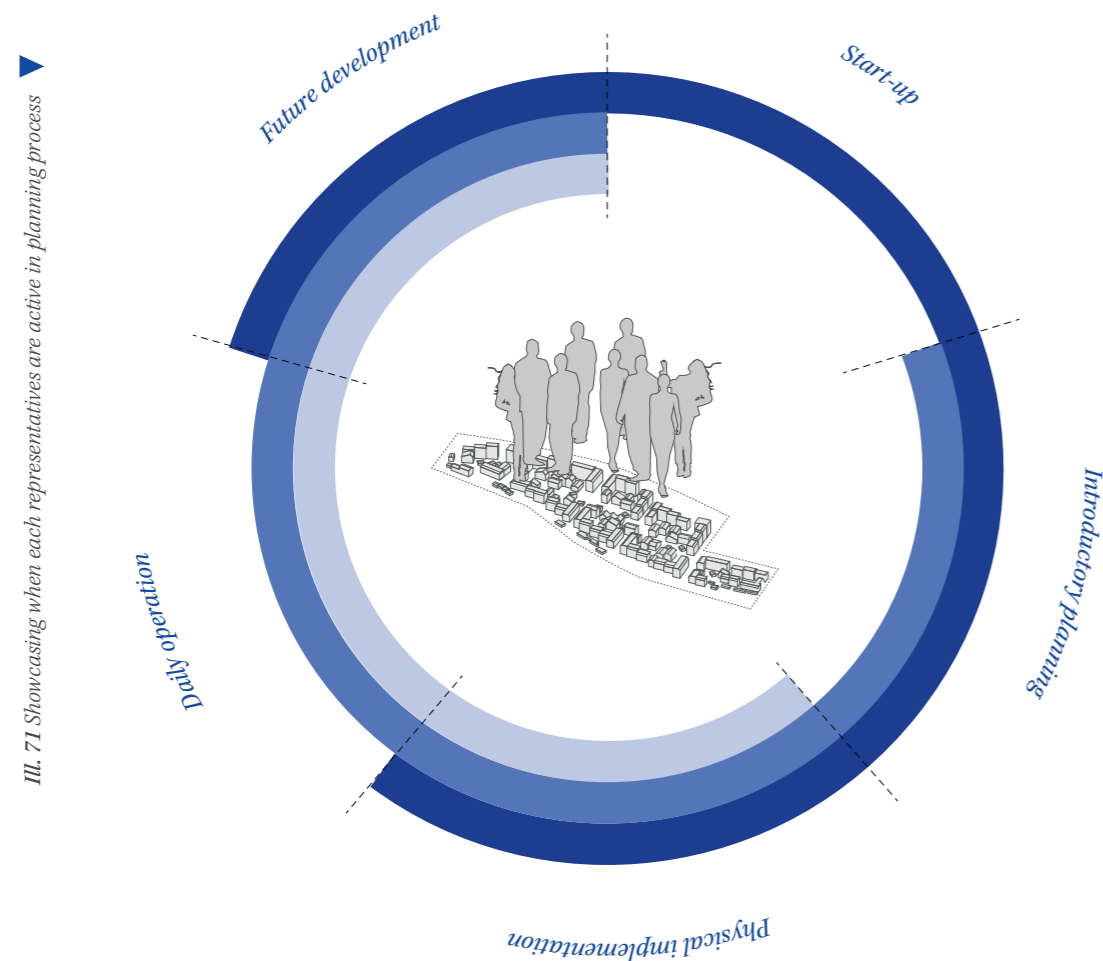
Bydelskontoret

Arealudviklingen, Byggemodning, Borgmester, Institut for (X), Bydelsforeningen

Representative and responsibility

Bydelskontoret is responsible for making the major decisions in the process of planning and developing Bysporet. This means that Bydelskontoret is following the project from the introductory planning phase to the physical implementation. They are focusing on the cooperation and linking between different stakeholders from above and below, where representatives from each are present in the committee of Bydelskontoret. The committee is to be found in the newly established meeting place, Bystuen, which will be the gathering point for the representatives of Bydelskontoret. Thus, Bydelskontoret is responsible for coordinating workshops and public involvement regarding the planning process, planning, and recruiting representatives of Bydelsforeningent. After the implementation of Bysporet, the role of Bydelskontoret will gradually decrease where only necessary and informal meetings will be arranged in the future development. However, they are still responsible for other planning projects in Aarhus.

Bydelsforeningen

Residents, local hosts, fiery souls, and volunteers

Representative and responsibility

The role of Bydelsforeningen concerns the daily operation and organization of Bysporet. Bydelsforeningen is runned from below by local citizens such as residents, local hosts, fiery souls, and volunteers. Their responsibility will become effective when the neighborhood is in development, but primarily when the physical implementation of Spor 1-5 is accomplished. From there, Bydelsforeningen ensure community cohesion by working across Spor 1-5 to create local anchoring. This will be done by joining different facilities, common events, and activities across all Spor where the communities can blossom. Bydelsforeningen is responsible for disseminating information to all sharing an interest in the future shaping of Bysporet. Furthermore, they will continue to perceive the neighborhood as a process where representatives in Bydelsforeningen can keep impacting their neighborhood after the physical construction of the area. This means implementing smaller construction projects requested and carried out by the residents and citizens. The representatives in Bydelsforeningen are responsible for involvement and location of fiery souls in the workshops and ateliers along Bysporet. Meetings and gatherings will take place in Bystuen where workshops, events, and important information will be held.

Local hosts

Residents

Representative and responsibility

The local hosts are residents at Bysporet. The local hosts are responsible to connect each Spor internally by the daily operation and maintenance of the common houses. Furthermore, they are responsible for planning social activities or events requested by the residents. They are passionate and enthusiastic about their daily work and they make a virtue out of spreading a comfortable and personal mood. In other words, the local hosts are social and committed caretakers from each Spor, who are employees to the position full-time or part-time. They are participating in meetings with the other local hosts at Bysporet and representatives from Bydelsforeningen where they are the voices of the residents.

Establishing Communities

Meeting places

Bysporet endeavors for new ways of inhabiting the city by encouraging the residents to participate in their local urban neighborhood. Therefore, Bysporet strives to afford communities, relations, and a sense of belonging by offering meeting places of different characters. There will be meeting places addressing the residents in terms of providing a common identity and responsibility as well as encouraging the residents to meet, bond, and establish relations. Furthermore, there will be meeting places that include citizens from Aarhus to gather and establish communities and relations in a broader social network. The neighborhood, Bysporet, lies within the city of Aarhus, thus it should be a place that includes and invites the citizens. The meeting places are the framework for a diverse urban life of high quality.
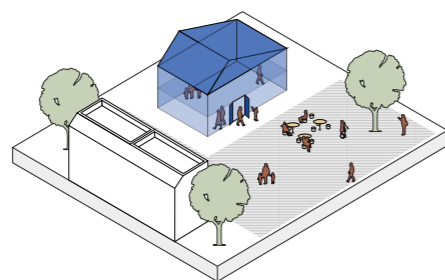
Common houses
In connection with the housing facilities of each broken parameter block is a building with common facilities. These facilities are reserved for the residents to use and could be lounges, offices, an industrial kitchen, space for dinner parties and other events, washing facilities, etc. A place where the residents can meet to socialize or simply to make use of the available facilities. These buildings are maintained and runned by the local hosts of the block.
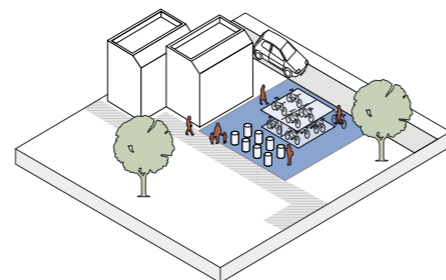
Practical functions
Parking spaces for the residents' bicycles and the place to separate waste are gathered in smaller hubs. These hubs are placed within a walking distance of approximately 50 m from each apartment. Thus, different housing areas are sharing these facilities which encourages meetings with other residents than the ones in the local Spor.
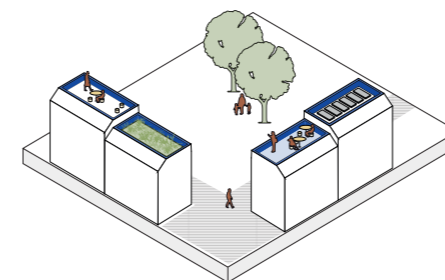
Roof terrace
The roofs of the residential buildings are either utilized for sustainable purposes (green roofs or solar panels) or as roof terraces. The terraces are private meeting places for the residents where they can enjoy the view and the sun.
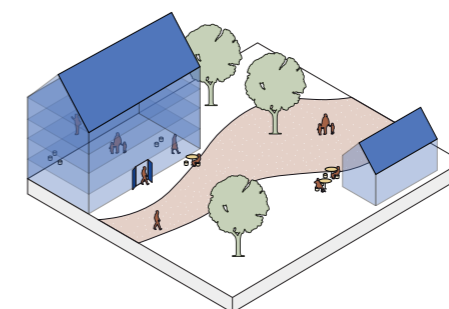
Bystuen and Ateilier
Bystuen is a social house accessible for everyone. It is placed along the public street, Teglgaden and has different purposes. At the ground floor the building offers a social public space where one can go inside to get a rest, enjoy a lunch pack, socialize or observe the urban life outside. The other floors will be used to facilitate meetings and initiatives concerning the future development of the Aarhus and Bysporet. It has the purpose of involving and enlightening the citizens and to balance the top-down and bottom-up relationship in planning purposes. The building offers offices to Bydelskontoret and Bydelsforeningen who coordinate and run events involving the citizens. Thus, Bystuen contains meetings of both formal and informal character. Besides Bystuen, different ateliers are to be found along Teglgaden. These are rented by creative fiery souls and entrepreneurs, and furnish cafées and restaurants as well as creative workshops where citizens can attend different courses.
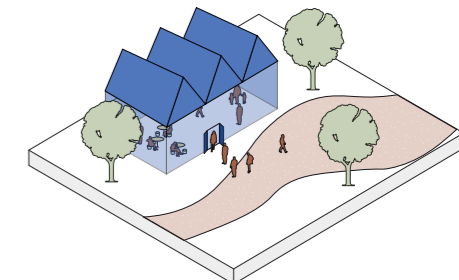
Community house
Bysporet has a community house which is a place that everyone can rent regarding bigger parties or different kinds of events. Contrary to the buildings reserved for common facilities for the residents, the community house is for everyone. During the day, the ground floor of the community house is an open meeting place for socially marginalized people, thus it replaces the former Spor 7 which used to lay at the project site.

The Infrastructural Network

Infrastructure

Natursporet   Teglgaden   Local street   Parking (car)   Parking (cycle)

The infrastructural network at Bysporet offers a great accessibility prioritizing soft mobilities but without discouraging hard mobilities to enter the neighborhood.

To secure an open and easily accessible flow for soft mobilities, fundamental pathways flow lengthwise Bysporet characterized as Teglgaden and Natursporet.

Bysporet is internally connected through local streets of low pace attached to the street Thomas Koppels Gade in north. Teglgaden and Natursporet will be dominating the local streets at intersections which are communicated in the choice of materiality in order to create a hierarchy of the infrastructure. Two of the local streets are not through-going at Bysporet due to a wish of minimizing the traffic through Teglgaden and Natursporet. The two other local streets are connected to the one-way street in south which is arranged with parking lots. Furthermore, parking houses and parking spaces are laid out along the neighborhood, primarily in nodes with crossing of Teglgaden and local streets, and are intended for both residents, employees, and visitors of the neighborhood.

In total, Bysporet offers 287 parking lots which does not fully match the actual parking norms of the Municipality of Aarhus. According to the parking norm it is calculated to be 349 parking lots compared to the number of housing and public facilities at Bysporet. It is an intentional choice to prioritize the flow of soft mobilities and minimize the traffic from heavy mobilities to move towards a more healthy and sustainable neighborhood (Appendix 07).
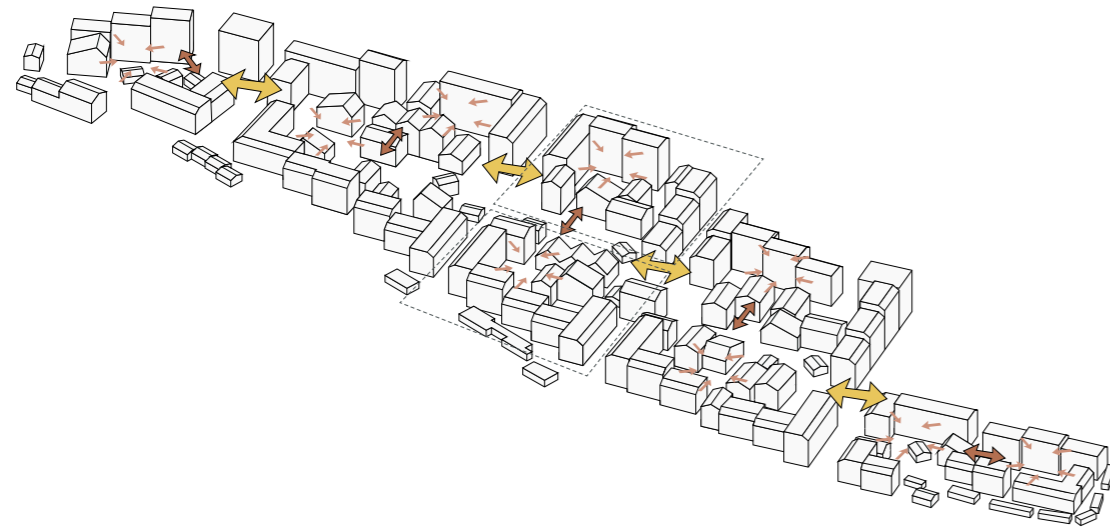
Bonding and Bridging

Connections across

| Local bonding	Bonding	Bridging	Sub-area
←	↔	↔	□

Establishing communities are of importance in order to create a neighborhood of proximity. The design of Bysporet fosters a hierarchy of communities in order to create different relations.

As mentioned, Bysporet consist of parameter blocks referred to as Spor 1-5. Each Spor is divided into two sub-areas. Within each sub-area different initiatives are made in terms of fostering a local bonding. Therefore, the entries to the dwellings are located inside the courtyards and thereby allowing the residents to meet. Furthermore, the common houses are supporting and strengthening the local bonding within the sub-areas. The initiatives supporting the local bonding is expected to provide a sense of belonging, neighborliness, and unity.

In terms of bonding the two sub-areas within each Spor, the local hosts play an essential role. They collaborate across the sub-areas, thus ensuring a development and initiative that favor the entire Spor.

The public path, Teglgaden, has the purpose of bridging the different Spor with one another, thus creating associations and consistent coherence in Bysporet. Bydelsforeningen is bridging each Spor on an organizational level, thus they initiate common events in Bystuen that include the whole neighborhood.

The Density of Bysporet

Building heights and percentage

1-2 floors	3-4 floors	5-6 floors	160 %	140 %	120 %
▢	▢	▢	▢	▢	▢
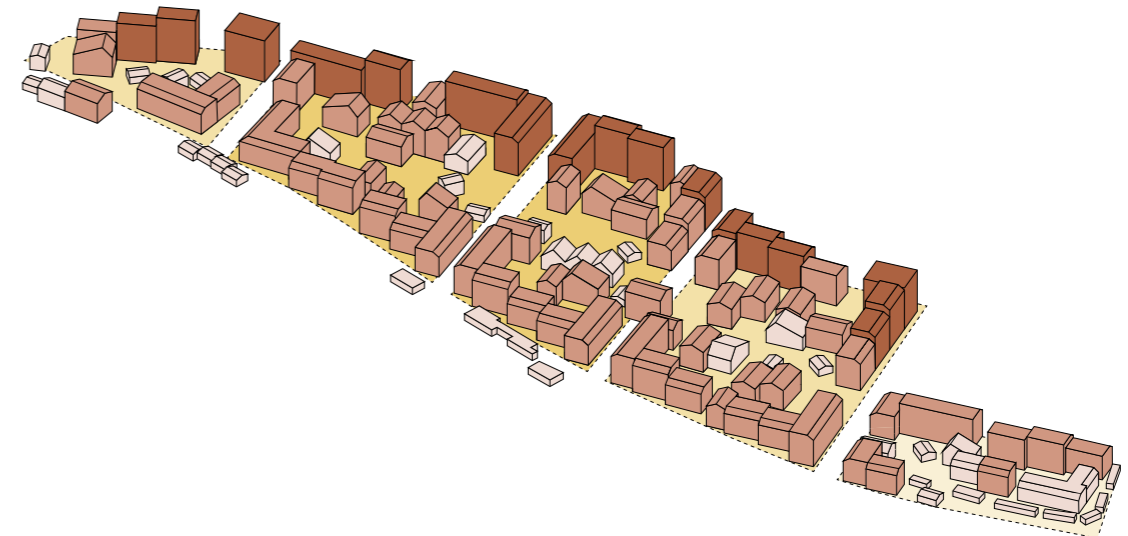
Bysporet strives to accommodate the human scale in different ways, where one of them are through the building height. In general, the building height at Bysporet graduates from north towards south for several reasons. The buildings placed in the northern part of Bysporet are the highest buildings with 5-6 floors and correspond to the surrounding parameter blocks at the opposite side. Furthermore, this belt of buildings protects against the strong wind and secures a comfortable environment.

Moving towards south, the building height lowers to a mix of 1-4 floors. By doing so, the human scale is accommodated and the scale of the existing containers and newly established workshops are respected. Additionally, the lower building height will ensure sunny and enjoyable conditions of daylight in the neighborhood (Appendix 08).

The building percentage of Bysporet is measured by dividing the area into the five plots, which gives a variation of building percentage ranging from 120 to 160 % (Appendix 06). The low building percentage, compared to the context, (cf. The Density of the Surroundings, p. 55) is a result of the fact that Bysporet is not compromising with the human scale and respects the scale from the existing containers. It is a radical decision but with a clear intention of what the neighborhood prioritizes and emphasizes.

Common house

Library

Common house

Detention
pond

Ateliers

Fire place

Natursporet

Multi-sports
area

Thomas Koppels Gade

Børnely

Atelier

Teglgaden

Atelier

Café

Grocery

Common house

Ateliers

By zooming into Spor 4, the constellation between building structures and urban spaces becomes clear. The broken up parameter block structure with utilized roofs, primarily consists of housing and encircles the area. The open block is offering common houses reserved for the residents, the relocated institution Børnely with appurtenant playground, different kinds of retail and businesses, and a handful of ateliers for the creative fiery souls. Teglgaden winds between the built structures and makes it accessible for soft mobilities to explore and experience the public facilities and urban life. Towards south, Natursporet branches and follows the preserved train tracks, surrounded by a variation of greenery ensuring a sensuous and comfortable environment for residents and visitors. Different activities and facilities are to be found along Natursporet, such as urban gardens, fire places, sport areas etc. to offer a variation of different activities and opportunities.
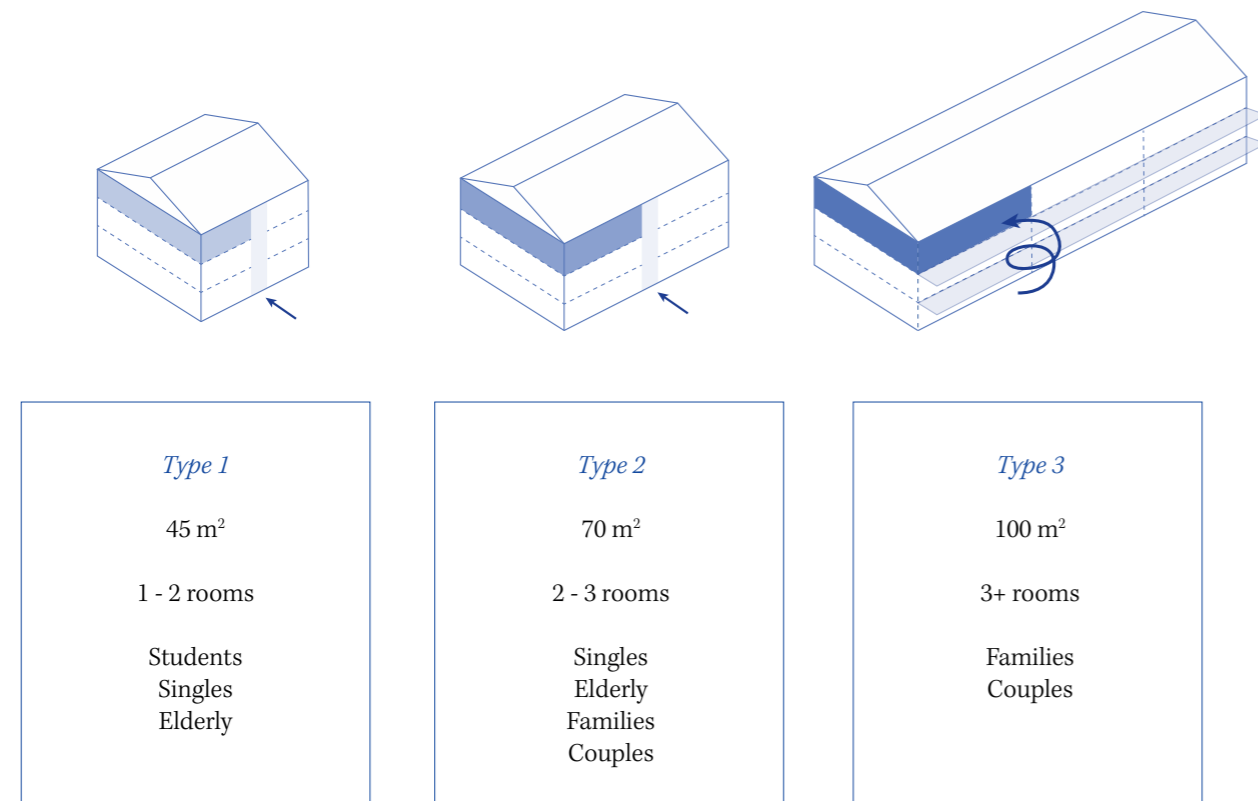
Types of Dwellings at Bysporet

Dwellings

Bysporet offers approximately 620 dwellings divided between three different types defined by square meters, numbers of rooms, and suitable target group, which have been listed below. The types of dwellings at Bysporet accomodate a great diversity of residents to achieve a mixed neighborhood and thereby social sustainability. The dwellings are available for both young people, families, couples, singles, and elderly with respective needs. The different types of dwellings will be mixed within each building structure meaning a blending of target groups.

Due to needs, daily routines, and heterogeneity of each target group, Spor 1-5 will each hold a majority or a minority of the different target groups depending on the offer of dwellings and the surrounding facilities. Furthermore, the accessibility to the dwellings depends on the combination of dwelling types and will vary from lifts, staircases, and galleries to get a workable flow.
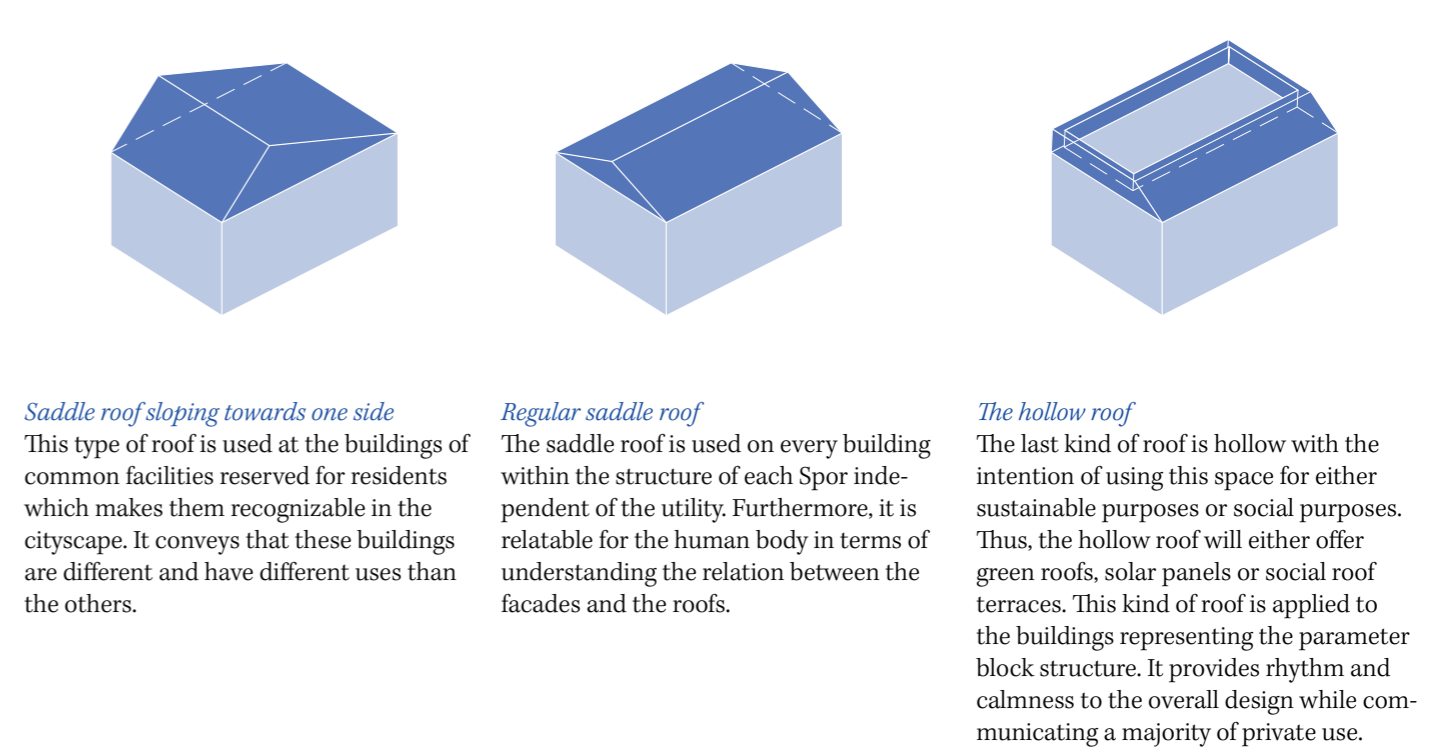
The dwellings at Bysporet will be a mix of apartments, cohousing flats, and owner-occupied flats. The area intends to be available for the ones that see a value in taking part in the inclusive community with the opportunity to take ownership, interact with people, and have an influence on their neighborhood. To be resident at Bysporet does not need to be an economical investment, rather it is a personal investment that brings proximity and a sense of belonging.

The roofs of all building structures at Bysporet appear in three various designs, depending on the utility and location of the building, to make a clearly defined expression. The environment becomes interesting for the human eye to explore when different types of roofs are applied. The allocation of the roof will be described at the page to the right.

Ill. 78 The types of dwellings divided between the different footprints ▼

Type 1	Type 2	Type 3
45 m²	70 m²	100 m²
1 - 2 rooms	2 - 3 rooms	3+ rooms
Students Singles Elderly	Singles Elderly Families Couples	Families Couples

Ill. 79 The different types of roofs ▼

Saddle roof sloping towards one side
This type of roof is used at the buildings of common facilities reserved for residents which makes them recognizable in the cityscape. It conveys that these buildings are different and have different uses than the others.

Regular saddle roof
The saddle roof is used on every building within the structure of each Spor independent of the utility. Furthermore, it is relatable for the human body in terms of understanding the relation between the facades and the roofs.

The hollow roof
The last kind of roof is hollow with the intention of using this space for either sustainable purposes or social purposes. Thus, the hollow roof will either offer green roofs, solar panels or social roof terraces. This kind of roof is applied to the buildings representing the parameter block structure. It provides rhythm and calmness to the overall design while communicating a majority of private use.

Architectural Expression

The materialities at Bysporet represent a mix between the historical and cultural heritage as well as the new and modern housing area towards north. The choice of materials strives to bridge the existing architecture in order to create coherence. Besides adapting to the surrounding context, some new materials will be introduced to the area and soften up the industrial and raw expression. Natural materials have been emphasized in terms of offering different tactilities and surfaces that are appealing to the senses. The materials throughout Bysporet testify to the functions of the buildings, and the utility and atmospheres of the paths and streets. The variation of applied materials provides an architectural and distinctive expression and will be elaborated in the following.

Ill. 80 The mix of materialities ▽

Housing
The dwellings at Bysporet are appearing with different materialities: red bricks and wooden panels in light or dark shades. The red bricks are a reference to the materials of the new modern neighborhood and the old buildings at Godsbanearealerne. The wood has the purpose of softening the hardness of the bricks, where the dark shade is a reference to the modern area while the light shade is a new initiative. The materials will be blended arbitrarily to obtain a versatile and varied expression. The roof decks are coated with either dark shale or wood panels.

Common houses
The common houses reserved for residents at Bysporet are coated with light wood panels that continue as roof cladding. The materiality will bring a characteristic warmth and texture to the neighborhood and stimulate the senses through the smell and feeling of untreated wood that reflects the history of the material.

Atelier
Bysporet consists of several ateliers that require a resistant and lasting facing that reflect the existing rough and worn containers at Institut for (X). With this in mind, the ateliers will be coated with gray steel sheets and to break up the facades, windows frames of wood will be implemented as a reference to the other buildings.

Teglgaden
The extensive public square, Teglgaden, is the area that connects to the existing pavement at Institut for (X) by continuing the paved red bricks and thereby creating entirety through Bysporet. The bricks will be curved in some places but without compromising an easily accessible passage for everyone no matter physical condition. Furthermore, the pavement of bricks will contribute with its own sensuality and tactility.

Natursporet
The public and sensuous path Natursporet will, besides from being a continuation of the existing train track with rock dust (stenmel), be surrounded by a diversity of wild nature. This allows good living conditions for different kinds of species to embrace flora and fauna and bring value to the experience of Natursporet.

Other pavements
The rest of the pavement at Bysporet will be paved with tiles at each entrance of a building, grass in the spaces in-between and reinforcement of grass at local streets to secure a permeable surface that provides good conditions for fauna and flora.

A glimpse of Teglgaden which flows through the whole area and becomes a recognisable element with its red paving stone and twined course. Along the path a variety of facilities, activities and types of stays are offered which contributes to a sprouting and diverse urban life. Bystuen is placed at the end of the sightline extended from the context and attracts residents as well as citizens by being a central gathering point.

The raw ateliers stand out with their metal facades, passed on from the containers at Institut for (X) and become a cultural reference in the streetscape. The ateliers provide a comfortable and creative atmosphere and address the human scale. Teglgaden has the quality of providing diversity and proximity in the dense urban neighborhood, Bysporet.

Ill. 81 Wandering along Teglgaden (Visualization B)
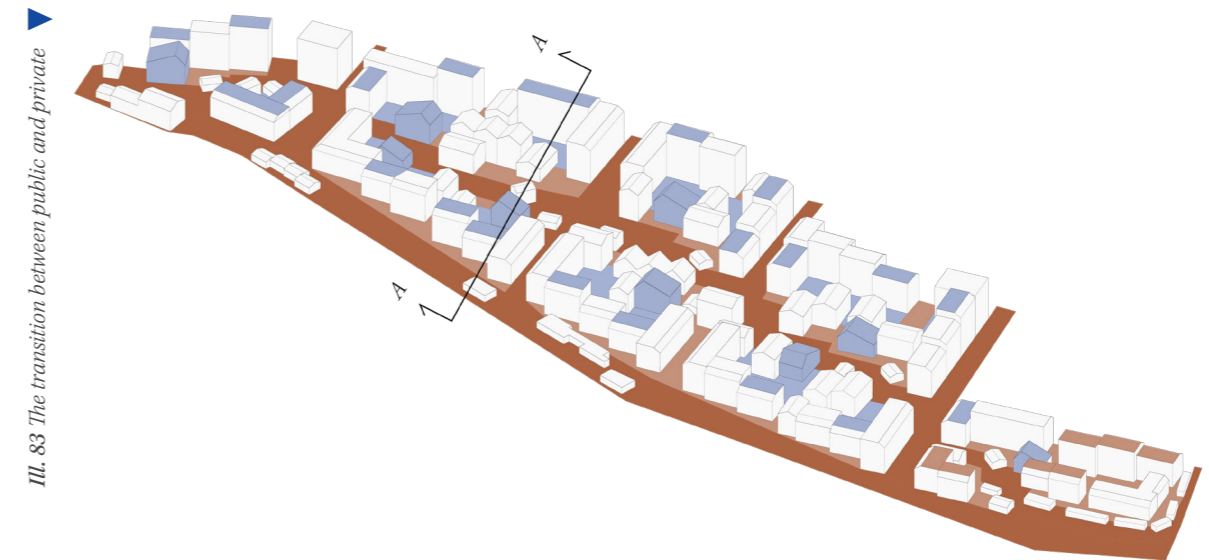
The Transitions

Public and private zones

The morphology at Bysporet is represented by the broken up parameter block allowing the public to access and be a part of the neighborhood. Therefore, it is necessary to have transitions from public to private in order to ensure that the residents have a space connected to their home which they consider private. Furthermore, working with this transition helps communicate to the public where they are supposed to be, which makes a more comfortable and transparent environment (ill. 83). Moreover, the design and meeting between the public and private zones are communicated through paving (ill. 77).

The section shows the two main paths, Natursporet and Teglgaden which are of public character and accessible to everyone entering Bysporet.
The semi-public zones are connected to the public zones and likewise accessible to everyone. They are partially hidden with an intimate atmosphere and limited use. Sometimes they function as in-between zones that separate the public and semi-private areas.
The semi-private zones contain courtyards and roof terraces for the residents to use. Towards Teglgaden, the common houses function as a transition between the public path and the semi-private courtyards. Besides the semi-private courtyards and roof terraces, the residents have private balconies in relation to their home (ill. 82). Furthermore, buildings with dwellings at the ground floor are raised to clear the distinction between public and private. Towards Natursporet, dense vegetation is conveying the transition from the public path to the dwellings.
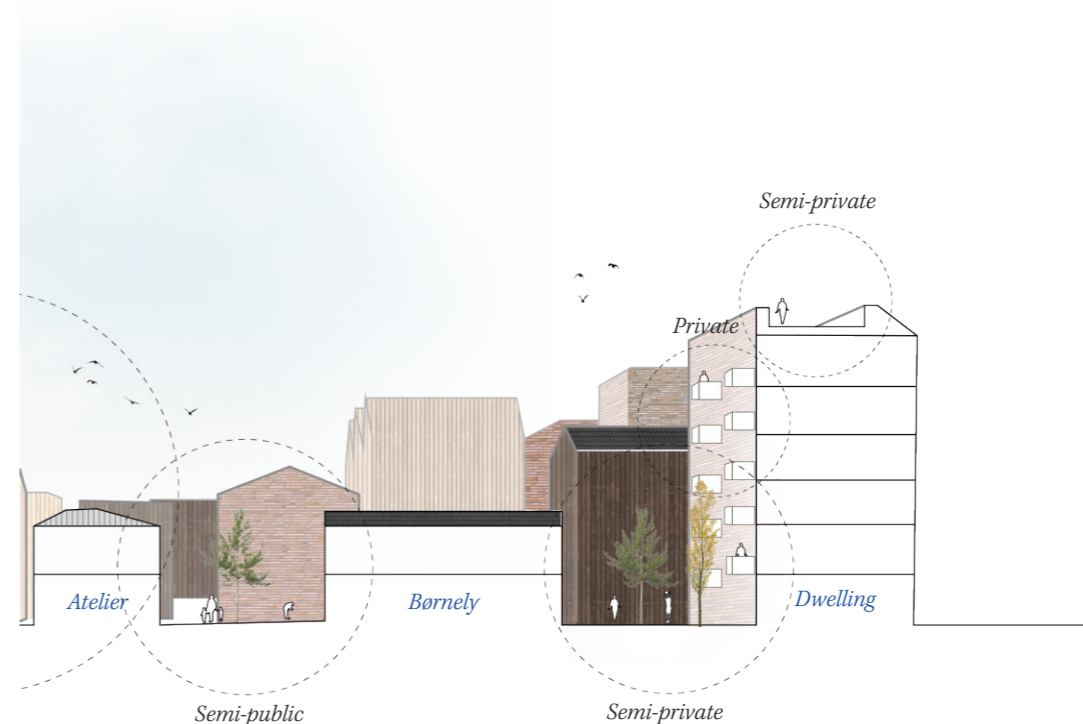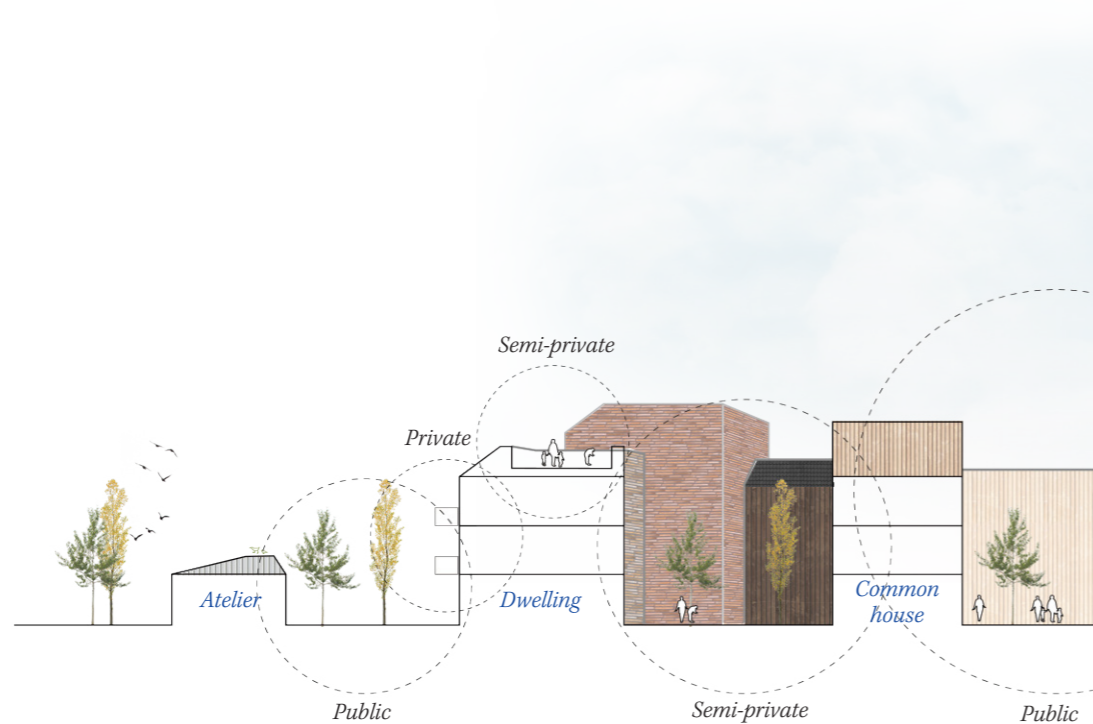

Ill. 83 The transition between public and private

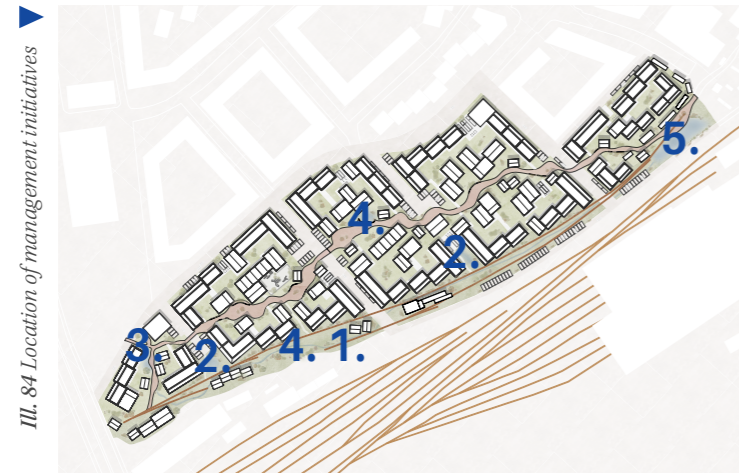Public   Semi-public   Semi-private
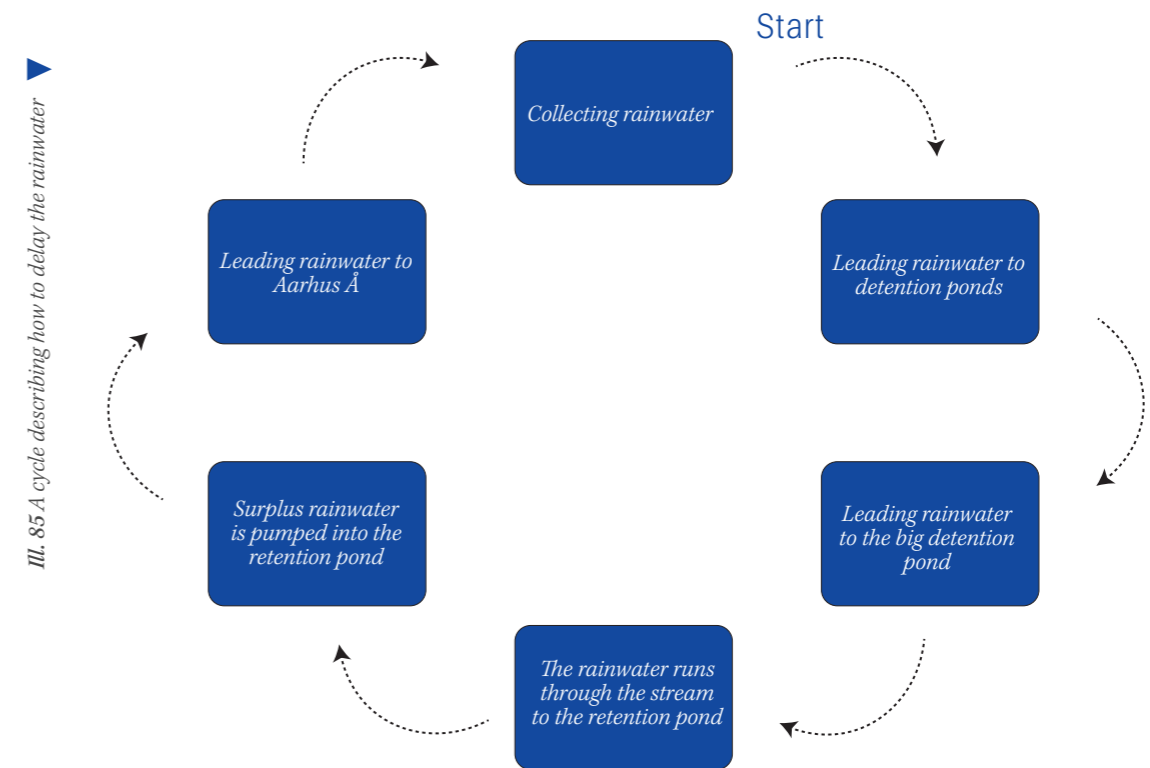

Ill. 82 Section AA in 1:500

Recreational Values

Rainwater management

Bysporet has an important role in collecting and delaying rainwater, in order to reduce the risk of flooding in Aarhus Å. Due to the soil conditions of the site, infiltration is not possible, thus the rainwater needs to be delayed (ill. 85). Within each Spor, smaller rain beds and green roofs are placed and serve the purpose of collecting rainwater. When the rain beds are saturated, the excess water will be led to a local detention pond (either lowered multi-sports areas or recreational detention ponds) placed strategically throughout the site. The excess water from the green roofs will go here as well. From these detention ponds, the water will be delayed before it will be led to the big detention pond in Spor 5. This pond can hold more rainwater than the other detention ponds due to the fact that it is connected to a bassin under terrain. The collected rainwater will run through the small, urban stream along Natursporet or be pumped from the big detention pond to the existing retention pond, from where it will be led into Aarhus Å.

The following diagram showcases different principles for handling the rainwater in respectively everyday and extreme situations. The detention ponds and retention pond account for a total volume of 1400 m³ (Appendix 03) which is adequate (cf. Potential Flooding, p. 62). The principles have been developed with the intention of implementing rainwater recreationally and aesthetically (ill. 86).

Start

Collecting rainwater	

Leading rainwater to Aarhus Å

Leading rainwater to detention ponds

Surplus rainwater is pumped into the retention pond

Leading rainwater to the big detention pond

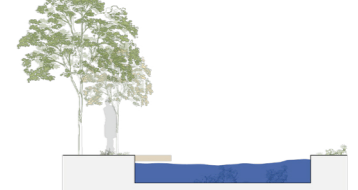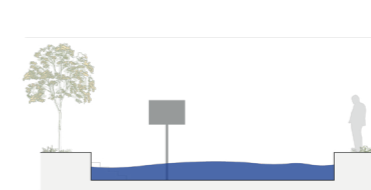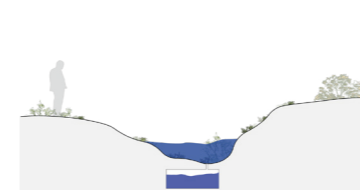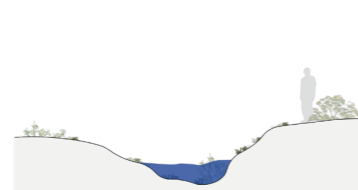The rainwater runs through the stream to the retention pond

Ill. 86 Water management initiatives ▼

Everyday rain situation
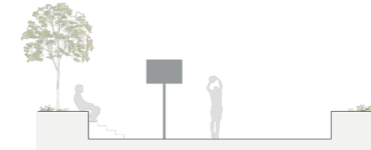
Extreme rain situation

01. Urban stream

02. Detention pond

03. Detention pond with bassin

04. Multi-sports area

04. Retention pond

Implementing Sustainability
Sustainability

The design intervention includes different aspects that respond to sustainability. First, Bysporet consists of buildings of primarily natural materials such as bricks and wood. Today, it is possible to produce bricks with a low emission of CO_2, however these are more expensive (Strøjer Tegl, n.d.). Bricks have a high load capacity, thus a solid building material that gives the building a long lifetime (Randers Tegl, n.d.). Wood is contributing to reducing the CO_2-emission of the building industry and has the quality of absorbing CO_2 as well. It is a material that can easily be reused and its low weight (compared to other materials) makes it easier and more sustainable to transport (Sweco, n.d.). Common for the two materials is that they have aesthetic quality, appeals to the senses, and provides a good indoor environment in the buildings (Randers Tegl, n.d. and Sweco, n.d.).

Second, the neighborhood is runned and maintained by Bydelsforeningen and local hosts with the intention of creating an area that keeps developing according to the wishes and needs from the local residents. The local residents are a diverse group of people which has the purpose of creating a socially inclusive and equity neighborhood where the voice of everyone is welcome.

Third, the green wedge has been expanded and is now named Natursporet. A small stream is implemented in this area, thus providing good conditions for a thriving life for faunas and floras. Furthermore, vegetation has been incorporated in the courtyards and along Teglgaden as a spacious, aesthetic and screening element. Most of the paving, with Teglgaden as an exemption, is made with permeable surfaces which have noise-reducing qualities and improves biodiversity.

Sustainability has indirectly been a part of many decisions through the project, with the aim of setting the framework for an urban environment that contributes to a high quality of life.

Building Bysporet

Implementation strategy

The following implementation plan functions as a supporting tool in terms of ensuring that the neighborhood is built in the right order to establish the desired qualities first. The implementation plan is divided into 6 phases and the total time frame is expected to be 4 years.

Ill. 88 Steps of implementation ▼

| Implementation | Organization | Spor 1 | Spor 2 | Spor 3 | Spor 4 | Spor 5 |

| Timeframe | 1 year | 1,5 year | | 2,5 year | | 4 years |

| Phase 1 | Phase 2 | Phase 3 | Phase 4 | Phase 5 | Phase 6 |

Phase 1

In the first phase, Natursporet, will be founded with the agenda of maturing the landscape and giving it time to grow and sprout while the rest of the masterplan is being built. Furthermore, it is a path that is already used by pedestrians and cyclists today and it is a wish to keep a presence of people from the beginning.
The small ateliers and workshop buildings are a part of this phase in order to strengthen the existing creative environment and give entrepreneurs the opportunity to establish and build their businesses. These buildings are placed along Natursporet and Teglgaden, hence Teglgaden will be built as well. Teglgaden will not only provide accessibility to the workshops and ateliers but will communicate the identity of this urban street.
The organization for the area will be established in this phase. Bydelskontoret has the responsibility for implementing Bydelsforeningen. Bydelsforeningen handles the branding of the new residential area and hires the local hosts. The local hosts will establish contact to the future residents and include them in the process of building and developing Bysporet. Bystuen will be built in this stage too and provide offices for Bydelskontoret and Bydelsforeningen.

Phase 2

Spor 1 is being built in the second phase and consists mainly of institutional buildings. There will be housing facilities reserved for students in this area and these will be built after the institutions are finished and ready for use. The institutions will activate the area and create an awareness for the area, thus contributing to the founding of an urban life. This will be emphasized and supported further as the students move in.

Phase 3

The first residential parameter block is Spor 2 and will be implemented in this phase. The building, accommodating the common facilities, will be built first with the intention of establishing a place for the future residents to meet and engage in the forthcoming development of their neighborhood. Afterwards, the cultural facilities together with the buildings for business and retail are founded and the urban life can start to sprout and take root. Finally, the housing facilities are established and the residents can move in.
The implementation strategy for the following parameter blocks will be as described in this phase - working from inside and out.

The final chapter will round off by offering a conclusion and evaluating the thesis and the design proposal through a reflection.

Epilogue

06

Ill. 89 The industrial atmosphere at Godsbanearealerne

Summarizing the Neighborhood, Bysporet

Conclusion

The thesis *A Critical Curiosity* has shaped a new urban neighborhood situated at the southern part of Godsbanea-realerne, Aarhus (Denmark). The project evolves around a curiosity concerning how an urban transformation, rooted in neighborliness and communities, can set the framework for an everyday life of quality in human scale with the intention of facilitating a sense of belonging.

Due to the increasing urbanization, more and more people are moving to cities, which should make demands on the quality of these. We believe that it is possible to challenge the capitalist-driven way of developing cities of today, and this design proposal is showcasing how we have developed a neighborhood that addresses the people.

The thesis has drawn upon two main theories: A City Favoring People and A Sense of Belonging in the City with the intention to gain knowledge of how to include people in designing the physical environment. Moreover, how the city is experienced at eye-level and what parameters to be aware of in terms of striving towards making people feel a sense of belonging. These theories are supported with smaller literature studies that depict the importance of integrating nature when shaping cities, why public and private spaces are key to distinguish between, and finally how sustainability is present in our mindsets when developing cities. The theories and themes have been the baseline when approaching this thesis and have been applied through the design process and in the final design proposal.

The project site at the southern part of Godsbanearelaerne in Aarhus was chosen due to the fact that it is highly relevant, seeing it is currently under development. It is surrounded by newly developed housing areas, offices, and a carpark in construction. Our agenda was to question the quality of these new areas that reflect a capitalist-driven way of planning and conduct a realistic design proposal of rather different character. However, it is important to stress that the intention was to go into dialogue with the context, inviting it in, and creating urban cohesion. In line with this, it is key to include local stakeholders and fiery souls who are already utilizing the site and contributing to the current identity.

In order to understand the project site and surrounding context different site-specific analyses have been conducted through desktop-analyses and analyses generated in connection with field trips to Aarhus. During the project period, there have been three field trips to the site and these have contributed to an embodied understanding of the site and the surrounding environment. Moreover, the field trips have equipped us with local knowledge through interviews with the daily manager of Institut for (X), Mads Peter Laursen and the Urban Designer at Institut for (X), Thor Vingolf Nielsen.

The literature studies, analyses and interviews have provided the foundation for the design proposal, which has been developed through an iterative integrated design process. The design process reflects an iterative approach of testing different initiatives and proposals which have been evaluated and reflected upon and repeated.

The final design proposal, Bysporet, builds upon a concept where the city is perceived as an ongoing process - a place that is shaped through and over time by the people utilizing it. We as Urban Designers launched design initiatives that we believe should be the driving force behind the new urban area. These initiatives are concerned with establishing communities, setting the framework for a sense of belonging, providing recreational values in an urban context, and acknowledging the importance of fiery souls. A concept where the people play an important role in participating in developing a neighborhood of quality. The organization behind Bysporet is of importance in order to ensure the desired future running and development. The organization consists of three parts: Bydelskon-toret, Bydelsforeningen, and local hosts. Bydelskontoret is an already established unit that handles the formal top-down planning processes. Bydelsforeningen is a newly established unit and has the purpose of balancing the gap between top-down and bottom-up planning by conveying the interests of the citizens and residents. Finally, the local hosts have the responsibility of running and maintaining Bysporet in close collaboration with the residents. These can help arrange activities and events requested by the residents, and include them in the future development of the area and invite them to take ownership in their neighborhood.

The new urban neighborhood, Bysporet, consists of five different areas represented as broken up parameter blocks: Spor 1, Spor 2, Spor 3, Spor 4, and Spor 5. Each Spor consists of buildings of different heights and have displacement in the facades in order to provide an interesting streetscape that calls for exploration. The materialities of the buildings are mixed within a range of rustic and natural surfaces that appeals to the senses. Bysporet contains a mix of facilities and targets a wide range of people, thus aiming to create a mixed city. The parameter blocks represent a dense city structure and offer apartments of limited square meters with the intention of sharing common facilities, thus creating informal meetings between the residents. These common facilities have a potential of providing a common identity, responsibility, and a sense of belonging which sets the framework for local communities to arise.

The design proposal targets a new urban district that is perceived to be welcoming for everyone, thus allowing the public access is key. This has been done in two different ways. Natursporet is a public recreational path inviting the citizens to take a break from the chaotic everyday life and explore the wild and sprouting nature. Teglgaden, on the other hand, has the purpose of ensuring the presence of necessary, optional, and social activities and provides an urban atmosphere in opposition to Natursporet. Teglgaden cuts through the parameter blocks and appears as a floating organic element, softening the straight lines from the buildings. The path bridges all Spor of the area whilst inviting the citizens inside this new area. The design proposal differs the public zones from the private by creating physical and visual transitions. The private zones are screen, thus limiting the visibility of these spaces. Moreover, the materiality of the paving changes from red tiles with a playful course to rectangular gray tiles laying in a rigid system.

Bysporet is seeking to provide a sense of belonging and do not perceive this as a feeling only preserved to the private dwelling - it happens in the public urban environment seeing the residents are creating memories and relations here as well. Therefore, the human scale and design initiatives appealing to the senses have been key in transforming the southern part of Godsbanearealerne.

To sum up, Bysporet is a dense neighborhood of proximity and diversity with an inviting and creative atmosphere. It reflects the top-down vision put forward by the Municipality of Aarhus and the neighborhood is inspired by the concept of the Open City. The balance between urban designers, planners, and citizens are explored with the intention of raising the voice of the citizens. It is a design proposal where the Urban Designers are aware of the fact that the lived life cannot be designed but the frames for a life of quality can be provided.

Challenging the Critical Curiosity

Reflection

The design proposal and the process of creating the neighborhood, Bysporet, at the southern part of Godsbanearealerne harmonizes with our interests and motivation within the field of Urban Design. To create cities with and for people. With our thesis, we tap into a glowing and present debate concerning whether we design cities for people or profit in a capitalist-driven society. This has been exceptionally challenging and educational, and at the same time meaningful and necessary. The direction we have chosen for our thesis, has given us the opportunity to contribute to the before mentioned debate and position ourselves through the design proposal. A design proposal that incorporates the foundation of a neighborhood of quality by using our professional competences as Urban Designers. We have applied our hybrid and interdisciplinary competences and identified a problem in the present way of planning and designing cities. Through bridge-building between relevant theory and practice, we have attempted to respond to our critical curiosity of how urban design can challenge this capitalistic approach. An approach that to a great extent is impacted by profit and authority oozing of insipid concrete buildings lacking identity and urban spaces of limited processing and decoration. With Bysporet we have strived to move away from this approach by addressing an area under current development, thus a relevant and realistic project site to work at.

Bysporet is a neighborhood designed to be perceived and lived at eye-level - a city that meets the human-scale. However, it can be questioned whether the process of the design has worked on an adequately detailed scale. The design process has iterately moved between scales of 1:1000, 1:500, and 1:200, but a detailed study of the outdoor environment should be conducted in the further process of the design development. In relation to this, it would be beneficial to include other professions, such as architects and sociologists in order to achieve a design dedicated to the people utilizing and experiencing it. To accommodate the people, the design introduces a radical distribution of public and private spaces. The public and private spaces are floating side by side with the intention of engaging people to socialize and utilize common and shared facilities - thus being an active participant of the city. This comprises a clear communication and graduation between public and private spaces which is accommodated through implementing different kinds of paving and vegetation as an aesthetic screening element. The transitions have mostly been handled on a strategic level while it could have been of preference to conduct detailed studies of this matter in order to address the human-scale carefully.

The people have been the focal point to us and the glue to create cohesiveness and meaningful urban design. This is why Bysporet commits itself and reflects a new and inclusive neighborhood, that lets the citizens inhabit and explore their city through the facilitation of different types of housing and facilities. The target group covers a wide field which has been an intentional choice to achieve a diverse and mixed city that can contribute to strengthen the cohesion, neighborliness, and the advantages of meeting strangers. In other words to secure a robust social sustainability.

The housings have been reduced in square meters to catalyze the residents to take part in the public facilities. We imagine that the dwellings provide the necessary facilities whereas home offices, guest rooms, a large dining room and so forth are to be accommodated through the common houses. Thus, the common houses have the potential of becoming an extension of the home and a social place with the possibility of engaging with the other residents. The selection of different dwellings and facilities have among others been chosen on the basis of the case studies Tinggården, Holzmarkt, and Kunstneren Tæt På and led to the implementation of Bystuen, common houses, atelier, and workshops. Thereby, the different facilities should make the residents and citizens contribute to the living life and make them feel like they belong to the place.

Have we then met our own desire to involve the citizens in the process and development of Bysporet on a satisfactory level? In the project we have had the citizens in mind when designing and planning. Not the profitable part as the developers. We have used realistic case studies that have similarities with the intention of our project. Furthermore, we have attempted to get the actual voices of the citizens in the local neighborhood through an online noteboard, given that we were not able to observe and interview a lot of people during our site visits to Aarhus. However, it could have been valuable to involve the citizens even more through personal interviews or workshops concerning the future identity and design of the southern part of Godbanearealerne. This is considered to be the next step in the project and be a suitable part of the implementation strategy where the residents can be an active part in deciding what facilities the area should offer with the local hosts coordinators.

Another point of view that has brought much value to the project is the involvement of the local fiery souls, Mads Peter Laursen and Thor Vingolf Nielsen, from Institut for (X). With an experimenting and open-minded approach

through the project, we have to a great extent utilized and implemented their point of views. They have equipped us with an understanding of the planning process and thereby, the gap between top-down and bottom-up planning that takes place in the current development of Godsbanearealerne. In this project we have chosen to preserve the atmosphere around Institut for (X) and carried on the unique identity to Bysporet. This is represented with the construction of minor ateliers and workshops reserved for local fiery souls but also the continuation of the red paving bricks. This is an attempt to create cohesion between the scales and facilities that Bysporet and Institut for (X) offers.

At the same time we have been inspired by the enthusiasm, passion, and motive-power from the fiery souls at Institut for (X) and the case study Kunstneren Tæt På to identify the role of local hosts at Bysporet. It is to a great extent our proposal of how to integrate fiery souls as a resource in the development of the southern part of Godsbanearealerne. Likewise we have established Bydelsforeningen on the behalf of the residents and fiery souls at Bysporet so they become active before and after the development of the neighborhood with ongoing meetings and workshops with the existing Bydelskontor. The processing of the organization of Bysporet is also a way to balance the gap between top-down and bottom-up planning where the stakeholders from below get active and visible co-players in the process of developing the southern part of Godsbanearealerne. Even though it can be difficult to say whether the design interventions of local hosts and Bydelsforeningen work as intended, we have seeked to act on the gap between top-down and bottom-up planning.

Do we then succeed in all our design interventions, could be a question to ask. It is impossible and it will always be possible to adjust and make changes to the design - especially with a critical curiosity. In our opinion the design interventions we have implemented are contributing to a neighborhood of quality and is a response to challenge the capitalist-driven way of planning and designing cities. At the same time, the intention is that Bysporet is a neighborhood in process where the established organization behind the area, takes care of adapting and developing it with help from the residents.
The sociologist Richard Sennett, applied as a theorist in this thesis, propounds 'seed-planning' as opposed to today's top-down approach of masterplanning. He explains: "*Were you a farmer, you would understand instantly what this kind of planning is about [...] the same seed sown in different circumstances of water,*

wind and soil produces different colonies of plants" and he continues "*Cities aren't farmed today. Instead they are master-planned [...] dividing a city up into a closed system*" (Sennett, 2018: 236). He argues that a seed will have time to grow and adapt into its surroundings and that the farm is a dynamic ecology rather than a static ecology (Sennett, 2018). By planting seeds when planning and designing cities, the role of Urban Designers becomes even more essential. We are able to plant seeds and make the city grow in a flexible, experimenting, and involving way and thereby direct the cities into a clear and quality-conscious direction. To us, this has been the case at Bysporet. The seeds we have chosen to plant are expected to harvest community, sense of belonging, recreational surroundings, and fiery souls engaging in the city. The physical framework of Bysporet is supposed to accommodate this exact agenda. In addition to this, we believe that the people are an important factor in shaping cities, thus it is of importance to consider cities as entities in process. Mads Peter Laursen explains: "*[it] is about programming the un-programmed, so you intentionally un-programme and make room for something that is not programmed*" (Appendix 01), thus the people inhabiting the city are given the opportunity to take part in shaping it within the programmed environment. Stated through this thesis, the capitalist-driven way of planning our cities is deeply related to profit, politics, and economy which makes it difficult to change and interfere with the strategies and approaches. However, if we do not dare to challenge the planning methods, our cities will not change or adapt but simply follow the agenda from topdown. The question is, are we as Urban Designer accepting that city planning is about profit? Do we dare to make cities for the people inhabiting it?

References

Aghbashlo, M. & Rosen, M. A., (2018). *Exergoeconoenvironmental analysis as a new concept for developing thermodynamically, economically, and environmentally sound energy conversion systems*. Journal of Cleaner Production, 187, 190–204.

Allies, B., (n.d.). *On public, private and communal space*, Research/Fabric of Place [Online] Allies and Morrison [Accessed 3rd of May 2022] Available at: https://www.alliesandmorrison.com/research/on-public-private-and-communal-space

Andersen, P. B., (2022). *Det kræver metode og en stedforankret strategi at skabe nye steder, hvor folk har lyst til at være* [Online] byrumsmonitor.dk. [Accessed 25th April 2022] Available at: https://byrumsmonitor.dk/Debat/art8712237/Det-kr%C3%A6ver-metode-og-en-stedforankret-strategi-at-skabe-nye-steder-hvor-folk-har-lyst-til-at-v%C3%A6re

Andersen, R. B., (2019). V*i må ikke glemme de store fællesskaber i by-udviklingen* [Online] byrumsmonitor.dk. [Accessed 25th April 2022] Available at: https://byrumsmonitor.dk/Debat/art7503411/Vi-m%C3%A5-ikke-glemme-de-store-f%C3%A6llesskaber-i-byud-viklingen

Andersson, S. L., (2021). *Bynaturens faretruende kræfter er modsat gadesport og programmerede byrum bredt inkluderende* [Online] byrumsmonitor.dk. [Accessed 23rd April 2022]. Available at: <https://byrumsmonitor.dk/Debat/art8291388/Bynaturens-faretruende-kræfter-er-modsat-gadesport-og-programmere-de-byrum-bredt-inkluderende>

Aarhus Kommune, (2022). *Aarhus i tal* [Online] ledelsesinformation.dk. [Accessed 22th April 2022]. Available at: <https://ledelsesinformation.aarhuskommune.dk/aarhus-i-tal/default.aspx?doc=vfs://Global/AARHUS-I-TAL/BEFOLK-NING_I_TAL-Demografi-Antal.xview>

Aarhus Kommune, (2017 a), *Kommuneplan 2017: Hovedstrukturen* [Online] Aarhus Kommune, pp. 1-18. [Accessed 24th April 2022]. Available at: <http://reader.livedition.dk/aarhuskommune/835/>

Aarhus Kommune, (2017 b). *Godsbanearelerne Aarhus K: Udviklingsplan August 2017* [Online] Godsbanearealerne.dk. [Accessed 18th March 2022]. Available at: <https://godsbanearealerne.dk/media/7341/udviklingsplan-for-godsbanearealerne-2017-reduceret.pdf>

Aarhus Volume, (2021). *Om Aarhus Volume* [Online] Aarhusvolume.dk. [Accessed 3rd April 2022] Available at: <https://aarhusvolume.dk/om-os/>

Berlin-Guide, (n.d.). *Holzmarkt - Berlins sidste bastion mod gentrificering.* [online] Berlin-Guide.dk. [Accessed 15th April 2022]. Available at: <https://berlin-guide.dk/index.php/se-i-berlin/sevaerdigheder-i-berlin/parker-parker-og-veje-i-berlin/1145-holzmarkt-berlins-sidste-bastion-mod-gentrificering>

Birch, E.L., (2008). *Public and Private Space in Urban Areas: House, Neighborhood, and City*. In: Cnaan, R.A., Milofsky, C. (eds) Handbook of Community Movements and Local Organizations. Handbooks of Sociology and Social Research. Springer, Boston, MA. Available at: https://doi.org/10.1007/978-0-387-32933-8_8

Bloomer, K. & Moore, C., (1977). *Body, Memory, and Architecture*, Yale University Press, pp. 107

Busck, A. G. & Kristensen, S. B. & Winther, L., (2020). *Urbanisering i bynære landområder - tendenser og udfordringer for fysisk planlægning* [pdf] Gentænk Byen, Copenhagen: Dansk Byplanlaboratorium, pp. 23-25

Byens Netværk, (2021). *Arkitektskolen Aarhus - arkitektur for arkitekter* [Online] Byensnetværk.dk. [Accessed 3rd April 2022] Available at: <http://www.byensnetvaerk.dk/da-dk/arrangementer/2021/arkitektskolen-aarhus-–-arkitektur-for-arkitekter.aspx>

Byrummonitor, (2018). *Debat: Bygger vi for individer, får vi byer, der med tiden fortæller os, vi er alene.* [online] Byrummonitor.dk. [Accessed 17th March 2022]. Available at: <https://byrummonitor.dk/Debat/art6717434/»Bygger-vi-for-individer-får-vi-byer-der-med-tiden-fortæller-os-at-vi-er-alene«>

Cappelen, J. & Jørgensen, B., (1999). *Danish Meteorological Institute* [pdf] Dmi.dk. [Accessed 11th April 2022] Available at: <https://www.dmi.dk/fileadmin/user_upload/Rapporter/TR/1999/tr99-13.pdf>

Carlberg, N., (2022). *Vi skal bygge mindre boliger, men vi kan ikke bare gøre, som vi plejer* [Online] byrumsmonitor.dk. [Accessed 15th May 2022]. Available at: <https://byrumsmonitor.dk/Debat/art8670762/Vi-skal-bygge-mindre-boliger-men-vi-kan-ikke-bare-gøre-som-vi-plejer>

Christensen, C. B., (2017). *Fra Hus til Hjem* [pdf], Aalborg University

Christensen, I., (n.d.). *Godsbanen - Hvordan og hvorfor laver man et kulturproduktionscenter i en gammel godsbanegård?*, [Accessed 3rd April 2022] Available at: <https://godsbanen.dk/wp-content/uploads/2019/02/GODSBANENS-HISTORIE_IB.pdf>

Corbusier, L., (1991). *Precisions*. MIT Press, Cambridge, pp. 7

Corbusier, L., (1959). *Towards a New Architecture*. Architectural Press, London, pp. 191

Danmarks Statistik, (2022). *Folketal den 1. i kvartalet efter sogn og tid.* [online] statistikbanken.dk. [Accessed 18th March 2022] Available at: <https://www.statistikbanken.dk/KM1>

Garvin, A., (2002). *The American City What Works What Doesn't*. New York: JohnWiley.

Gehl, J., (n.d.). *Gehl* [Online] Gehl people [Accessed 11th of January 2022] Available at: https://gehlpeople.com/people/david-sim/

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

Geus, (n.d.). Geologisk kort over overfladenære jordarter [Online] Dingeo.dk. Available at: <https://aarhusvolume.dk/om-os/> [Accessed 3rd April 2022].

Hele Landet, (2021). *Kunstneren Tæt På*, [Accessed 18th March 2022] Available at: <https://static1.squarespace.com/static/614d97223a555c0fbb7b95b2/t/61ded71544667b0be10dc4fd/1641994005880/2020_Kunstneren+Tæt+På.pdf>

Hele Landet, (n.d.). *Vi mener, at vi skal kunne bo og leve godt over hele landet*, [online] helelandet.dk [Accessed 24th February 2022] Available at: <https://www.helelandet.dk/tilgang>

Holzmarkt, (n.d.). *Holzmarkt - Concept & Architecture* [pdf]. [Accessed 15th April 2022] Available at: <http://www.arc1.uniroma1.it/saggio/Didattica/Supporti/Berlin/HOLZMARKT_Concept&Architecture.pdf>

Institut for (X), (n.d.). *About X* [Online] Institutforx.dk. Available at: <https://institutforx.dk/about/> [Accessed 18th March 2022].

Jacobs, J., (1961). *The Death and Life of Great American Cities*. New-York: RandomHouse.

Knudstrup, M., (2004). *Integrated Design Process in Problem-Based Learning*, Aalborg University, pp. 3-7. Available at: <https://vbn.aau.dk/ws/portalfiles/portal/16081935/IDP_in_PBL_2004_Mary-Ann_Knustrup_Ny_pdf_fil.pdf> [Accessed 4th May 2022].

Kring, M., (2019). *Jo, Lundbye, private udviklere kan også lave seriøse fællesskaber* [Online] byrumsmonitor.dk. [Accessed 25th April 2022] Available at: https://byrumsmonitor.dk/Debat/art7478526/Jo-Lundbye-private-udviklere-kan-ogs%C3%A5-lave-seri%C3%B8se-f%C3%A6llesskaber

Kulturmagasinet Fine Spind, (2017). *Eksistentiel hjemløshed i den moderne by.* [online] Finespind.dk. [Accessed 21th March 2022]. Available at: <https://www.finespind.dk/index.php/artikler-og-billedserier-kategorier/$overkategorialias/110-interview-alt-det-andet/439-juhani-pallasmaa-interview-arkitektur-aarhus>

LeGates, R. T. & Stout, F., (2003). *The City Reader*, 3rd. ed., New York: Routledge

Lundbye, L., (2019). *Orangeriet er ikke en garanti for fællesskab* [Online] byrumsmonitor.dk. [Accessed 25th April 2022] Available at: https://byrumsmonitor.dk/Debat/art7471174/Orangeriet-er-ikke-en-garanti-for-f%C3%A6llesskab

Mumford, L., (2003). *What Is a City?* in The City Reader, 3rd. ed., New York: Routledge, pp. 93-96

Nielsen, S., (2018). *Bygger vi for individer, får vi byer, der med tiden fortæller os, at vi er alene* [Online] Byrummonitor [Accessed 17th of March] Available at: https://byrummonitor.dk/Debat/art6717434/%C2%BB-Bygger-vi-for-individer-f%C3%A5r-vi-byer-der-med-tiden-fort%C3%A6ller-os-at-vi-er-alene%C2%AB

Niras, (2017). *Byggemodning, Godsbanen, Aarhus: Afvandingsstrategi,* [pdf] Aarhus Kommune. [Accessed 3rd May 2022] Available at: <https://www.aarhus.dk/media/24295/bilag-34-afvandingsstrategi.pdf>

Pallasmaa, J., (1995). *Identity, Intimacy and Domicile - Notes on the Phenomenology of Home* (in The Home - Words, Interpretations, Meanings, and Environments, ed. by David N., Benjamin, pp. 131-147)

Pallasmaa, J., (2015). *Arkitekturen og Sanserne*. Arkitektens Forlag

Randers Tegl, (n.d.). *Fordele ved tegl* [Online] Randers Tegl [Accessed 18th May 2022] Available at:https://www.randerstegl.dk/dk/mursten/artikler-og-inspiration/fordele-ved-tegl

Rasmussen, S. E., (1957). *Om at opleve arkitektur*. Forlaget Archi Tegn

Realdania, (2021). *Ildsjæle i byggeriet sætter blus under fællesskabet* [online] Realdania.dk [Accessed 8th May 2022] Available at: <https://realdania.dk/nyheder/2021/03/blogindla-eg-ildsjaele-i-byggeriet-saetter-blus-under-faellesskabet>

Romer P., (2013). *The City as Unit of Analysis: Paul Romer Blog* [Online] Paul Romer [Accessed 11th of January 2022] Available at: https://paulromer.net/the-city-as-unit-of-analysis/

Realdania, (n.d.). *Underværker* [Online] Realdania.dk. [Accessed 8th May 2022]. Available at: <https://realdania.dk/projekter/underværker>

Ritzau, (2020). *Der er stor forskel på, hvor stort østjyderne bor* [Online] rizau.dk. [Accessed 8th May 2022]. Available at: <https://via.ritzau.dk/pressemeddelelse/der-er-stor-forskel-pa-hvor-stort-ostjyderne-bor?publisherId=12604233&releaseId=13585595>

Rosen, M. A., (2020). *Sustainability: Concepts, Definitions, and Applications in Building Sustainable Cities. Social, Economic and Environmental Factors*, edited by Alvarez-Risco, A., Rosen, M. A., Del-Aguila-Arcentales, S., & Marinova, D., Springer, pp. 15-26
Sennett, R. (2018), Building and Dwelling: Ethics for the city. New York: Farrar, Straus and Giroux, pp. 1-21, 171- 187

Sim, D., (2019). *Soft City - Building Density for Everyday Life*, Island Press: Washington [Online] ProQuest Ebook Central, [Accessed 17th of February 2022] Available at: http://ebookcentral.proquest.com/lib/aalborguniv-ebooks/detail.action?docID=6317985. Created from aalborguniv-ebooks on 2022-02-17 12:27:35.

Socialkompasset, (2022). *Varmestuen Spor 7* [Online] socialkompasset.dk. [Accessed 13th May 2022]. Available at: <https://socialkompasset.dk/tilbud/varmestuen-spor-7/>

Space10, (2018). *How Shared-Living Spaces Could Make Our Cities More Inclusive* [Online] Space10 [Accessed 25th of April 2022] Available at: https://space10.com/how-shared-living-spaces-could-make-our-cities-more-inclusive/

Strøjer Tegl, (n.d.). *Bæredygtighed og de "grønne" mursten* [Online] Strøjer Tegl [Accessed 18th May 2022] Available at: https://www.strojertegl.dk/baeredygtighed-og-gronne-mursten/baeredygtighed/

Steiner, F. (2011). *Landscape ecological urbanism: origins and trejectories*, Landscape and Urban Planning, bind 100 nr. 4, side 333-337

Sweco, (n.d.). *Byg mere bæredygtigt med træ* [Online] Sweco [Accessed 18th May 2022] Available at: https://www.sweco.dk/baeredygtighed/traebyggeri/?gclid=Cj0KCQjwspKUBhCvARIsAB2IYus_uZs478uztQMgWUPx-frK-PU3vUXbhuMgWi-K7T8DFQAABBtyGVhoaAoJvEALw_wcB

The New Yorker, (2018). *Can cities make us better citizens?* [online] Newyorker.com. [Accessed 17th March 2022]. Available at: <https://www.newyorker.com/books/page-turner/can-cities-make-us-better-citizens>

Thomsen, K. B. & Due, J. K., (2009). *Århus Godsbanegård - historie og kulturarvsanbefalinger*, [Accessed 3rd April 2022] Available at: <https://drive.google.com/file/d/1BMV3VohosVzyo-FyoX-YrsgSD5DadNXbP/view>

Underværker, (n.d.). *Underværker* [online] Undervaerker.dk [Accessed 8th May 2022] Available at: <https://undervaerker.dkt>

Valeur, H., (2021). *En anden By*, Arkitekturforlaget B, København

Vandkunsten Architects, (n.d.). *The successful experiment* [Online] Vandkunsten [Accessed 13th of April 2022] Available at: https://vandkunsten.com/en/projects/tinggaarden

Weiss, K. L., (2020). *Det er godt at bo godt! i Boligviden*, Statens Kunstfond og Realdanias boliglaboratorium.

Illustration List

ill. 1 - 4: own illustrations

ill. 5: Seattle: Warwick, (n.d.) https://www.warwickhotels.com/warwick-destinations/seattle

ill. 6: Copenhagen: Culture trip (n.d.) https://theculturetrip.com/europe/denmark/copenhagen/

ill. 7 - 8: own illustrations

ill. 9: own diagram based on Gehl, Gehl, J., (2017) Livet mellem husene, 7th ed, Arkitektens Forlag: København

ill. 10 - 12: own illustrations

ill. 13: own diagram based on external source Rosen, M. A., (2020), Sustainability: Concepts, Definitions, and Applications in Building Sustainable Cities. Social, Economic and Environmental Factors, edited by Alvarez-Risco, A., Rosen, M. A., Del-Aguila-Arcentales, S., & Marinova, D., Springer, pp. 15-26

ill. 14 - 16: own illustrations

ill. 17: Historic timeline: https://godsbanen.dk/om-godsbanen/godsbanens-historie/ and https://godsbanen.dk

ill. 18 - 32: own illustrations

ill. 33: water management: Aarhus Kommune, (2017 b), Godsbanearelerne Aarhus K: Udviklingsplan August 2017 [Online] Godsbanearealerne.dk. Available at: <https://godsbanearealerne.dk/media/7341/udviklingsplan-for-godsbanearealerne-2017-reduceret.pdf> [Accessed 18th March 2022]. side 59

ill. 34: own illustration

ill. 35: wind rose Cappelen, J., & Jørgensen, B., (1999), Danish Meteorological Institute [pdf] Dmi.dk. Available at: <https://www.dmi.dk/fileadmin/user_upload/Rapporter/TR/1999/tr99-13.pdf> [Accessed 11th April 2022]

ill. 36 - 38: own illustrations

ill. 39: citizens: Aarhus Kommune (2022) Aarhus i tal [Online] ledelsesinformation.dk. Available at: <https://ledelsesinformation.aarhuskommune.dk/aarhus-i-tal/default.aspx?doc=vfs://Global/AARHUS-I-TAL/BEFOLKNING_I_TAL-Demografi-Antal.xview> [Accessed 22th April 2022]

ill. 40: citizens: Aarhus Kommune (2022) Aarhus i tal [Online] ledelsesinformation.dk. Available at: <https://ledelsesinformation.aarhuskommune.dk/aarhus-i-tal/default.aspx?doc=vfs://Global/AARHUS-I-TAL/BEFOLKNING_I_TAL-Demografi-Antal.xview> [Accessed 22th April 2022]

ill. 41 - 44: own illustrations

ill. 45: Holtzmark: : https://mitvergnuegen.com/2019/holzmarkt-sperrstunde/
https://www.tagesspiegel.de/berlin/streit-um-holzmarkt-projekt-in-friedrichshain-verkauf-von-eckwerk-areal-nicht-ausgeschlossen/24310280.html
https://www.welcome-to-berlin.com/de/berlin-lifestyle/strandbars/1469-die-strandbar-pampa-am-holzmarkt25.html

ill. 46: Kunstneren tæt på: Pictures from internal report, produced by Hele Landet [confidential material]

ill. 47 - 48: own illustrations

ill. 49: Tinggården: Vandkunsten Architects (n.d.) The successful experiment [Online] Vandkunsten [Accessed 13th of April 2022] Available at: https://vandkunsten.com/en/projects/tinggaarden

ill. 50 - 66: own illustrations

ill. 67: Teglgaden: https://www.pinterest.dk/pin/237846424061127256/
https://landezine.com/magneten-sensory-garden-by-masu-planning/
https://interiordesign.net/designwire/hudson-valley-retreat-gather-greene-offers-glamping-for-upscale-campers/

ill. 68: Natursporet: https://landezine.com/magneten-sensory-garden-by-masu-planning/
https://www.refinery29.com/en-us/2014/09/74847/high-line-nyc?utm_source=email&utm_medium=editorial&utm_content=new-york&utm_campaign=140922-nyc-most-parisian-attractions-#slide

ill. 69 - 73: own illustrations

ill. 74: Billeder af lokale veje: https://www.flickr.com/photos/97630304@N02/9067067795/in/album-72157644762443893/
https://skyscraperpage.com/forum/showthread.php?t=236016
https://www.flickr.com/photos/hackneycouncil/43480470324

ill. 75 - 79: own illustrations

ill. 80: Architecural Expression:
https://www.dezeen.com/2016/08/19/atelier-tom-vanhee-architects-gabled-wooden-extension-refurbished-brick-farmhouse-aartrijke-belgium/
https://www.archdaily.com/794054/house-baumle-2-bernardo-bader/57bed4bde58ece953e0001da-house-baumle-2-bernardo-bader-photo?next_project=yes
https://i.pinimg.com/originals/eb/cd/b1/ebcdb1d35ede38b5e-873c4d50a1c50eb.png
https://www.archdaily.com/52051/forestview-house-atelier-st
https://onsomething.tumblr.com
https://www.dezeen.com/2014/01/22/aluminium-clad-rebel-house-mono/
https://glengerybrick.smugmug.com/Professional/20007-Cadys-Alley/i-KnXHQ4g/
https://www.cedstone.co.uk/landscape/product-range/natural-stone/aggregates-gravels/footpath-gravels
https://www.ehow.com/how_12114445_make-troybilt-lawnmower-faster.html?epik=dj0yJnU9UmtlZTJxZHFyLVpySjNtQURuZF-BZQmdQbnd6N25YSHEmcD0wJm49QTNtTFJsWkQteVNjU3hrYW-Y3QVpTUSZ0PUFBQUFBR0tFNk1J
https://www.archdaily.com/page/2
https://grat.dk/bordurfliser/719-ibf-bordurfliser-30x90x10-cm-gra.html

ill. 81 - 86: own illustrations

ill. 87: sustainability reference billede:

ill. 88: own illustration