

LOOKING OVER THE FENCE

A Critical Rethinking of Senior Dwellings

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TITLE PAGE

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Looking over the Fence

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ABSTRACT

This project rapport is presenting a cross-disciplinary thesis, Looking over the fence, at the master's studies of Architecture and Urban Architecture at Aalborg University. The thesis is exploring alternative dwelling forms for seniors by challenging if more can be shared and thereby bring social value to the senior living and optimizing the use of both material, social, and contextual recourses.

The project site is in Naturbydelen, an ongoing urban development in Ringkøbing, that is being analysed together with the target group, the seniors, examining the problem and potentials. Further, with a focus on what an integrated collaboration between architecture and urban design can bring, theories on transitions (between landscape and building, public and private, in- and exterior) are investigated to shed light on how the transitions can provide a sharing environment where the use of recourses is utilized better.

The outcome is an experimental design proposal for a senior community living. It suggests a new type of dwelling, focusing on sharing on various levels of communities, which set the frame for sharing, and optimize the use of both social, contextual, and material resources.

ACKNOWLEDGMENTS

A grateful thanks to the many people who have guided us through the process and provided us with vital knowledge for the project to succeed.

Firstly, thanks to Marie Frier Hvejsel, Dario Parigi, and Hanna Mattila, Educators at Aalborg University, who has been supervising us and guided us through this project. Moreover, Jesper Ole Jensen, Senior Researcher at BUILD - Department of the built environment, Aalborg University, has shared knowledge on his research on community livings in Denmark (Appendix 1 - Mail Correspondence and Interview with Jesper Ole Jensen)

Besides, a special thanks should be given to the representatives from the housing communities, that we have been visited. Thanks to residents from the mixed community housing, Overdrevet (Hinderup), from the senior community housing, Balancen (Ry), and residents from the senior community housing, Havtorn (Ringkøbing). They have all welcomed us in their homes and given us insight in the life of living in communities. (Appendix 2 – Notes from Visits at Community Livings)

Further, information on the status of the project area, Naturbydelen, is received by Ann Hein, chief consultant of Naturbydelen, Ringkøbing K (Appendix 3 – Mail Correspondence with Ann Hein) and Jørgen Søndermark, Project leader at “Realdania By & Byg”, has provided insight about the organisation, process, and evaluation of the realized senior community living, Havtorn, in Ringkøbing (Appendix 4- Interview with Jørgen Søndermark).

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“[...] we need to view the fragility of the planet and its resources as an opportunity for speculative design innovations rather than as a form of technical legitimization for promoting conventional solutions”

(Mostafavi 2010, p.17).



01 INTRO

Reading guide
Call for New Ways
A Rural City
The Young-Old
What is a Community?
Problem

READING GUIDE

The report is divided into 8 chapters;

01 Intro, is presenting the motivation for the thesis and is introducing the problem, exploring a new dwelling type for seniors, the context, and the project's target group.

02 Transitions acquaints the reader with the theories, setting the base for the cross disciplinary methodological approach to the analyses and the design. Further, cases will be analysed in the light of the theory, that will inspire the design and the reading of the context.

In chapter, *03 Naturbydelen*, the larger context of the project, Naturbydelen in Ringkøbing, is being analysed for problems and potentials considering establishing a senior community in the area. The analyses are summed up in a contextual appraisal, leading to the choice of the specific site.

04 The Site is presenting the chosen project site for the senior community living. Opportunities and constraints are put forward to elaborate on how the resources of the site can be utilized.

05 Programme Delimitation is synthesising the analyses and investigations into concrete guidelines for the design through a devised room programme and a functions diagram, that focuses on facilities and what can be shared.

In *06 Challenging the Transitions* the concept of the design proposal for the community living is being developed and the essential points from the iterative design process are laid out and evaluated.

The chapter, *07 An Alternative Senior Living*, presents the experimental design proposal for a future senior community living at the project site in Ringkøbing, illustrated with diagrams, plans, sections, and spatial visualisations.

The *08 Outro* concludes and reflects on the design proposal and the process of the project.

In the very end, a literature list is found, which will be referred to through the report using the Harvard style. Likewise, an illustration list is informing the source of all the external illustrations which are not owned by the authors. Through the report, the illustration numbers will be found at the bottom of each of the illustrations and the illustrations from external sources are marked with ©.

Chapter Introduction

The quote by Mostafavi (2010) on the previous page, sets the scene for a critical and speculative project where we wish to question the traditional ways of living and explore the opportunities in utilizing the given resources of the contemporary context and problems.

In this first chapter, 01 Intro, the motivation for the thesis is put forward, where the main keywords of the report are introduced; New age groups, reducing resources, sharing, community living. Next, the characteristics and tendencies in Ringkøbing and Naturbydelen, the area of Ringkøbing, where the design proposal will be located, is being investigated. Finally in line with this, identification of the problem area associated with seniors, their typical dwelling types, and community living are brought forward and presented with a problem statement.



CALL FOR NEW WAYS

Motivation

The contemporary world is facing emerging challenges of people getting older and the birth rate is decreasing, thus resulting in new age groups (CFBO, Realdania et al. 2018, Sonne 2021). Moreover, the climate is changing, and the environment is suffering from human impact (DMI 2018, National Geographic n.d.) This calls for new ways of designing dwellings that can accommodate the new demands and needs of the residents but at the same time be environmentally sensible and afford attractive spaces. The world has a limited number of resources, and we must therefore reduce our use of resources and reuse what we have. Therefore, we wish to investigate how to do this without compromising the quality and comfort of the dwelling?

At the recent Biennale, summer 2021, the Curator, Hashim Sarkis urged that “*We need a new spatial contract*”, and it was questioned; “*How will we live together?*” (La Biennale di Venezia 2022). An urgent question concerning the above-mentioned contemporary issues of our world. It is not only a spatial question but also an economic and social question (World architects n.d.). As Cristina Capetillo comments, the *Live together* refers to the spaces where we can “*Live together as Human beings who, despite increasing individuality, yearn to connect with one another and with other species*” (2021 p. 6). The fact is that we are here together. We need to find out how we can live together and be sensible and responsible to the environment and the people we live with. A perspective of sharing can perhaps help us unfold a more sustainable way of living, and an approach to shape spaces that facilitate a sharing lifestyle? This is not only meeting aspects of reducing the use of resources but is also providing social quality of everyday life and being responsible for our surrounding natural environment.

This motivates our work with community livings, that can provide the possibilities to share facilities in the everyday life, and by this, also reduce the number of square meters we build, thus reducing the materials and energy consumption. In Denmark, community living has become increasingly popular among seniors (Appendix 4 – Interview with Jørgen Søndermark and Appendix 1 – Mail Correspondence and Interview with Jesper Ole Jensen). In 2018 Realdania and CFBO developed an architectural competition programme for a senior community living in Ringkøbing. The ambitions were high and words about what the final design should be,

were: “*The senior community must show a whole new way thus setting the standard for a future version of the current close-low housing communities*” (CFBO et al. 2018, p. 6, own translation) and the design should “[...] *show the way for how the future community living for active seniors look like*” (CFBO et al. 2018, p. 6, own translation). The intention of the competition was to create a design that would create an everyday-based community and think of new ways to create a relationship between the private dwelling and community areas. The competition was won by AART Architects who designed 14 rental houses with sizes ranging from 50-120 m², where each of them was designed for 1-2 persons (Naturbydelen Ringkøbing K n.d., a).

We are critical if the design does solve the present and urgent problems for example reusing materials, using fewer materials, or even downsizing the footprint. Instead, the design is a typical example of contemporary rental housing. We question if Havtorn really is the future version of a senior community and seek to push the contemporary understanding of what a senior community should look like. Can the dwellings be even smaller? Is it possible to create even more everyday meetings and give purpose to the later years of life? Can we question what community living is?

This thesis investigates if sharing more can be a part of using less materials and create a more everyday-based community. In line with this, working with community livings, naturally, opens for notions of the transitional interface between the private individual's home and the shared community facilities and urban (in-between) spaces. Sharing facilities and resources nudges informal interactions and afford the feeling of being a part of a community, but it also challenges the balance between the principle of private and public spheres.

When we share, it presupposes trust, transparency, and shared responsibility. It is not only about the facilitation of shared resources. It is about creating the frames for a communal feeling, that can afford sharing. Further, it is about finding the social qualities in sharing and optimizing the values – creating facilities that as many as possible can get value from. If the dwelling is being downsized, the quality and value needs to be increased in the shared and common spaces, so that downsizing does not become a compromise.



Ill. 1) In-between space at Havtorn.



Ill. 2) "The future senior community living" - Havtorn.

A PLACE FOR COMMUNITY

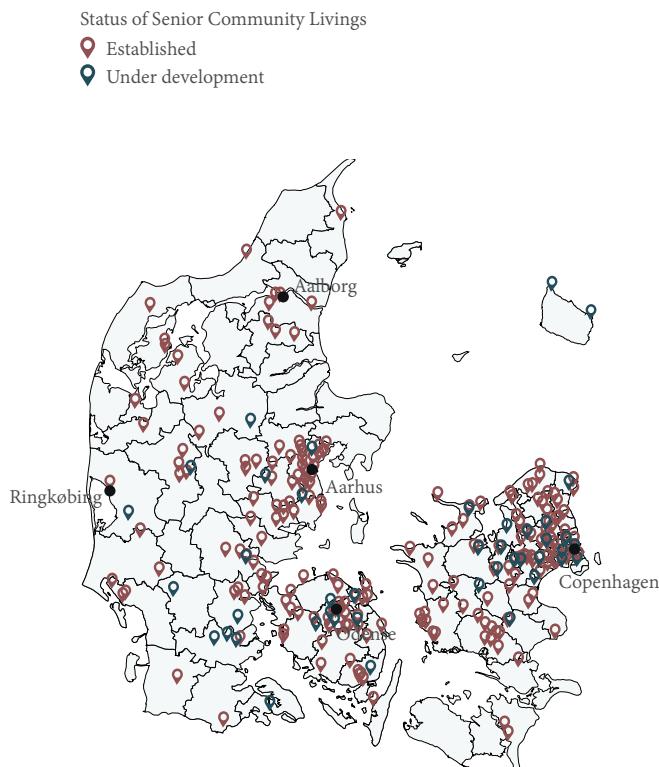
A Rural City

This thesis takes place at the west-coast in the city Ringkøbing which is placed in Denmark's largest municipality, Ringkøbing-Skjern Municipality, when considering the area (Gregersen 2021). Ringkøbing is a typical city in the rural part of Denmark, hence being a relevant area for exploring the design of a community living in the western part of Denmark. As shown in illustration 3 most of the Danish community livings are placed near larger cities such as Copenhagen, Aarhus, and Odense. We see an opportunity of having more community livings near the west coast as the nature here is spectacular and various. For a more detailed description of the nature at our site, see the section: Diverse Nature on page 58.

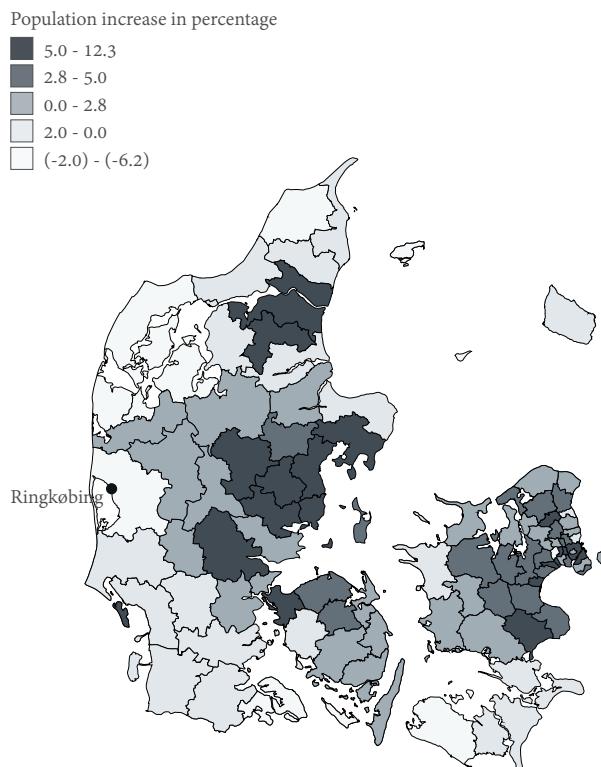
The western part of Jutland has by media been printed with the mark “the rotten banana”, which through the 2010s gave negative associations. Associations to areas of low income, education, high unemployment bad health and so on.

(Brodersen et al. 2011) On the other hand, we see potential in the qualities the Western part of Jutland can offer instead of problematising it. In the future, every fifth person in Denmark who lives in the city sees themselves living in the countryside or close to a smaller city in 2030. Especially among the age 50+, there has been a rise in people seeing themselves living in the countryside (Lemke 2021). However, according to future population figures, there will in 2020-2030 be a decline of -2.0 to -6.2 percentage in Ringkøbing-Skjern Municipality's population (Aagesen 2020).

This means more people say, in the future they would like to move to rural districts as Ringkøbing-Skjern Municipality. However, when looking at the figures, it does not seem to be happening. So, what should make people move to a rural city as Ringkøbing?



Ill. 3) Community Livings in Denmark. Inspired by Jørgensen 2021.



Ill. 4) Future Population increase percentage. Inspired by Aagesen 2020.

AN ACTIVE, LEISURE & NATURE CITY

A Rural City

According to the municipality, citizens living in the Ringkøbing-Skjern Municipality are active in their leisure time and do it together as a community. This is both because of the rich associational life where you will find around 1,800 voluntary associations and network associations in the municipality (Ringkøbing-Skjern Kommune n.d., a). According to a study by Realdania, it was especially people living in Western Jutland who found it important to be actively part of running and maintaining the community living and be part of taking decisions about future events in the community living (CFBO, Realdania et al. 2018). This mentality, for people living in Western Jutland, is also visible when looking at their active leisure time in the nature. The municipality has put a focus on health and outdoor activi-

ties with offering many outdoor experiences such as fishing, hunting and sailing in kayak or canoe. The possibilities are many (Ringkøbing-Skjern Kommune n.d., b).

As part of Ringkøbing-Skjern Municipality's identity their vision for the area is called "*Realm of Nature*" (Naturens Rige), where both use and protection of the nature is in focus and furthermore to strengthen local communities (Ringkøbing-Skjern Kommune 2018).

This identity will be utilized to create a community living where the residents have a shared responsibility for the use and protection of the nature.



Ill. 5) Seniors fishing. ©Flyt mod vest.



Ill. 6) Stand up paddle. ©Flyt mod vest.



Ill. 7) Wind surfing. ©Flyt mod vest.



Ill. 8) Walk by the North Sea. ©Flyt mod vest.

NATURBYDELEN

A Rural City

As part of the vision “*Realm of Nature*”, a new area called Naturbydelen has been established which is expanding southeast from Ringkøbing and laying at the edge of Ringkøbing Fjord. This thesis will work within this area. Naturbydelen is a development plan by SLA, setting the frame for the future urban district of Ringkøbing, named Ringkøbing K, that will be developed into a housing area with a focus on nature. The focus comes clear through the strategy, where they have started by establishing nature and increasing the biodiversity before starting building (Hansen 2018). Furthermore, the vision from the municipality was to establish a recreative area where everyone is welcome (Ringkøbing K 2015).

We would like to continue the sensible approach to the nature in our design, considering how we can be as undisruptive to the established flora and fauna.

In the future, there will be 1000 new dwellings. Some of the housing areas have already been realized. The dwelling areas called Fjordudsigten and Strandkanten are intended for all ages. They are rental social housing and owner-occupied dwellings (Appendix 3 – Mail Correspondence with Ann Hein).

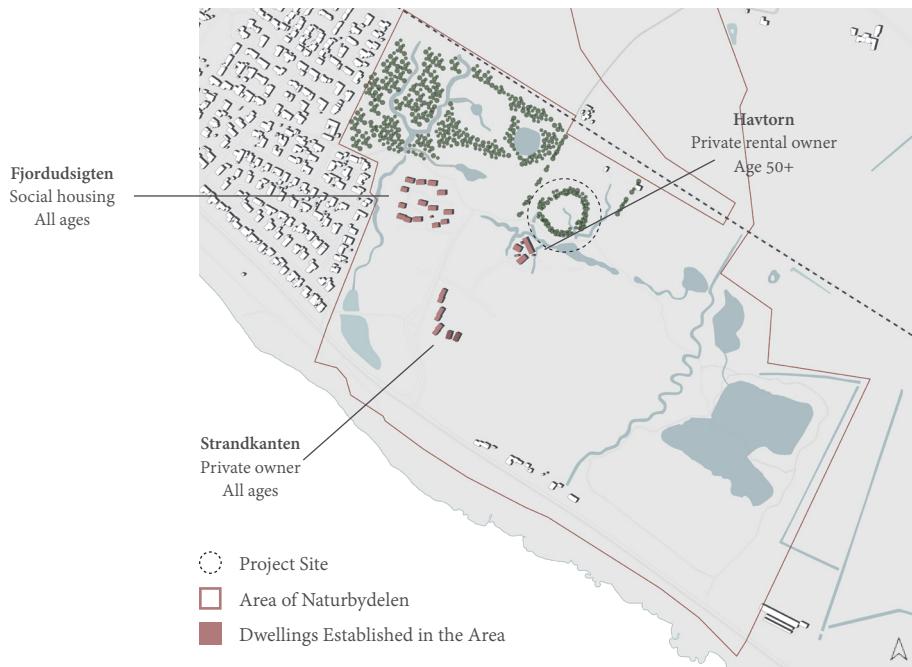
The third dwelling area which has been built in Naturbydelen is, as earlier mentioned, called Havtorn. It is a community living with 14 private rental apartments and community areas for active seniors with the age 50+. Three of the apartments are for couples and the last apartments are for single seniors (Appendix 3 – Mail Correspondence with Ann Hein).

The different dwelling areas show a vision from the municipality’s perspective of having various opportunities of dwellings in Naturbydelen both private rental apartments, private owner-occupied dwellings, and rental social housing but also dwellings for all ages both single, couples, and families (Appendix 3 – Mail Correspondence with Ann Hein).

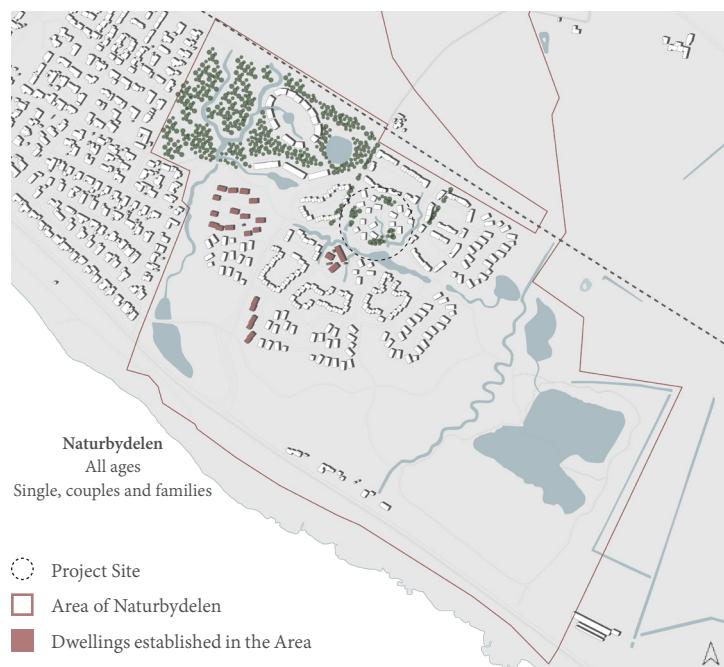
The illustrations on the right show respectively the status of the development (Ill. 10), and the future plan by SLA (Ill. 11). The analyses of the areas (see chapter 03 Naturbydelen) will be analysed with consideration of both aspects. This thesis will develop an alternative design for a senior community, taking point of departure in the future plan (Ill. 11), where Havtorn in our case would be reprogramed to accommodate another target group. The specific site is marked on both illustrations and will be further elaborated on page 72 “Choosing Site”.



Ill. 9) Naturbydelen in relation to Ringkøbing.



Ill. 10) Status of development with only few dwellings.

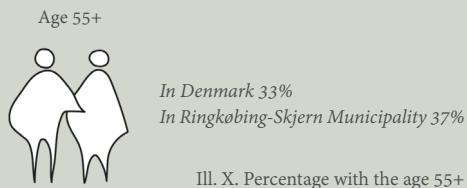


Ill. 11) Plan for the future - A dense dwelling area.

AN AGEING CITY

The Young-Old

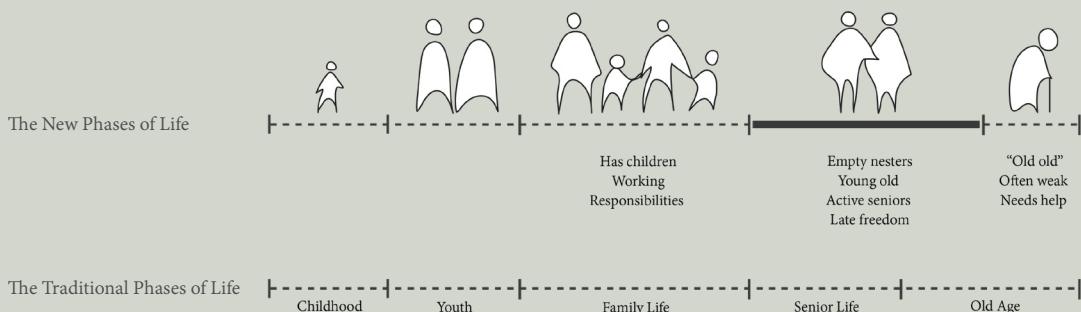
Even though Naturbydelen is going to be an area where different demographical groups can live, we have focused, in this thesis, on seniors as a user group for the community living. The population in Denmark are getting older and the birth rates are decreasing as the statistics shows in Appendix 5 – Population in Denmark. Today the age group that is the most numerous in DK is the 55-age group. In Ringkøbing-Skjern municipality the older generation dominates the population even more, where the most numerous age group is the 57-aged.



These new changes in the population structure have created a new demographic group called "*the young-old*". Deane Simpson, an architect, urbanist, and researcher at The Royal Danish Academy of Fine Arts School of Architecture in Copenhagen has written a doctoral thesis about *third age urbanism* and the demographic group *young-old*. As stated by Simpson the typical phases of life such as childhood, adulthood, and old age have been further broadened to also include the third age group (*young-old*) and fourth age group (*old-old*). The "*old-old*" is according to Simpson the fourth age group which is depending on others' help and is sometimes weak individuals, whereas the third age, are the "*young-old*" which is an independent, active, and a healthy age group. In the thesis they will be referred to as seniors.

Simpson characterizes this period of our life as the "*late freedom*". Freedom from education, work, and even the responsibility of having small children (Simpson 2010). We experienced this point of view when visiting the two community Livings, Balancen in Ry and Havtorn in Ringkøbing. The residents in the two communities pointed out how happy they were to live in a senior community only for seniors as they could unfold their freedom much more than if they had to show consideration to other residents with kids or even "*old-old*" residents who were weak and often needed care. The residents at Balancen pointed out, that the senior community is not supposed to be a nursing home, but it still creates a feeling of being safe as there is always someone keeping an eye on you and helping in small terms. Simpson describes it as: "*Whereas old age was formerly characterized as a period of dependency and decrepitude, the Third Age is defined as a longer period of independence and activity*" (Simpson 2010, p.1).

To sum up, the new age group, *young-old*, opens for many opportunities for us as individuals. It gives us something to look forward to when getting older, that we have this active freedom to do whatever we feel like doing. It gives a new quality to our life and maintains our life quality if we keep being active also in our senior years. However, the high quality of life as a senior does not come spontaneously. You will have to do something actively to get this quality and the resources we mentioned in the section: *What is a community living* on page 17. The seniors would have to participate in the community and the different communities to achieve this active freedom or else their life might feel empty and lonely. This leads us to concerns on how we can create a sense of belonging in the community.



Ill. 12) Interpretation of CFBO, Realdania et al. 2018 and Simpson 2010.

THE DETACHED HOUSES

The Young-Old

But why is it interesting to make a senior community living in Ringkøbing today?

According to Jesper Ole Jensen and Mette Mechlenborg both senior researchers at BUILD - Department of the Built Environment, Aalborg University, the aging population in Denmark, has a favourite dwelling type: The detached houses (Jensen & Mechlenborg 2018). The detached houses are often occupied by seniors both because the population is getting older and older but also because when Danish citizens settle down in a house, they get very attached to it and find it difficult to leave it again.

"A study for some years ago showed that the Danes were more attached to their bricks than their spouse, meaning that we stay longer in our house than in our marriage" (Jensen & Mechlenborg 2018, p.4, own translation).

The detached houses were originally designed for families with children (Jensen & Mechlenborg 2018). According to Jesper Ole Jensen and Mette Mechlenborg, it is especially the family-type empty-nesters (45-79 years old, without children living at home) who lives in rural areas such as Ringkøbing-Skjern Municipality. It becomes a problem when empty-nesters live alone in a big, detached house with bad energy label both looking at in terms of energy use but also financially. So why do the *young-old* or seniors keep liv-

ing in these detached houses?

"A completely obvious explanation is, as also others point out, the lack of good alternative elderly-friendly housing" (Jensen & Mechlenborg 2018, p.4, own translation). In addition, seniors often only leave their detached houses if there has happened a big change in their life such as sickness or death in the near family (Jensen & Mechlenborg 2018). According to a detached housing atlas from 2013, the parish where Naturbydelen is positioned had a population with 46% empty-nesters, 65% of the houses where detached houses and the median dwelling size was 160 m² (Statens Byggeforskningsinstitut 2016). According to Jensen the tendency seen in the atlas are still the same today and in all probability the seniors has stayed in the detached houses and gotten even older (Appendix 1 – Mail Correspondence and Interview with Jesper Ole Jensen).

We therefore find seniors a relevant target group for creating a community living in Ringkøbing. Both because there are many seniors living in the municipality but also because we wonder if the big dwellings are necessary for seniors compared to families with children. Do we need the same facilities and all that space when our children have left the home? It calls for new ways of designing housing.



Ill. 13) Detached housing neighbourhood next to Naturbydelen. ©SDFE.

DO WE NEED ALL THAT SPACE?

The Young-Old

For regenerating our thoughts about how big a dwelling should be, we started an investigation of how much residence space there is per person in Denmark in average. Further, we compared it to how big people are living in an international scale. Lastly, we investigated the average square meters per dwelling type in Denmark. We believe the statistics speak for themselves. We in general live in too big dwellings in Denmark and especially in the Western part of Jutland, the residence space per person is bigger than the average for Denmark.

Space per Dwelling in Denmark

The average size per dwelling in Denmark was in 2021 **112.5 m²** (Gadeberg 2021).

The amount of residence space per person in Copenhagen is **45.9 m²** (FAOD 2022).

The amount of residence space per person in the Western Jutland is **62.6 m²** (FAOD 2022).

Space Per Person in Denmark

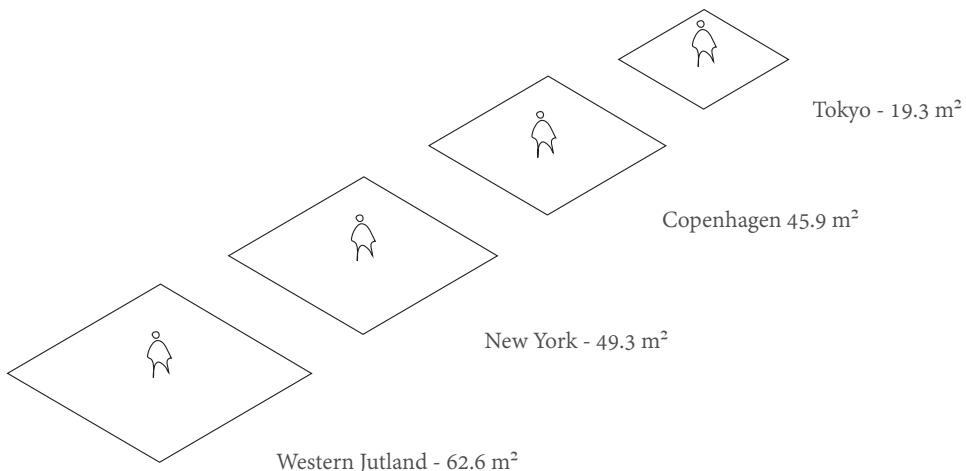
1 person living alone: **85 m²** residence per person

2 people living together: **60 m²** residence per person

3 people living together: **43 m²** residence per person

4 people living together: **36 m²** residence per person (Gadeberg 2021).

Comparing western Jutland to the rest of the world



Ill. 14) The diagram shows how many square metres of dwelling per person they have in Western Jutland compared to Copenhagen and international cities. Sources: (FAOD 2022), (Clay 2016) and (Reuters 2020).

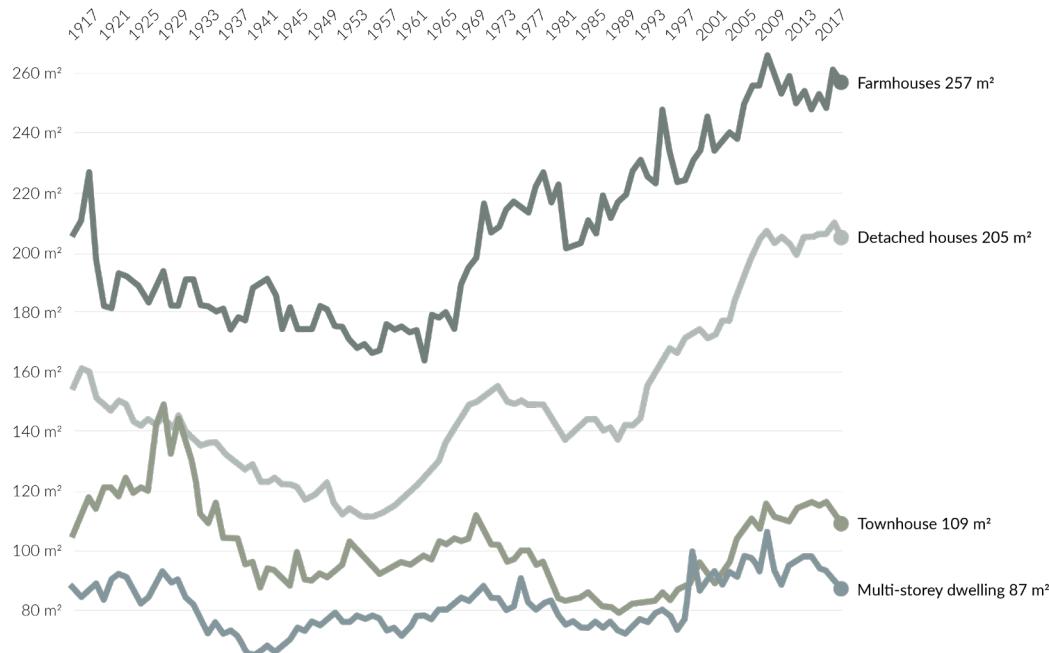
Illustration 15 shows the average amount of square meters in newly constructed buildings in the period from 1917 to 2019 in Denmark. The new constructions are separated into four different types of dwellings. Townhouses are both double housing, chain housing, and row housing (Gadeberg 2021). Detached houses are often seen as single-family houses but as mentioned earlier they are often occupied by senior couples or single seniors without any children living at home (Jensen & Mechlenborg 2018). Farmhouses are housing often seen in agricultural areas. The table shows how the square meters of detached houses have increased steeply since around 1989 (Gadeberg 2021, Danmarks Statistik 2021). Since 1960 the square meters in detached houses have increased with 82 % in square meters up until 2019 (Danmarks Statistik 2021). There is a major problem in this trend as seniors living alone do not need all this space.

According to Pernille Hjort, who is a secretariat director at Danske BoligArkitekter and journalist at Bolius, it is a shame people are focusing so much on size instead of quality:

"People do not think they can make everyday life work on 160 square meters. But they can. Because it's not just about the number of square meters, but also about the quality of the square metre you build. And if you build a little smaller, more easily, you can afford an architect and the individual solutions" (Pernille Hjort in Boding 2021, own translation).

This quote tabs into exactly what we want to investigate in this thesis, how we can design smaller spaces of quality which give more to the residents than a typical dwelling. We believe that working with different kinds of transitions can create these qualities which we will elaborate further in the chapter *02 Transitions*.

Average number of square meters in new construction 1917-2019

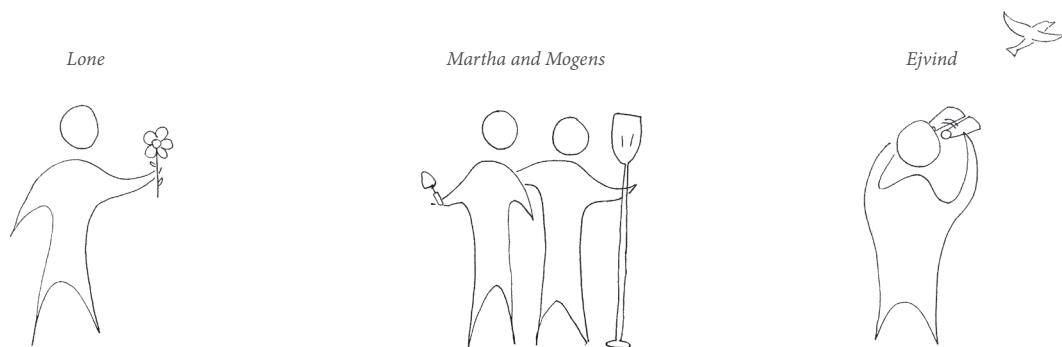


Ill. 15) Average number of square meters in new construction 1917-2019 (Gadeberg 2021, Danmarks Statistik 2021).

WHO WILL LIVE IN THE COMMUNITY

What Is a Community?

To make it clear who we imagine will live in the community and strengthen the architectural quality for the user, three personas are developed. These different personas are created based on the experience gained from visits to senior communities. Moreover, they have a passion for nature in general, following the vision for Naturbydelen and creating a common interest between the residents.



Ill. 16) Personas.

- 67-year-old retired secretary
- Has recently become a widow
- Is moving from the dethatched house, where she lived with her family
- Her children have left the home several years ago
- Would rather eat with family and friends, than alone, but they are often busy
- Is creative and loves to paint and knit
- Enjoy long walks in nature
Appreciate shopping and cafes close by her home
- 58- and 59-year-old
- Have been living in a small village, but have never greeted their neighbours
- They would like to live somewhere, with a relation to the neighbours
They love to invite their big family home for dinner
- Martha values cooking with ingredients she has grown herself
- Mogens has a passion for kayaking in the early hours of the morning
- 62-year-old teacher from Ringkøbing.
- Have lived in a small apartment in Horsens but wish to live closer to nature
- Often, he goes out in the nature to study birds and the insects.
- Enjoys spending time with people on his age after a day surrounded by children
- Loves spontaneous social activities
- Prefers hiking vacations

SENSE OF BELONGING

What Is a Community?

This project seeks to design a living community where sharing facilities will act as a key element, as a way of creating interactions and gain more facilities in the everyday life. By strategically placing a variety of functional spaces around the site, activity and movement will be created among the dwellings. When nudging the residents around the site for everyday activities, the normal size of a dwelling or housing plot expands to the larger area of the entire community. For this reason, the sense of belonging and comfortable spaces between the buildings, and at the shared places are investigated.

Jan Gehl, the acknowledged Danish architect and city planner urges that working with integrating the outdoor and structuring communal areas can add a sense of belonging and security to the site, as it creates a framework for meetings and acquaintance with each other. Furthermore, an affiliation to the site will create a greater tendency to spend resources, maintenance, and responsibility to the area. (Gehl 2011)

When nudging the residents out in common facilities, sharing becomes a key element. Helen Jarvis (2015), professor of social geography engagement, relates sharing to three aspects: co-presence, affiliation, and endeavour.

- Co-presence is created in the physical shared spaces. These spaces make it possible for the neighbours to create social connections and exchange knowledge and values.
- Affiliation emerges by collectively creating a variety of values and mission statement.
- Endeavour is where the everyday task becomes a social target with presence and conversations. This could be facilities such as common cooking, gardening, or repair work.

According to Jarvis the knowledge of the social mechanics of sharing can act as a tool when working with the wider challenge in urban planning. When working in parallel between the soft- and hard infrastructure (social architecture or the visible architecture), ordinary neighbourhoods change into the phenomenon of co-housing (Jarvis 2015). In connection with this, Gehl argues how the common denominator is important to achieve more than a superficial community. Hereby, he argues how the interaction of social activities must be seen at various levels, as different assumptions should be considered about types of residents, interests and needs. Here the design can physically create a framework where people can meet or even cannot avoid meeting each other (Gehl 2011). Furthermore, Gehl evaluates from his studies how 15-30 dwellings seem to be the number that works well in order to foster social relations. Our experience from the meeting with the community living, Havtorn, also made it clear that a community could also consist of too few people, as this might seem too intimate, and the diversity of people is suddenly given more expression.

OUR DEFINITION

What Is a Community?

To explain what our vision for, what a community living can be, we compare with the layout from Havtorn, that we experienced during visits at community livings (Appendix 2 - Notes from Visits at Community Livings).

The term community living has many similar synonyms: cohousing, commune, cohabitation, houseshare or more specifically for seniors: retirement community. In this thesis we believe that senior life is a prime age where seniors are not just ready to sit in their big houses and be retired as mentioned in the section “*An ageing City*” on page 11. With that said we use the overall term senior community living. This can be further explained with the definition of, what a community is.

Community:

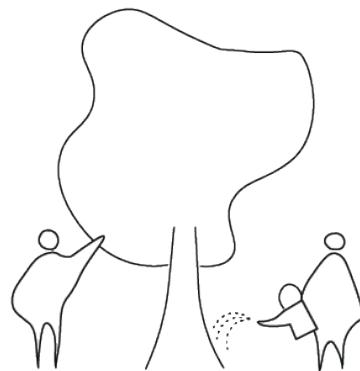
“*people with common interests living in a particular area*”

“*a group of people with a common characteristic or interest living together within a larger society*”
(Merriam-Webster 2022)

The common interest is important for a community to be working well which we also observed at visits at different community livings. At Havtorn there was not established a common interest before beginning the community living (Appendix 2 - Notes from Visits at Community Livings). This might have had an emphasis on why there are only few seniors who have moved into Havtorn even though the first seniors moved in during 2020, and why there was complications when starting up the community living with people disagreeing about how the community should be (Appendix 4 - Interview with Jørgen Søndermark). Another senior community living we visited was Balancen in Ry where their shared values were sustainability and biodiversity. This community living has had a huge success where all the dwellings are occupied, and the social activities are functioning well. A common interest is therefore very important which we will incorporate in our community living, by letting the user group have the same interest: Nature - being in, observing, using, and protecting nature.

What the residents also highlighted as important at Balancen was the optional community. It should be optional and there should be a wish to take part in the community, but it should never be binding. Therefore, in our senior community living we focus on not having activities you must do such as: “*You have to eat with the residents 3 times a week*”. Instead, we focus on creating spaces for optional activities and informal meetings.

In short, the founding framework in the community living in this thesis is shared interests and optional community. As an extra element exchanges of resources across different scales will take place which will be further elaborated in the following section.



Ill. 17) A common interest in nature in the community living will provide unity and a better ground for informal meetings and nudge sharing.

AN URBAN APPROACH

We believe community livings need to be viewed from a bigger perspective with an urban approach. We call it **Urban Community Living**.

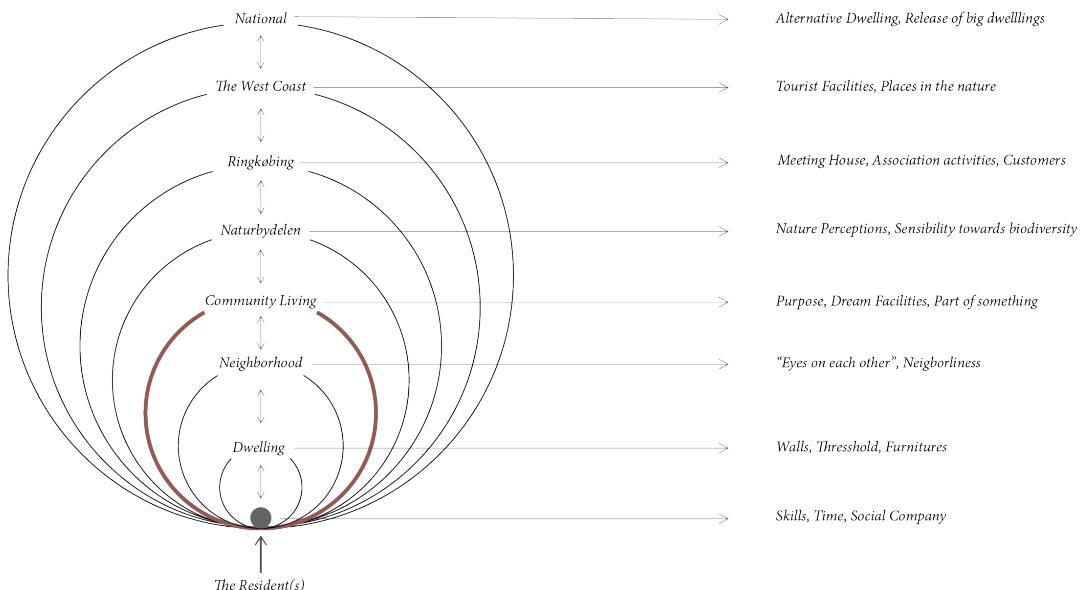
Urban Community Living is our opinion of how we should incorporate community living as a part of communities on different scales. For using fewer resources in the future, we must share more facilities with each other. A community living consists of smaller communities such as the dwelling and the neighbourhood. However, these smaller communities and the community living are also part of bigger community, such as Naturbydelen, Ringkøbing and the West Coast. Between the different communities an exchange of resources can occur.

In the small scale an exchange between the resident(s) in the dwelling and the surrounding neighbours can happen. This can take place near the dwellings and the surrounding neighbours. If the community living is divided into smaller neighbourhoods, each of these has something they can

share with the community living. By that we mean each resident has some abilities they can share with others. This can for example be skills in drawing or knowledge about growing vegetables which can be shared with the rest of the community. But it does not necessarily have to be skills. It can also just be your time you share. By sharing your time or social company with your neighbour or the community living, this small act can result in the individual resident feeling less lonely. The neighbourhood and the residents in the dwelling can share architectural facilities such as walls or a threshold but also social awareness by having “eyes on each other” meaning you are extra sensible of how it is going with your neighbour when living in a close neighbourhood. It creates a natural responsibility towards each other and the feeling of neighbourliness among the residents.

The eyes on “each other” however is also an exchange of resource with the community living which creates a feeling of safety when staying in the communities (Jacobs 1961). The community living furthermore gives the resident the feeling of being part of something and makes their everyday

Resources Exchanged Across Communities



Ill 18) Simplification of the community livings complex exchange of resources with communities in different scales.

life meaningful. Especially, if there are some activities which the residents are part of in the community living such as maintaining the physical structures. The community living further gives facilities to the residents that they would not normally have such as wood workshop or atelier.

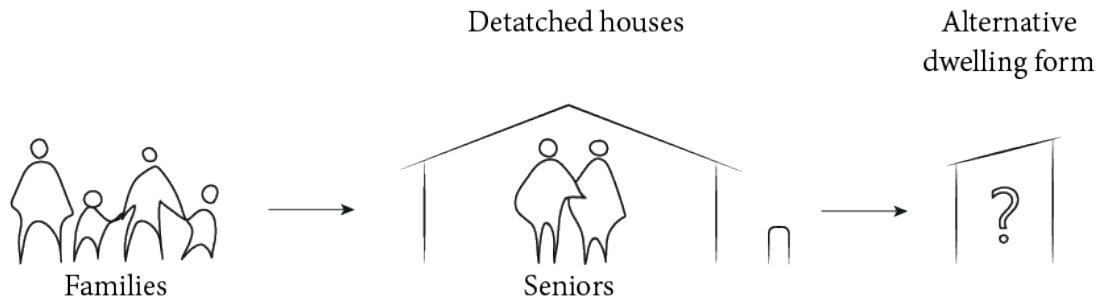
Naturbydelen consisting of a big nature landscape is a resource which the community living can use for getting out of their dwelling and get some nature experiences. As an exchange the other way around the residents in the community living are sensible towards the nature and make sure Naturbydelen's biodiverse landscape is maintained and observed correctly in the future.

Furthermore, the community living will share facilities both with other dwelling areas in Naturbydelen and Ringkøbing city. It creates places for Ringkøbing's association activities to take place but also creates more life in Ringkøbing with senior citizens visiting the inner city at those times of the day where the city might be calmer.

In the west coast scale, an exchange of resources happens when the community living shares its facilities with tourists moving along the west coast. These resources could for example be cabins, a kitchen, or washing facilities for the tourists to use in Naturbydelen which would also benefit Ringkøbing city by attracting more customers.

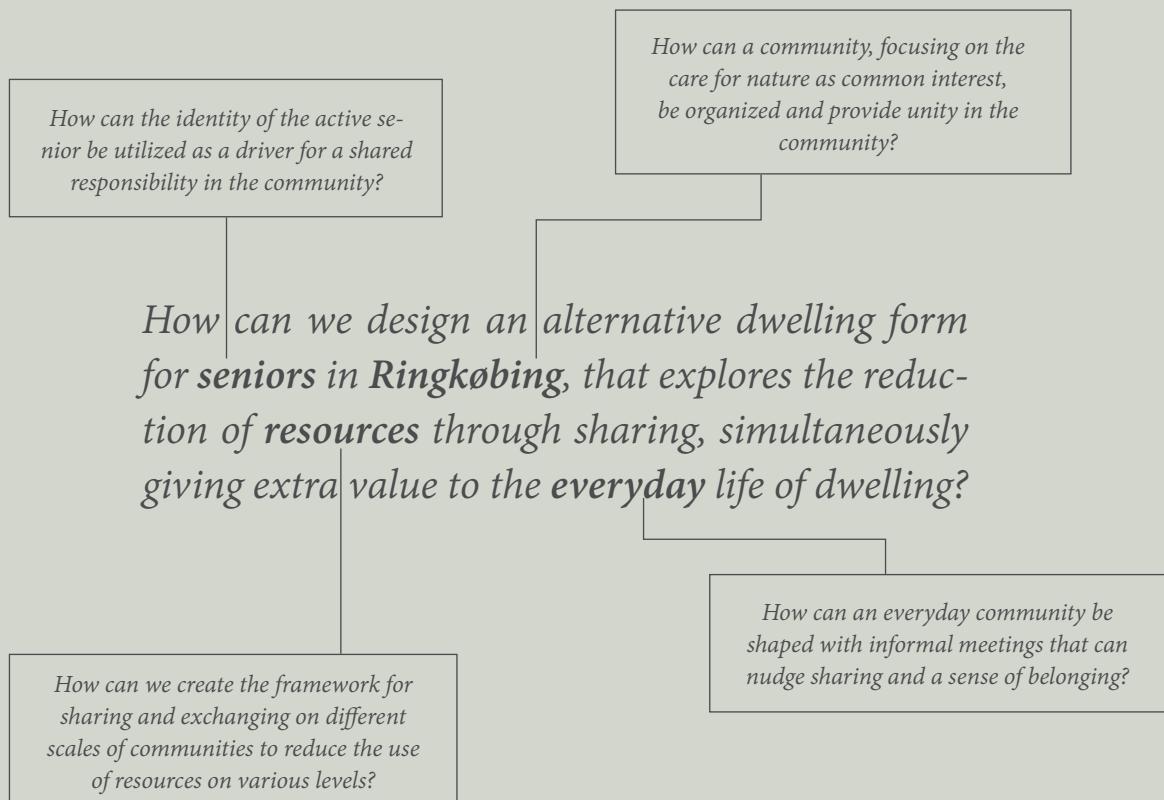
Finally, but not least an alternative dwelling form for the seniors will exchange resources with the rest of Denmark. It is a big thing to claim but if we as architects and urban designers create smaller and alternative dwellings in the future, the bigger dwellings are released and can be occupied by families with children who would have bigger benefit of the large spaces which we see in typical Danish houses as mentioned in the section "*The Detached Houses*" on page 12.

To sum up, by looking at senior community living with an urban approach and relating to other communities, much more resources can be exchanged than just looking at the community living as a single community.



Ill. 19) Developing a new dwelling form for the seniors, will release dethatched houses for families to move into, who will have better benefit of the big houses

PROBLEM



“Once one realizes that the joints between domains are themselves physical elements of no less importance, one can see that it is actually these elements that give the plan its hierarchical structure”

(Chermayeff, Alexander 1963, p. 213)



02 TRANSITIONS

Looking over the Fence
Two Practices
Transitions
Landscape and Building
Private and public
Interior and Exterior
Theoretical Conclusion
Cases

Chapter Introduction

The quote on the previous page, by Serge Chermayeff, Russian architect and city planner, and the Austrian architect, Christopher Alexander, sheds light on the importance of working with the joints or as termed in this thesis, transitions, as they establish the hierarchy of structures when working in the field between architecture and urban design. The joints or transitions can have different forms such as barrier, filter, screen, or junction. Thereby transitions can be different from one another but still specific for the place and the hierarchy it is placed in. (Chermayeff, Alexander 1963, p. 213).

In the *02 Transitions* chapter firstly, the associations to the title of the report *Looking over the Fence* is presented, which introduces to the theoretical investigations of transition, that lead to the methodology. The methods acquired through the process are described and the cross-disciplinary methodological approach to the analyses and design is presented and further elaborated through the theoretical literature investigation of the three transitions, Landscape and building, Private and public, and Interior and exterior. This is applied on cases, and the transitions and how they can contribute to the problem of reducing resources through sharing is elaborated.



Ill. 20) Fence framing function.



Ill. 21) A fencable street.



Ill. 22) Inviting fence.



Ill. 23) Surrounding fence.



Ill. 24) Protecting fence.



Ill. 25) Privacy fence.

LOOKING OVER THE FENCE

An Urban Architectural Approach

The work with a sustainable approach to building dwellings, focusing on sharing resources, calls for an interdisciplinary approach. In the emerging challenges related to sustainability, we see contrasting elements of transitions and relations between **Public and private, Interior and exterior, and Landscape and building**. They link to each of the disciplines of Architecture and Urban Design, and some overlap. The work with transitions blurs the distinction between Architecture and Urban Design, and closely relates to the interface between the fields. Nonetheless, the professions are strongly divided in the practical environment, which causes a negative impact on the experienced spatiality, as the Associate Professors at the Department of Architecture, Design and Media Technology, Aalborg University, Marie Friis Hvejsel and Lea Holst Laursen and Poul Henning Kierkegaard, Professor in Engineering & Architectural Design at Aarhus University urges:

"In the hectic and economically challenged context of construction practice the built environment suffers from a split between the two disciplines of architecture and urban design, leaving us with disconnected raw structural volumes and commuter surfaces rather than inviting spaces that address the human scale" (Hvejsel, Laursen et al. 2017, p. 10)

Looking into the relation and spatiality, of the transition between the public and private, the interior and exterior, and the landscaping and building, can respectively shed further light on matters of sharing and saving construction materials and reducing the energy consumption and matters of utilising, not consuming, the natural inherent qualities of the context.

Looking over the Fence is both about "looking over to" the other discipline respectively architecture or urban design but the title also emerges from an interest in the lack of interpersonal contact in Danish neighbourhoods and therefore the lack of looking over the fence.

Some of the absence of social interaction comes from the traditional structure of Danish neighbourhood plots. The plots are clearly marked with fences and show what belongs to whom and creates a barrier for movement across the plots. In Denmark, fences are so incorporated into our structure, that we have a fence law. The law revolves around the fences between two plots, the so-called "*neighbour fences*" where

you share a boundary (Nielsen and Sode 2017). Furthermore, there can be more specific plans for the neighbourhood within the local plan that determine the type of fence, the dimensions it should have, and what materials should be used. However, most of the time the neighbours who share a fence has a shared responsibility and must agree on how the fence should look and how to take care of it. Sometimes the fences even mean so much to us, that there can occur neighbour disputes between the owners of the two plots.

The most known fence which you often associate with fences in a neighbourhood is a board fence where either horizontal or vertical boards are joined closely together. It creates a visual barrier and even sometimes a noise barrier between two plots. A person looking over a board fence in a neighbourhood can be associated with being inappropriate and breaking social norms. Instead, kids who are yet to learn these social norms are not afraid to jump over fences or even walk through a hedge. At some point in life, we have become more aware of what is my zone and what is my neighbours' zone. It influences the social interaction in a neighbourhood and in this thesis, we would like to push some of these "understood" and "traditional" boundaries in the neighbourhood which a fence is one example of and instead be more adventurous when moving in a neighbourhood – just like when we were kids and tried to look over the fence. We would like to explore these transitions, and how they can be shaped - dissolving or enhancing the boundaries and hierarchies to optimize spaces and create opportunities for sharing. It is not about breaking with the fence but finding unfolding and exploring the potentials of the fence, being the image of the transitions.

TWO PRACTICES

Methodology

Looking over the fence is both about working with traditional transitions in dwelling areas but also about looking over to the other profession as this is an interdisciplinary project between urban design and architecture. Setting the frame for urban design and architecture is necessary for introducing this thesis, however, it is impossible to accomplish completely individual frames for each of the two practices as the spaces and points of interest are overlapping. This thesis seeks to confront the divisions of the two different fields and questions if their definitions are static. Last, but not least, the thesis seeks to explore how the two practices can bring value to one another. For unfolding the two professions, a study of which themes, focuses, and problems each of them touches upon, was conducted.

URBAN DESIGN

- Occurred as a split between architecture and planning (Moor, Rowland 2006)
- Deals with the physical form of the city (Moor, Rowland 2006)
- Joining architecture, landscape architecture, and city planning (Moor, Rowland 2006)
- Concerns about stakeholders and different interests (Cozzolino, Polívka et al. 2020)
- Designs exterior spaces
- Relations between elements in the public domain (Cozzolino, Polívka et al. 2020)
- Concerns about broader user groups
- Interest in built structures and the space between them (Cozzolino, Polívka et al. 2020)
- Always bigger than a single building (Cozzolino, Polívka et al. 2020)

ARCHITECTURE

- Designing buildings, city plans, gardens, landscapes, and furniture (Møller 2009)
- Often associated with a focus on buildings and interior spaces
- Focus on materials
- Concerns about how the design affects the human experience of the space
- Concerns about physical form, the technical structure, and the functions (Aalborg Universitet n.d.)
- Beauty, durability, and usability (Pollio 1999)

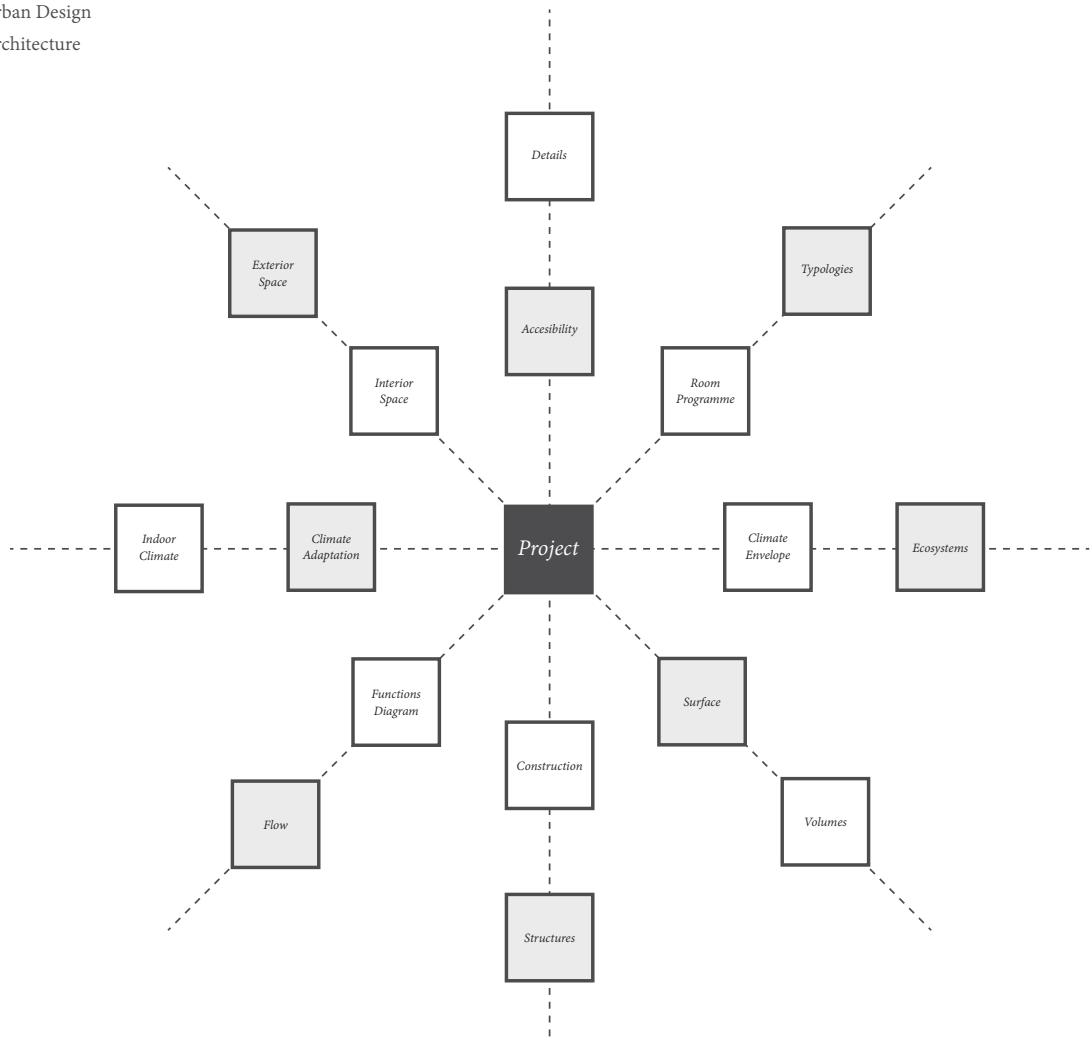
Even though the two professions have different names and supposedly work with different topics this study still showed they have many similarities. Both professions have a very broad definition with similar fields of interests. Both work with architecture, city planning, and landscaping. In addition, both are working with designing for humans and user groups.

INTERDISCIPLINARY METHOD

To further broaden our understanding of architecture and urban design, we tried to list what we had learned in each of our master's educations in a diagram which illustrates some of the various aspects that an urban and architectural project can consist of. The color-coding indicates what we believe the field of interests traditionally belongs to, and the lines indicate that some of the aspects are linked and influence one another. Together with the previous text exploring the differences between architecture and urban design, an overall definition for an architect is someone who processes the building itself and the urban designer creates the relation between this, and what happens out front and between

the buildings. However, this project seeks to work with these differences and explore a more integrated approach between them. We question if it is possible to ensure a more fluid and cohesive transition, by blurring the two design fields under the entire process and thereby letting them enhance each other, instead of working separately. There is strength in having different knowledge to contribute when working parallel on a project, but the thesis would like to explore how the work can become more integrated and not just parallel works. This, through intertwining the professions, hence seeing the potential in focusing on the interfaces of the fields while still acknowledging the differences.

- Urban Design
- Architecture

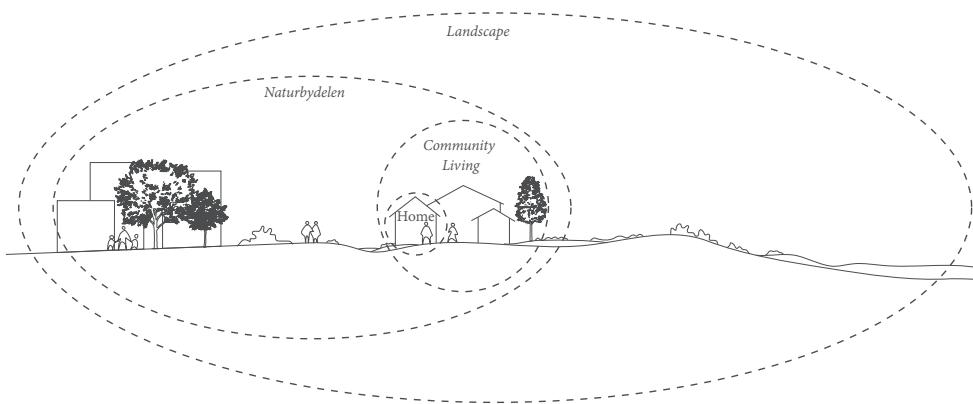


Ill. 26) Interdisciplinary diagram of urban and architectural aspects.

With this mindset, three focus points between the two fields have been established. The topics consist of the transition between building and landscape, in- and exterior spaces, and private and public spheres. Knowledge and processing of these topics have been obtained through different site visits, field and desktop analyses, study trips to different living communities, literature investigations, and case studies. This gave us a better understanding of the site and the problem area when working with a senior community living and further it gave us information on how we can create an integrated urban and architectural design process by working with transitions.

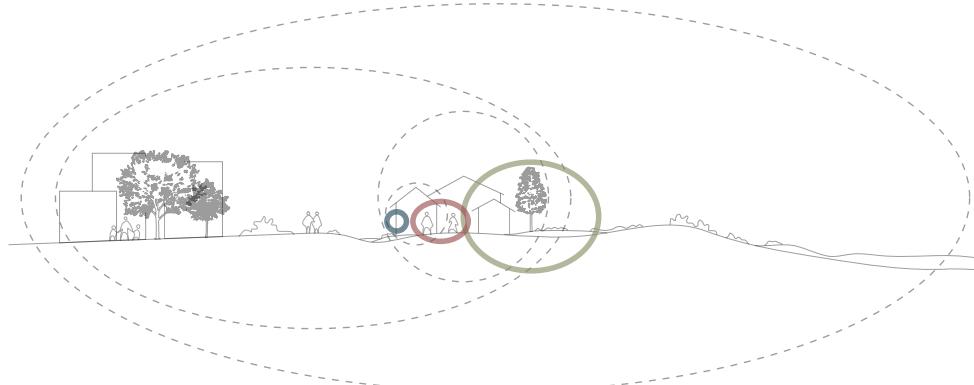
TRANSITIONS AS A METHOD

Approaching the analyses and design, the theory of transitions will be applied as a method. The context and the site will be read as elements being part of one another, relating and being joint by -and across the transitions. The transitions are phenomena on different scales and levels, creating relations between the parts/communities. Illustration 27 shows how in this project we will be working with transitions between the big landscape scale, the scale of Naturbydelen, and the small community scale. In these scales, different transitions are occurring. A further investigation of how we will approach it will be presented in the following literature investigations.



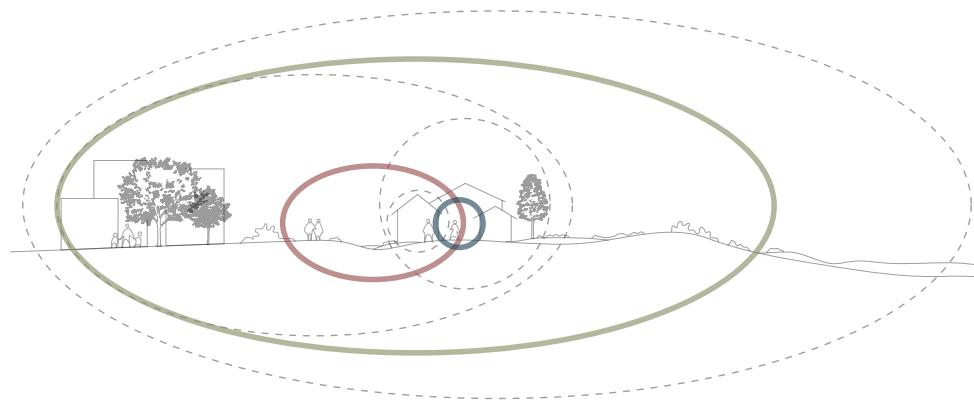
III. 27) Transitions in scales.

- █ Landscape and the built
- █ Public and private
- █ Ex- and interior



III. 28) Illustrating transitions as joining phenomena between parts.

The illustration above shows, that the transition between public and private joins the individual private dwelling with the community living. Further, a transition between the single dwelling and the near landscape is happening, marked with green. When looking at the in-and exterior, they join in a more detailed scale with transitions between the facade and the outdoor area.



III. 29) Illustrating transitions as joining phenomena between parts.

This diagram shows how the public and private transition joins the community living with the surrounding area of Naturbydelen. Likewise in a bigger scale transitions are happening between the coastal landscape and the building landscape. Lastly, the ex- and interior spaces relate to transitions in between the dwellings.

LANDSCAPE AND BUILDING

Literature Investigations

NATURE FIRST AND THEN BUILDINGS - A LANDSCAPE IN TRANSFORMATION

In Naturbydelen Ringkøbing K there has been a focus on establishing nature first to create an area with high biodiversity and afterwards build the new dwellings and apartments (Hansen 2018). The approach has been a huge success and has created a new nature area with for example more bird species than there were before (Hansen 2019). It means Naturbydelen's landscape has been through a transformation going from an agricultural landscape for today being a landscape with nature mostly controlled by itself and a denser and more built environment with smaller zones of what you could call "everyday landscape" near the buildings. Therefore, in this part of the theory it will be investigated, how can we as architects and urban designers take responsibility for this landscape which the life of the community living is going to take place in and create a sensibility towards it, as an element which we humans will use for many years. As for how we should approach the sensibility, landscape theory by landscape architect and professor Sven-Ingvar Andersson and landscape architect and artist Steen Høyer is used. Furthermore, theory by associate professor at Aalborg University Lea Laursen who researches city- and landscape transformation with a focus on placemaking is used as it gives knowledge about why we should use the existing landscape in our design.

Definition of landscape

A landscape has traditionally been associated with a free open space either covered with wild nature or agriculture. However, the association of a landscape is also used about the spaces in buildings and in the city when they are likewise open and without boundaries. Therefore, seeing the landscape and the built as two independent structures is not possible. Steen Høyer describes how the division between nature and man-made spaces cannot be defined. Instead, he suggests nature and the man-made should be seen with a holistic approach and thereby seen in relation (Høyer 2003).

THE AESTHETIC IN THE RELATION

When we think to ourselves, this building is lying beautifully in the landscape, we think it because we understand

the composition as well as the connection between the landscape and the building we are seeing (Andersson 1988). But why do we understand the composition?

The answer to that might also be answered by Andersson. When we see a building in the landscape, we identify ourselves with the building.

"To place buildings in the landscape, is to place humans in the landscape. It is a practical necessity but it also gives the possibility for identification" (Andersson 1988, own translation, p.28).

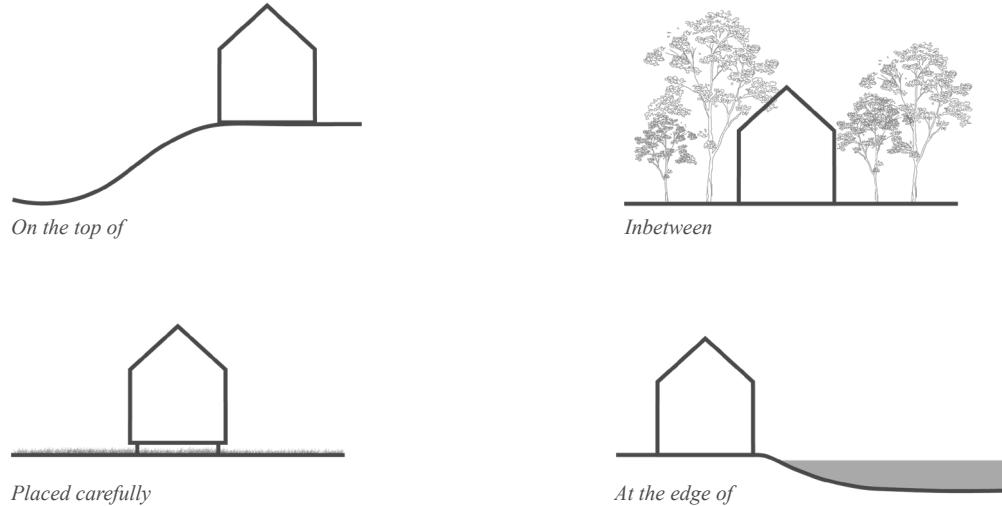
The buildings get personal and living characteristics as "resting safely" and "standing calmly" when one describes the buildings' placement in the landscape (Andersson 1988). Therefore, the understanding arises because of the personalization of the composition.

In order to create a beautiful landscape, buildings should not be placed just randomly, but in conjunction with the landscape to create an aesthetic spatial perception. Andersson calls this a "Relational landscape typology" (Andersson 1988, p. 15). Andersson mentions seven different ways a building can be placed with a relation to the landscape:

"In the center of
On top of
In the middle of
By the edge of
At the foot of
Inside of
In a niche"

(Andersson 1988, p. 15, own translation)

According to Andersson we as humans have a big need for self-awareness and feeling safe in our environment. We as humans are seeking safe places to position our bodies and when we identify ourselves with the building's relation to the landscape, we see the buildings as living creatures that are placed according to feeling safe or to defend ourselves (Andersson 1988). Further, we believe that the identification with the landscape nudges a responsibility for it.



Ill. 30) Different relations between building and landscape.

ENHANCING WHAT IS ALREADY THERE

But when placing buildings as human bodies in the landscape it also results in highlighting the landscape. We believe by being sensible to the nature in Naturbydelen, we can stage the landscape and highlight its beauty. According to Lea Laursen landscape combined with architecture can enhance the perception of the landscape by either staging the landscape or making it more accessible (Laursen 2012):

“Architectonic installations in the landscape create distinction, and by combining landscape with architecture, unique landscape experiences are created and accessibility to the landscape is enhanced” (Laursen 2012, p. 109).

Laursen even suggests by working with landscapes and architecture in correlation in rural landscapes, such as Naturbydelen in this project, can give an identifying element to the site (Laursen 2012). In the area for our project different landscape characteristics have already been developed (see Diverse Nature, page 53) such as forest, meadow, wetlands, and streams. When choosing our site and designing the community living a focus will be on staging the already existing characteristic landscape typologies, to nudge a shared responsibility for protecting and using nature.

HOW DO WE WORK WITH THE RELATION BETWEEN BUILDING AND LANDSCAPE AT NATURBYDELEN?

In this thesis, the contextual biodiverse nature will be considered by working with being environmental sensible towards the existing landscape. The theory by Andersson shows by personalizing the buildings when placing them in the landscape, a beautiful composition can occur. In this thesis, the theory will be used in the design process by creating a relational landscape typology. The humanization of seeing the buildings as humans who steps into a biodiverse landscape where they must be sensible will be used as a imagery in our design process. This sensibility will further be incorporated when considering how much of the area should be impermeable. The sensibility and relation to the landscape will be investigated by using transitions between landscape and architecture to further emphasize the already existing nature in Naturbydelen. In the design process, it will be investigated which materials and volumes emphasise nature and life and do not create flat and inactive buildings.

PRIVATE | PUBLIC

Literature Investigations

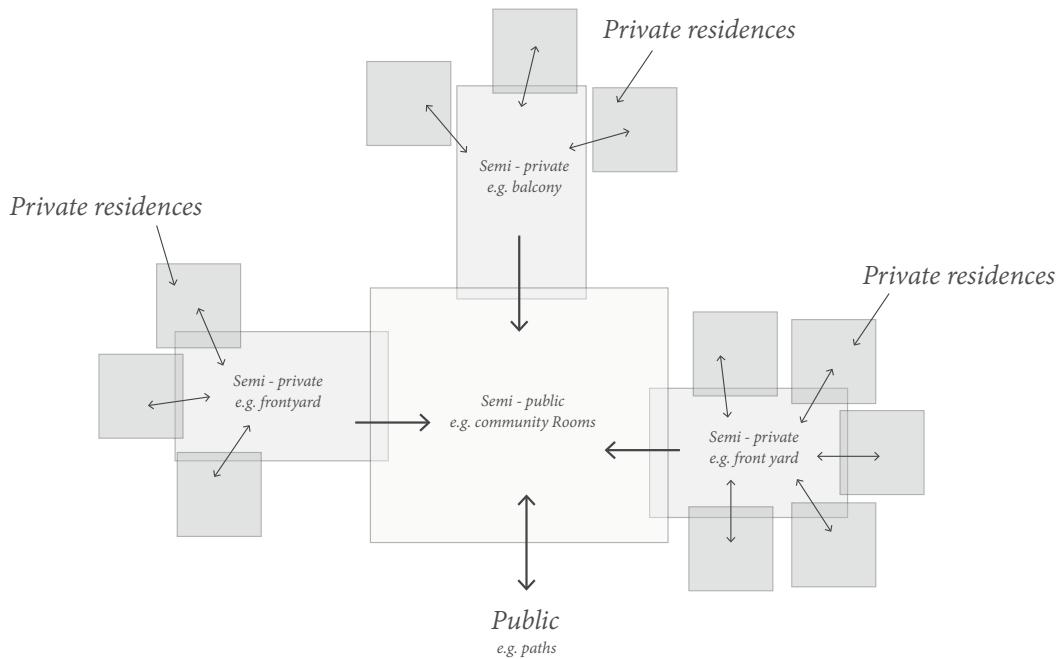
The second kind of transition investigated in this thesis is the one between public and private spaces. It is important when designing a community living. We both have private spaces where you can be your most vulnerable self and further, public spaces where the community can blossom. We believe for these two different spheres not to conflict, transitions between them are needed. In this section theory by professor in urban design Ali Madanipour is used, concerning the relationship between public and private spaces. Serge Chermayeff and Christopher Alexander has together analysed community and private spaces and suggested "*a new kind of urban order*" with hierarchy in urban spaces (Chermayeff, Alexander 1963). Even though the theory is from 1963, we still find it relevant today. Lastly but not least we have studied Jan Gehl's thoughts about private and public spaces and how you physically can design comfortable spaces in these spheres.

Passing through private and public spaces is one of the everyday routines for humans. A public space is either a place or room where everyone can go or stay (Den Danske Ord-bog n.d.). A private space is a space which belongs to and is controlled by the use of the individual. Furthermore, the private space keeps the public out. The public and private spaces only exist when they are in relation. A design which does not see the two spaces as depending on each other becomes ineffective (Madanipour 2003). We further believe these spaces become effective because of their reliant con-

tracts. If we do not have the public space, we will never feel we are in a private space and the other way around.

Privacy is mostly needed where people live such as in the dwelling (Chermayeff, Alexander 1963). The dwelling is one's own environment where the disturbances from the big world can be closed out (Chermayeff, Alexander 1963). For achieving this, the hierarchy in the urban space, should go from the most intimate private space to the most intense communal. The result of this hierarchy is an urban domain with balance between privacy and community (Chermayeff, Alexander 1963).

The hierarchy of private and public spaces in exterior spaces, which will be worked on in the design process, is represented on illustration 31 with inspiration from Oscar Newmanns illustration in *Livet mellem husene*(1996) by Gehl. From the bottom we see the public coming into the semi-public area of the community which could be both outdoor and indoor community rooms, that is shared with the public. From the semi-public areas a connection to semi-private areas is happening, such as private front yards. Coming from this level the residents have a connection to the most private area, the dwellings. These different levels, going from the public to the private space, ensures residents' space is not invaded by the public. Moreover, visitors at our site will feel more comfortable walking into the public space when this hierarchy is visible.



Ill. 31) Public and private spaces in exterior and interior spaces. Based upon Oscar Newman: Defensible Space in (Gehl 1996).

INVITING EXTERIOR SPACES

As a further quality of having gradually exterior spaces with local, semi-public areas close to the residences the spaces become more comfortable and safer for the residents in the area and create more “*eyes on the street*” as Jane Jacobs calls it, a sense of responsibility (Gehl 1996, Jacobs 1961).

How the public space is placed according to the private space and how the spaces are formed has an impact on how well a person sees what is happening in the spaces. Very sharp interfaces can make it difficult and uncomfortable to walk out in the public space. For example, if you are living in a high-rise building, your apartment becomes a clear private territory. When you walk out of your apartment to the stairs or the streets, you walk out in a completely clear public territory. Fluent boundaries or transition zones which are not completely private or completely public, functions well as linkage between the zones and makes it more comfortable for residents to move between public and private but also makes it easier for persons to create a connection with what is happening in community spaces (Gehl 1996).

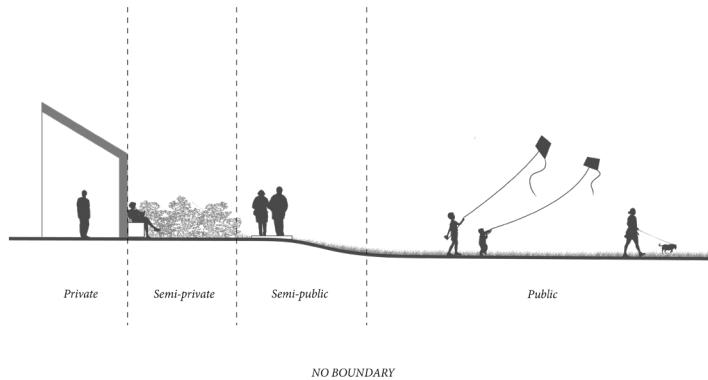
BLURRED ZONES

The better the design is, the more visible it becomes for the public, which spaces they are allowed in or feel most invited to walk into. If the division of public and private is too blurred, it can make it uncomfortable for the residents in their private homes if the public is invading their private space. Likewise, the public will not feel allowed to explore the outdoor public spaces near the community living if the private and public are not divided. Therefore, if the division is too blurred it becomes a no man's space where none of the user groups gets a sense of belonging in the space (Gehl 1996). When designing transitions between public and private spaces there must be a fine balance between the division of the spaces but not so strong it makes the spaces reject each other and reduce the interaction between the spaces. Illustration 32-34 shows different kinds of transitions between public and private spaces. We are especially aware of, when designing, not making blurred transitions such as the illustration 32 with no transitions shows.

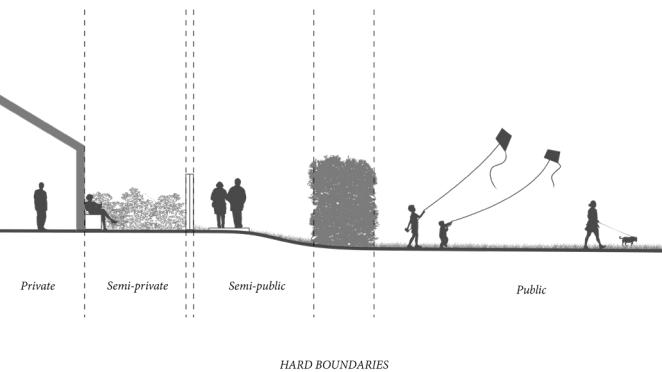
THE POWER OF TRANSITIONS

However, with that said the transitions between different zones of community spaces should be fluent. The transitions create a linkage between the public and private territories both physical and psychological, making it easier for the residents to move between indoor and outdoor as well between public and private. However, the transitions between zones should be physically marked, but they should not be so severe that they disrupt the connections with the adjacent environments (Gehl 1996).

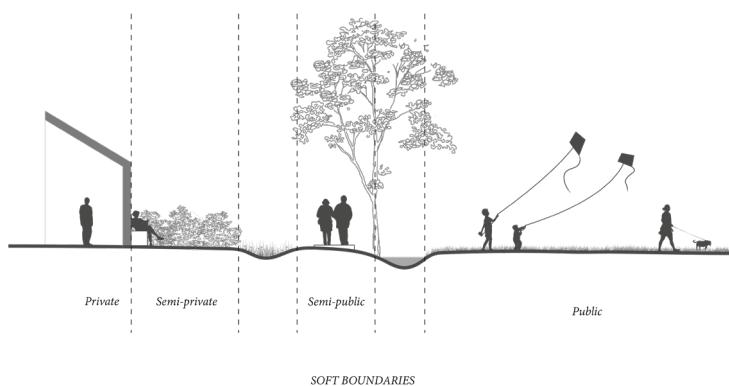
It is therefore important to understand how divisions of zones and transitions of zones are not the same. The transition in the interfaces secures linkage between public and private, whereas divisions of zones make it clear where the citizens or residents' territories are and makes it easier to get a sense of belonging in the space.



Ill. 32) No transitions: The sketch shows zones of public and private touching each other's edges but with no clear boundaries.



Ill. 33) Hard transitions: The sketch shows examples of hard transitions such as a fence and dense hedge. This kind of transition creates both physical and visual barriers between the zones, making it hard to experience what is happening in the other zones and minimizes the inclination for being part of the community.



Ill. 34) Soft transitions: It creates a visual connection between the zones, creating a sense of safety with "eyes on the street" and makes the public zones more inviting and improves the inclination for being part of the community.

INTERIOR | EXTERIOR

Literature Investigations

The third kind of transition investigated in this thesis is between interior and exterior. Exploring the relations, the continuity, and borders between these spaces, and comprehending the correlation of the two. This transition sheds light on the physical and spatial transition, that can be useful in the actual design development of the transitions between the previous mentioned, private/public, how this spatial, physical transition can bring the desired relations or divisions. When talking about saving resources and optimizing our material use, one should also look at the use of space. Once again, the transitions and relations become of significance. With space in mind, it is about the relations between exterior and interior space, and how these can derive advantage from one another. This section raises the question of how the use of space can be optimized and shared by focusing on the interrelation between the built and the in-between and the spatial design of the transition between? It will explore the close spatial relation between in and outdoor and investigate the delicate work with in-between spaces as mediator of the connection or relation between spaces of different characters, while simultaneously, providing the needed distance, relating back to the *Private and public* section.

RELATIONS IN THE TRANSITIONS

This leads us to the notion of relativity and the term in-between, referred by the late Dutch architect Aldo van Eyck. In “*Aldo van Eyck - Shaping the new relativity*” (2007), the Belgian architect and architectural historian, Francis Strauven, presents Eyck’s notion of the in-between as the locus of where contrasting elements “such as subject and object, inner and outer reality, small and large, open and closed, part and whole” can meet and unite. Van Eyck does not believe that these contrasting elements conflicts, he sees them as “two complementary halves of one and the same entity; while conversely a true entity is always twofold.” The in-between becomes the space where these opposites are to be balanced, in the “*in and out breath*”.

It is about grasping the contradiction and their relations. They depend on each other and shape one another. There is an importance of understanding this twofold, and how they can give value in the in-between not only through blurring the transition but also acknowledge the opposites and make them magnify one another.

“The in-between must be conceived “in the image of man” and that like man himself, the inbetween must “breathe both in and out.” [...] conjuring “the breathing image” of architecture” (Eyck in Teyssot 2008, p. 35)

The interesting thing about space is how it is shaped in relation to its function and the spaces it is related to. Spaces are in-between volumes that should be understood in relation to each other, and the in-between is the space where the contradictions meet and shape each other.

THE BUILT VERSUS THE IN-BETWEEN

The interrelation between the solid and the void and the hierarchy between the building and the surrounding environment have been widely discussed. Especially the city planning, and architecture of the modernism is criticised for neglecting the care of the spaces in-between the buildings. Exempli gratia, in 1976, The late American architect, Robert Venturi, was criticizing the modernistic city, Las Vegas, and referred to it as “*anti-spatial*”. Here the buildings were large singular elements in the surrounding environment, shaped by the car. There was no concern for how the actual space in-between the buildings were shaped and experienced by the human being. (Venturi, 1976)

This notion of “*anti-space*”, as Venturi termed, is also something the Urban design educator and practitioner, Roger Tranick, touches upon in the text, “*What is lost space*” (Tranick 1986). Similar to Venturi, he problematizes the modernism for neglecting the human dimension of the spaces in-between. Tranick defines the concept of “*lost space*” as “*the left-over unstructured landscape*”. He urges a focus on the exterior space and argues that the exterior spaces should shape the buildings.

“[...] exterior space should be the force that gives definition to the architecture at its borders.” (Tranick 1986, p. 68).

Further, he claims the problem is that urban spaces are not being understood as a volume and that there is not the same care for the shaping the exterior volumes considering properties, scale and the relation to other spaces. In this thesis, we urge for a similar care for the exterior spaces as to the interior spaces. The void should not be the consequence of the

solid, it should be carefully defined by the solid. Moreover, a care for the relation and how the two impact one another should be forwarded.

This subject is also something the Dutch architect, theorist, and educator at Delft University, Herman Hertzberger, engages with in his books, “*Lessons for students in architecture 1*” and -“2” (1991 and 2000). He expresses that, when the opposition between the built and the surroundings are neglected the buildings and the in-between becomes an integrated part of the surroundings. Therefore, he also problematizes that the focus, traditionally, is on the built. We are used to see the in-between as extra and the built is the necessary, that the client pays for. He urges, that the architect should be taking care of what lies between. He finds the “leftover” spaces of immense potential as it is the shared spaces between, which is not clearly owned by anyone, that represents the informal. He argues that it is here the important informal everyday social interactions occurs.

When focusing on sharing between the residents, the in-between spaces become of great significant, whereof the sense of belonging become an important aspect of the in-between. As the in-between represents the informal, where the ordinary, everyday life is lived in a community with the neighbours.

IN-BETWEEN

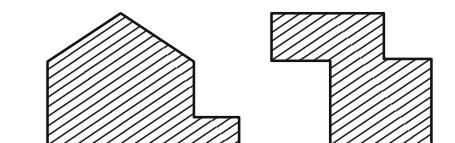
When shaping the in-between spaces that should provide the transitional space between private and public and the informal meetings of the everyday life, the physical design comes of significance. Here one should remember what

Hertzberger writes:

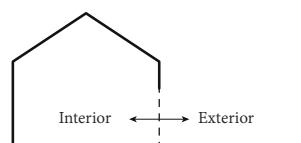
“*The architect is not only the builder of walls, he is also and equally a builder of openings that offer views. Both walls and openings are crucial*” (Hertzberger 1991, p 206)

In line with this, the threshold is something that Herzberger forwards as an interesting element when engaging with the in-between spaces. The threshold both creates the space for informal meetings between residents and guests of the particular area, at the same time as it provides a distance to the private spheres. In the chapter “*The ‘in-between’*” in his book (1991), Hertzberger underlines the small but significant elements such as the plateau that identifies another zone without compromising accessibility and visual connection, a half wall that both functions as boundary but at the same time as a place to inhabit and conversate over, and finally the small roofing over the front door where you greet your visitor and a place, where you can “*stamp the snow off you boots and put your umbrella*” before entering the dwelling. These are examples of how the threshold both creates distance to and becomes an extension of the dwelling. By this, it both provides extra social value but also optimizes the space and material use by dissolving the sharp transitions between the built and the surroundings, and the in- and exterior space.

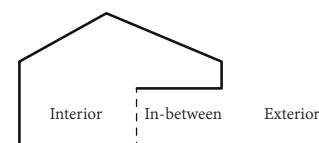
With an emphasis on the in-between space, a greater correlation in the built, and the in-between can be obtained. Further the spatial design of the intimate in-between spaces and transitional zones between in and exterior spaces is important in the creation of informal meetings and the distance to the private sphere. In particular, it can be valuable both socially and in optimizing and utilizing space to blur and dissolve the boundaries.



Ill. 35) When abandoning the hierarchy between the solid and the voids, the solids are carefully defining the void. It creates an attention to the in-between and thereby a greater optimization of both in- and exterior space.



Ill. 36) A correlation between the in- and exterior space can provide an extended spatiality, where the unity creates option for the two to drive advantage from one another's values, and an interplay between spheres and functions can be made.



Ill. 37) Working with the in-between, as thresholds, provides transitional spaces with opportunities for extending spaces across boundaries, creating a graduation between private and public spheres, that can generate informal interactions.

THEORETICAL CONCLUSION

A Sustainable Approach

To summarize the investigation of transitions, we started pointing out, which transitions we need to work on within this interdisciplinary thesis, to create various spatialities, optimize material use and nudge more sharing. The conclusion was the transitions between buildings and landscape, public and private and moreover ex- and interior.

For all the transitions, they somewhat work with physical elements which can be shared. By working with these transitions, we can both utilize what we already have such as the landscape and Naturbydelen as a context by designing and placing structures which emphasize the existing instead of working against it.

Furthermore, when adding something new to the site, by working with transitions, we can optimize while still creating spaces with value. As an example, by working with transitions between interior and exterior, the façade can be optimized to fulfil the spatial needs inside and create a visual connection between the interior and the exterior spaces. Or as another example, can the façade create a beneficial indoor

climate while also having other functions as both indoor and outdoor furniture?

This leads us to the transition between public and private. When working with this transition, we ensure comfortability when moving around the community living. Meaning you do not interfere with a sphere you should not be a part of. In addition, by working with this transition we also get an overview of how much can we share with others and how much should be private? And further by working with this transition, we can nudge more social interactions, that can be the ground for sharing more.

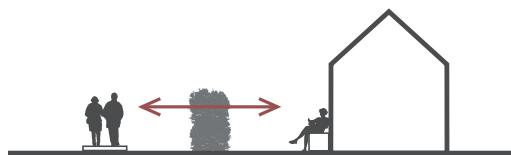
Therefore, when working with these transitions, essentially, it is working with sustainability. Sustainable towards using less and sharing more, and sustainable in terms of working with social well-being.

The following cases are analysed to show how the focus on transitions can be applied. The cases will be an inspiration for the final design proposal.

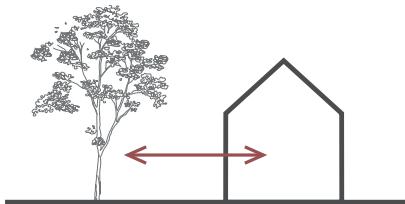
The Landscape and the Built



Private and Public



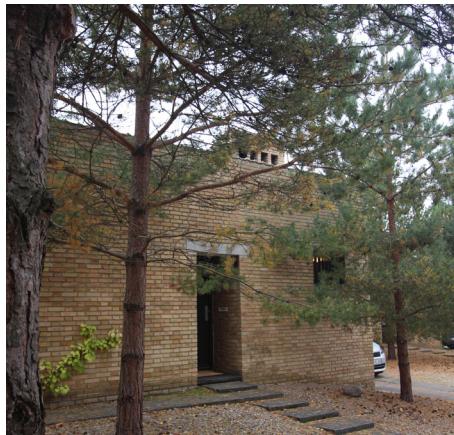
Interior and Exterior



Ill. 38) Transitions.

CASE STUDIES

Analysing Transitions



Ill. 39) Pictures of the case, The Roman Houses.

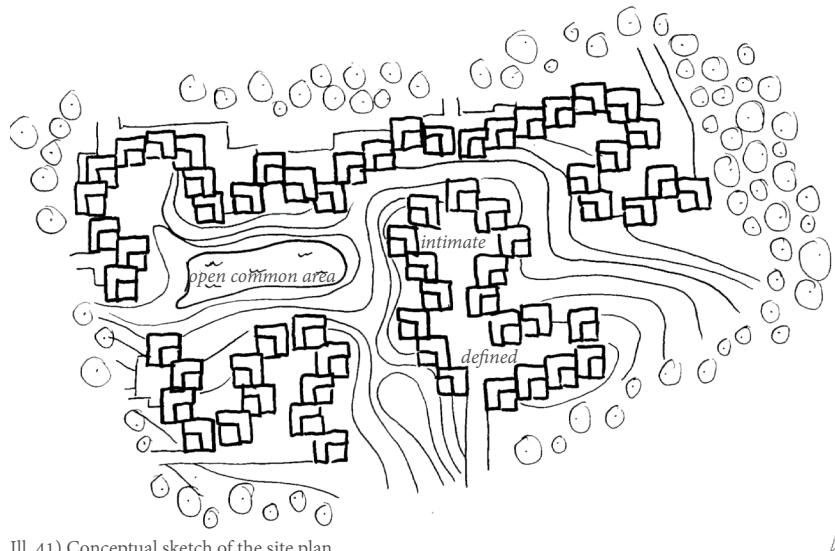
© Katrine Pedersen

Ill. 40) Pictures of the case, Penn's Landing Square.

© Louis Sauer

TRANSITIONS IN THE ROMAN HOUSES

Case: The Roman Houses



Ill. 41) Conceptual sketch of the site plan.

A

Architect: Jørn Utzon and Ib Møgelvang

Location: Helsingør Denmark

Built: 1957-1960

The Roman Houses by Jørn Utzon and Ib Møgelvang is an example of a site which has gotten a unique identity because of the relation between building and landscape, but there is also points to be made considering the transitions between the private and public and in-and exterior. A case study of this work will be executed in the following, exploring which design principles can be used for designing transitions that can underline various relations.

The origin of the Roman Houses was Utzon's winning proposal for a Swedish competition on developing a new dwelling-typology. This was not realized but became the base for a type of dwelling, which Utzon developed for the area in Helsingør, where the Roman Houses are placed today. Here he tried to challenge the common association of the Danish family dwelling, that had its own property, lying isolated from other dwellings – the detached house. (Juel and Kristensen 2013) The Roman houses did in this way, sow the seeds of the dense-low movement in Danish architecture the following years (Ejerlauget Romerhusene 2022).

THE UNITS IN THE LANDSCAPE - LANDSCAPE AND BUILDING

The dwellings are lying in extension of each other, surrounded by a hilly landscape. Each of the dwellings are placed carefully and with precision according to the landscape contour (DAC n.d.). Jørn Utzon worked with the additive principle inspired by nature where many types of organisms are repeated and put together which creates a certain character (Hauxner 2003). This principle was also used for the Roman Houses where each unit, the dwelling, is repeated and put together to create a significant system where the units together create several chains.

Moreover, the dense gatherings of trees surrounding the site embraces the area and gives a protecting back to the buildings and creates a distance towards the surrounding environment. Letting the built follow the landscape elements and the terrain does not only generate a beautiful and relatable composition, but does also make sense on the simple level of the opportunity to make the access roads follow the contour lines as well, and gather rainwater in the lake in the center of the building layout.

In this way the natural environment is being disturbed as little as possible, as there is no need for a bigger adjustment of the terrain before construction work can be initiated. In line with this the natural vegetation between the buildings is running wild, providing potential for high biodiversity. Through the wild vegetation, smaller desire paths are established, implying a hierarchy and underlining that a sensibility for the natural environment is a common value in the residential area.

UNIT RELATIONS - PRIVATE AND PUBLIC

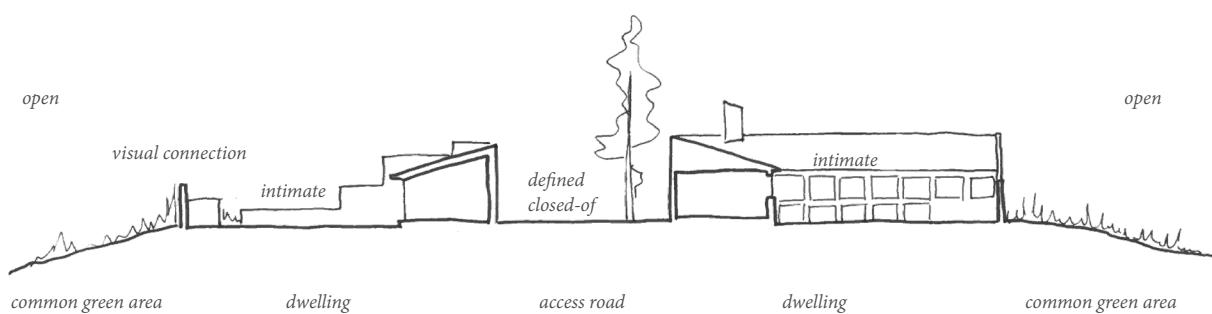
The trees provide a distance to the surrounding environment. This also defines the area and creates a clear distinction of who and what is a part of the area, isolating it from the city. The dwellings are, likewise, quite closed off to the common access streets, with massive facades and only a few small windows. On the other side of the dwelling, they face the green wild communal area, where they are slightly more open, as the courtyards are oriented this way and are only separated with a low wall (Ill. 42). This design results in a very private courtyard but with a visual interaction with the shared area, that both gives the sense of privacy, but still being a part of the community, as it provides the possibility to follow the activities in the area, and an informal social exchange 'over the fence'.

As mentioned, the dwellings are placed in a chain where the boundary of the private property follows the built, without its own private garden. Each of the dwellings does not have a big property. This means that there are many square meters for the shared areas. They have a huge shared green area, with a unique character and quality, that would not have been possible in a private garden

IN-BETWEEN SPACES

By using the method of placing modules of units in continuation of each other, it creates a unity and a stronger connection to the close surrounding, where more defined and intimate spaces for informal meetings can happen. This can be seen in the small corners and the angular spaces created between the buildings, as a result of the slight displacements of how the built is placed as a chain.

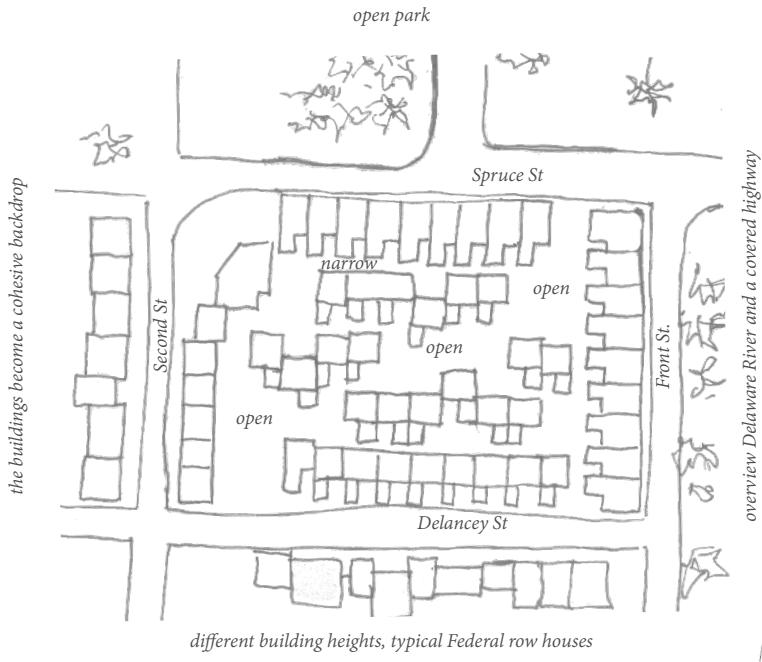
Finally, the space between the dwellings towards the roads are, as mentioned, more closed off due to the closed facades. On the other side, the courtyard becomes an extension of the dwelling, as the only thing dividing the interior with the exterior, is a transparent glass façade. The courtyard becomes a continuous part of the dwelling, and extra living room, as it is also in lee for the wind because of the low walls defining the courtyard.



Ill. 42) Conceptual section through the dwelling.

TRANSITIONS IN PENN'S LANDING SQUARE

Case: Penn's Landing Square



Ill. 43) Conceptual sketch of the site plan.

Architect: Louis Sauer

Location: Philadelphia, PA, USA

Built: 1968

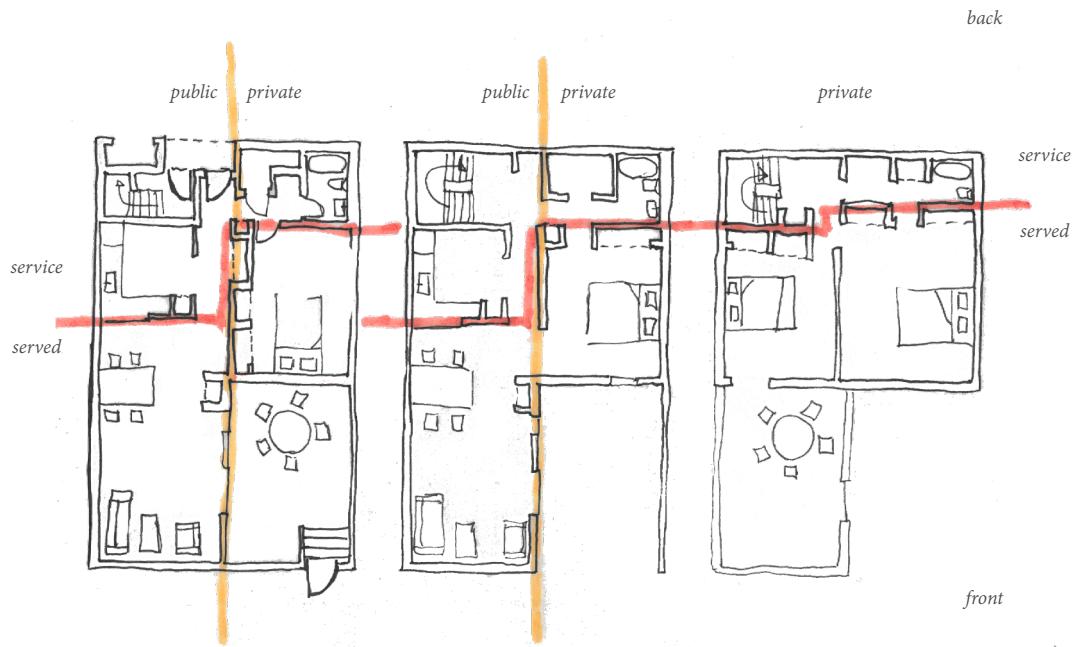
Penn's Landing Square is a residential area placed in the middle of Philadelphia's Society Hill. The man behind the project is Louis Sauer, an American architect whose residential housing and the observation between inside and outside have been a great interest and driving force, in the quest to create a social value for house owners (Saggio 2009).

THE TRANSITION FROM EXISTING CITY CONTEXT TO NEW BUILDING SITE

The building area was designed in the middle of an already existing urban environment. When looking at the structure of the environment, the buildings and road system creates a city grid. The four different roads next to Penn's Landing Square consists of both dynamic residential areas and more open and green spots. These roads are characterized and used in the relation to the site Penns landing Square. An example is the dwellings facing Delancy street. These are shaping a rhythm on the façade by having different heights.

Moreover, Sauer works with solid and void areas. Here the façade has some more visual solid and closed facades in-between these elements a terrace acts as a void area, giving depth and dynamic in the facade. When looking at Front Street, this area is seen as an open green space, a public park. The buildings from the site facing this street are high as and expresses the large scale of the open green spaces. A large opening for a more intimate and private entrance are breaking the surface of the wall (Saggio 2009).

The different dwellings are placed in order to create different spatiality's in-between the buildings. Here narrow, winded and dynamic paths are created as more intimate, closed and private areas. Opposite, other spots around the site are created as more semipublic, open, light and green spots. Contrasting elements as, light and shadow, void and solid, private and public are all elements Sauer uses in order to strengthen and complement different values and atmospheres among the dwellings (Saggio 2009).



Ill. 44) Conceptual sketch of zoning in the dwelling plan

PRINCIPLE OF DWELLING PLAN

The different dwellings are created with three different plan principles. These dwelling forms both adds possibilities for expressing more straight and closed shapes, mostly facing the roads. Opposite, the dwellings inside the site are displaced, adding dynamic and movement to the site.

The different plans contains two apartments. As an example of how Sauer works with the plans, one plan is evaluated. When looking at the plan the closed indoor area acting as a solid element creates a L-form. Placed in-between the form a terrace acts as a void space. This space is an open courtyard area adding a private outdoor area for the lower apartment. Furthermore, it creates a front against the public between all the dwellings. Functionally, the plans create a division and structure of a back and front, and a private public dwelling area. In the rear part of the dwelling, elements explained as service functions as staircase, entrance, bathroom are placed. Opposite, at the front we have served functions. These functions are the living room, dining room and bedroom. By working with this strategy Sauer focuses on giving the front side a more open façade, in order to

achieve more light, exposure to the southern sun and the possibility of working with a dense form, without creating an introvert facade (Saggio 2009). Across the dwelling, two additional bands of functions have been created. On one side of the band the more private functions, such as the bathroom, bedroom, and the private courtyard are placed. On the other side the more public functions as the entrance, kitchen and the living room which are opening up to the private courtyard (Hidden Architecture, 2017).

“There is an affinity between the notion of place and the notion of the in-between, both taking place between the polarities of inside and outside, here and there, small and large, part and whole, house and city, form and structure and so forth”

(Eyck in Teyssot 2008, p. 38)



03 NATURBYDELEN

Development of Ringkøbing

Activities within Reach

How Seniors Live in Ringkøbing

Diverse nature

Recreational Nature

Prioritising Soft Connections

The Emerged Landscape

Contextual Appraisal

Chapter Introduction

The quote by Eyck on the previous page implies that the term about the in-between also can be understood on a bigger scale. Looking into how places relate and connect to one another. This leads to the analyses of the context and how we wish to relate to Naturbydelen.

In this chapter, *o3 Naturbydelen*, the area of the project site is being analysed, to map the resources of the area, that can be utilized in the design. Moreover, potentials of how the community can share and exchange resources with Naturbydelen is being pointed out. Finally, these evaluations will be summed up in a contextual appraisal in the end of the chapter. Through the chapter the current status of Naturbydelen (see the section “Naturbydelen - A Rural City” (page 9) will be the base for the analyses, except for the analysis of the emerged landscape, as it also wishes to reflect the morphology of the future area.



Ill. 45) Ortho photo of Naturbydelen. © SDDE.

A

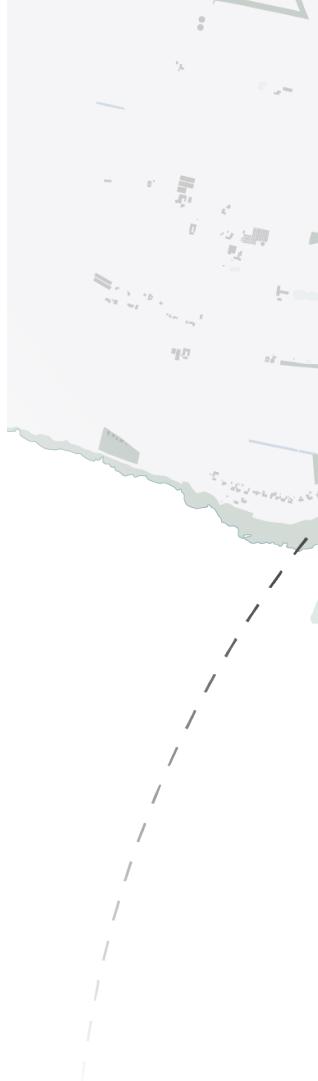


Ill. 46) Illustrating the overall development of Ringkøbing city.

THE DEVELOPMENT OF RINGKØBING

Ringkøbing city was originally a small important port town that some cities in Jutland were dependent on in the first millennium. Later it has developed to a market town and further in the 1800 to an industrialized city with a train connection. (Den Digitale Byport: Danmarks købstæder 2012) Lately the town has developed to a city with many tourists

and is now as mentioned earlier doing urban development, expanding the city with Naturbydelen. Originally the areas near Ringkøbing were dominated by meadows and wetlands. Later the land was transformed into agricultural lands, but in Naturbydelen, the wetlands and meadows have been re-established in recent years, following the visions earlier mentioned (see Naturbydelen page 9).



ACTIVITIES WITHIN REACH

Naturbydelen is an attractive area for the seniors to settle in, hence it is in a nice natural element with a variety of landscape elements. Further it is still close to the grocery shopping opportunities and the city center, offering diverse cultural facilities such as evening classes, cafes, and shops. All this within a radius of 3.5 km.

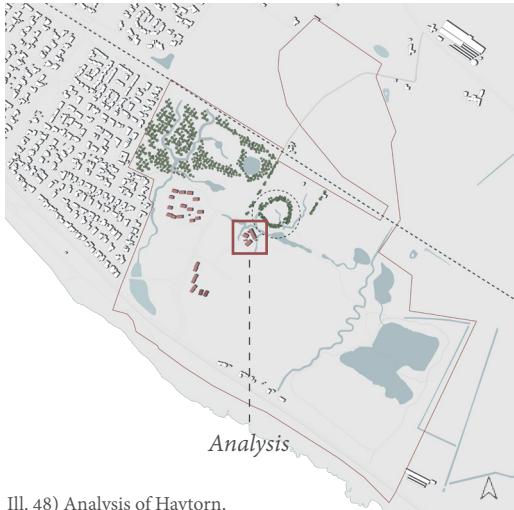
The illustration shows with blue marks which near activities there are for seniors and nature enthusiasts at Naturbydelen. For visiting meeting houses or community houses, such as Medborgerhuset in Ringkøbing, the residents must travel around 2.5 km. When designing the community living this will be considered as community houses could be placed here as a way of gathering people in new neighbourhoods such as Naturbydelen and creating more life in the area.

The nature activities are to a great extent placed near water elements such as the Fjord or lakes. In the design, even more, activities could take place near the water at Naturbydelen.



HOW SENIORS LIVE IN RINGKØBING

Havtorn



Ill. 48) Analysis of Havtorn.

Plot Area: 2500 m² Dwelling Area Total: 1067m² Shed Area: 28 m² Greenhouse: 32 m²
14 apartments Apartment size: 50-127 m² Storeys: 1-2 m² Outdoor Area: 1758 m², 103 m² per person
Common Area: 20 m³ per apartment Dwelling Area: 76 m² per apartment, 62 m² per person
People: Space for 17 seniors Private space: 77.5% Common Space: 22.5%

Moodboard of Havtorn



Ill. 49) Undefined outdoor space.



Ill. 50) Greenhouse.



Ill. 51) Herb Garden.



Ill. 52) White kitchen. © Søren Palmelund and Realdania.



Ill. 53) Shed.



Ill. 54) View to the Fjord. © Søren Palmelund and Realdania.

Analysis

The following two analyses investigates two different types of senior livings in Ringkøbing.

For exploring how much seniors can share in a community living this analysis investigates the distribution of spaces at the senior community, Havtorn, and further investigates the spatial characteristics of this place.

The place consists of 14 apartments where only 5 of them are occupied by 7 people in total (Appendix 2: Notes from Visits at Community Livings). Even though it is a community living the size of the apartments is big compared to only 1 or 2 people living in them. On average there is 62 m² per person which is close to the average amount of residential space per person in Western Jutland (62.6 m² see page 13). Therefore, as a future community living it is not challenging the amount of space you have.

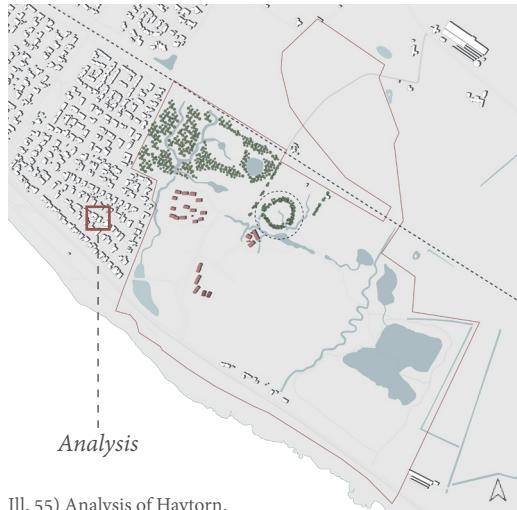
22.5% of the build area is common (Appendix 6 - Analyses of Community Livings). However, in some areas, you see how there are some thoughts about sharing more. This includes the greenhouse and the shed. The shed area is 28 m² which will be shared among 17 people. Compared to a typical private shed as seen on the next page, this is much less space per person.

In Havtorn the outdoor areas are shared among others and therefore in total, you get a bigger outdoor area. But when looking at the spatial experience of the outdoor areas, it seems somewhat undefined. There are placed some functions such as a herb garden, a greenhouse, and benches but the space seems very open and with no corners. The use of different kinds of fences in the design of Havtorn could have created both intimate, private, and public spheres but also spaces that shield from the wind and different characteristics

The indoor spaces have views to the grand nature landscape but do not have any further spatial quality. The materials have no tactility, and the facade or construction is not used for creating spaces but instead are just plain floors and shear walls.

HOW SENIORS LIVE IN RINGKØBING

The Detached House



Ill. 55) Analysis of Havtorn.

Plot Area: 720 m² Living Area: 158 m² Shed Area: 26.5 m² Conservatory: 15.5 m²

People: Typically 1-2 seniors Storeys: 1 Private space: 100% Common Space: 0%

Dwelling Area: 79 m² per person Outdoor Area: 520 m², 260 m² per person

Moodboard of detached houses



Ill. 56) Fence defining an entrance.



Ill. 57) Wood and brick in combination.



Ill. 58) A dessert of hedges.



Ill. 59) Typical windows for detached houses.



Ill. 60) Hedges defining plots.



Ill. 61) Terrace.

Analysis

For understanding what detached houses consist of, this analysis investigates the distribution of spaces at a typical detached house in Ringkøbing in numbers and further explores some of the general spatial characteristics of detached houses in Denmark.

Firstly, when looking at illustration 55, it is noticeable how much living area there is for just 1 or 2 persons. Added on to this space, there is a conservatory and a big shed. These last two elements could easily be shared with others, as it might not be spaces you use every day. Especially, the big shed which might storage tools or outdoor furniture that could be shared with others.

The next thing worth observing is the big plot and the huge outdoor area. The plot consists of 0% common spaces and 100% private. The outdoor area mostly consists of flat lawns and with only a few spaces inviting you to stay, such as a terrace. This big space could be shared with others.

When looking at the characteristics of a detached house's facade, it often includes bricks and wood in combination and typical square windows with an indoor function but with no relation to the outdoor space.

The gardens have typical green fences, and hedges, defining the plot area. Further, we see small board fences, defining an entrance to the private garden. All the fences show clearly what is mine and what is yours, which makes sense when you are not sharing with others.

One could question if you use all that outdoor space and big lawn? Could it be optimized more? Could you create a garden with a more diverse space?

DIVERSE NATURE

Naturbydelen is a new part of Ringkøbing surrounded by agricultural monoculture, city densification, and the fjord. In the future, the majority of Naturbydelen will be meadows. In the lower part of the Naturbydelen's landscape, a wetland area with a big lake is being established together with native species of plants. For wind protection, a forest has been planted toward the northwest of the area (Ringkøbing K and SLA 2015). Towards north placed above Naturbydelen is a large, protected meadow. As well, a large area along the coast is covered with protected meadows (Ringkøbing Skjern Kommune, n.d. e). In this protected area and in several places inside Naturbydelen (A) we especially noticed the plant reed as something giving a recognizable character in the flat green landscape. In the design process, this material will be investigated as facade material due to its identity for this area.



Ill. 62) Reed.



Ill. 63) Red Dead-nettle.



Ill. 64) Sea Buckthorn.



Ill. 65) Scotch Broom.



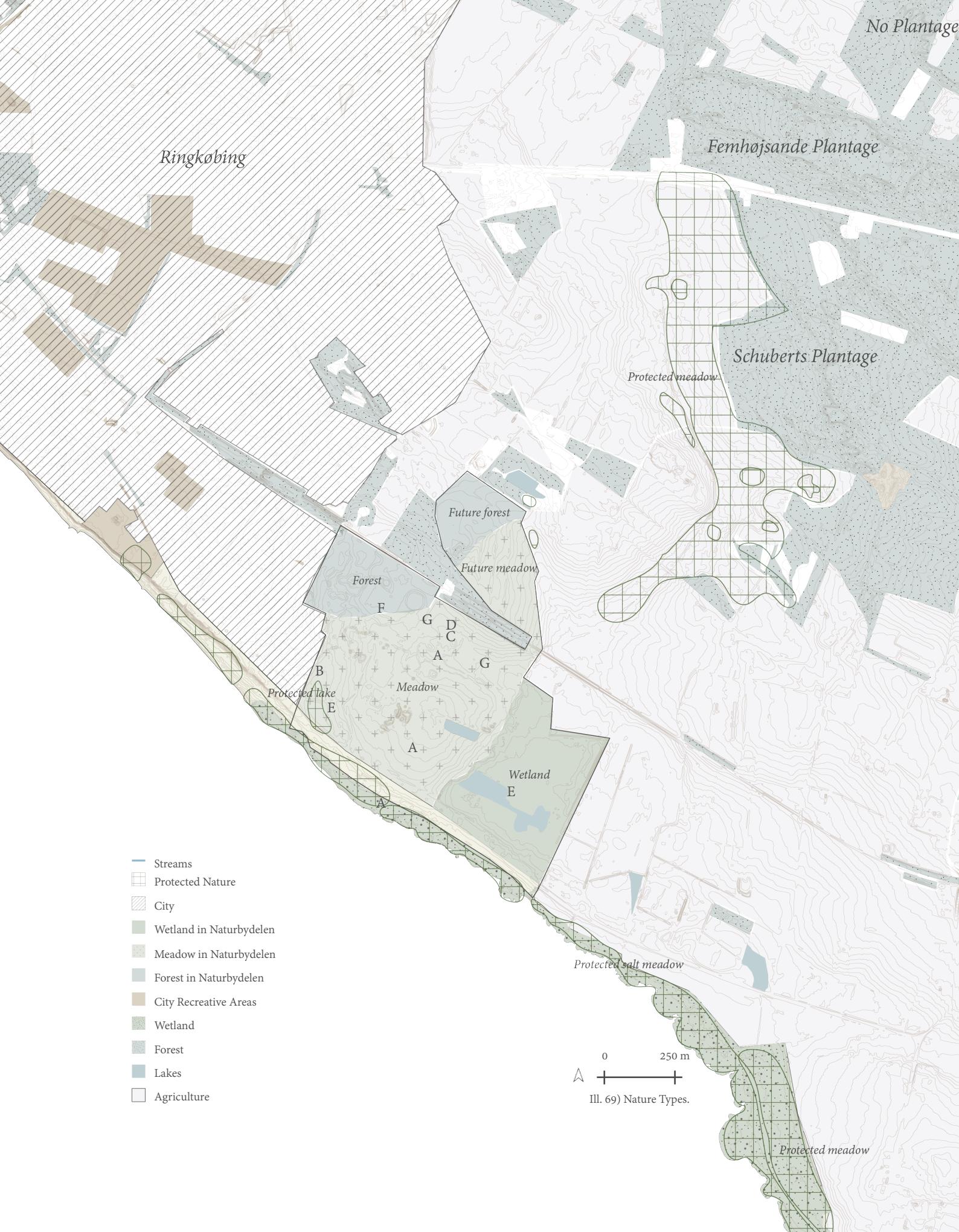
Ill. 66) Bulrush.



Ill. 67) Pine.



Ill. 68) Trees as windbreak.





A

Ill. 70) The rough nature at the fjord.



B

Ill. 71) Berry garden.



C

Ill. 72) Fruit grove.



D

Ill. 73) Wetland.



E

Ill. 74) Berry garden.



F

Ill. 75) Walking on water.



Ill. 76) Orchard and berry gardens.



Ill. 77) Bike and walk path towards Ringkøbing City.



Ill. 78) Bike path towards Naturbydelen.



Ill. 79) A place to pause in Naturbydelen.

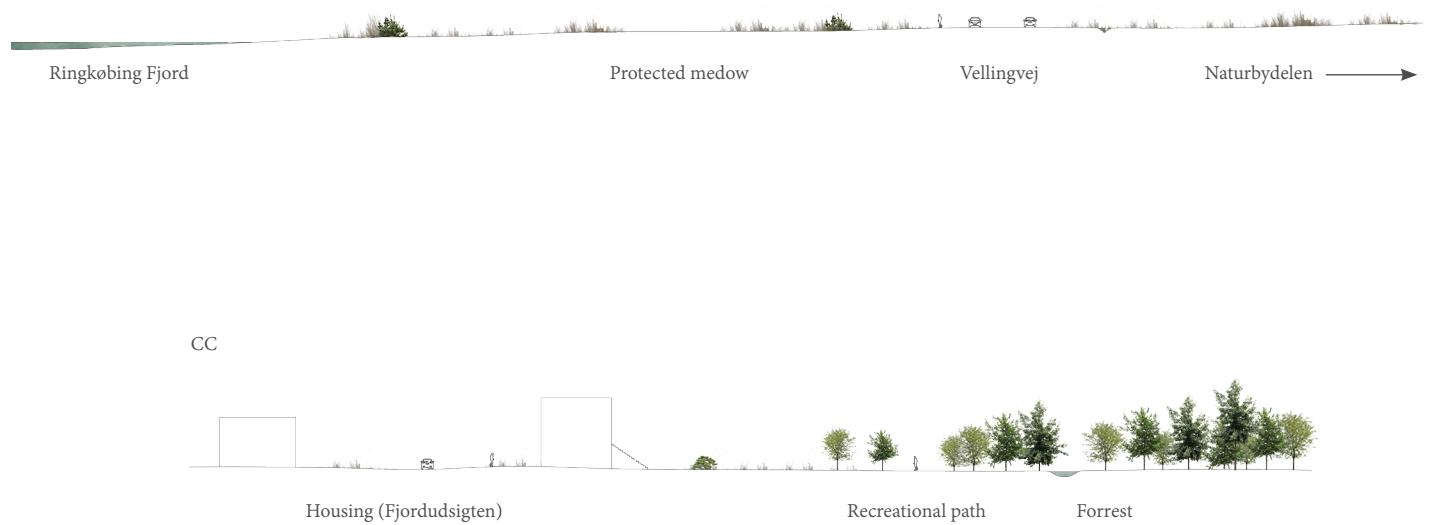


Ill. 80) Slow movement in the context.

AA



BB



CC



DD



Ill. 81) 1 : 1 000 sections, illustrating morphology of the area



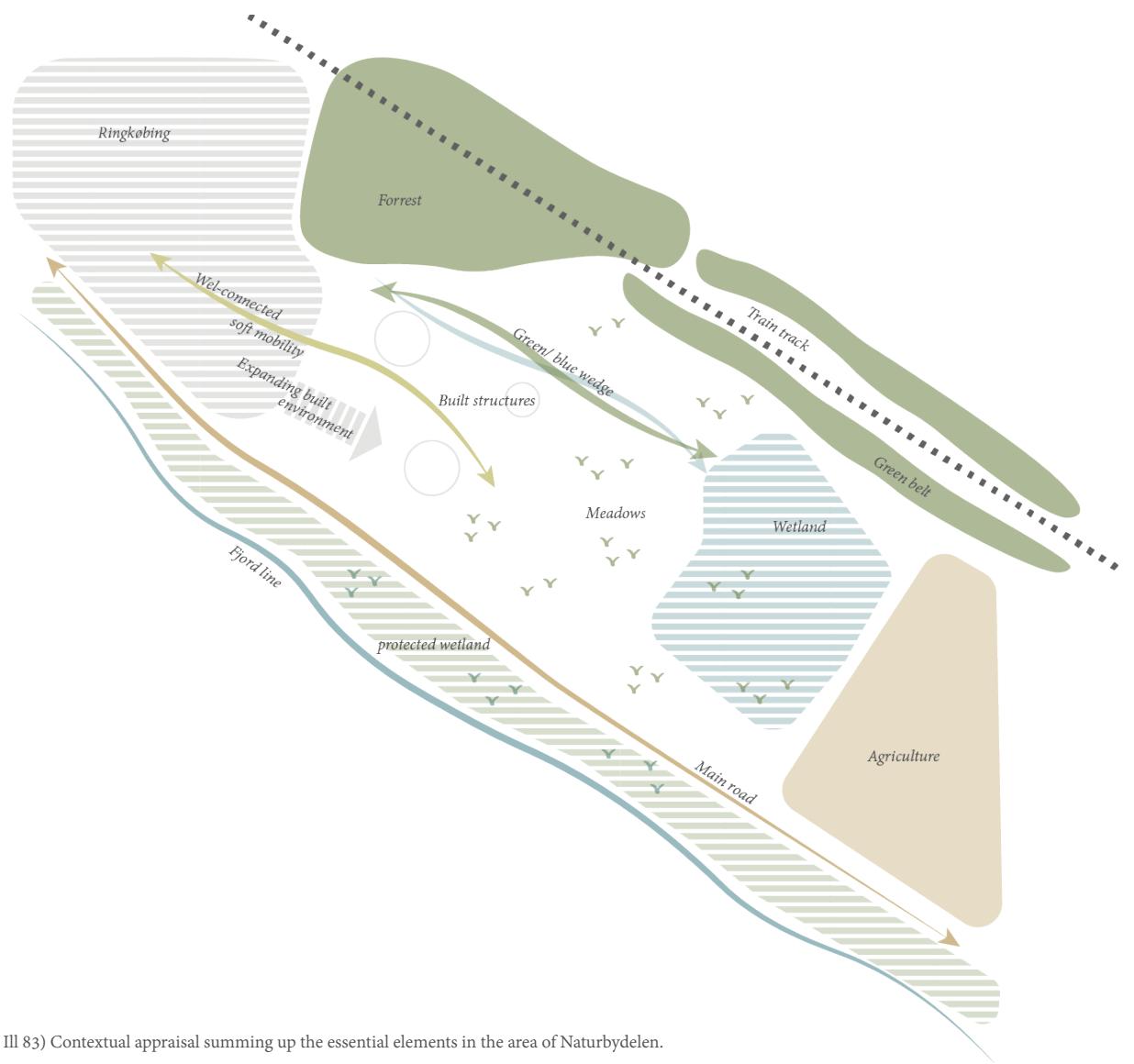
Ill. 82) Topography (0.5 m) and marking of morphological sections.

PROTECTING THE LANDSCAPE

The landscape surrounding the project site consists of flat terrain which makes it possible to have a look all over the marshland as shown on the sections on the previous page. This area is a part of a geological area called Skovbjerg Bakkeø. The area originates from the ice age Saale. However, at that time it was placed under the ice. First in the ice age Weichsel the area was free of ice and thereby exposed to natural erosion which resulted in a flatter area. The area at Naturbydelen consists of moraine sand (Ringkøbing-Skjern Kommune 2019). As this soil type consists of sand the ability of percolation passes faster than more dense soil types. However, the area consists of a groundwater regime (Ringkøbing-Skjern Kommune 2019) which naturally gives a high placement of the water table (Nygaard n.d.). A high water table in combination with increased precipitation in the future can result in a water table near the ground surface. A solution of leading the water into the ground is therefore not beneficial at our site (DinGeo n.d.).

A groundwater regime area is a result of meadows or moors, resulting in soil with plant remains linked with carbon. If this area is used for agriculture, the carbon will release. Furthermore, the biggest parts of the world's biodiversity are found underneath the ground (Classen 2015). According to landscape architect Thomas Vejsnæs at SLA and landscape architect Katharina Richter at Vandkunsten, just "1 gram of soil contains over 50,000 species of microorganisms" (Richter and Vejsnæs 2021, own translation). Therefore, there are good reasons in the design process of this thesis, which takes place in a newly developed nature area with high level of biodiversity, to consider how we can disturb the soil conditions less.

CONTEXTUAL APPRAISAL



Ill 83) Contextual appraisal summing up the essential elements in the area of Naturbydelen.

Naturbydelen lives up to its name, as nature is the leading structure of the area. The nature is diverse both considering the wild and the established recreational nature activities. The vegetation gives great value to the residents of the area and provides a unique coastal identity, which we wish to enhance. Further, it is an obvious identity to utilize as the common interest in community living. In general, it is wished to be as gentle as possible to the diverse natural environment, to preserve the biodiversity and qualities of nature. The soft mobilities will be prioritized as well, both to be sensible to nature, establishing less hard surfaces but also to provide a

closer relation to nature. Moreover, there is great potential for connecting the foot- and bike paths in the area as they both connect to the nature areas but also to Ringkøbing City and its activities. In connection with this, it is desired to exchange resources with the various associations and communities in Ringkøbing and Naturbydelen. Letting the residents of the community living take part in the already established associations, but also invite others into the community, offering shared facilities and environments for them to meet closer to nature, following the strategy of creating experiences in the nature.

“The topography, surface material, scale, and light, peculiar to a particular place creates a special character”

“Local conditions of material, light, space, and structure ought to inspire and generate new forms of design as needs and desires change”

(Høyer 1999, p. 72).



Ill. 84) © Kontraframe.

04 THE SITE

Choosing Site
Meeting at the Water
Sun and Shading
Wind
Perception
Utilize the Inherent Qualities

Chapter Introduction

The quote by Høyer on the previous page highlights the importance of utilizing and enhancing the inherent potentials of the specific site in the process of designing new structures, which leads to the fourth chapter, *04 Site*.

The chapter presents the specific site in Naturbydelen and arguments for choosing it based on conclusions from the previous analyses. Further analyses of problems and potential considering the perception and microclimatic aspects, hydrology, sun, and wind is put forward to point out how the qualities of the site can be utilized.



Ill. 85) The black dashed circle marks the chosen site.

CHOOSING SITE

Through the process of choosing a specific site for the senior housing community in Naturbydelen various placements and scenarios for the future development were evaluated (Appendix 7: Choosing Site). The site is situated within the part of Naturbydelen called Frugtlunden – a fruit grove, a small forest. The small forest is an enclosed area, surrounded by trees. Firstly, the site is chosen because it is interesting

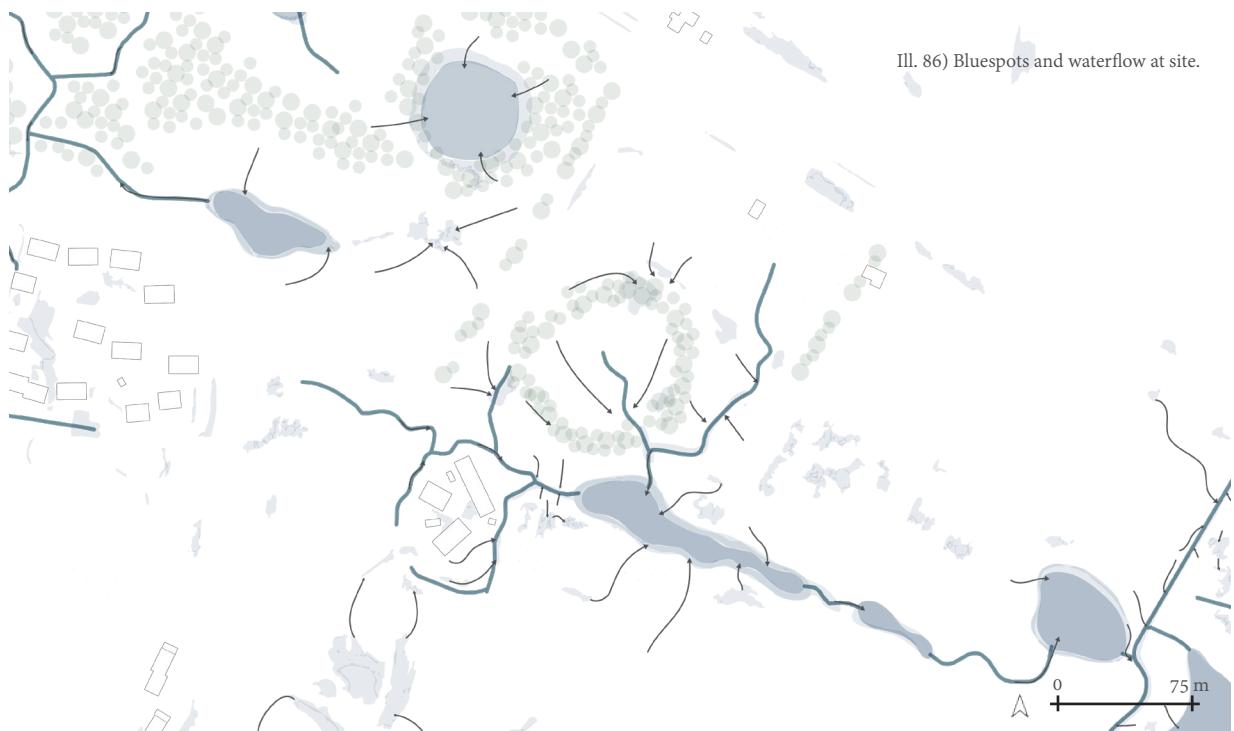
considering utilizing the already established nature elements in the area, such as the blue-green wedge going through the area and the fruit grove (the circle of trees). Further, the placement is central in the area and close to the main path connecting to Ringkøbing, which provides the possibility to integrate the community in the area with the public, and by that create the option for exchanging resources between the community living, Ringkøbing, and Naturbydelen.

MEETING AT THE WATER

In the development of Naturbydelen, different hydrological elements have been incorporated. At the site a trench has been cut through the landscape, leading the water to the lake, south of the site.

The illustration shows a 10-year incidence at our site which shows only few places with water gathering in blue spots (SCALGO n.d.). However, when the trench is established at the site, we would like to utilize this even more, by making it a social gathering point at the site. For this to happen a permanent surface in the trench will be considered to create a permanent water table, which will attract people to this area. As the water table in the soil is high it is not beneficial to lead the water into the ground. Instead, we will work with delaying the water but still leading it to the lake.

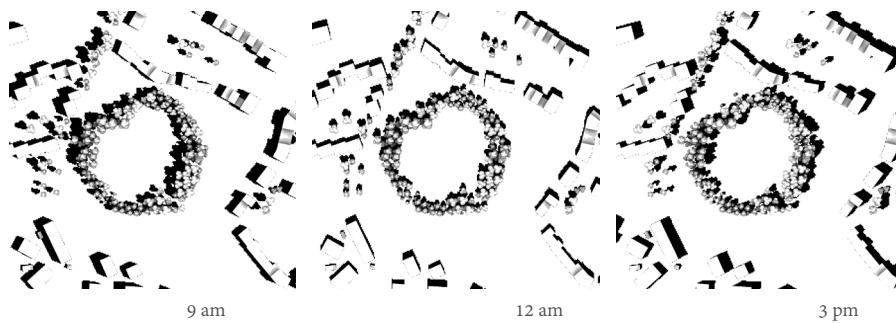
- Designed Streams
- Direction of Flow
- Designed lakes
- Blue spots 10-year incidence



SUN AND SHADING

The project site will in the future be surrounded by buildings and trees which can cast some shading. Therefore, an analysis of the site is made to visualize sunlight and shading, and by that gain some knowledge of potential areas depending on facilities.

SUMMER - 21ST JUNE

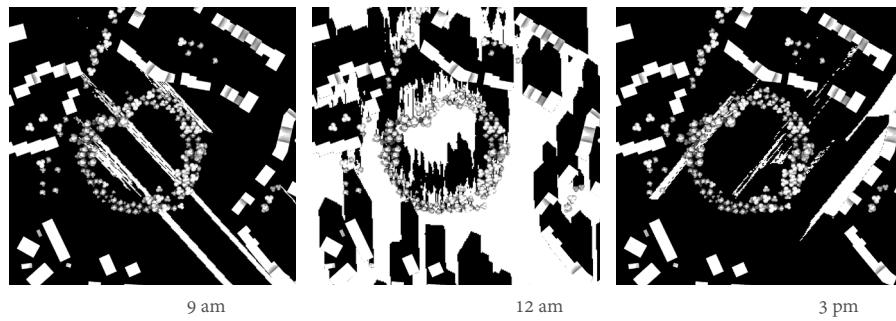


Ill. 87) Summer days, 1:6000



During the 21st of June, there will not be much shading. However, the trees will provide some space with shading, which can give some comfortable areas for outdoor use.

WINTER - 21ST DECEMBER

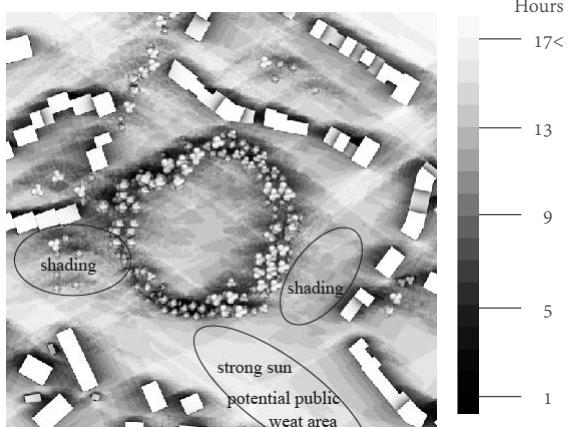


Ill. 88) Winter days, 1:6000



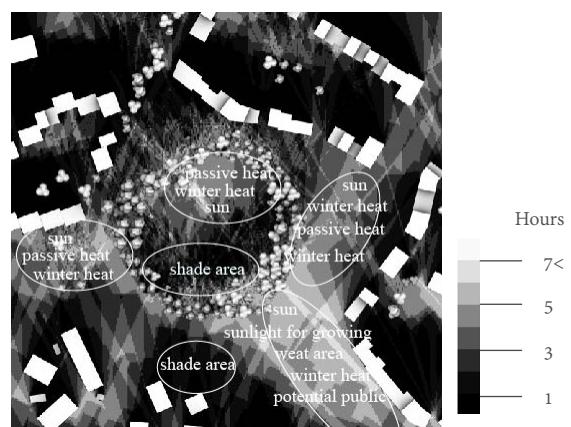
On the 21st of December, there will only be some sunlight in the middle of the day. Therefore, these areas will be important during the winter, to achieve as much light as possible. However, reservations must be made from the fact, that most of the trees lose their leaves in the winter and therefore shadows less than illustrated.

SUMMER - 21ST JUNE



Ill. 89) Summer sun, 1:300

WINTER - 21ST DECEMBER



Ill. 90) Winter sun, 1:300

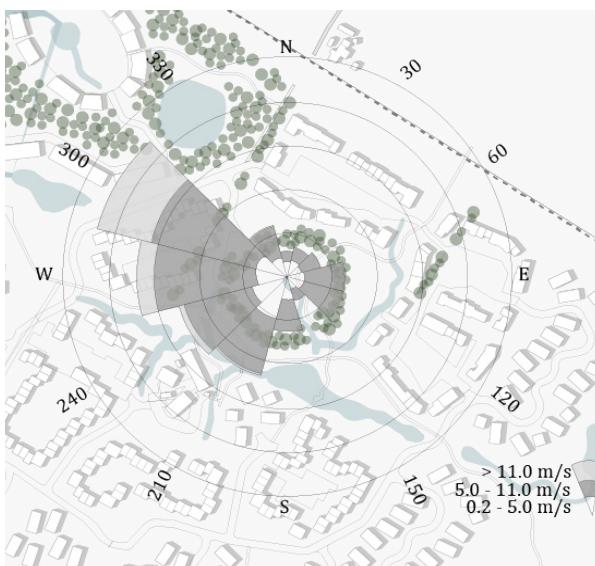
To give a view of how much shading an area will have, an analysis of the shading during all hours of one day in the winter and in the summer is made. The illustrations show how many hours the area will reach direct sunlight. The need for sunlight and shading is different during the year.

For example, the minor sunlight can be important in the winter, to have some warmer outdoor areas, and to achieve passive heat in the buildings. Opposite the shaded areas can be interesting in the summertime, seeking some more cool areas.

WIND

The Project site is placed in the outskirt of Ringkøbing near-by the west coast. According to the Danish Metrology Institute, the most frequent wind direction will come from west with around 30-40% of the time (DMI, 2021).

JULY



Ill. 91) Windrose, Hvide Sande, July

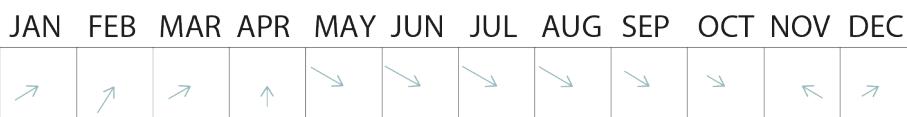
DECEMBER



Ill. 92) Windrose, Hvide Sande, December

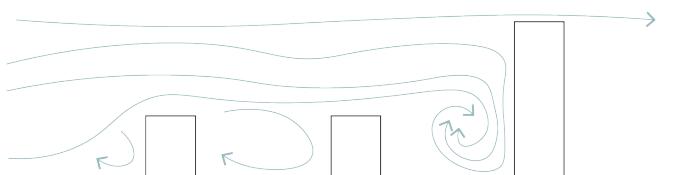
Two wind roses from the nearest wind station, Hvide Sande, are illustrated. When comparing the two wind roses respectively from December and July month, the wind will be lighter and most often come from the south in the winter. In the summertime, there will be a stronger wind from the northwest. This condition will be considered during the

design process, to create good outdoor environments all year around. Here especially the slightly stronger wind in July will be a case where some windscreen elements will be considered as part of the design. Here there is a potential to integrate the results in the work with fences and transitions.



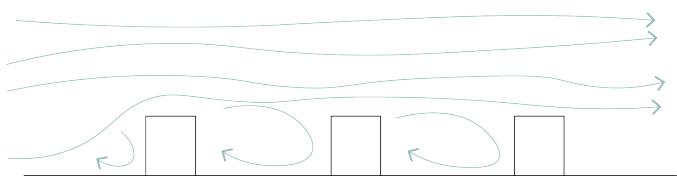
Ill. 93) General wind direction.

WIND PRINCIPLES



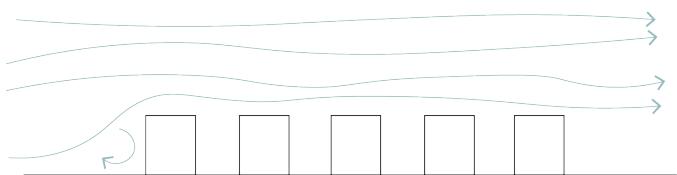
HIGH-RISE BUILDING

Accelerating speed due to the undistributed wind.
Some of the high wind transforms down to the lower part as turbulence.



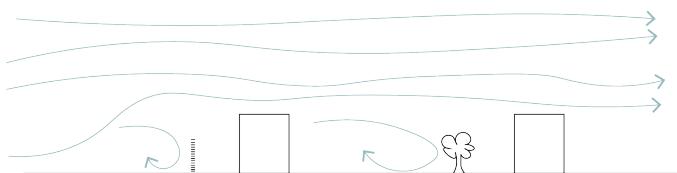
HIGH AND OPEN

Turbulent environment between the buildings.
Increased windspeed.



LOW AND DENSE

Wind acts like a carpet effect.
Less turbulence between the buildings



WINDBREAK

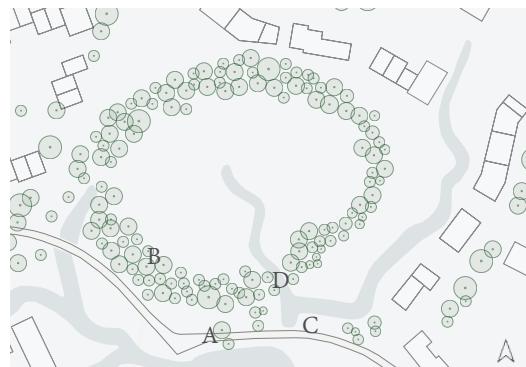
Fences or vegetation can be utilised to achieve outdoor shelter
Perforate fences are recommended, as they will pressure equalise the wind.
Branches on the trees break the wind softer.
Depends on the density.

Ill. 94) Wind principles. Inspired by Bjerg 2012.

(Bjerg 2012).

PERCEPTION

As you arrive at the site from the main movement corridor, you sense a change in atmosphere. The movement corridor follows a big open space, but as you enter the small forest the space shrinks. An opening in the trees and a small gathering of water in a trench invite you into the site. The opening in the trees shows how the forest is formed by a dense ring of trees and bushes. When you arrive at the inner part of the circle, it feels like being in a different place. A calm and peaceful atmosphere. No sense of wind and no sound from the surrounding context. As you go deeper into the forest, following the trench, you sense how the terrain is changing and going upwards into a small hill. At the top of the hill, you get an overview and witness how the small forest is in fact a green hidden oasis.



Ill. 95) Movement corridor next to the small forest.



Ill. 96) Movement corridor next to the small forest.



B

Ill. 97) Dense ring of trees, you can not see through.



C

Ill. 98) Trench inviting you into the site.



D

Ill. 99) Opening in the small forest.

UTILIZE THE INHERENT QUALITIES

Site Analysis Summary



Ill. 100) Picture at the site from inside the circle of trees.

Enhance and utilize the spatial and visual qualities of the specific landscape elements, the ring of trees and the hydrological structures.

Be sensitive to the already established landscape structures, to interfere as little as possible with the natural environment.

Utilize good sunspots for outdoor activities, so that the outdoor season can be expanded, and better use of the outdoor spaces can be made.

Let as many trees stay to utilize the lee it provides to the site in the otherwise windy coastal environment.

“tree is leaf and leaf is tree – house is city and city is house – a tree is a tree but is also a huge leaf – a leaf is a leaf, but it is also a tiny tree – a city is not a city unless it is also a huge house – a house is a house only if it is also a tiny city”

(Eyck in Teyssot 2008).



05 PROGRAMME DELIMITATION

What Can be Shared?
Room Programme
Functions Diagram

Chapter introduction

The metaphor suggests that to make a house, one must see it as the city, and consider some of the same aspects. The structures of the city must be represented in the house and vice versa. The hierarchy, balance, and graduation of the public/private inside the dwelling can be seen in relation to the ones outside – as a continuous phenomenon. The functions and spaces inside the dwelling must carefully be placed in relation to one and another and the surrounding context, hence the dwelling is a part of the context and the context is a part of the dwelling.

This is what the chapter is considering - structuring functions and their relation. Here the previous analyses and investigations are gathered in a room programme and a function diagram trying to make concrete guidelines for the design of the community living considering spaces, functions and their relations. The development of these guidelines is further based on considerations of what facilities are needed in community living and what can be shared to optimize the use of resources. The presented guidelines will be leading in the following design process.

WHAT CAN BE SHARED?

Use of Facilities

To find out how to optimize the use of facilities in the community it is investigated how many facilities, that can be shared. This by evaluating on how many times a day one facility is used and on what level privacy is wished for each facility. The investigation is based on own experience and talks with the seniors at the visited senior community livings (Appendix 2 - Notes from Visits at Community Livings).

The table below shows a simplified overview of the use and privacy needed. It is used as a base to argue, what facilities can be shared, but further evaluated with more complex considerations. Exempla given, some facilities within the kitchen, such as the big baker appliances, are not used every day. Moreover, the use of the dining room also varies. Most often the seniors eat by themselves or with their partner and do not use a lot of space, but they also wish to have the opportunity to invite their family for dinner, which require more space.

The need of privacy is also more complex than the graduation from low to high. Though you have a high need for privacy, it can still be shared, if it is not at the same time as with your neighbours, and if it is designed to accommodate privacy, with a more closed off structure.

From the visits we further learned that sharing is not only about compromising ones needs, but it can give further value. By sharing you can get things that you otherwise would not have had. By sharing facilities, you also share the economics and work hours maintaining the facilities. Exempli gratia given. It eases the work of having a vegetable garden when you have someone to share the work with but also the outcome. One person might not be able to get all the crops eaten. Like this, some things are even more obvious to share. Moreover, sharing and having a shared responsibility keeps one going, and brings purpose to the everyday life.

Activity	Duration (min)	Frequency (per day)	Privacy needed (low-high)
toilet	0-15	2-8	high
bathing	5-15	1	high
cooking	15-45	5	low
relaxation	5-90	x	medium
dining	15-60	3	low
laundry	5-15	max 1	low
hobby/workshops	30-90	1-3	low
sleeping	360-480	1	high

“I want the opportunity to invite my family home to dinner”

“When I am baking a lot of buns, I use the big common kitchen”

“By sharing with the other residents, I can have the atelier, I have always wished for”

“I appreciate the extra room in my dwelling, where I can have Teams-meetings and do my financials”

Quotes are based on talks with senior residents (Appendix 2 - Notes from Visits at Community Livings).

Levels of sharing

As the previous investigation on Havtorn (page 49) shows, the dwellings are minimum 50 square metres and many of them are bigger and with several rooms. They share some facilities but do still have all the basic facilities in their home. The thesis wishes to explore if the size of the dwelling and “needed” facilities within the dwelling can be pushed. Can we share more facilities, and push what is needed, by trying to understand why, they think they need the facilities by themselves in the dwelling.

By creating various levels of community wherein facilities can be shared, the level of privacy graduates. If you only share with the neighbour, the facility maintains some of the personality and privacy, compared, if it was shared with everyone. Moreover, even though a facility is shared with everyone in the community, the design and frames for the use are of significance.

In the private dwelling	Shared with the neighbor	Shared with the community living	Shared with Naturbydelen
toilet		toilet	
bath			
kitchen		kitchen	
living room		living room	
dining room	dining room	dining room	
		laundry	
		hobby/workshops	hobby/workshops
	storage		guest room/cabin
		outdoor recreation	outdoor recreation

ROOM PROGRAMME

The room programme presents concrete guidelines and specific demands for the various spaces in the community living. The traditional room programme has its limitations, as it is strict and does not provide flexibility for understanding the spatialities dynamic, multifunctional and with fluid transitions. Therefore, it is tried to loosen it up and merge some of the rows and columns in the table and add outdoor spaces. Further the previous facility investigations do also unfold some of the complexity.

INDOOR	NUMBER	AREA (M ²)	TEMPERATURE COMFORT (C)		VENTILATION TYPE
			summer	winter	
NEIGHBOURHOOD 11					
Threshold	1	17	<i>Dynamic according to the outdoor temperature</i>	natural ventilation	
Shared room	1	16	24	22	
DWELLINGS 33					
Livingroom, diningroom, kitchen	1	15	24	22	hybrid ventilation
Bedroom	1	9			
Bathroom	1	3-5			local exhaust ventilation
COMMON HOUSE 1					
Kitchen	1	11	24	22	hybrid ventilation
Common room	1	65			
Toilet	1	4			local exhaust ventilation
Frezer	1	3	-18	-18	-
Fridge	1	3	5	5	
Storage	1	3	24	22	
COMMON FACILITIES					
Laundry	2	10	24	22	local exhaust ventilation
Hard workshop	1	32			
Soft workshop	1	25			hybrid ventilation
Library	1	33			

VENTILATION MIN. IN CRITICAL SENARIO		DAYLIGHT (%)	PRIVACY	SPATIALITY	TACTILITY	DEFINITION OF FACILITIES	
Air-change (h^{-1})	Air Flow (l/s)						
4.2	53.8	1.5	semiprivate	open, narrow	warm, rough	entrance, orangery, meeting and stay	
34.3	629.2	3	semiprivate	closed		company, office, store, hobby	
<hr/>							
2.9	50	3	private	open	warm	one open common room	
		2		closed			
7.5	26.9	2		closed	smooth	seperated room	
<hr/>							
8.2	53.1	3	semipublic	open	smooth	common arrangement, open for the public to book, the community living has the responsibility for it	
15	142.3			open, wide	warmth		
6.2	23.8	2	private	closed	smooth		
-	-	1.5	semipublic				
			semipublic				
			semipublic				
<hr/>							
2.7	13.8	1.5	semipublic	closed	smooth	everyday meeting connected to outdoor laundry	
9.3	86.9	3	semipublic	open, density	rough	repair, wood work, store and meeting for kayak connected to outdoor workshop	
15.0	140.8			open, wide	warm, rough	creativity, flower arranging, sewing, paint	
34.6	286.9	2	semipublic	closed	smooth	stay, library, bird view, livingroom	

	<u>OUTDOOR</u>	<u>NUMBER</u>	<u>AREA (M²)</u>	<u>WIND CONDITION</u>	<u>SUN CONDITION</u>	<u>PERMABILITY</u>
<u>COMMON FACILITIES</u>						
Kitchen	1	44		calm		
Vegetable garden	1	93		calm	sunshine	permeable
Outdoor eating area	1	45		calm		
Hard workshop	1	58		calm	shading	impermeable
Soft workshop	1	21		calm		
Outdoor stay	1	-		-	sunshine	permeable
Drying area	1	12		windy	sunshine	
Main road	1	989				impermeable
Main paths	4	320				
Small paths (to clusters)	3	109				partly permeable
Small paths (to disabled dwellings)	1	13				impermeable
<u>PRACTICAL</u>						
Bicycle parking (dwellings)	42	54				
Bicycle parking (guests)	34	58				
Car parking (guests)	28	350		various	various	partly permeable
Car parking (shared dwellings)	9	70				
Car parking (shared disabled normal car)	2	35				
Car parking (disabled van)	1	36				

ACCESIBILITY		PRIVACY	SPATIALITY	TACTILITY	DEFINITION OF FACILITIES
Surface	Width (m)				
wood, steel	5	semipublic	open, wide	warm, rough	outdoor kitchen, fireplace, overhang, meeting, stay
steel	9		marked	rough	
wood	6		open	warm, smooth	
tile	7.5	semipublic	marked		connected to indoor hard workshop
wood	7.5	semipublic			
wood	-	public, private	open	variable	small spread activities, nudging around, small stay, benches
grass, wood	6	semiprivate	closed	smooth	connected to laundry
tile	4	public	open	warm, rough	connecting Ringkøbing and Naturbydelen with the community living
gravel	1.5	public	open, narrow		attracting the public into the community living
gravel	1	semiprivate	open, narrow, organic		organic paths between tall grasses everyday meeting
OB asphalt	1	semiprivate	open, organic		organic paths between tall grasses everyday meeting
grasscrete	0.5	semiprivate	narrow, closed, some covered	narrow	green parking close to the dwellings, creating a diverse environment between the dwellings everyday meeting
grasscrete	0.5	public	narrow		green parking, inviting the public to take the bike everyday meeting
grasscrete	2.5	public	outside of the circle of trees, placed in the ends of the main road		
grassrete	2	public	placed inside the circle of trees, shared among the residents everyday meeting		
grasscrete	3.5	public	placed inside the circle of trees, shared among the disabled residents everyday meeting		
grasscrete	4.5	public	outside of the circle of trees, placed in the end of the main road		

FUNCTIONS DIAGRAM

The functions diagram illustrates the idea of creating neighbourhoods, communities between residents, who have some facilities they share. A shared room that provides extra space to the otherwise downsized dwelling, and a threshold, facilitating a shared entrance where every day informal socialization can occur. Further, the functions diagram shows the relations between the functions and the neighbourhoods. The facilities shared with the entire community are spread out between the neighbourhoods, nudging the residents around the area, and making informal meetings. There is also created a relation to the public through chosen functions, that are shared with them. Finally, the yellow grid implies the significance of the in-between spaces, that they are activated and spatially connected, creating a cohesion in the spatial experience of the community living.



Ill. 101) Function diagram.

"People do not think they can make everyday life work on 160 square meters. But they can. Because it's not just about the number of square meters, but also about the quality of the square metre you build. And if you build a little smaller, more easily, you can afford an architect and the individual solutions".

(Hjort in Boding 2021, own translation).



05 CHALLENGING THE TRANSITIONS

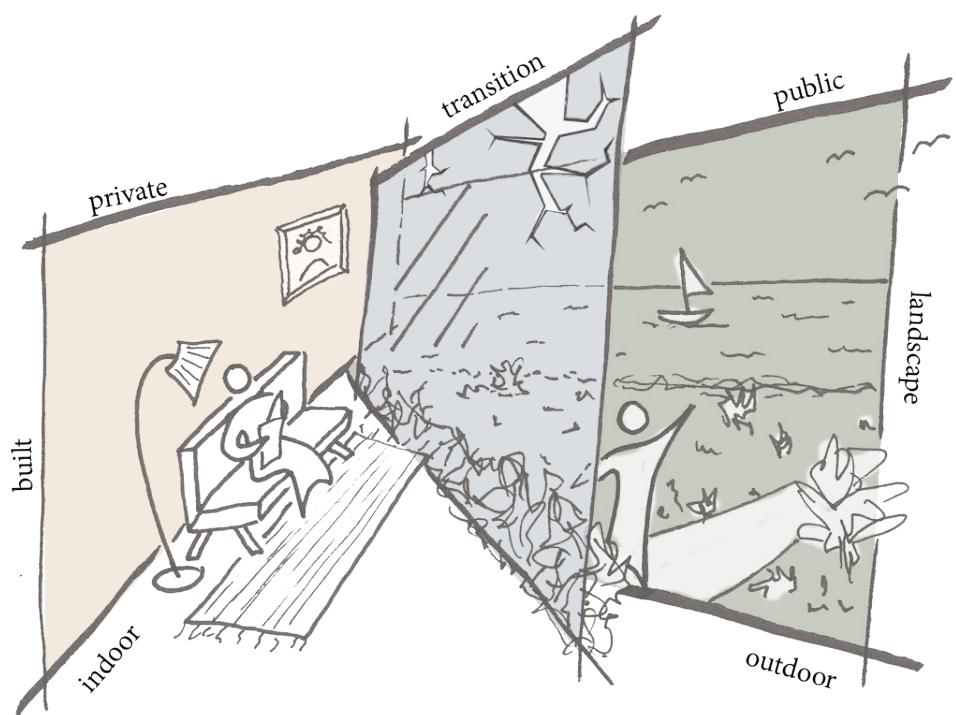
Developing the Site Plan
Detailing the In-between
Developing the Dwelling
Construction Principles
Materiality
Spatial Concept

Chapter introduction

As Hjort urges in the quote on the previous page, we can live smaller and use fewer resources if we are working holistically with the quality and functionality of the spaces. In the following chapter, 06 Challenging the Transitions, the iterative design process brings on this critical approach when developing the site plan, the in-between spaces and the dwellings.

The design process is oriented toward exploring the transitions between, what is a building and landscape, private and public, and interior and exterior? The approach is to break down the barriers between these transitions while preserving their valuable characteristics. It is essential to have spaces that create transitions between private, public, interior, exterior, built, and landscape because they contribute to everyday various spatial perceptions, rather than the monotonous detached houses we all know. Transitions can be challenged to foster new connections between opposing spheres. Therefore, we explore what is within and between these spheres.

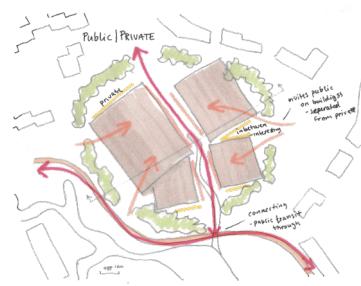
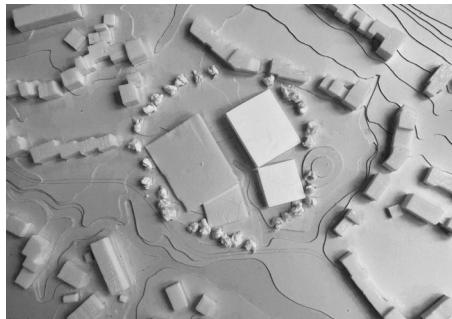
The design process will allow the contrasts in the in-between spaces to meet and melt together, thus helping to enhance social interaction and facilitate comfortable graduations between spheres.



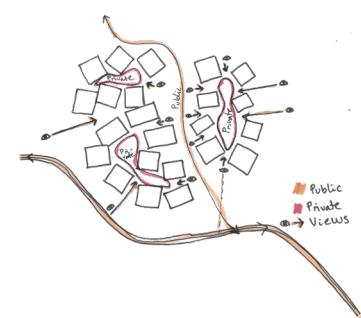
Ill. 102) Design approach concept diagram

DEVELOPING THE SITE PLAN

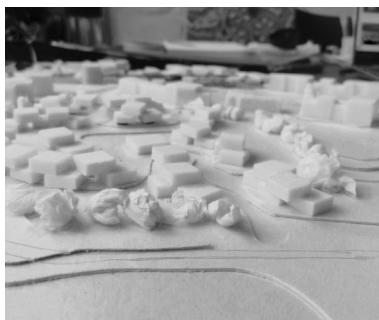
GROWING FROM THE LANDSCAPE



BUNKERS IN THE DUNE



FOLLOWING THE LANDSCAPE

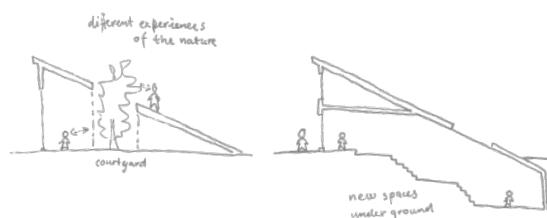


Ill. 103a) Early model studies.

Initially a model workshop of adding volumes to the project site and its surrounding context was investigated. First round was a free experience of various volumes and relations. These variations were evaluated and compared with theories and thoughts of private-public, in-between, and build-landscape. These led to initial design parameters as letting the building form define the public path, a dynamic view around the site, avoiding large undefined space, working with niches between buildings and adding experiences to the landscape (Appendix 8 - Initial Model Workshop). With

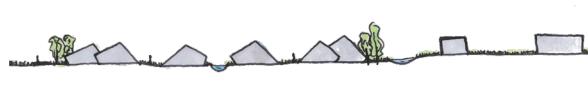
these experiences three new design options were made.

The outcome of the model workshop was that we wished to create a relation to the external users, have a fluent transition between what is private and what is public, and enhance the idea of protecting nature. Considering this, groups of smaller dwellings are seen as an advantage in the concept of *Following the Landscape*. The attached structure creates continuous common volumes and the distance between outdoor and indoor is small (Appendix 9 - Model Concepts).



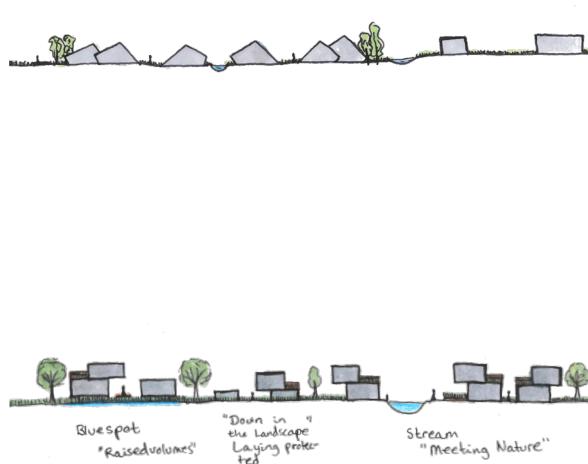
GROWING FROM THE LANDSCAPE

A large common building where the whole community are under the same roof and one can walk on the roof. The large volume and its height make it possible to work in different 'open' levels and the compact envelope reduces the thermal surface. However, the deep area in the center of the building creates a large distance to the outdoor environment and if one can walk on top of the building, the construction must be large.



BUNKERS IN THE DUNE

Small individual buildings inspired by the bunkers on the west coast. This form creates possibility for looking and going outdoor. It creates more private feeling, though it becomes more individual, and it creates personal ownership with a distance to one another.



Ill. 103b) Early model studies.

FOLLOWING THE LANDSCAPE

The volumes are placed in relation to the landscape elements on the site. The volumes are placed variously on the site in connection to one or two neighbours. The structure is inspired by what the site can offer, and the idea of elevating the building adds a vertical definition of what is private and what is more public. Furthermore, the dynamic placement of the building volume adds different solid and void space between the buildings. This design option is seen as enhancing the criteria of utilizing the existing site, and interesting elements are seen in the meeting of the buildings and the community.

FORREST AS A NARRATIVE CONCEPT

Developing the Site Plan

The idea of letting the design be inspired by the nature experiences from the site, led to a narrative concept. One of the significant landscape elements at the site is the small forest. A forest shaped as a large circle called "Frugtlunden" (- see Recreational Nature on page 56 and Perception on page

71). From evaluating variation of spaces and atmospheres underlined by the forest, the question arose, whether this concept could inspire and strengthen various levels of sharing and community feelings.



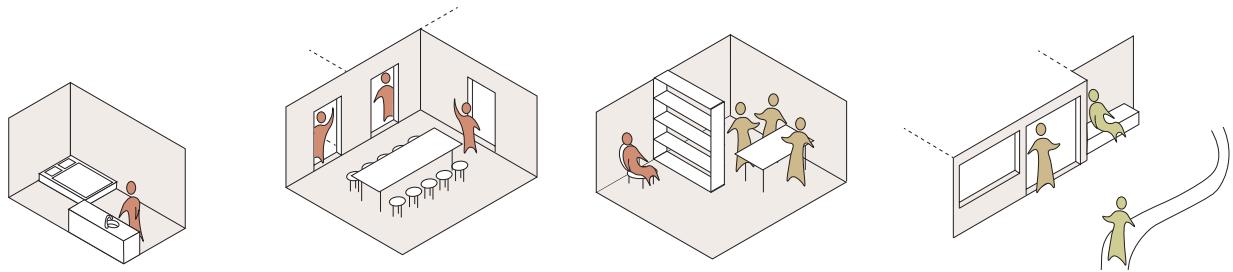
Ill. 104) Narrative Concept.

SHARING ON VARIOUS LEVELS

Developing the Site Plan

With a further focus on levels and the graduation of sharing, a principle of various levels of relations are illustrated. The different principles are illustrating the work with the transi-

tional spaces and how a physical structure, in relation with vegetation can underline the transitions in-between and create cohesion (see page 77-78).



Individual dwellings

The dwelling is minimized to what is absolutely needed. Other facilities, that are nice to have, are shared on various levels.

Facilities:
Bedroom
Kitchen
Toilet
Small dining area

Shared between neighbours

Spaces and facilities that are not used daily and have less private character. These rooms are shared between a couple of neighbours.

Facilities:
Bigger dining area
Office
Storage
Scullery / Utility room
Laundry

Shared in the community

Spaces and facilities shared with the community is the “nice to have” facilities. These are often related to hobbies and socializing but should also accommodate individual and introverted spaces.

Facilities:
Relaxing introverted corners
Workshops
Vegetable Garden

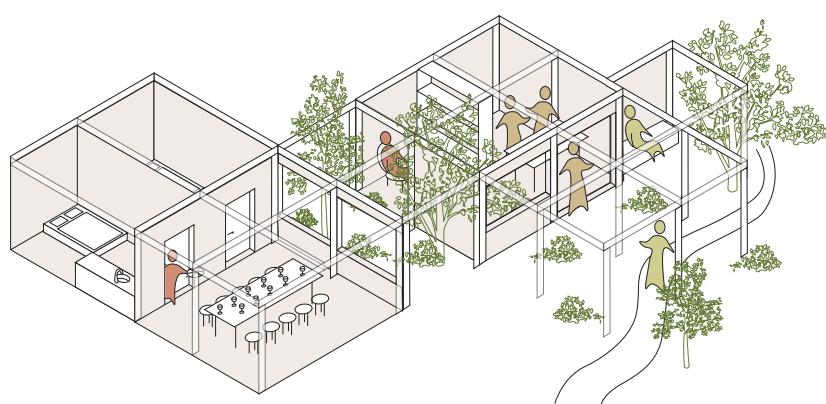
Shared with Naturbydelen

Spaces and facilities shared with the public is flow and experience through the site. Furthermore, there will be activities that the public can take part in, to create a relation to people from the surrounding area.

Facilities:
Connective and experience paths
Open workshops
Cabins (guestrooms)
Fireplace
Fruit trees
Common house

Transitional spaces

Structural principle creating transitional spatialities providing various interactions and relations.



Ill. 105) Transitional Spaces.

PLACEMENT AND SIZE OF COMMON ROOMS

Developing the Site Plan

In continuation of the idea of having various levels of relations. Three different strategies for placement and size of common spaces are evaluated.

Small workshops and meeting points as the common driving force for the community are seen as an advantage when searching and creating informal meetings. Moreover, the scenario is optimizing the use of the buildings, as the large common meetings are nudged out in nature, in open air. Though the unsteady weather in Denmark might make it a

bit problematic. At first, this scenario with only small spread common houses, was further processed in the design. However, in collaboration with the theory and the visions and analyses, the scenario with a large common house was revised. The more specific and individual workshops might appeal for more individual groups and not everyone in the community. For this reason, a large common house where everyone can meet is preferred. Moreover, to meet the surrounding Naturbydelen and Ringkøbing, the common house will be open for everyone to utilize.



LARGE COMMON HOUSE

The large common house can transform as workshop and common rooms for large meeting.

Everyone in the community can meet at once.

Avoid to divide community into cliques.

The common house is placed in the center of the site. Equal orientation to the community.

All residents can meet all year indoors, independent of the weather conditions.

TWO COMMUN HOUSES

Two divided communities.

If the common house is only for large meetings there would be many hours where they are not used.

If the common house is both for workshop and meetings a disadvantage might be that the house seems owned by each community.

SMALL SPREAD COMMON HOUSES.

When everyone wants to meet, they are nudged out in nature. This can be difficult during bad weather.

What if they did not have a regular large meeting (everyone) but they only have small informal meetings mixed in the different workshops? - instead, they could have some traditions like Midsummer Day, harvest festival, street party etc. This can result in a more optimized use of rooms.

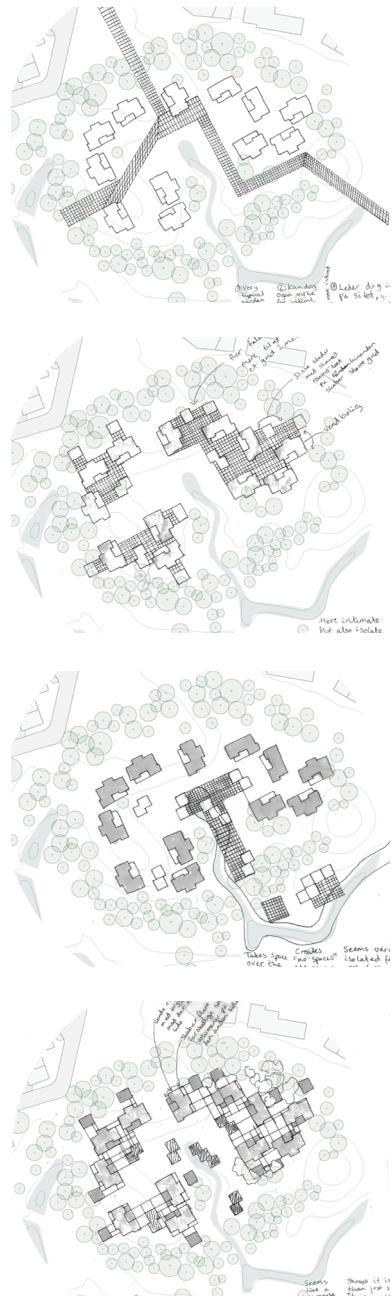
Ill. 106) Investigating common rooms.

CONNECTIVE STRUCTURE

Developing the Site Plan

A continuous structure through outdoor and indoor, and private and public is a connecting structure of beams and columns. This structural system will, inspired by the narrative

concept of the nature at the site, give different spatial atmospheres and experiences. Therefore, different scenarios of how the system can connect areas on the site are evaluated.



Ill. 107) Connective structures.

AT ROADS AND PATHS

Works like a framing corridor. It leads people into the site from the main arrival points.

Could image a large green pergola.

It might create a very narrow and almost intimate space. Instead it should be placed in-between the dwellings and create an intimate space.

It seems like a typical park structure, you see in many public areas.

BETWEEN NEIGHBOUR DWELLINGS

Adding defined and intimate space between the neighbours. The connected neighbours might seem to enclosed and isolated from the rest of the community. Divides the community in tree groups.

AROUND THE COMMON HOUSES

The common area is highlighted.

Unstructured system.

Small areas detached from the rest of the system.

SHARED AROUND THE SITE

The structure is chosen because it is a hybrid of previous options. It connects and embrace different levels of activities, for example the individual dwellings to the various levels of common houses. The structure is organized more varied and dynamic at the site, to enhance the different spatial atmospheres in-between the levels of private - public and building - landscape.

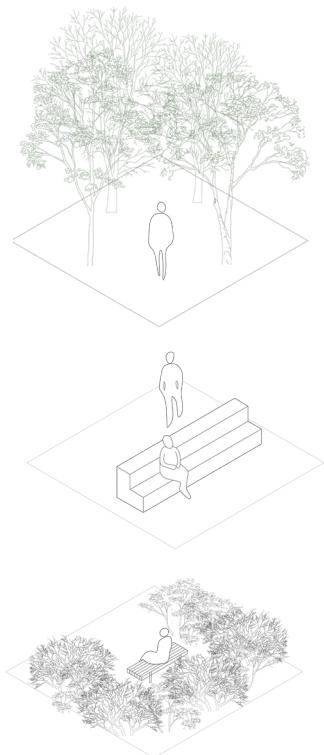
DETAILING THE INBETWEEN

In line with the previous process on the connective structure, the in-between spaces have been carefully processed, having in mind how the solids and voids shapes one another as also mentioned in the early process of developing the site plan (*Developing the site plan* page 89). This has also been a focus in the design of the in-between landscape on a closer scale. Here the relations between the solids and voids are creating corners and smaller niches of informal and intimate character, which provide more private spheres in the otherwise more public environment, enhancing a sense of belonging.

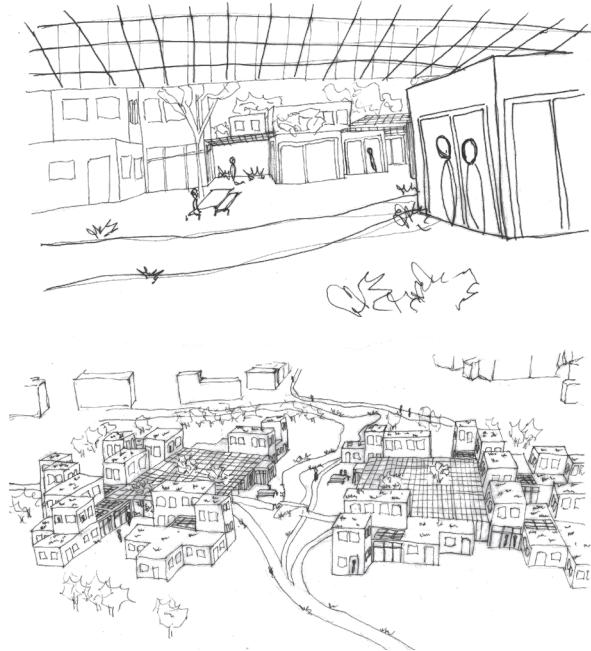
Moreover, the connective structure between the buildings have also been processed as an extra element to the in-between, providing connections and comfortable defined spaces, as the structure has potentials of being further developed as various kinds of “fences”, creating boundaries and transitions between spheres. Finally, the vegetation such as bushes and other urban exteriors have been toolled to create transitions in the in-between.



Ill. 108) Niches and corners of informal, intimate character.



Ill. 109) Using vegetation and urban exteriors as transitional tool.



Ill. 110) Solids in relation to structures defining various paces.

HYDROLOGY AS AN EXPERIENCE

Detailing the In-between

During the design process different proposals for how the water could create different perceptions near the site was made.

Illustration 111 shows a proposal for having a wet retention ponds where the trench is observed in our analysis. At the center of the site the trench is further expanded to create a small lake near the workshop buildings. Throughout the pond different fauna islands would be placed to let birds or other species take a rest at the site and to give joyful experiences for the user group.



Ill. 111) Wet retention pond every where.

As a further investigation on illustration 112 the pond was divided into two to create a wet retention pond going into the site. To the left around the site a detention pond with no permanent water level would be. The investigation of this was to create different experiences of the water. The conclusion however was to go with the previous example with a wet retention pond both going into the site and around the site as having permanent water will attract more people to gather in the nature.

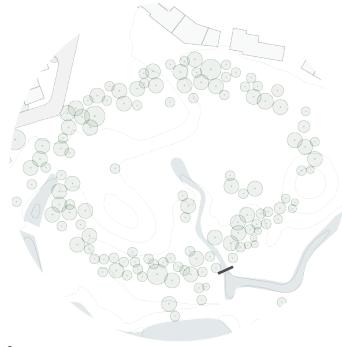


Ill. 112) Trench divided into two different water experiences.

For finding the benefits of having a wet retention pond and how to design it an investigation was made as shown in illustration 113. The investigation showed a wet retention pond creates different biotopes at the edge of the water which helps clean the water. The design should maximum have a 1:3 slope to create a good foundation for the vegetation to grow. The bottom of the pond should be constructed with bentonite to avoid infiltration as argued on page 61, *Protecting the Landscape*.

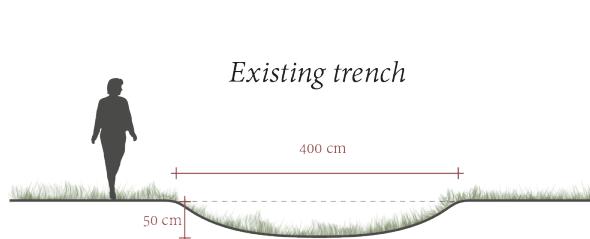


Ill. 113) Investigation of wet retention pond.



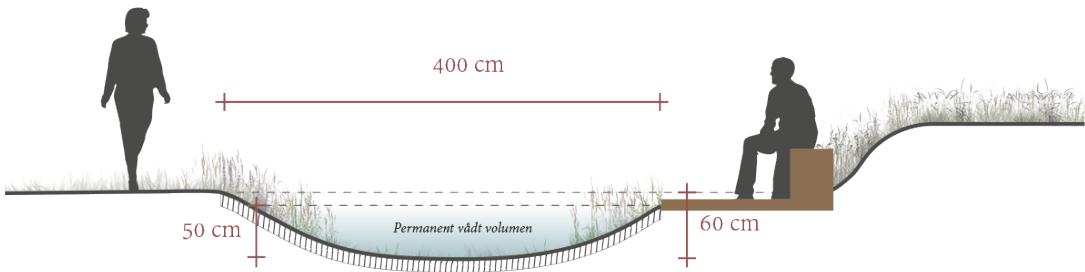
Ill. 114) Place of section.

For starting the process of creating a wet retention pond a cross section through the existing trench was made.

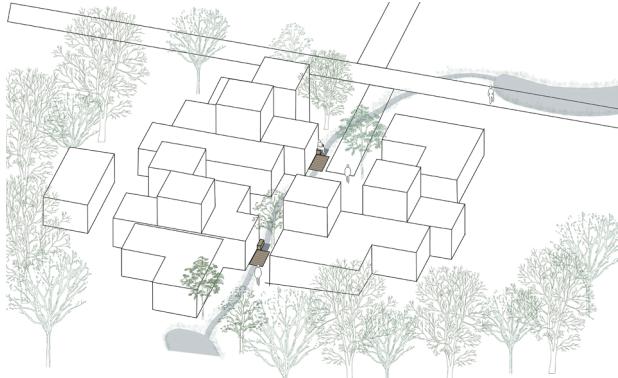


Ill. 115) Section of existing trench.

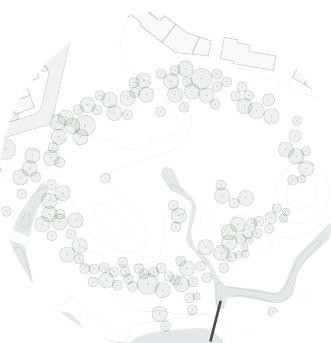
To further investigate how the cross section of the pond should be the section below was created to visualize how the atmosphere could be around the pond. At this section the water table was at 0.5 m and 0.1 m for delaying water. In total it would be 0.6 m. This means the trench would have to be excavated more. To meet the demands with a slope of maximum 1:3, a cross section with a depth of 0.6 m down in the middle, should have a width from the edge to the middle of 1.8 m. Equivalent to about the middle of this section, when cutting from the edge of the trench to the middle of the pond.



Ill. 116) Atmosphere around designed retention pond.



Ill. 117) Water trenches connecting the dwellings with the pond.

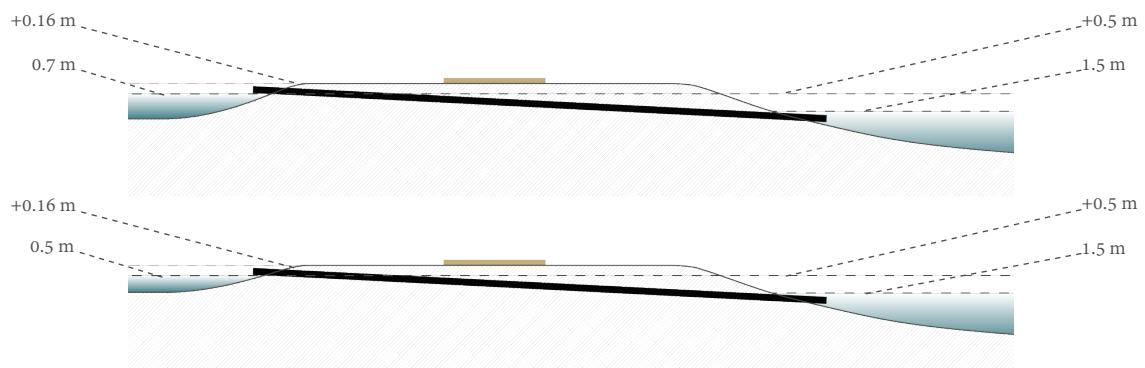


Ill. 119) Section through existing trench and existing context lake.

For investigating how the water could be implemented between the dwellings, this sketch was made to show how water could go between the buildings and connect the thresholds. The water would then be directed into the wet retention pond. These thoughts about connecting the dwellings with the wet retention pond would be implemented in the final design.

The pond would be connected to the lake south from the site. The two sections (illustration 119) show the connection in two different scenarios. The top section shows to the left the pond with a 0.70 m water table and 0.16 m for delaying the water. The lake has a 1.5 m water table and 0.5 m for extra storage. The section below is almost like the section above. However, the water table in the pond is at 0.5 m.

The bottom section would still fulfill demands of a slope with 1:3. However the cross section with a water table at 0.7 m would no longer fulfill this demand. Then the length from the edge of the pond to the middle of the pond would have to be 2.6 m which would result in a total width of 5.2m. For a further explanation of the calculations see appendix 10 - Hydrology. This would result in the pond having to be excavated even more. Therefore, the section with a water table at 0.5 m is chosen.

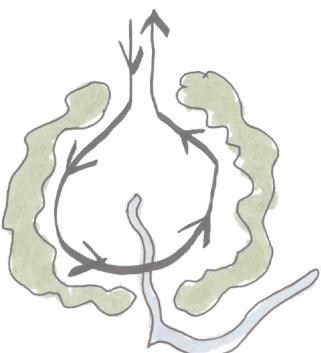


Ill. 120) Design investigations of depth of retention pond in connection with context lake.

ACCESS

Detailed the In-between

In developing the site plan, the road access was evaluated on aspects of resource use and impermeable area, the sensibility to the natural environment, and utilization of existing/future infrastructures. The third principle is chosen as it is a hybrid of the potentials of the two previous, but it presupposes a collaboration with the development of the surrounding housing areas.

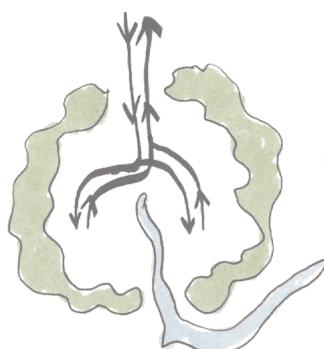


Ill. 121) Access principle 1.

ACCESS PRINCIPLE 1

The first principle is based on a one directional road, providing access to the dwellings at the site.

- + As it is one directional, it makes it possible to create narrow streets and minimise the surface expend
- This presuppose that the road passes the water element and the public shared area in the middle, which would both compromise the desired atmosphere of soft mobility and closeness to nature, and the sensibility to the biodiversity and ecosystem of this natural element.

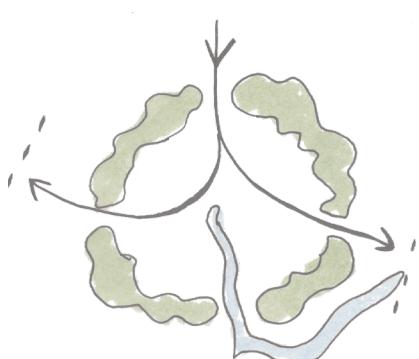


Ill. 122) Access principle 2.

ACCESS PRINCIPLE 2

The second principle is a two-way access road that splits into two and divides the access to the dwellings into two areas.

- + The natural environment of the water element is retained
- The roads need to be wider when they are two-way streets. This will require a larger amount of consolidated/surfaced area, hence higher resource use and impermeability. Moreover, it would give a bigger traffic load, with cars both driving in and out on the same roads.



Ill. 123) Access principle 3.

ACCESS PRINCIPLE 3:

The third option is a one-way access road which divides into two one-way roads, that are connected out to the surrounding area.

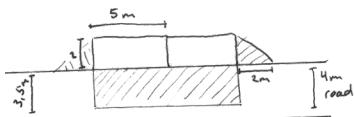
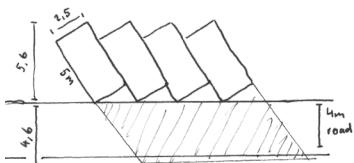
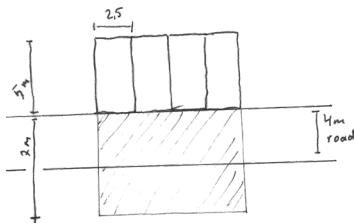
- + The roads of the surrounding environment are shared, and the surfaced area is minimized as they are one-way road, linking directly to the surrounding roads.
- The option presuppose that the surrounding building plots follows the road design from the development

PARKING

Detailing the In-between

Early in the process it was decided that we wished that the car parking should be spread out around the site, to create the feeding of a shared space-street, and to avoid a big parking area dominating one area. Through the process different angles on the parking has been tested out, considering surface area and the space for maneuvering (Appendix 11 - Parking). It was concluded to use parallel parking as it goes in line with the one-way car access and does not demand a wider road for maneuver area. Moreover, the cars parked along the road can be integrated as transitional elements dividing the roads from the calmer places for stay.

The car parking norm in Naturbydelen is 1.57 parking spaces per dwelling (CFBO et al. 2018). We have decided to be critical towards this. In most cases there will only live one resident in each of the dwellings of the community living. Moreover, we also believe that the sharing identity of the community will nudge a sharing of cars between the residents as well. Finally, we also see that the residents will utilise the great soft mobility connections in the area, if they are going on shorter trips. Therefore, bikeparking will be prioritised.



Ill. 124) Angles of parking and their maneuver area.

MEETING THE SITE

Detailing the In-between

How the design relates to the close surrounding areas and connects to the paths has been toolled in line with the process of working with the materials of paving (see page 119). Here different strategies of connecting have been evaluated on how they transition - open and being inviting contra closing of and distancing to the surroundings.

We wish to open up towards south with the water stream, creating a more common/ public area in the center of the community living, that the public also can take part of. The opening towards the north should only open enough for cars to access and is mainly intended for the residents to pass through. The opening to east and west should trigger the curiosity of people passing by, by making them aware that something else is in between the trees. Finally, there will be some extra intimate/private connections through the trees into the areas on the backside of the dwellings.



Ill. 125) Conceptualisation of how the site should relate through the trees to the public paths.

In this example there is no hierarchy between the existing public path and the path going into the site, as it is in the same material and width. This makes it inviting for the public, passing by the path – one gets the feeling, that it is a main path leading somewhere or even through the area - a transit path.



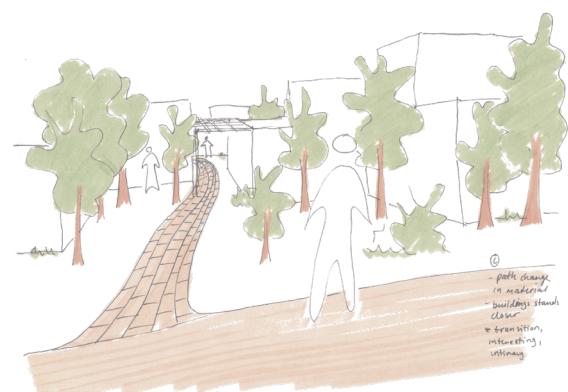
Ill. 126) open - inviting.

In this example there is a clear division. It is a path you choose to take if you know what is on the other side. It is an intimate short cut, as the trees are dense and only opening up enough to get through.



Ill. 127) Closing of – distancing.

In this example there is a clear transition and change in hierarchy between the public main path and the path leading into the site, as the material changes, the path narrows in, and the buildings stand closer. This gives a sneak peek in between and awakens a curiosity to go in and explore - though you do not expect it to be a transit.

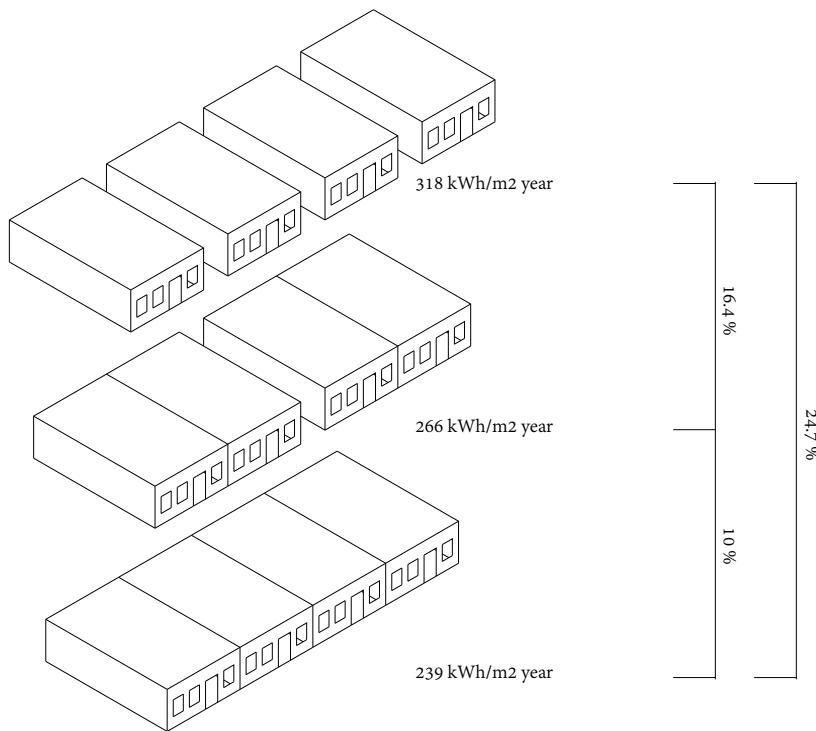


Ill. 128) Transition - intimate – experience.

DEVELOPING THE DWELLING

From the initial investigations of the site plan, different building forms and relations to the site has been evaluated. Here a structure of smaller dwellings spread around the site was selected, due to the fact of working together with the nature and being close to it. In collaboration with this the process of the individual dwellings, we started out gaining some knowledge of the effect of the energy consumption when having detached dwellings or placing some dwellings

next to each other, and by that gain some advantage of the heat coming from the neighbour. The advantage of having connected dwellings compared to having detached dwellings was investigated in Be18. The results showed approximately 25% of the energy use was saved by utilising the heat from each other. The construction materials can be saved as well in the shared walls between neighbours.



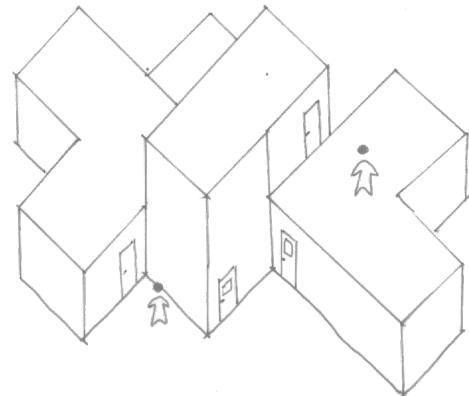
SHARING WITH YOUR NEIGHBOUR

Developing the Dwelling

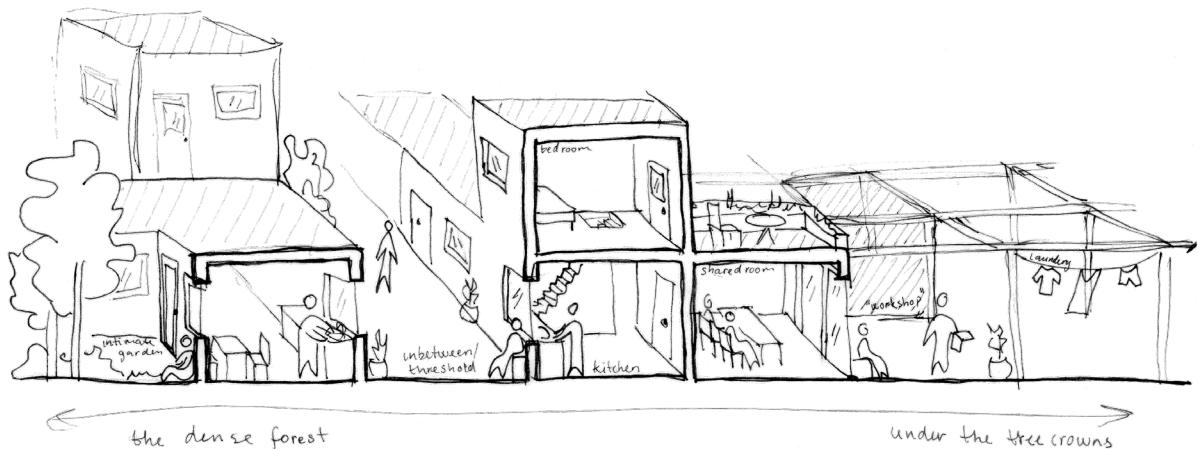
By placing the buildings differently in relation to each other, void between the forms is shaped. These areas are seen as potential stays for informal meetings with the neighbour next door.

Due to the evaluation of which facilities, we have and how much time we use on them, from the section *What can be shared?* (page 77-78), a system of what we use in daily life and which facilities and elements could be nice to have occasionally are visualized. With the idea of optimising what we have in our dwellings, without having to compromise. These extra "nice to have" rooms will be shared between groups of neighbours, in a building called shared room.

With the thought of shaping relations between the individuals and the community site, an idea of adding a connecting structure between indoor and outdoor arose.



Ill. 130) Modules creating in-between spaces.



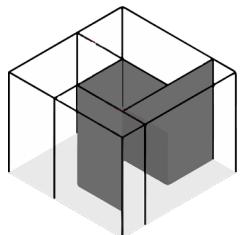
Ill. 131) Graduation of private and public spheres.

INITIAL PLAN

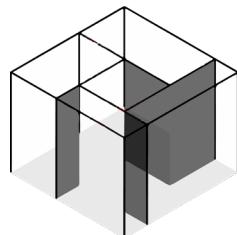
Developing the Dwelling

The continued structure between in- and outdoor was explored as a load-bearing element, creating spaces and integrating furnitures. With this idea a structural system, which can shape different spaces on the site and create varies trans-

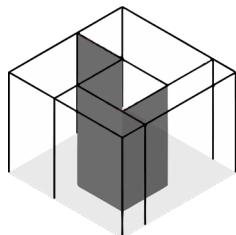
sitions, the reciprocal frame structure was presented. In an initial structure investigation, the reciprocal frame was explored in the parametric design programme Grasshopper.



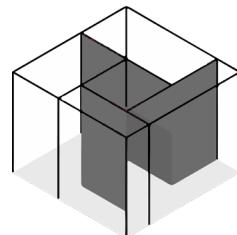
Ill. 132) Internal wall



Ill. 133) External wall

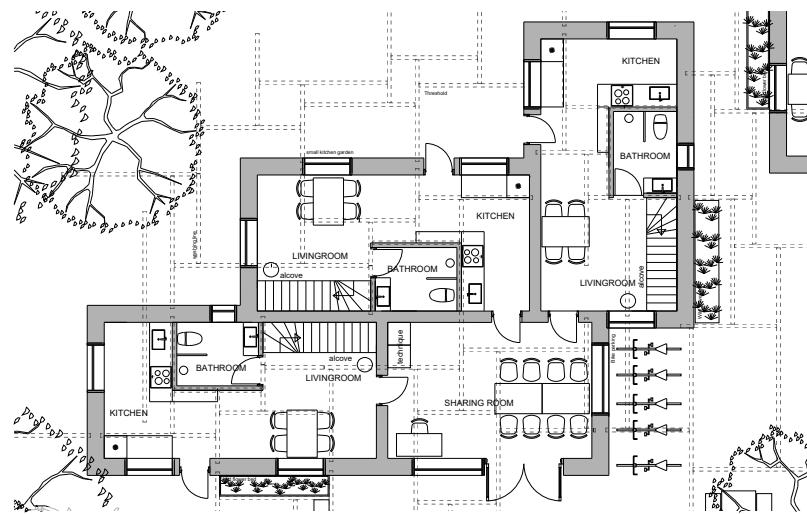


Ill. 134) Elevated floor

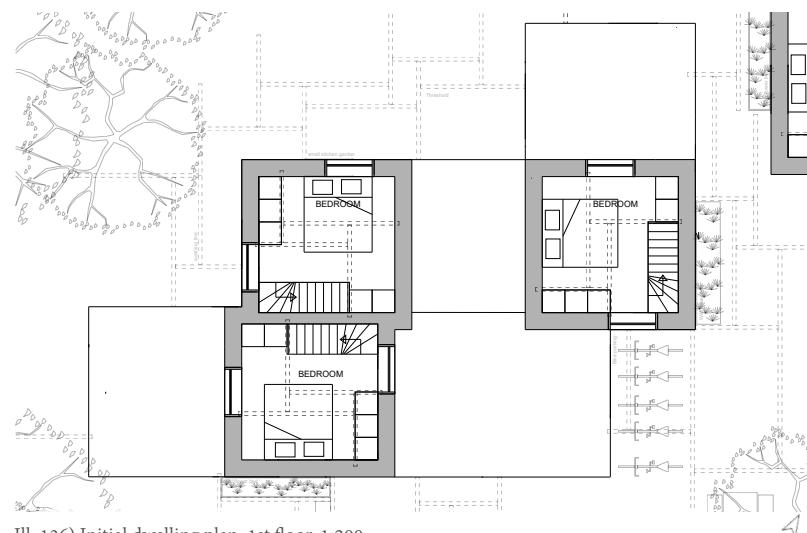


Parallel with the design of the dwelling plan, the reciprocal system was developed. On the illustrations below one can see how the structure of the beams are dividing the dwellings into spaces. Each dwelling is designed as one room, as the dwellings are explored as small private spaces only with the needed functions. Therefore, by opening the dwelling in one room compared to the many small rooms, one will have

a larger volume value, which acts as a helping parameter when working with indoor climate. The wet areas such as the kitchen and bathroom are placed next to each other, and the bedroom is on the first floor. Furthermore, each dwelling has direct access to the shared room, to create easy and comfortable access to the extra shared room.



Ill. 135) Initial dwelling plan, ground floor, 1:200



Ill. 136) Initial dwelling plan, 1st floor, 1:200

NEIGHBOURHOOD

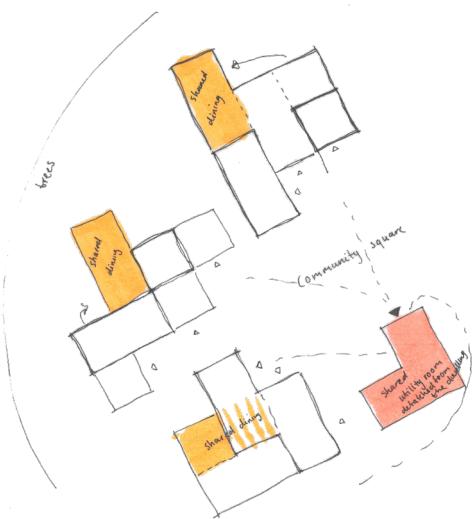
Developing the Dwelling

In the further process, the size of the dwellings was challenged, by minimizing the rooms even more and creating more integrated elements. Moreover, the accessibility of the dwellings to the shared rooms and outside has been processed. Illustration 140 is seen as an interesting scenario, as the distance to the shared rooms creates a visual and curious experience from the individual dwellings to the shared room. Furthermore, the placement of the shared room is at the back of the dwellings, creating a distance to the common path. This creates a more intimate and private atmosphere for the group of dwellings sharing the room. Furthermore, residents inside the private dwellings will have a view to the shared room, letting them know if there is someone in the room (see illustration 137). The idea of adding a common

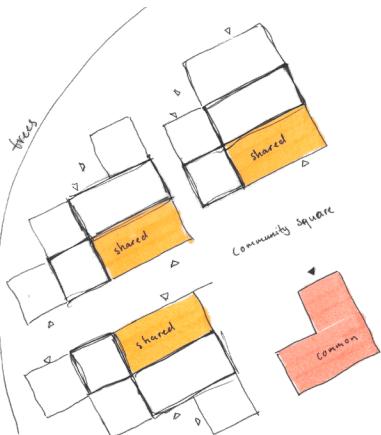
threshold to a group of dwellings is to nudge people together, and by that create informal meetings. Additionally, the common threshold will become a gradual transition between outdoor and public areas to indoor and private areas. By putting the additional space in-between the dwellings, the threshold is seen as a void between the solid buildings. Therefore, the threshold is seen as a transparent space. From previous investigation the effect of sharing exterior walls was evaluated and seen as an advantage. Therefore, a further investigation, whether the space should be closed or open, is evaluated. The enclosed space with glass is seen as an advantage, as the passive heat gaining in the threshold will transport to the neighbour walls (Appendix 12 - Energy Effect of the Glass Room).



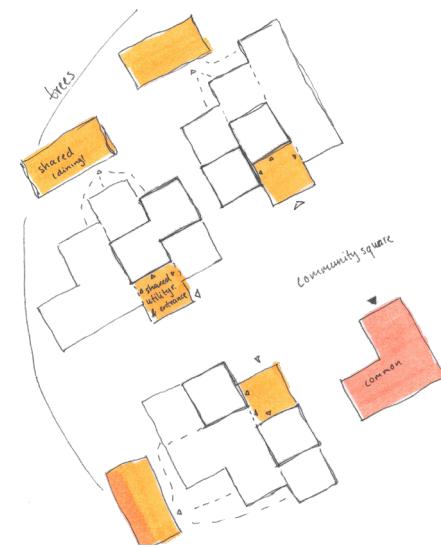
Ill. 137) Connected dwelling and shared house



Ill. 138) Common principle 1.



Ill. 139) Common principle 2.



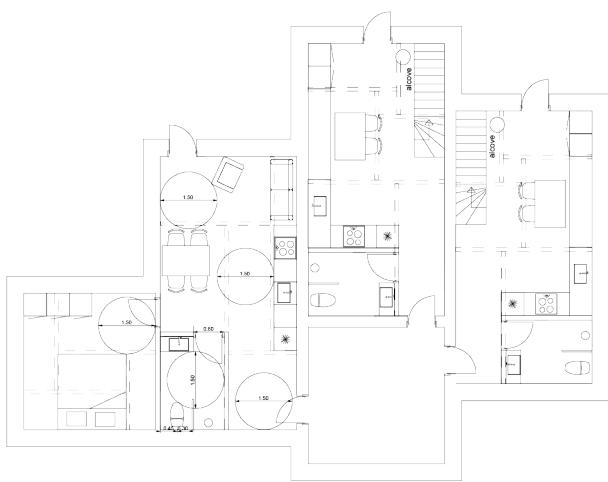
Ill. 140) Common principle 3.

A

PLAN STUDY

Developing the Dwelling

When challenging the plans, integrating the functions in the building became a significant parameter. All the square meters become important. During the process the plans changed from small dwellings with hallways and unexploited surfaces, to more minimized and utilized spaces.



FIRST PLAN

The two dwellings have a long hallway at the entrance.

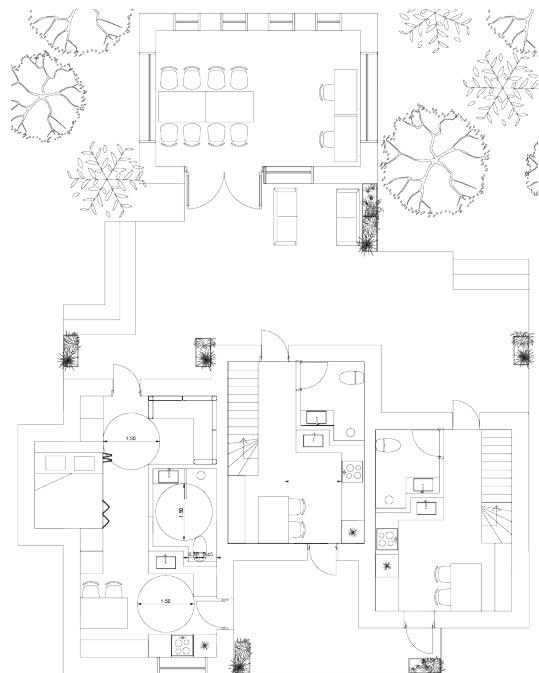
Many unexploited surfaces on the walls and the floor.

The dwelling to the left has a large bedroom, at the expense of the walkable flow around the bed. We question if this is necessary?

The dwelling to the left has a large entrance. Is that necessary when the threshold acts as the entrance?

The beams and columns are dividing the building in spaces. However, the intention could be stronger by integrating the furnitures.

There is an unused corner at the end of the entrance, this is at cost by the rotation accessibility.



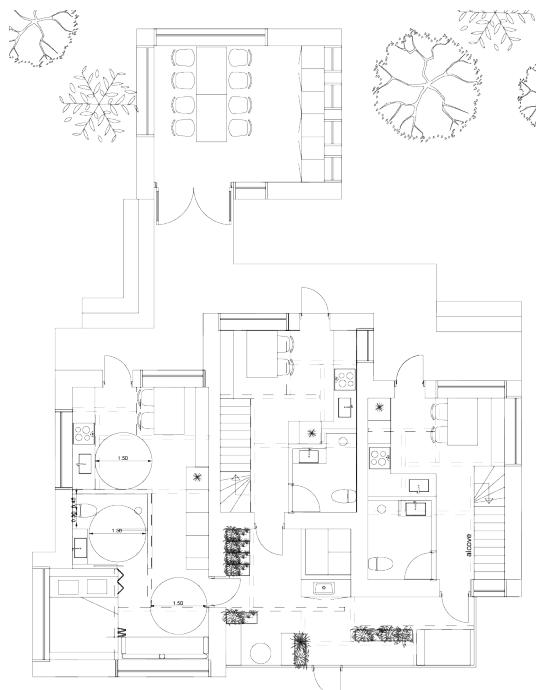
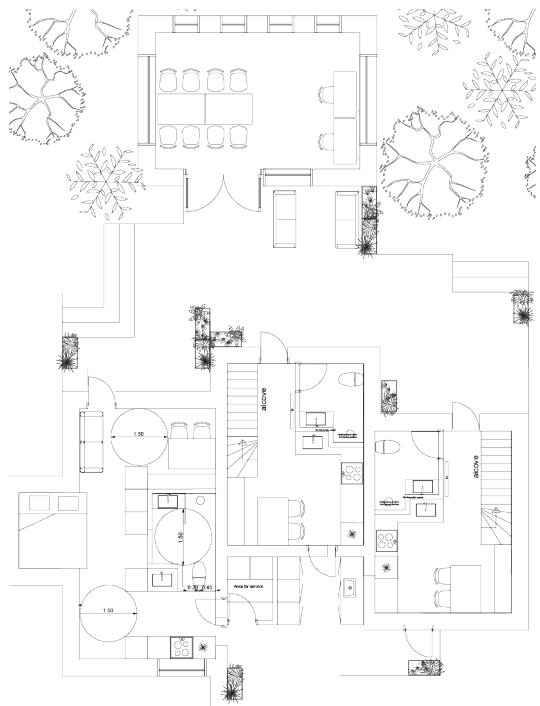
SECOND PLAN

The dwellings are minimized, and the furniture are better integrated.

The dwelling to the left still has some undefined surfaces.

The bedroom is integrated in the wall.

Ill. 141a) Plan investigations 1 : 200.



THIRD PLAN

When looking at the two dwellings, living spaces as the kitchen and dining room are situated as the threshold.

The couch is facing the door to the bathroom.

The more disability friendly plan to the left, creates difficulties for turning around into the bathroom.

FOURTH PLAN

The kitchen area is placed close to the sheared room, in order to face most of the openings to the private side.

By rotating the stairs in the two dwellings, the plans define a flow area and a stay area.

In the dwelling to the left, the bedroom becomes a part of the living room.

All furniture integrated in the building

The reciprocal frames of beams and columns defines the functions. However, they will be further evaluated in order to make sure that they fit into the plans, both technical, functional, and aesthetic.

Ill. 141b) Plan investigations 1 : 200.

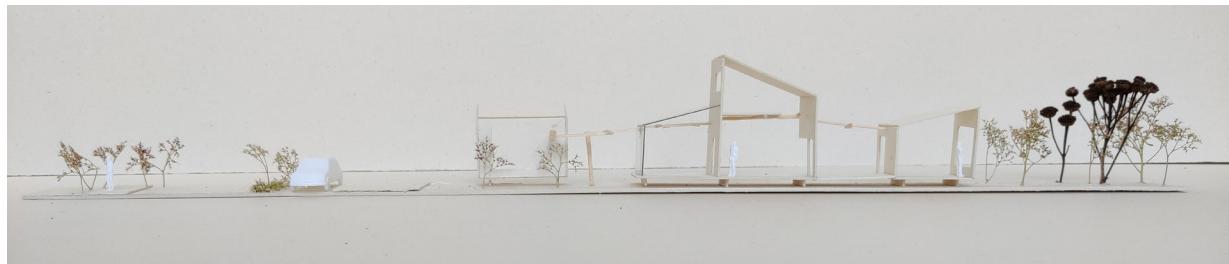


MEETING THE CONTEXT

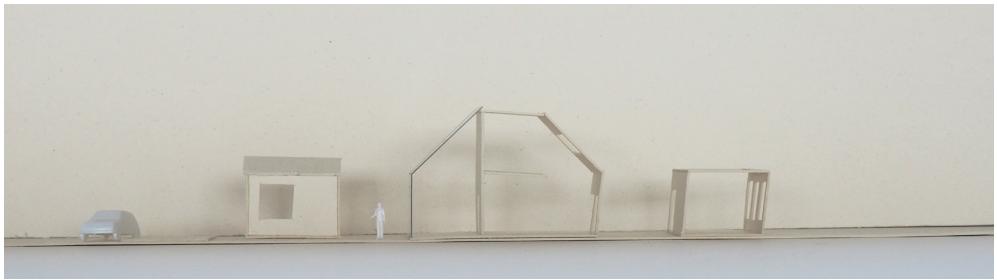
Developing the Dwelling

During the process of the plans, the dwellings were initially seen as flat elements. Therefore, the next process was to visualize the forms in sections to work with the vertical meetings (Appendix 13 - Building Section). After working with some various proposals of how the roof could be shaped, three sections were selected and further evaluated through section modelling. The chosen model shown on the illustration below adds direction and dynamic, and the material use for the climate envelope is reduced compared to the more squared model on illustration 144. When the

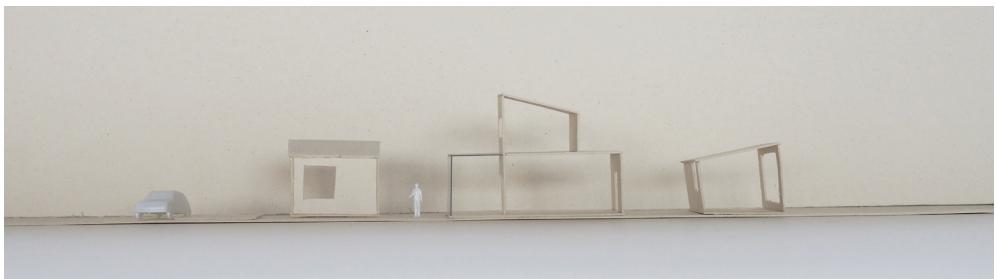
threshold slopes down to the common area, people meet the buildings in human scale. Following the slope of the threshold it opens to the individual dwellings. On the contrary, the dwelling meets the threshold with a more closed and higher façade, a meeting of the private zone. On the other side of the dwelling, the roof slopes down again, meeting a more open façade. Moreover, the form of the section creates different heights, and adds the possibility of adding a first floor in open connection to the ground floor.



Ill. 142) Section model showing the chosen cross section for the dwelling.



Ill. 143) Section model.



Ill. 144) Section model.



Ill. 145) Section model.

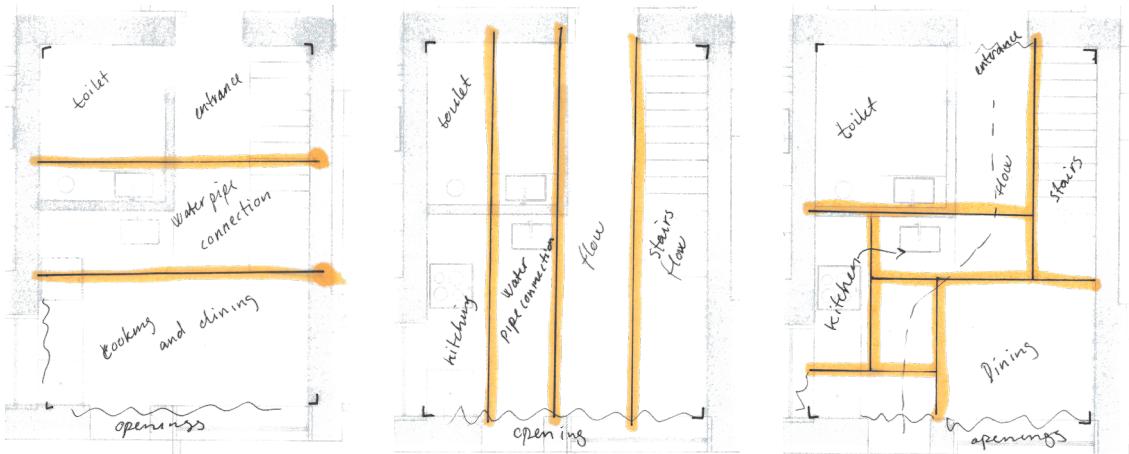
CONSTRUCTION PRINCIPLES

Adding a slope to the roof leads back to the structural system, challenging the flat reciprocal system. Different construction principles have been tested in models and drawings and the

spatiality, zoning, and the relation to the vertical dimension of openings and the functions of the dwelling plan have been evaluated.



ill. 146) 1:50 models, testing construction principles. Reciprocal frame, frames going across the dwelling and frames going along the dwelling



ill. 147) Sketches evaluating spaces, zones and vertical influence considering openings.

- + Divides the dwelling into zones.
- Only divides in one direction.
- Kitchen and dining in the same zone.
- Dividing the stairs into two zones.
- + Clear zoning of what is open/closed.
- + Clear relation to the vertical - frame is both vertical and horizontal.

- + Divides the dwelling into zones.
- Divides in one direction.
- + Following stairs, flow area, service (pipes).
- + The dwelling seems longer.
- + Creates oriented view.
- Zones are containing several functions.
- Only openings in the end.

- + The different elements depend on each other.
- + Defines space and openings.
- + The kitchen and dining area are divided in two zones.
- + Defines smaller spaces inside big room.
- + The stairs are defined without and beams going across the stairs.
- An isolated system, not relation to the vertical loads bearing elements.

POETIC MEANING - RECIPROCITY

"the practice of exchanging things with others for mutual benefit, especially privileges granted by one country or organization to another."

Oxford Languages n.d.

STRUCTURAL MEANING – RECIPROCAL FRAME

"[...] a three-dimensional grillage structure mainly used as a roof structure, consisting of mutually supporting sloping beams placed in a closed circuit. The inner end of each beam rests on and is supported by an external wall, ring beam or by columns."

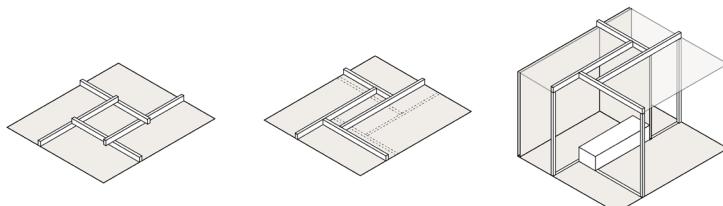
Olga Popovic Larsen (2008) p. 1.

To get a further understanding of the system, it has been modelled analogue and digitally (Appendix 14 - Reciprocal Frame).

Reciprocal frame

Scaling - variation

Verticality



Ill. 148) Reciprocal frames

EVALUATION

The potential of the reciprocal system with elements not going all the way through is worked further, as it provides a more flexible (less rigid) zoning of the dwelling. Further it is developed to relate to the vertical dimension – combining the reciprocal frame with columns and shear walls. This also provides stability to the constructions and integrates the zoning even more spatially. The wall construction, that

embraces the columns and beams, is evaluated whether it should be massive walls or traditional wood frames, depending on the global warm potential in the LCA evaluation (Appendix 15 - Massive Wall Versus Traditional Wood Frame). This resulted in a lower CO₂ emission of the light wood frame wall.



Ill. 149) Reciprocal system combined with columns and shear walls.

The different elements depend on each other.

Defines space and openings.

Defines smaller spaces inside one big room.

The joints can connect natural.

The kitchen and dining area are divided in two zones.

The stairs are defined without beams going across the stairs.

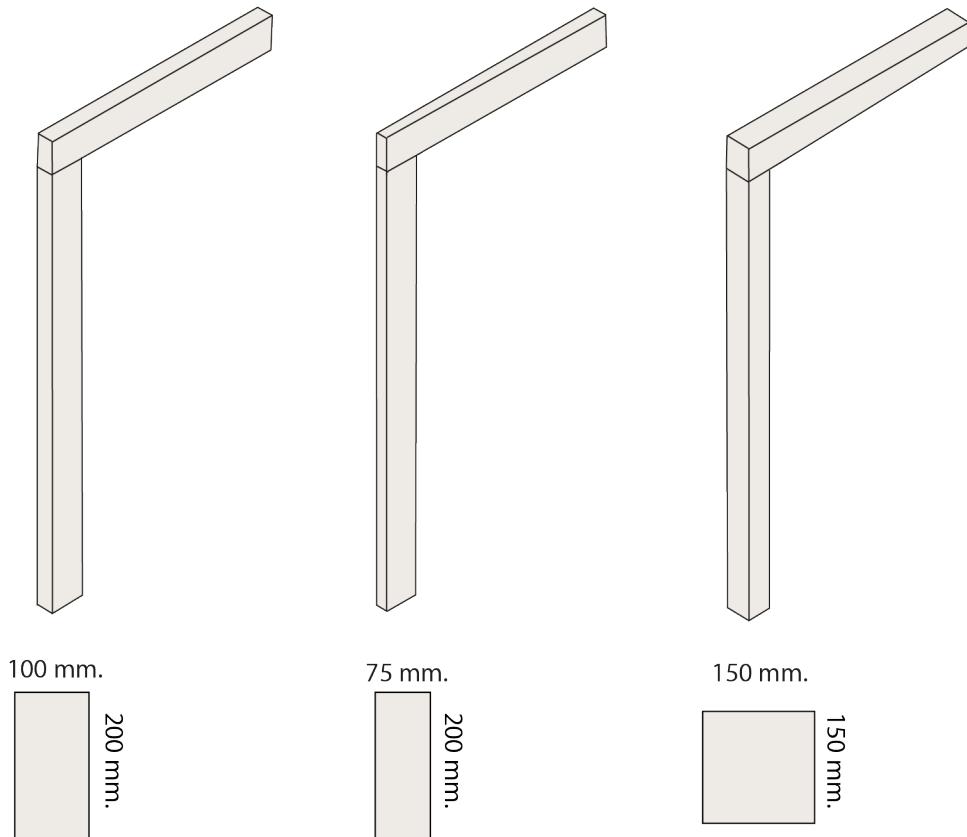
The vertical dimension is better integrated.

DIMENSIONING THE BEAMS AND COLUMNS

Construction Principles

Different standard cross sections for the columns and beams have been tested and the following did not fail: 100x200, 75x200, and 150x150 mm. (Appendix 16 - Construction) See the section "Dimensioning" in the chapter 07 An Alternative Senior Living for elaboration of calculation approach (page 149).

Rectangular elements were chosen hence the geometry provides a better moment of inertia than the squared and they are therefore also better utilized considering optimizing the volume of material use. Moreover, the rectangular geometry provides a sense of direction or orientation framing the openings in the construction and thereby enhances the transition and relation between the in- and exterior spaces.



Ill. 150) Evaluated dimensions for columns and beams.

The rectangular cross sections are chosen, although they are not fully optimized to a ratio 1, as it is desired to use standard elements. This means that the elements are over dimensioned, but it also seems reasonable considering that the construction is visible inside the building, which puts

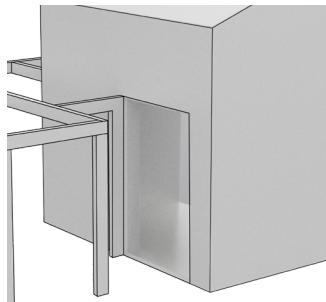
forward demands considering fire safety. Meaning that the elements, in case of fire, would be able to burn for a while before the building would collapse, hence providing time for people to escape and the firefighters to arrive.

WINDOW EXPRESSION

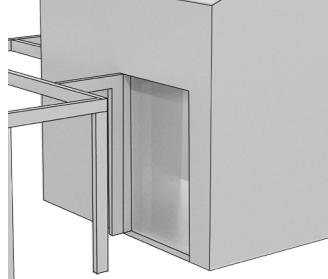
Construction Principles

The reciprocal frame and its structural system are dividing the building into some areas. This defined separation of the wall acts as a framing element of which could be closed

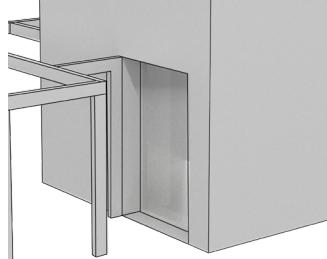
walls or open and transparent windows. During this process the question of how deep the window should be placed on the facade arose.



Ill. 151) Window close to the facade.



Ill. 152) Window in the middle of the wall.



Ill. 153) Window close to the inner wall.

CLOSE TO THE FACADE

Creates defined spaces together with the column in the interior room.

When looking from inside and out one gets the feeling of being close to the outdoor.

The façade expresses as a continuous surface; however the columns break this.

Sill spaces are possible.

Possibility for integrating furniture into the sill of the window.

The material of the inner finish becomes more important as it reflects the daylight.

Makes it possible to insulate the window frame from inside.

When insulating the frame, the window will open out.

IN THE MIDDLE OF THE WALL

Add some depth to both inside and outside.

Gives an equal dynamic in the wall.

Decreases the expression, instead of enhancing one expression.

CLOSE TO THE INNER WALL

When the windows are placed to the south without overhang the depth creates some shadows on the façade.

However, some of the low sun in the wintertime will still pass through the glass and give passive heat.

The expression of the facade is more like a mass than a surface. Which will enhance the expression of solid/void.

It shapes some depth in the façade and by that integrates the column at the outside.

When looking from inside, one gets the feeling of sheltering, that is provided in the exterior space

Makes it possible to insulate the window frame from outside.

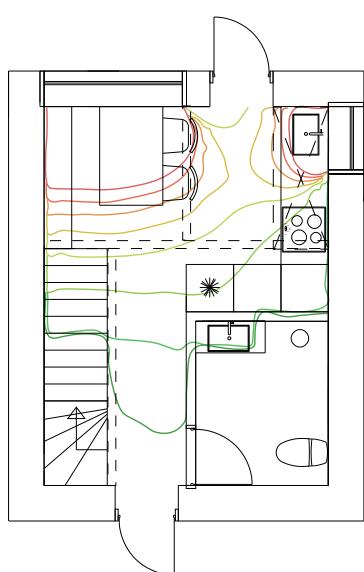
When insulating the frame, the window will open inwards.

The definition of in- and exterior space becomes more fluent.

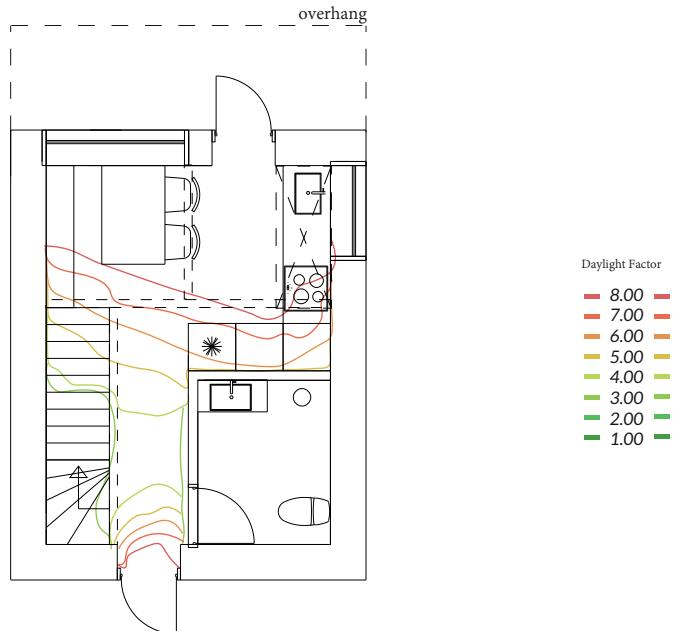
The advantage of having a window close to the inner wall is investigated according to the indoor temperature and energy consumption (Appendix 17: Month Average and 24 Hour Average). The result of the investigation, when moving the window from the facade closer to the inner wall, is that the energy consumption is increasing with $1.2 \text{ kWh/m}^2 \text{ year}$ which is 5.8 % more. On the other hand, the average temperature is decreasing with 0.3 degree which is 1,6 % lower.

The window placed close to the inner wall is chosen for a further process, as it is seen as an element which will create interesting variation and dynamic on the solid buildings. In

collaboration, the daylight in the dwelling is tested. The limit for daylight in the dwellings has been set to a minimum of 3 % in the room programme (page 79). Illustration 154 shows a scenario with two large windows. In this case more than half of the room is lit up with more than 3 % daylight. This is evaluated as a good result, as the illuminated area is the most used area. However, a more continuous light through the entire building is desired. In illustration 155, there is glass in the doors, one skylight above the kitchen area and an overhang to the north is added. This adjustment secures a more continuous and soft light in the dwelling.



Ill. 154) Daylight factor for window on one side.



Ill. 155) Daylight factor for windows on several facades.

MATERIALITY

As mentioned earlier, as little paving as possible is desired, both to be as little disturbing to the natural environment and to reduce the use of material resources. Paving is therefore only located where it is needed due to accessibility. In the process of working with the surfaces in the community various materials, with a natural expression has been evaluated and some tested out in 3D.

Like in Naturbydelen, various materials are chosen to facilitate diverse needs. A brick is chosen at the areas for road



Ill. 156) Prioritising permeable surfaces with wood terraces for comfort.

access. These are also the paths of a more public character, interplaying with the common houses of more public character, which are also in brick (see section on the next page).

On the paths connecting to the dwellings gravel is chosen, as a more subtle and tactile material, underlining the transition to the dwellings. The few exceptions of dwellings that are disable friendly, asphalt OB, is chosen for the paths, which makes a smoother and more accessible surface.



Ill. 157) Orientation and shifts in pavement creates awareness of transitions in paths.



Ill. 158) Different materials underlining the flow of water.



FACADES

Materiality

For creating a holistic design, the study of materials has been performed in combination, both for community buildings (left) and dwellings (right) to make sure there is a distinction between what is public and what is private.



Galvanized steel was used in the materiality study for investigating a texture and color which catches both the attention from community residents and the people visiting Naturbydelen. When using wood as a material on the dwelling it creates a contrast to the public community buildings.



Another material which catches an attention is red recycled bricks. The bricks' rough and hard tactility creates a contrast to the soft wood. Moreover, the wood slats' orientation also creates a contrast to the bricks' horizontal band.



In this constellation the warm tone of the reed and wood fall together with the surrounding nature. However, when using wood in a colored material as seen to the left it has the same effect as brick and catches your eyes attention.



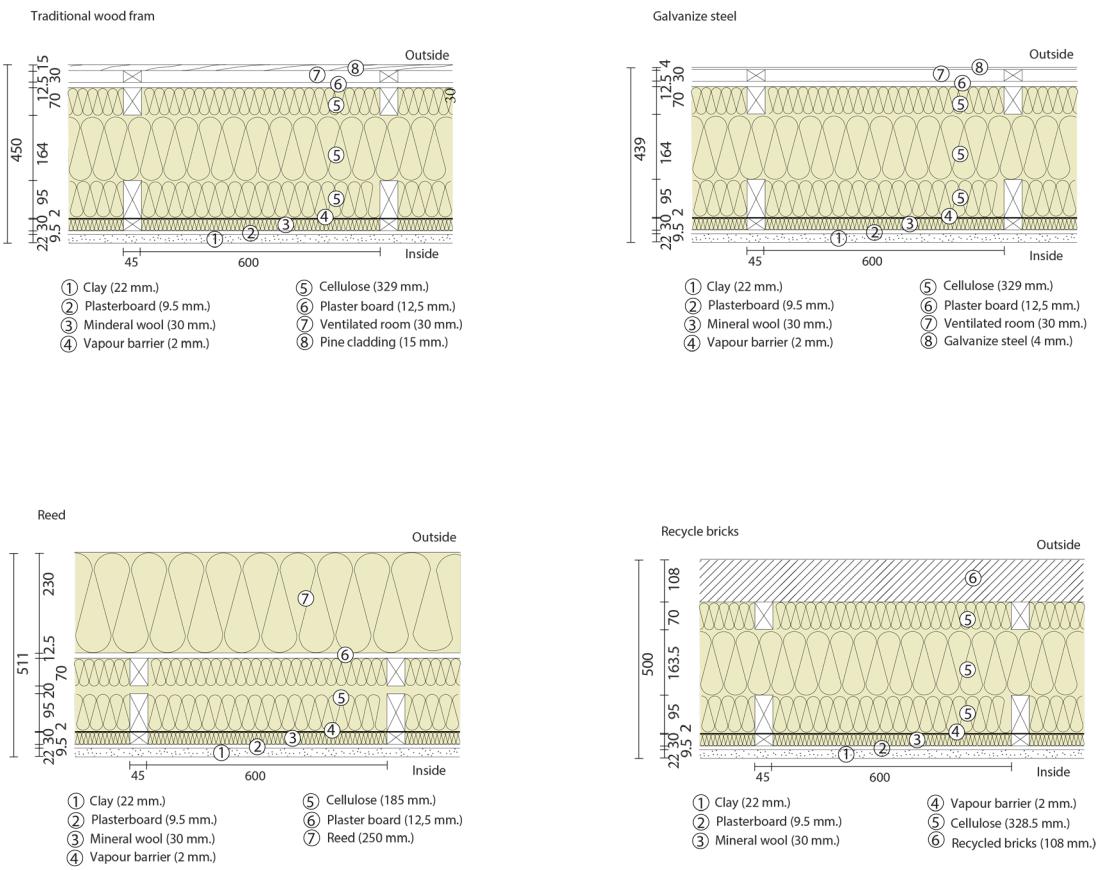
Continuing to investigate wood and reed as facade materials this example shows how the two materials in combination can refract the facade and highlight the floor decks. The end of the reeds is pointing out of the facade whereas the wood texture is pointing downwards. It breaks the horizontal lines from the flat landscape.



The last investigation was using a material and color on the community buildings which still creates a distinction from wood but works in the color scheme of the surrounding landscape. Here recycled yellow bricks was used as material which together with the wood creates a warm atmosphere at the site.

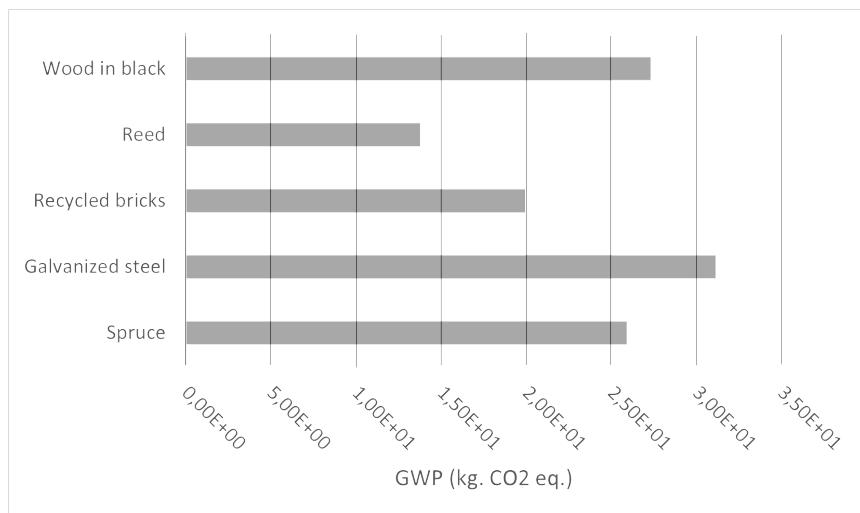
Ill. 159) Facade studies.

In the further process, five different facade materials have been evaluated considering the wall construction and its material life cycle. First, the different facades have been detailed. The structure has been created with the target of giving all the walls the same U-value 0.11 W/(m²K). This means that depending on the wall cladding, the different walls will have different thickness according to the needs of insulation. Here the two walls with wood cladding and the one with steel will end up with the thinnest wall thickness.

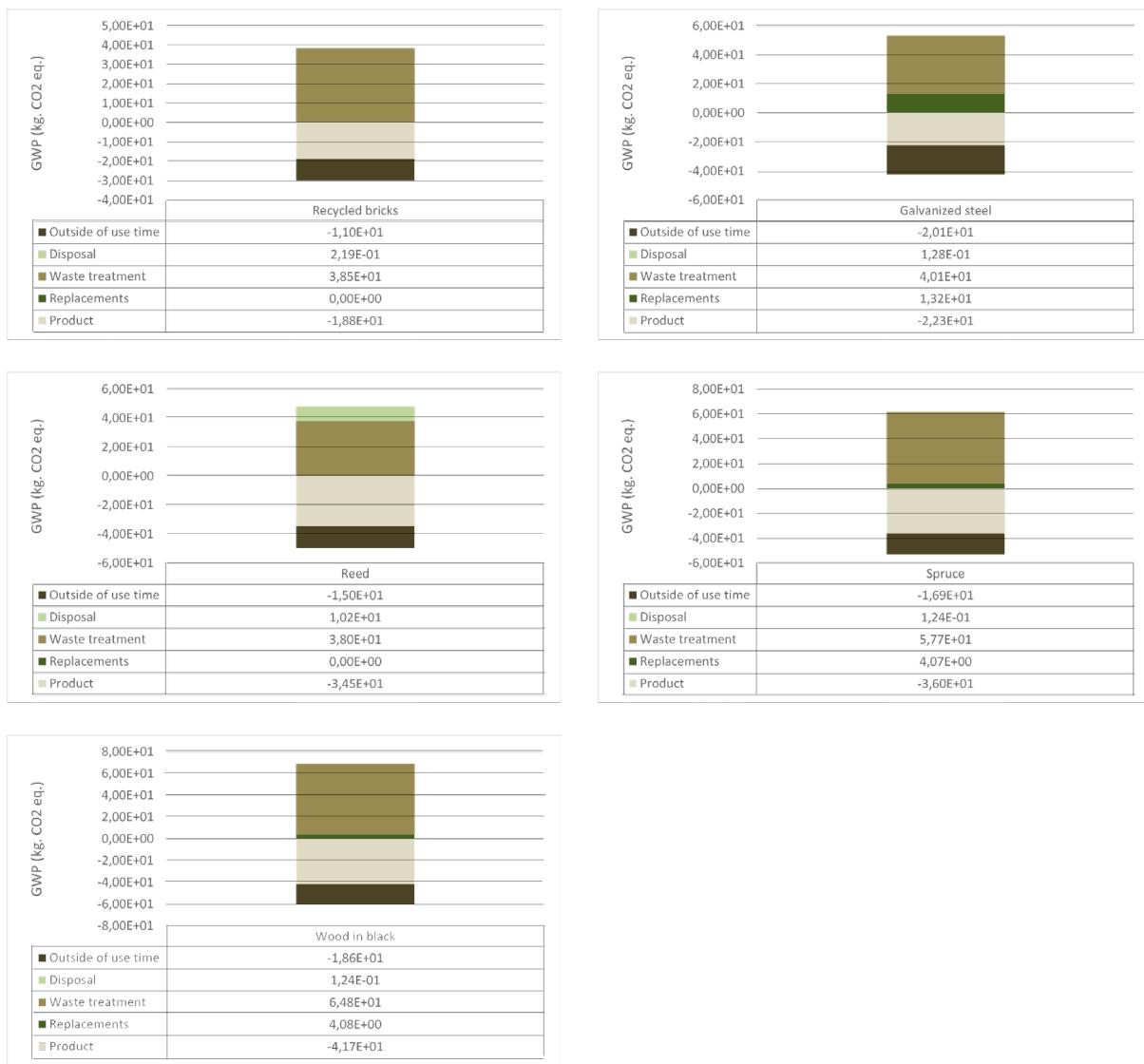


Ill. 160) Wall constructions.

Secondly, when comparing the different walls one wall acts significant. The wall with galvanized steel results in the highest impact of Global Warming Potential (GWP). See the different GWP impacts on the illustration below. See appendix for elaboration on GWP of the different construction layers (Appendix 18 - Exterior Wall LCA). In the hotspot diagram one can read which stages of the materials, used for the construction of the wall, has a significant impact of GWP. These analyses are created with a consideration period of 50 years. During this time the wood facade and the steel facade will have some elements that will be replaced. This means that a product in these constructions have a shorter lifetime than the considered period, and that there is a need for maintenance. Another visible detail is that reed is the only material where the disposal after the use of the material has a significance. This may be due to combustion.



Ill. 161) GWP for various wall constructions.



Ill. 162) GWP hotspots from LCA analysis.

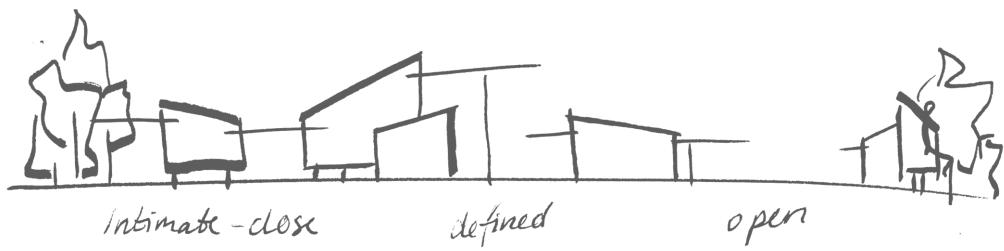
Comparing the visual connections of various materials and its environmental impact. Two scenarios stand out. The light and elevated building combined with wood and reed, and the heavy and low building with the material of recycled bricks. These two contrasting elements are enhancing each other. Moreover, they distinguish between what is private buildings and what is public buildings. The public buildings are also more accessible, as they are not elevated.

To have the same thickness of the construction part with insulation and wood frame. The final wall construction with reed ends up thicker than the wall construction with

wood cladding (see detail wall construction on page 153). This adds a new expression and possibility of working with depth in the facade. With this element the scenario with the window placed close to the inner wall changed. Because the wall itself, constructed with a thick layer of reed, will create depth and dynamic on the facade, the windows are now placed close to the facade. This adds a new scenario were the window together with the reciprocal system is framing spaces, and it will add possibility for integrating furniture within the windowsill.

SPATIAL CONCEPT

Summing up the design process, the spatial concept is defined by the landscape elements on the site, inspiring various spatialities, that can accommodate diverse kinds of social interactions and thereby sharing on various levels. The in-between spaces are of significance as they are sought to be utilized. They are shaped as defined continuous spaces, creating a cohesion that is underlined by a connective structure that facilitates zones, spheres, flows, and orientation both in exterior and interior spaces.



Ill. 163) Spatial concept drawing.

SCENARIO

To describe our vision for the senior community living, a scenario is used. It helped us through the design process as a guide for how the interpersonal contact with transitions could happen and here it is used as a presentation tool for presenting the atmosphere, the functions, and the life in the community living.

MORNING

Ej vind wakes up. It is early morning. The sun rays fall through the window and warm up the wood in the window frame as he lies in bed. He crawls over to the window frame and looks out to see what a beautiful green day it is in the community living. Ej vind grabs his clothes, jumps into his slippers, and puts over a cup of coffee. Through the steam from the coffee in his hand, he looks through the frosted glass door and senses someone in the threshold. He thinks to himself: "Maybe Mogens is also up early, I better go check". Walking out the front door of his dwelling he sees Mogens sitting with his woollen sweater and a life jacket in the threshold. He is already up for going kayaking: "It is so nice and quiet at the Fjord in the morning", Mogens says. "Sounds wonderful, can I join you?", Ej vind asks. "Of course", Mogens replies, and they both grab their kayak shoes from the cupboard and throw them up in the sink. "We better clean them now before we jump into the kayaks, so they don't get dirty inside" Ej vind says. They grab their life jackets and walk towards the Fjord.

LATE MORNING

Martha and Mogens are having some friends over and they are gathering too many to sit in the dwelling. No one is sitting in the shared room, but they better go check if the neighbours are going to use it. Ej vind is sitting on the shared terrace, so Martha sticks her head out the window: "Is it okay if I take the shared room at lunch"? "Of course," Ej vind says. Now she only needs to ask Lone. Martha looks in the threshold, but there is no one. She looks through the glass in the threshold and sees Martha sitting at the table in the outdoor space between the dwellings. Lone just came back from the soft workshop and is looking through her collection of flowers in her herbarium. Martha asks: "Is it okay if we use the shared room at lunch for some guests?". "Oh yes! I made

way too much apple juice yesterday. You can get some bottles for your guests, if you like?" Lone offers. "Thanks! I will pick it up when I am back from doing the laundry", Martha says with a big smile.

AFTERNOON

A bicycle bell is ringing in the distance. It is Ej vind who is coming home from work at the school. He waves through the window to Lone and Martha standing in the common kitchen, baking a ton of cinnamon rolls for the freezer. Ej vind continues biking down the path along the retention pond. He wants to check if the ducklings are still there. As he passes, he sees a girl and a boy sitting in the long grass by the bonfire place. Their father is struggling with lighting up the bonfire. "Can I lend a hand?" Ej vind asks and demonstrates how the firewood should be put. They get the fire started before the sun sets and Ej vind heads back to his dwelling before dinner.

EVENING

Several of the residents have been fishing and picking berries for tonight's dinner at the outdoor kitchen. Dinner is grilled perch and dessert is stewed fruit that Martha and her friends have made. People are enjoying the food and admiring the outdoor furniture Ej vind and Mogens have made together in the hard workshop room. As the sun goes down, the lights on the paths illuminate the tall grasses and the pond while the seniors settle in their dwellings.

"Where should seniors live, and do we have the dwellings that meet their expectations for a good life?"

(Jensen & Mechlenborg 2018, own translation, p.1).



07 AN ALTERNATIVE SENIOR LIVING

Frugtlunden
Transitions on the Site Plan
Transitions
The Threshold
Urban Elements
The Dwelling
Reciprocal System
Dimensioning
Ventilation Principle
Detail
The Backyard

FRUGTLUNDEN

Siteplan

The design proposal for the senior community living in Naturbydelen in Ringkøbing consists of 27 senior dwellings with appurtenant common facilities. The dwellings are carefully placed within the circle of trees, utilising their spatiality to create a protective back and an intimate private space for the dwellings. Each of the dwelling units consists of three dwellings that share a room which is detached from the building volume and a threshold in continuation of the dwelling. The dwelling units lie in smaller clusters creating defined in-between spaces for informal meetings. Moreover, the common facilities such as laundry rooms, storage and garden tools are shared with the community, and are spread around the site to nudge the residents around in the community. Some of the shared facilities, the big common house, and the outdoor stays, are also shared with Naturbydelen. The large common house would probably not be used by the community on a daily basis, therefore, to make better use of it, the common house can be booked by the public. Though the residents of the community are first in line for using it and do also have a shared responsibility for maintaining it.

The workshops are placed by the water in the middle of the site. Here the public can pass and see how the seniors are unfolding their creativity. Some days, the workshops can also be open for the public or some of the associations in Ringkøbing. This means that the seniors can share their interests and knowledge with other passionate nature enthusiasts and in that way, find purpose in sharing some of their resources. The plans for the common houses are not detailed, but investigations are made to find out how much space they take up (see Appendix 19 – Common Plans).



Ill. 164) Site plan 1 : 500.

Fold out to see the site plan

TRANSITIONS ON THE SITE PLAN

Site diagrams

The circle of trees is defining the space for the community living. The trees embrace the community and provide a protective back for the dwelling areas. The water becomes the center of the community and a place for gathering. The landscape elements are gently preserved and the buildings are following the contour lines. The circle of trees is only refracted a couple of places to insure connectivity and interaction with the context. Finally, penetrating the circle, the water functions as a leading element, inviting in the surrounding Naturbydelen.



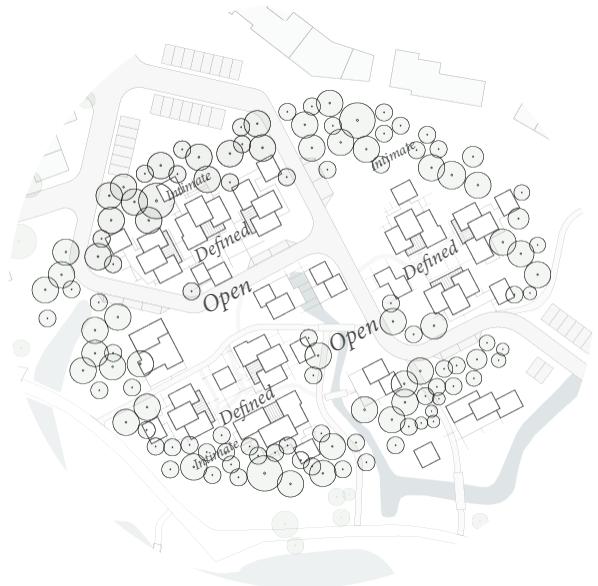
Ill. 165) The landscape relation at the site.

Around the site different public and private spheres are created. Centrally, near the water the most public sphere within the site, semipublic, is found and connected to the surrounding public paths. The semiprivate spheres are generated between the dwelling units and affords a sense of belonging and affiliation in smaller communities within the community. Finally, the most private spheres are found within and at the back of the dwelling units, which are spaces only shared between the unit-neighbours.



Ill. 166) The private and public spheres at the site.

The spaces created in-between the buildings and the landscape have different characters. The spaces around the more public zones are open, wide, and welcoming. The semi private spaces between the dwellings are of a smaller proportion. These spaces are more defined, surrounding, and nudging neighbours together and brings informal interactions. Lastly, the spaces at the back of the dwelling units are more enclosed and of an intimate character, meeting the individual needs of silence and calmness.



Ill. 167) In-between spaces at the site.

TRANSITIONS

Elevation and Section

When following the section of the community living, one will see the transition between the public area to the more private area. From the left, a shared workshop building is located. A large, sheltered workshop for creativity and repair. All the common buildings seen to the left have a facade with yellow bricks and is placed on the ground. The expression of the common buildings is a heavy mass on the ground, that is easily accessible. When looking at the right side of the section, one will see some more light buildings. These buildings have a facade mixed with wood and reed and they are elevated from the ground. When arriving at the private dwellings, one will have to walk through a shared threshold. This threshold adds a more light and welcoming expression facing the common areas. Opposite, when meeting the private dwellings, the high end of the sloped roof and the more enclosed side of the facade are facing the common area. When walking through the dwelling the hight of the roof is sloping down, directing one to the detached shared building. In continuation the facade of the dwelling, facing the shared building, are more open, giving a view to nature and the common neighbourhood. When looking on the illustration of the facade, one will see how the dwelling are gently placed near groups of threes, seeking for a more private backside, only shared with one's neighbour.





Ill. 168) 1 : 500 elevation AA.



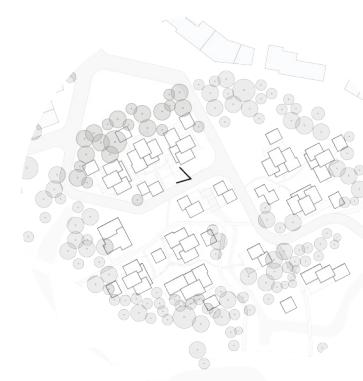
Ill. 169) 1 : 200 section BB.

Fold out to see elevation and section

THE THRESHOLD

Spatial visualisation

Formed by three neighbourhood buildings and outdoor structures of beams and columns, a courtyard environment has been created. Here one will see a sitting spot or a bike parking space framed by columns and beams. In the background of the picture, one will see a threshold with glass facade. This threshold is placed in-between three dwellings. The function of the threshold is a transition between being in the more public outdoor area to be in the sheltered private dwelling. The lower part of the facade is constructed with wood cladding and the first floor of the facade is reed. This change in material expresses a division and addresses the human scale and it adds dynamic, depth and variation. On the left of the picture, one will see a building of bricks. This building represents a common shed for the living community. Furthermore, the area is dominated by wild nature and permeable surfaces. In continuation, the pavement for car parking and bike parking is grasscrete. The large common path going through the site is yellow bricks imitating the common buildings, the small paths between the dwellings are with gravel, which provides a tactility. The paving gradates the closeness to nature, in line with the private-public graduation.





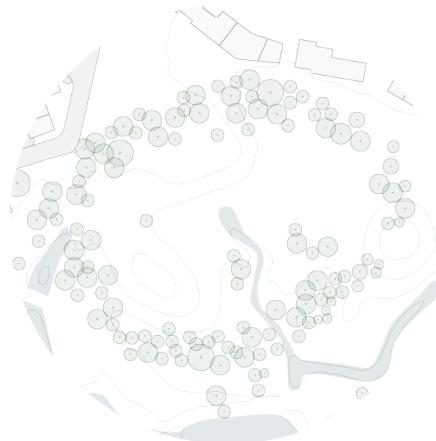
Ill. 170) Spatial visualisation of transition zone.

URBAN ELEMENTS

Site diagrams

PROJECT SITE

The status of the project site before the design intervention is dominated by the significant landscape elements, the ring of trees and the established depression for water management.



WATER

The local rainwater management of the site takes the point of departure in what is already established in the area. The built elements are located around the depression and along the contour lines, so the water can be naturally led down to the depression.



CONNECTIVE STRUCTURE

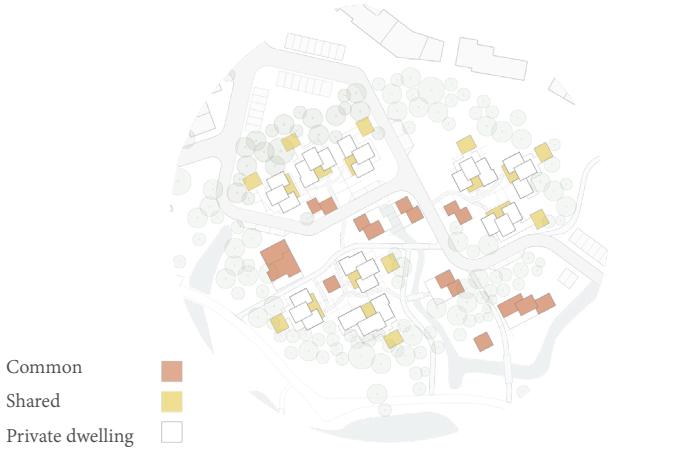
A structural grid is carefully placed in-between the buildings and the landscape elements to underline a cohesion in the community living. Further, it provides a hierarchy in spaces and defines various spatialities, zones, and functions.



Ill. 171) Site diagrams.

SHARING

The indoor spaces are of different characteristics considering sharing. the white buildings are the private dwellings. The yellow buildings are shared in the neighbourhoods of three dwellings and are therefore closely located to the dwellings. the red building are common buildings that are shared with the entire community. They are spread out to nudge the residents around the community living.



ACCESS

The surface area that the road access to the community consumes is minimised by establishing one-way roads that connects out the infrastructure in Naturbydelen. This also decrease the traffic load through the site. The soft mobility connections are continued through the site and connects smoothly to the paths outside the site.



PARKING

Parking spaces are spread out inside the community living, the number of spaces corresponds to a shared parking space for a shared car per neighbourhood of tree dwellings. The limited parking nudges the residents to prioritize the soft mobilities in the everyday life. Therefore, a lot of bike parking is established (76). Though, if one wishes to have one's own car, it can be parked in the guest parking (28) outside the circle.

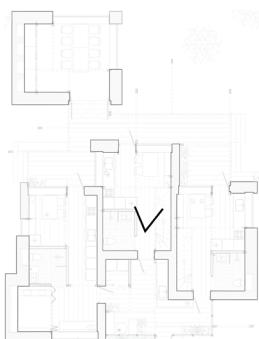


Ill. 172) Site diagrams

THE DWELLING

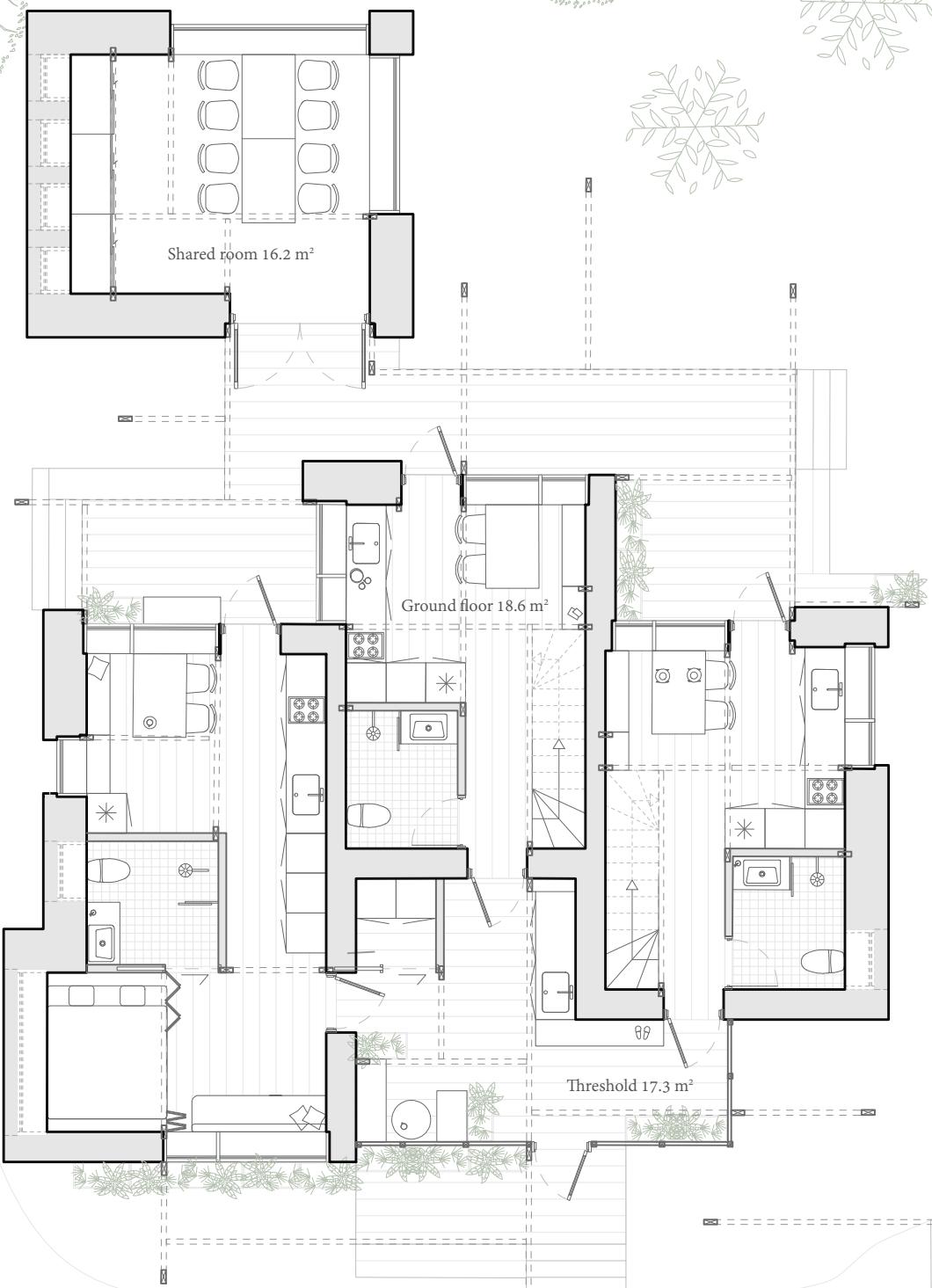
Spatial Visualisation

In this visualisation, one will see a view from standing next to the stair. Looking through the dining area, out to the nature. Here one can see how the dining area is framed by the columns and beams. Furthermore, the position of the large window is in-between the framed columns and beams. Additionally, the height of the windowsill is the same as the integrated sitting furniture, which together shapes a human scaled corner. The shelf behind the stair is integrated between two load-bearing beams. This furniture shapes a small transition between the dining area and the lounge area under the stair.

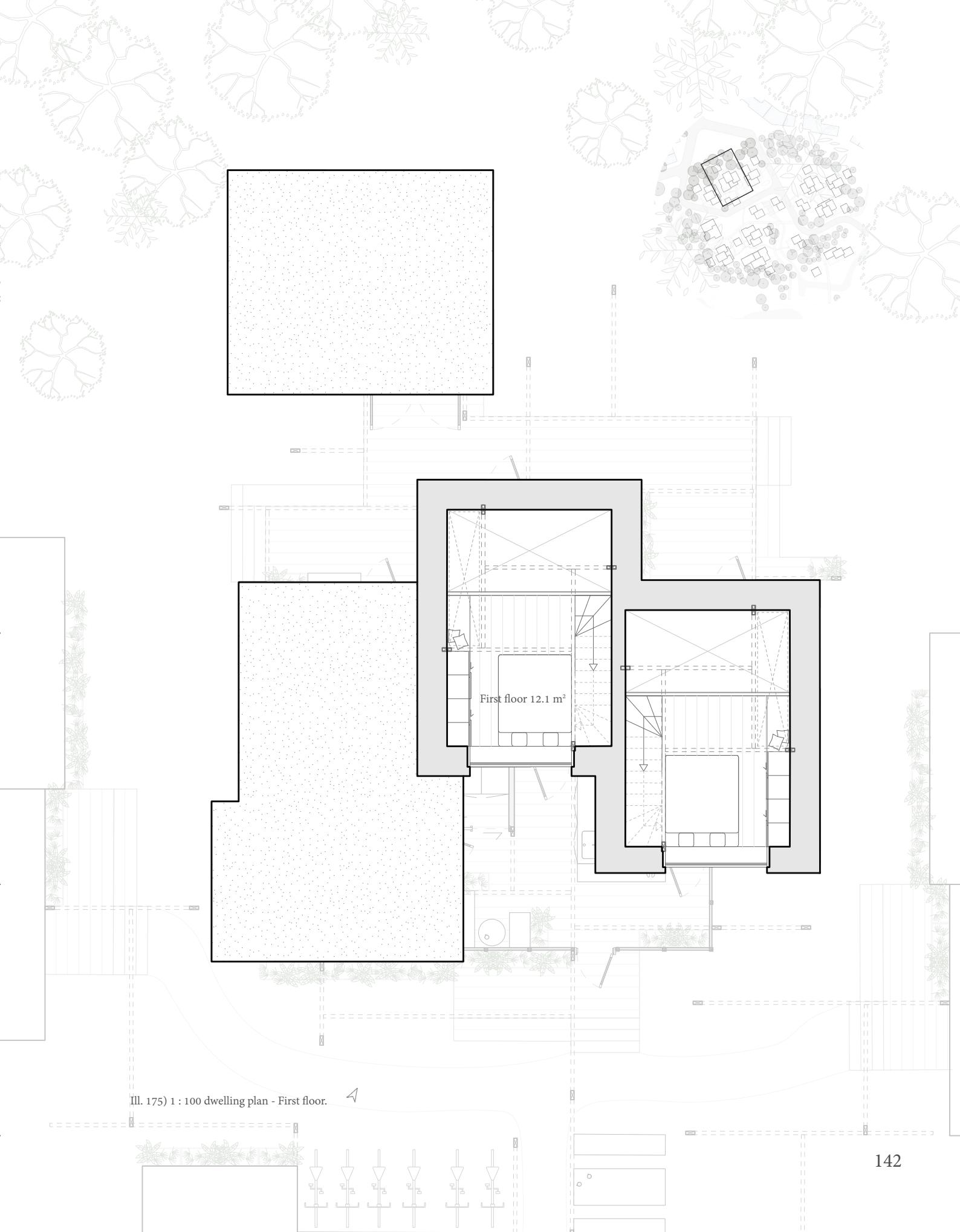




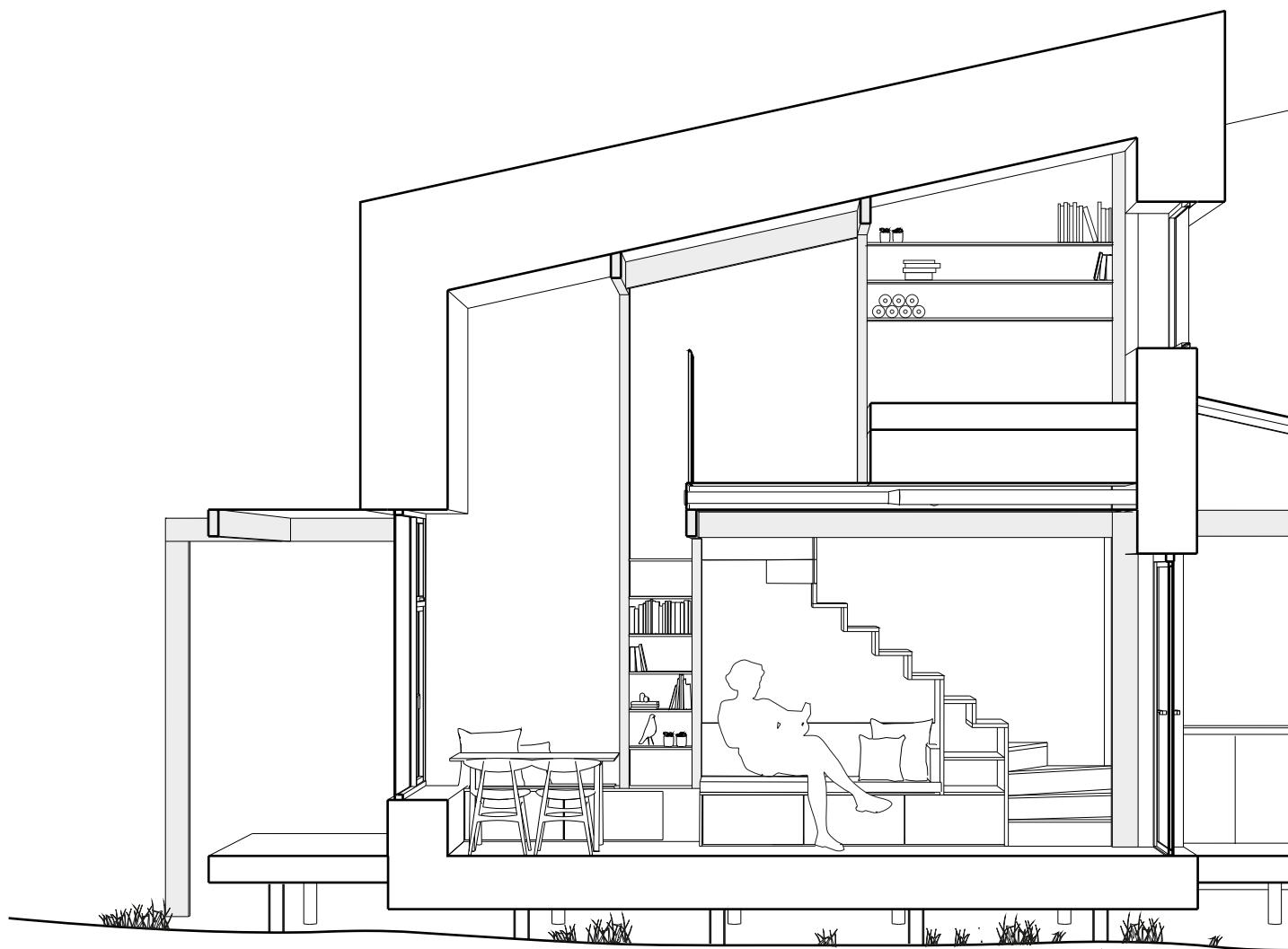
Ill. 173) Visualisation from inside the dwelling.



Ill. 174) 1 : 100 dwelling plan - Ground floor.

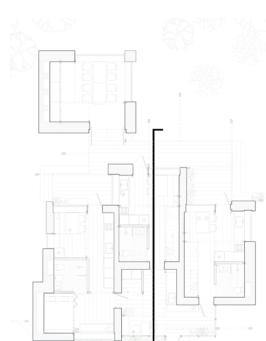
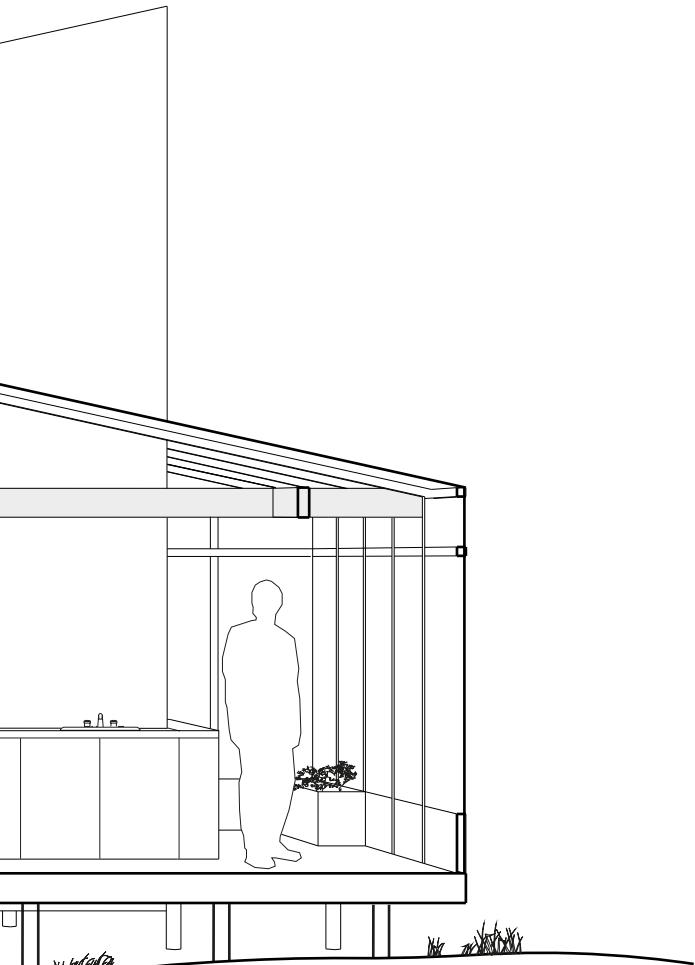


Ill. 175) 1 : 100 dwelling plan - First floor.



Ill. 176) 1 : 50 section through the dwelling.

The private dwellings relate to a small terrasse to the left and a threshold to the right. These spaces create an extension of the small dwellings. However, the spaces are optimised as the threshold part are shared between the neighbours. Inside the dwelling, one sees a small compact room. The different facilities are optimized, by integrating them into the room. An example is how the couch is fitted in under the stair, and storage space is in the frame of the furniture. Furthermore, one will see how the dwelling is one open room, shaped by framing beams, columns, furniture and elevation.



RECIPROCAL SYSTEM

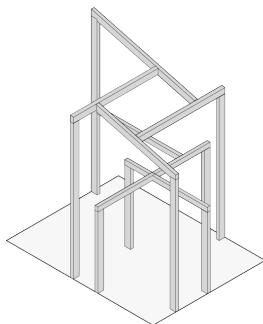
Construction Principle

It is desired to utilize the construction elements to create a clear division of zoning in the dwellings, that can underline the space necessary for the use of the functions. Moreover, the construction frames the views and transitions between in- and exterior space - considering closed walls and openings. Different principles are tested, and evaluated according to the ability of creating these specialties, gestures, and load distribution (Construction principles, page 113).

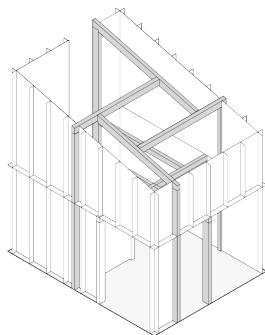
A reciprocal system is chosen as it provides the desired division of specialties, because the beams in a reciprocal system does not need to be through-going. This means that it is possible to divide the space both across and along the else wise small dwellings.

The reciprocal system is at some point broken up, where the lines are excess to the spatiality. Moreover, the system is in general flat in the horizontal plane but in this case, it is integrated with the vertical plane, with columns defining the openings in the facade. Further, the inner walls are utilized as load-bearing as well.

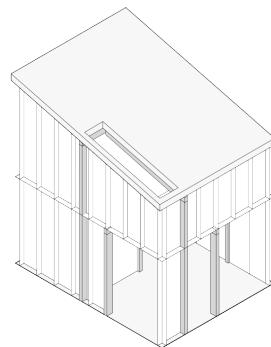
Load-bearing beams and columns



Traditional wood frame



Roof construction



Ill. 177) Isometric of the construction system that consist of load-bearing RF beams and columns and shear walls that also creates stability.

DWELLING PRINCIPLE

Plan diagram



Ill. 178) Flow.

Ill. 179) Long and short stays.

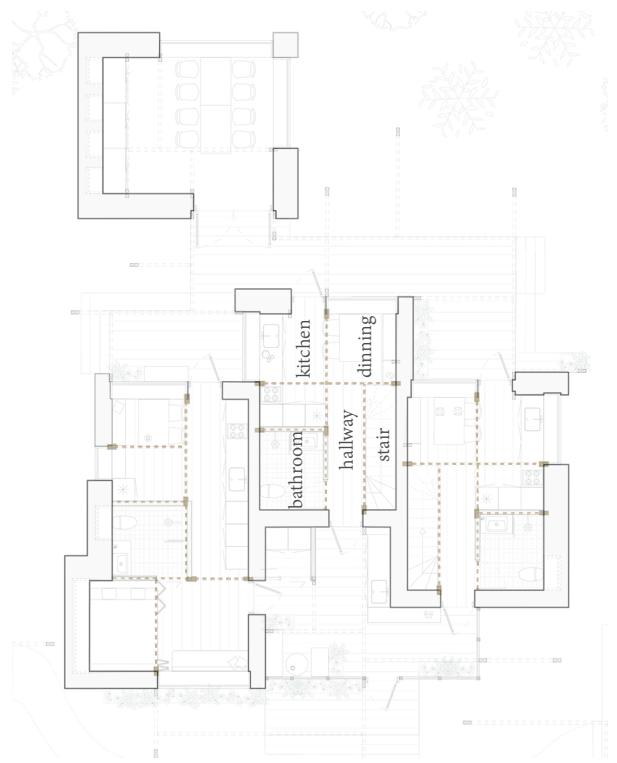
EXPECTED FLOW

One of the main principles of the plans is to nudge the residents out for informal meetings. The flow principle illustrates how the flow around the dwellings is nudging the residents together. When arriving from the public path to the private dwellings, the residents are nudged together through the common threshold into the entrance of the individual dwellings. On the opposite side, the resident again is nudged into a common entrance of the shared room.

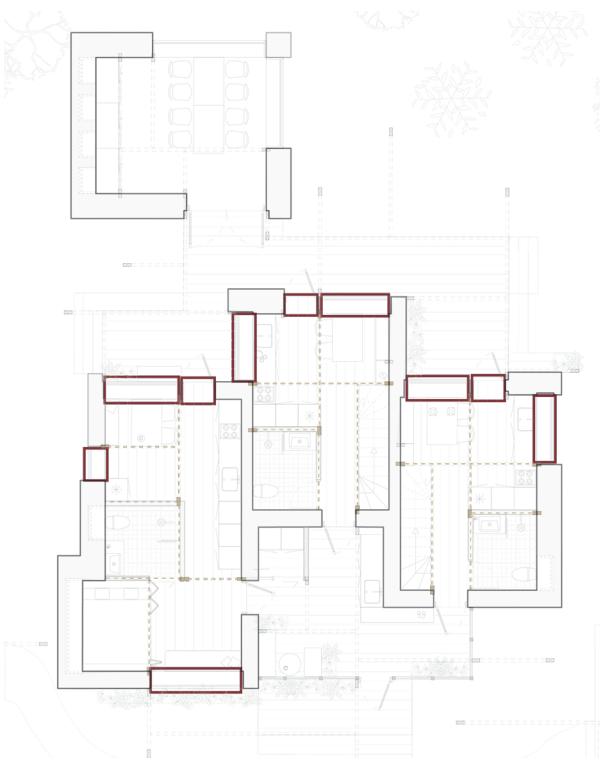
LONG AND SHORT STAY

The dwellings are organized into zones of short stays and long stays. The short stays are areas as the bathroom, and transit areas as hallway and stairs. The long stays are the functions which people uses more time at. These are the kitchen, dining room, living room and the bedroom. The long stays are located away from the public path, next to green areas shaped by the circle of trees.

Plan Diagram



Ill. 180) Functions and construction.



Ill. 181) Visual openings.

FUNCTIONS AND CONSTRUCTION

The reciprocal frame is framing the different functions in the dwelling. Hereby the construction acts as an integrated part of the dwelling plan. Furthermore, the system and the framed areas are used as a tool for integrating furniture into the function areas. An example is how the kitchen element fits into the defined function area, or how the stair is fitting in the framed structure.

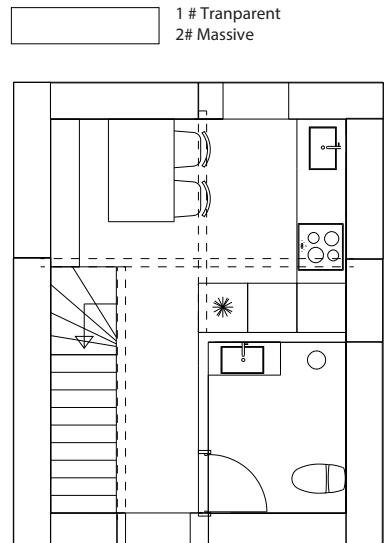
VISUAL OPENINGS

In addition to the framed areas, the openings in the walls are fitting into the divided functions. Moreover, the main part of the openings are placed in the area of long stays. These areas are framing the green spots, on the more private backside of the dwellings.

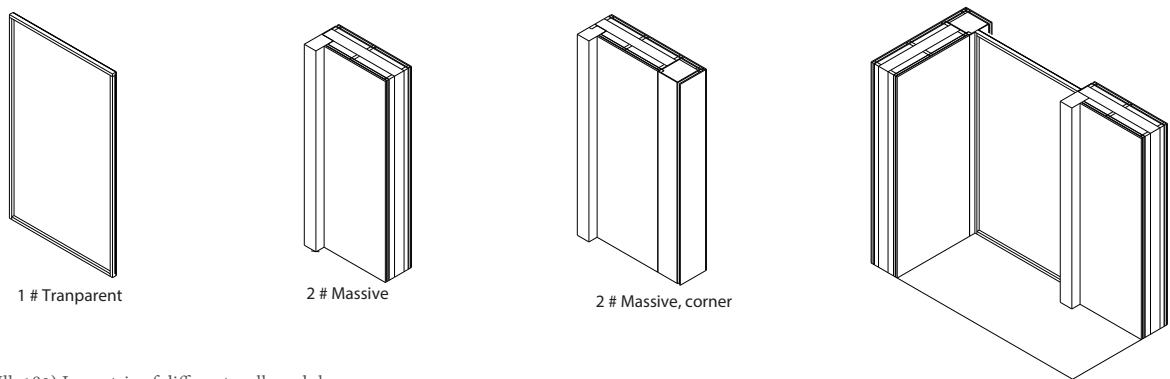
WALL PRINCIPLE

Walls and Openings

As explained before, the reciprocal frame defines and separates the walls into smaller surfaces. On illustration to the right, one can see how, the walls are divided into smaller parts. In order to accommodate the different dwellings, their orientation, placement and building connection, a module principle of how the different wall parts can be either a closed element or an open and transparent element are illustrated. The illustration below explores the different modules, with a massive module as a light wood construction or a transparent module acting as a window.



Ill. 182) Wall modules.

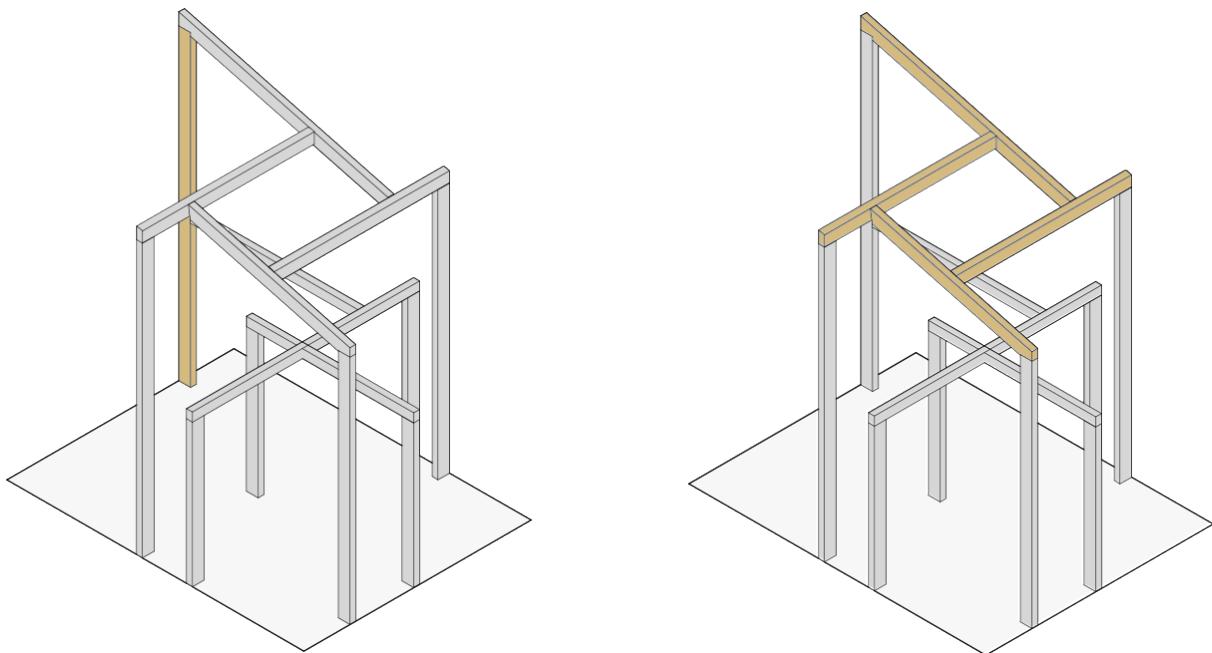


Ill. 183) Isometric of different wall modules.

DIMENSIONING

Columns and Beams

To optimize the use of materials and create the desired gesture, calculations are made to find the fitting dimensions of the columns and beams. The dimensions of the columns are based on the highlighted, as it is the only one, which is both getting loads from the roof construction and the floor construction. The dimensions of the beams are based on calculations for all the beams in the roof construction, as the tributary area is complex, and therefore, it is hard to determine which would be critical (see the illustration on page 151).



Ill. 184) Isometric of the beam-column-system, pointing out the critical column and beams.

Column

The structural diagram shows the system, which the column is a part of in 2D. The system is drawn as one degree determinant to indicate the stability the shear walls would provide. The loads have been converted from surface load (fladelast) to uniform loads (linjelast) to be added to the column and beams (Appendix 16 – Construction).

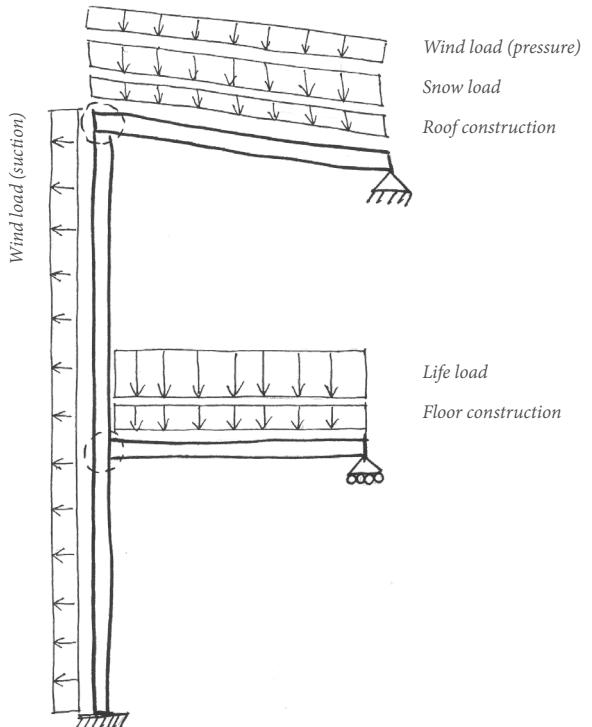
General loads (Gammel 2005)

Roof construction	0,5 kN/m ²
Floor construction	0,6 kN/m ²
Life load	2,0 kN/m ²

Loads calculated based on Eurocode 1 (Dansk Standard 2015)

Snow load	1,0 kN/m ²
Wind load (Pressure on roof)	0,26 kN/m ²
Wind load (Suction on facade)	0,66 kN/m ²

The load distribution, each load type, and load combinations are defined and put into Autodesk Robot (Appendix 16 - Construction). Here different cross-sections for the column are tested, if they are failing considering breakage (ULS: ultimate limit state). The cross-section 75 x 200 mm is chosen as gives a light feeling and the rectangular shape provides a direction and framing of the view by the openings in the dwelling (see indoor visualization on page 140). Further the column is utilized with a ratio of 0.73, which makes it slightly over dimensioned, but a smaller standard element would fail.



Ill. 185) Isometric of the beam-column-system, pointing out the critical column and beams.

Beams

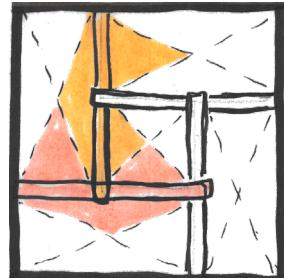
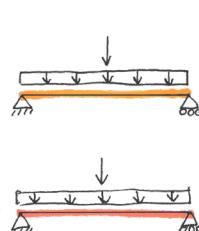
Because the beams in the roof are in a reciprocal system the system must be understood in 3D, hence the load tributary is complex, as the beams are supporting one another in a circuit, as shown on illustration 186.

186a shows how the loads are equally distributed if the secondary system (of the roof) is constructed with a planar board (for example with CLT).

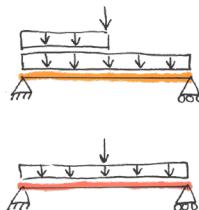
186b shows how the loads are not equally distributed if the secondary system is more traditionally constructed with a layer of beams.

Finally, 186c shows how the tributary load is even more complex when we are dealing with a rectangular space and displaced beams, which is our case.

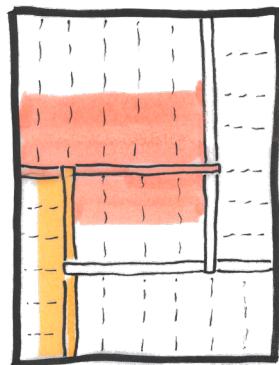
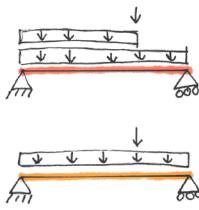
Like with the column, the load distribution, each load types and load combinations are defined and put into Autodesk Robot (Appendix 16 - Construction) and various cross-sections for the beams are tested if they are failing considering breakage (ULS: ultimate limit state) and deflection (SLS - service limit state). The results were iteratively compared with the results for the column and the 75 x 200 mm, cross section, is also chosen for the beams considering some of the same aspects as with the columns and to get a holistic expression, using the same dimensions. The utilization of the beam is with a ratio of 0.73 (see Dimensioning on page 116 and Appendix 16 - Construction).



186a



186b



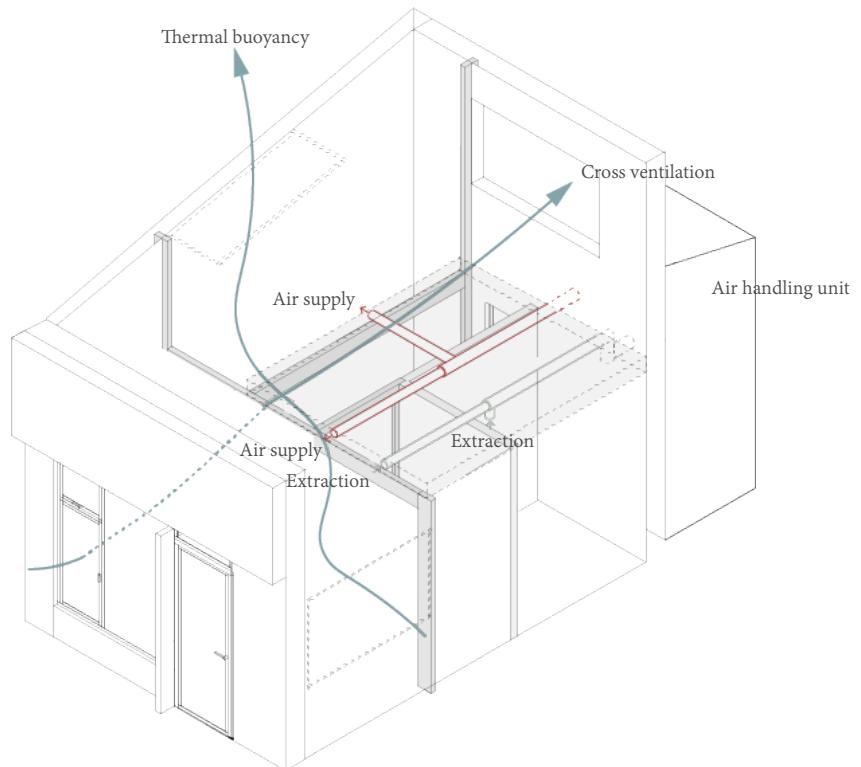
186c

Ill. 186) Diagrams of reciprocal frame resting on load-bearing shear-wall.

VENTILATION PRINCIPLE

Mechanical and Natural Ventilation

The different dwellings are supplied with different strategies of ventilation. The strategy will help the dwellings have a satisfactory thermal and atmospheric air quality. For this reason, a passive strategy of natural ventilation is illustrated with blue. Two different strategies depending on the weather are implemented. Cross ventilation will be an active element, when having different pressures on the facade and the thermal buoyancy which will be an active element when there is no wind, as this strategy depends on the temperature difference. Moreover, a supplying strategy of mechanical ventilation is used. The three dwellings connected will share a technical room in the threshold, which will consist of an air handling unit for the mechanical ventilation. In order not to lose the heated air when ventilating in the cold period. The air handling unit will consist of a heat exchanger. This device will reuse the heated air coming from the extraction device. The extraction device is placed near the more polluted and moist spaces (kitchen and bathroom) and the air supplies are placed near the living room.

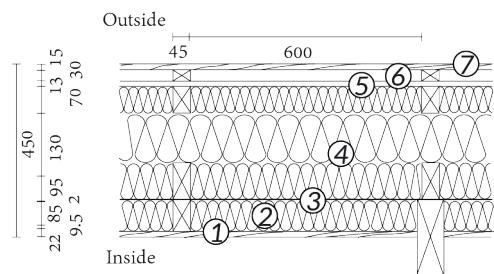


Ill. 187) Isometric of ventilation principle.

DETAIL

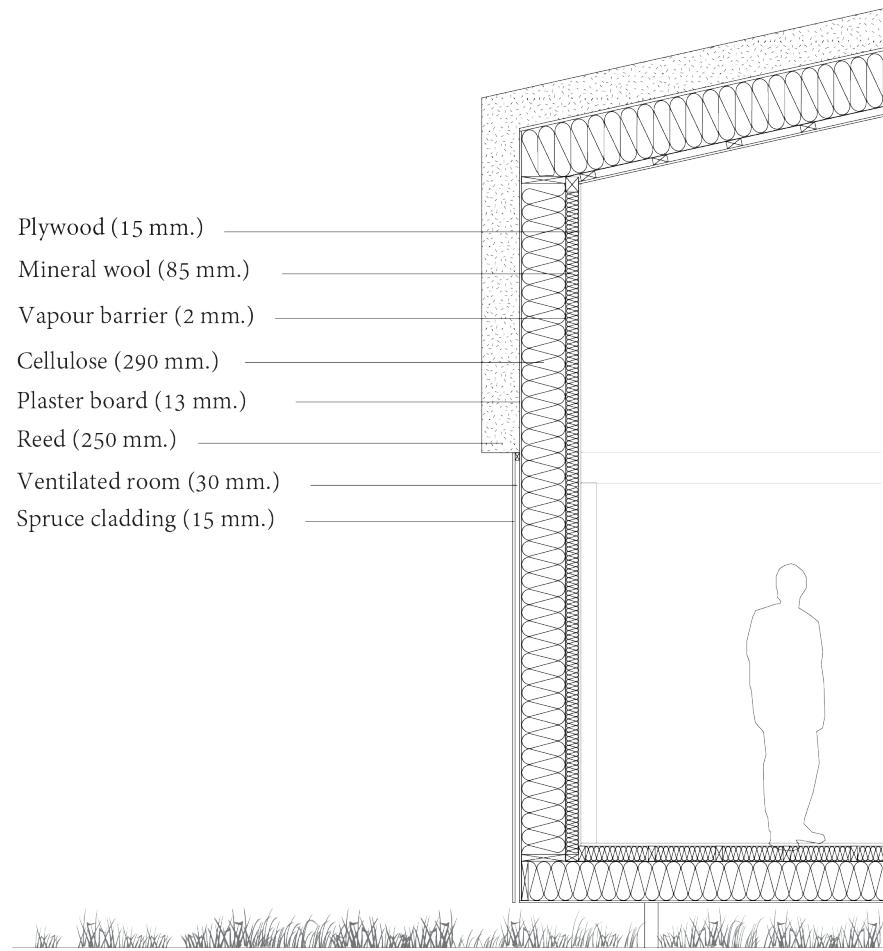
Wall Construction

A detail drawing of the wall construction is illustrated to visualise the strategy of mixing a façade with reed and wood cladding. On illustration 188 one can see how the middle part with insulation and wood frames continues as the same structure for the two facades, the only differences between the two walls are the outer cladding. Here reed will be thicker than the wood cladding. These differences is used as a strategy for shaping depth and variation on the facades. Moreover, a wall plan (illustration 189) explains how the reciprocal frame is integrated into the wall construction. This is done to minimize the space it consumes in the dwelling.



- ① Plywood (15 mm)
- ② Mineral wool (85 mm)
- ③ Vapour barrier (2 mm)
- ④ Cellulose (290 mm)
- ⑤ Plaster board (13 mm)
- ⑥ Ventilated room (30 mm)
- ⑦ Spruce cladding (15 mm)

Ill. 188) Wall plan 1 : 20.

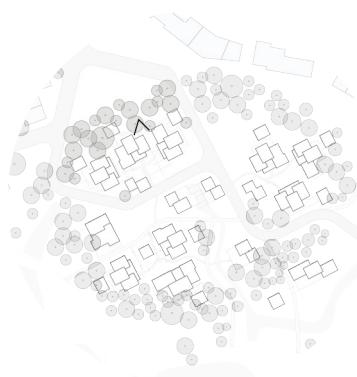


Ill. 188) Wall section 1 : 50.

THE BACKYARD

Spatial Visualisation

In this visualisation, you have a view in-between private dwellings to the common area. The dwelling to the right represents a more private and transparent backside of the individual dwellings with a covered terrace area. On this side of the dwelling the dominated facade material is the thick reed. However, the intimate openings are framed with columns and wood cladding. The common buildings are salient between the private dwellings, as they have a contrasting expression, with a heavy look of bricks.





Ill. 189) Spatial visualisation of the backside of the dwelling.

“A study for some years ago showed that the Danes were more attached to their bricks than their spouse, meaning that we stay longer in our house than in our marriage”

(Jensen & Mechlenborg 2018, p.4, own translation).



08 OUTRO

Reflection
Conclusion
Literature List
Illustration list

REFLECTION

A CONTEMPORARY ISSUE

The focus of this project was to challenge the typical senior dwelling and to investigate how can we create more interpersonal contact in Danish neighbourhoods. One of the main characteristics of both senior dwellings and why there is a lack of social contact in the neighbourhoods is their large size. Large dwellings and large distance to the neighbour. In addition, the structures in Danish neighbourhoods such as fences and hedges create a further physical distance between the neighbour. In this thesis, we saw community living as a possible solution to live smaller, share more, and nudge social interaction. There are however other and maybe even more sustainable ways of creating community living. At the start of the project, we were in doubt if it would be more sustainable to renovate some of the contemporary detached houses in Ringkøbing. It would be more sustainable in many parameters. Especially, the CO₂ emission from producing new materials would be smaller. We concluded that it would be more sustainable in the moment but in the long term, where there will be built more, a new dwelling type for seniors would be more beneficial. There will in the future be more seniors and if they keep living, buying and building bigger houses, it will not result in a reduction of resources.

Nevertheless, if a new typology for seniors was offered, it is hard to challenge people's ideals. The ideal for living has for decades been to have a big dwelling with room for an office, hobby room, guest rooms, two living rooms, front yard, backyard, greenhouse, shed and the list goes on. We are used to owning a lot and we like our ownership. This is the typical ideal and it is seen everywhere in Denmark, it is a "copy-paste" tendency because it is seen as a social acknowledgment and a part of common history that we need to own a big house because then we have succeeded in life. In fact, these ideals are controlling us (MorgenDAC 2022). It makes it difficult to convince people about living smaller as it is new and unfamiliar. To add on top house owners earn money by keeping their house instead of moving. It gives a less urge to move. "We get tied to our bricks" as Mette Mechlenborg says in (MorgenDAC 2022, 00:24:16). Therefore, our vision was to contribute with a new dwelling type that offers different social interactions and spatial perceptions, but we should question, if only a few people would live like this because of our ideal for a living?

DID WE, DO IT?

Another aim of the thesis was to experiment and learn about the possibilities of living small and dense. We saw that living smaller and closer to each other can have an impact on how much privacy you get and for some, it might feel too intimidating. On the other hand, it also created interpersonal contact and informal meetings which were one of our hopes for the design. Another vision for the thesis was to show that even though you live small, you can still live "big". By big we mean you can still get even more spatial quality than living in a 200 m² detached house. The typical detached house consists of monotonous exterior and interior spaces, and, in this project, we developed new various spaces. The theoretical framework gave us guidance for which transitions we wanted to work with and what we believe other architects and urban designers could use as approaches when designing future dwellings. We saw and used the transitions in this thesis, but the three transitions are also complex terms. When working with them, it showed that compromises had to be done. When working with landscape and building, we wanted to emphasize the existing landscape. By that we wanted to let the dwellings and shared rooms be right in the middle of nature, however, resulted in some of the trees having to move on the site for achieving this. When we worked with transitions between public and private, we created a clear transition from public to private when going into the dwellings, by first entering an outdoor courtyard and then going into an indoor shared threshold. However, when walking close next to the dwellings or on the side of the dwellings, some views are directly into the private zone making the transitions blurred from this direction. It is a compromise as we wished to create a dense typology nudging social interactions. The transition between indoor and outdoor spaces gave the group an opportunity for working with in-between spaces. For creating various in-between spaces, the façade was pushed back and forth for creating corners. This takes up some of the outdoor spaces and creates geometrical changes in the building envelope which result in more thermal bridges. Therefore, working with the different transitions is a delicate balance.

As a way of working with transitions, a structural system inspired by reciprocal frames was used. For a long period, there was a wish in the group for using a clean reciprocal system and making that work, it however did not create the various

spaces as we intended with the design. Therefore, the chosen structural system of combining reciprocal frames, columns, and walls constructed with traditional wood frames was only incorporated into the end of the project. The combination of walls, columns, and beams is also visible in the urban spaces, where the building's exterior walls, together with columns are defining vertical spaces, connecting zones with the beams. The use of even more walls could however have been beneficial, as a way of creating fences for privacy or fences for shelter.

LOOKING OVER TO THE OTHER FIELD

The cross-disciplinary work was meaningful and created a holistic design that touched upon aspects both in the field of urban design and architecture. In many ways it made sense to go back and forth between the two fields, for ensuring a robust design with spatial quality in both interior and exterior areas. By giving information to each other all along the way made the design more integrated than what we have experienced during our internships in both landscape and architectural drawing studios. Even though it was an integrated process it was also a slow process. At some points the group members wanted to work in depth with aspects from their own field such as indoor climate in the architecture field and landscaping in the urban design field. According to the time frame, it was not possible to do so when working integrated and having to discuss and reflect across the two fields before a decision was made.

CONCLUSION

HOW WILL WE LIVE IN THE FUTURE?

The above is one of the many emerging questions this thesis tries to explore. Seeking to reduce resource consumption we challenge what can be shared in the everyday life through the design of a community living. Compared to other countries, we live big in Denmark and we therefore, spend a lot of resources on building housing. The ones who live the biggest are the ones, who live alone or as a couple, which in many cases is the seniors. Therefore, the thesis investigates the contemporary demographic changes, that we are getting older, but also that our late life and our needs have changed. The third age is the new age group, whose children have left home, some have left the job market, and some have lost their spouse, which in many cases can have an impact on their social quality. But they are still active and healthy and have reached the late freedom, with fewer responsibilities and independence to do what they desire.

This calls for a new way of dwelling, that can accommodate the seniors' needs while simultaneously reducing and making better use of our resources. Therefore, this thesis is exploring an alternative dwelling form for seniors by challenging if they can share more in the setting of community living. It is the hypothesis that it will bring social value to senior living and optimize the use of both material and contextual recourses.

A COMMUNITY LIVING IN RINGKØBING

In West Jutland, people have a lot space and a high percentage of the residents are seniors. Therefore, this thesis takes the point of departure in Ringkøbing in West Jutland. More specifically, the project site is in Naturbydelen, an ongoing urban development, where the unique coastal nature is put first, is made accessible, and is activated through soft mobile connections. This identity is brought forward in the design proposal as the shared interest in the community living, giving a shared responsibility, that enhances the sense of belonging and the community feeling. Further, the landscape elements are the base for shaping the physical spaces of the community. Utilizing the landscape elements' qualities to create spatiality and sensuous experiences.

TRANSITIONS PROVIDING A SHARING FRAMEWORK

To optimize the use of resources through sharing, we present an approach of sharing on various levels, utilizing communities on different scales. Further, the design proposal establishes communities within the community, that can share various resources. The design process, developing the spatial design of the community living that facilitates sharing on various levels, is led by an iterative process of theoretical investigation and sketching of transitions. The investigation of transitions between Building|Landscape, Private|Public, and Interior|Exterior explores how resources can be shared across these transitions. How these transitions can be shaped, considering sharing, optimization of resources, and social aspects of creating environments of informal character that nudge sharing.

A NEW WAY OF SENIOR LIFE

The design proposal is an experimental design proposal for a senior community living. Presenting a new type of dwelling, that nudges sharing, and optimizes the use of both social, contextual, and material resources. The design consists of 27 dwellings, a community big enough to provide a sharing ground but not too intimate and vulnerable. Within the community, the focus is on the informal meetings and the chosen community. The facilities that are shared with the entire community living is spread out to nudge informal interactions and there is not an organized communal dinner every week, but the option is there. Further, smaller communities within the communities are established and they each share different facilities, creating various interactions. To facilitate and underline the different characteristics of sharing and dwelling a structural system is developed. It is utilized as the load-bearing system and a spatial element, creating various spatiality and underlining views, flows and connectivity both in and across the interior and exterior spaces.

Finally, the design proposal seeks to be sustainable regarding energy consumption considering indoor climate, but also regarding the material use and choice of materials considering their life cycle. In general, the design proposal is a critical exploration of alternative dwelling forms, that can create a more sustainable future. Suggesting a new type of dwelling, that nudge sharing to optimize the use of both social, contextual, and material resources - a future where we "look over the fence" and share to make better use of the few valuable resources we have.

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Illustration List

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Pictures of the Roman Houses

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Illustration 52) © Søren Palmelund and Realdania

Picture of kitchen in Senior Community Living, Havtorn -

Illustration 54) © Søren Palmelund and Realdania

Picture of view to the fjord in Senior Community Living, Havtorn

Illustration 84) © Kontraframe

Arial photo of the project site

LOOKING OVER THE FENCE

Appendix

May 2022
Ma-Arc 04 / Ma-Urb 18

Elisabeth Stadsholt Westphalen
Louise Storgaard Nielsen
Maria Juul Sørensen

Appendix for the cross disciplinary thesis
Looking over the Fence

By
Elisabeth Stadsholt Westphalen
Louise Storgaard Nielsen
Maria Juul Sørensen

Msc04 - Arc04
Msc04 - Urb18
Aalborg University

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APPENDIX 1

Mail correspondence and interview with Senior Researcher at BUILD - Department of the Built Environment, Aalborg University Jesper Ole Jensen

From: Maria Juul Sørensen <mjsa17@student.aau.dk>
Sunday 03-04-2022 16:09
To: Jesper Ole Jensen <jojen@build.aau.dk>
Cc: Louise Storgaard Nielsen <louini17@student.aau.dk>;
Elisabeth Stadsholt Westphalen <ewestp17@student.aau.
dk>
Emne: Parcelhusatlas, speciale, senior bofællesskab

Hej Jesper

Vi er en gruppe Arkitektur og Urban design studerende fra Aalborg Universitet, som er i gang med at skrive vores speciale på kandidaten.

Vores speciale går ud på at designe et senior bofællesskab i Ringkøbing K, hvor vi vil arbejde med at skabe mindre boliger, hvor der deles mere.

Vi er faldet over denne artikel af dig og Mette: <http://www.parcelhus.dk/file/1700> samt parcelhusatlassen.

Vi kunne godt tænke os at høre om du vurderer tallene fra parcelhusatlassen stadig er beskrivende for, hvordan vi bor i dag selvom reference året er 2013? Eller er der sket nye tendenser?

Derudover beskriver I at det primært er seniorer, som beboer parcelhusene og selvom artiklen kun er 4 år gammel, er vi stadig interesseret i, om du ser dette som stadig værende gældende eller har seniorer fundet en ny primærbolig?

Mvh

Maria Juul Sørensen, Louise Storgaard Nielsen og Elisabeth Stadsholt Westphalen

MSC04 ARC/URB

From: Jesper Ole Jensen
Monday 04-04-2022 09:13
To: Maria Juul Sørensen
Cc: Louise Storgaard Nielsen; Elisabeth Stadsholt Westphalen
Emne: SV: Parcelhusatlas, speciale, senior bofællesskab

Hej Maria

Spændende projekt!

Jeg tænker at tendensen fra parcelhusatlas og artikel stadig er klar, og formentlig også er blevet forstærket de seneste år; de ældre er med stor sandsynlighed blevet boende i parcelhuset, og blevet endnu ældre. Og selvom der er bygget flere seniorbofællesskaber de senere år (bl.a. Havtorn i Ringkøbing) mangler der alternativer til de ældre – vil vi stadig hævde.

Jeg gætter også på at de socio-demografiske forskelle mellem kommuner og sognes stadig gælder, selvom der kan være sket mindre forandringer i form af til- og fraflytninger.

Vi (BUILD) er i øvrigt på vej med et par undersøgelser af bofællesskaber – en undersøgelse der kortlægger og analyserer bofællesskaber, en anden der ser på erfaringer med bofællesskabet etableret af developere – de udkommer begge til maj, hvor vi også afholder en helddagsworkshop om det.

I er altid velkomne til at vende tilbage.

Held og lykke med projektet.

Jesper
Jesper Ole Jensen
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<https://www.aau.dk/uddannelser/kandidat/by-bolig-bo-saetning>
<http://sustainablecities.aau.dk/>
<https://vbn.aau.dk/da/persons/115278>

Interview with Jesper Ole Jensen

This interview starts with a short introduction of the semester project. Afterwards Jesper explains about the research about detached houses and living communities. In the end he introduces a coming workshop.

Maria: Og da vi vil lave et seniorbofællesskab, fordi du kender havtorn, kunne jeg fornemme i mailen, at vi sætter spørgsmålstegn ved, om det er fremtidens bofællesskab, eller om man kan skubbe lidt mere til, at boligerne kan være mindre, eller om vi kan skabe endnu flere hverdags møder, som de lægger op til. De skaber i deres design, hvilket vi mener, at det kan vi ikke se lige så godt. Og så arbejder vi med bæredygtighed ved at bruge færre materialer og så passe på det landskab, som seniorbofællesskaber skal være i, fordi natur bydelen har den her høje biodiversitet. Ja, så det var lidt om vores projekt. Og så fandt vi jo det der parcelhus atlas, som vi har brugt som argument for at arbejde med seniorer. Og den artikel, vi har skrevet, at de tit sidder fast i de her parcelhuse og og bor, er meget stor. Står, at man på en måde kan lave nogle alternative boliger til dem og så ja trække dem ud af de her parcelhuse. Ja, men du nævnte, at I var i gang med nogle undersøgelser nu?

Jesper: Ja, altså omkring bofællesskaber. Er vi igang med.

Maria: Og det var noget kortlægningen af bofællesskaber.

Jesper: Det er to projekter i virkeligheden. Det ene projekt, det hedder. Titlen på projektet er kortlægge kortlægning og analyse af bofællesskaber i Danmark. Baggrunden for det er, at man har lige som manglede lidt overblik over, hvor mange bofællesskaber der egentlig er, og hvor det ligger hen og alt sådan noget. Så vi har i samarbejde med den organisation, der hedder Bofællesskab dk, som er medlemsorganisation for bofællesskaber. De har dannet et medlemskartotek, og de har sikkert også været inde på deres hjemmeside. Så selv hvad der ligger der, er forskelligt. Sagen er bare den, at den er ikke helt opdateret. Den liste dels tager nogle gamle bofællesskaber, som ikke findes længere, og dels er der kommet en masse nye til, og som bare ikke er kommet ind i deres database, fordi den er baseret på, at bofællesskaber selv melder sig til melder sig ind i foreningen Bofællesskabet i går. Og det er der ikke alle bofællesskaber, der gør.

Maria: Nej, og i forhold til det, så har vi et spørgsmål. Har I

defineret, hvad et bofællesskab er? Eller har den der hjemmeside gjort? Fordi hvis nu jeg bor i et kollektiv, er det så et bofællesskab? Eller hvordan kommer man med ind i den der kortlægning?

Jesper: Jamen, det godt spørgsmål. Altså, vi har været så lidt pragmatiske vores projekt, og vi har lavet sådan en definition af et. Vi starter med at lave et definition af et bofællesskab. At man forstår, hvad vi forstår ved det. Og det er jo bare den gængse med at sige, at man har sin egen private boliger. Og så er der nogle fællesfaciliteter og lagt op, så man har nogle fælles interaktioner, møder og jævnlige fællesspisninger og så videre. Det er bare, at vi har ændret lidt i det, der bliver sagt. I den kortlægning, vi laver, der, findes der så også findes både alders blandede bofællesskaber er vi begyndt at kalde det. Altså den, hvor der ikke er sat nogen aldersbegrensning på. Og så har vi seniorbofællesskaber, og så har vi kollektiver og økosamfund. Også som grupper, som vi putter ind under den hat, som vi kalder bofællesskaber. Og det er så let, måske mod mod vores første definition. Men det er simpelthen lidt for valg pragmatisk i forhold til hvad skal vi kalde, når nu vi kortlægger både både kollektiver og økosamfund og så videre og seniorbofællesskaber? Hvad skal vi så kalde den samlede hat? Så er der altså valgt at kalde den bofællesskaber og det, som vi tidligere har kaldt bofællesskaber. Det kalder vi alders blandede bofællesskaber. Jeg ved ikke, om det giver mening, men ellers så skulle man til at kalde det sådan en eller anden form for fællesskabsorienterede boformer eller noget andet. Og det synes vi blev lidt for ikke mundret. Kan man sige, så er det den måde, vi har valgt at gøre det på i det projekt, her er.

Maria: Vi har fundet et kort, og jeg ved ikke, om det er kort i har lavet. Altså hvor de har kortlagt bofællesskaberne inde på Bolius hjemmeside?

Jesper: Ja.

Maria: Er det den, I har lavet? Eller er den ikke offentliggjort endnu?

Jesper: Nej. Vores ikke offentliggjort endnu. Jeg gætter på, at det kort har de nok taget fra bofællesskabet. Der ligger også et kort en på deres hjemmeside, hvor man kan gå ind og se, hvor det ligger henne. Og ellers kan man jo. Det kan være, de har downloadet kortene fra. Ja, adresserne et eller andet sted fra kan man nu selv lave så et GIS kort over, hvor det ligger henne så.

Maria: Men så den I har lavet, tyder det på, at der er en tendens til, at de fleste ligger mod øst, bofællesskaberne eller er det mere?

Jesper: Nu har vi jo ikke. Vi har ikke sat dem ind på noget kort nu. Altså, vi kunne godt tænke os at lave lidt mere geografisk analyse på det, kan man sige. Men dels er selve kortlægningen opdateringen. Det har bare taget så lang tid. Jeg har først fået. Den opdaterede liste over bofællesskaber her i sidste uge. Faktisk så. Så derfor har vi slet ikke haft tid til at gået lidt mere ind i det. Det er, som vi også har gjort, er, at vi på et tidligere tidspunkt før. Listen var endelig og alle bofællesskaber. Da tog vi et udtræk af dem, som vi mente var gode nok. 340 bofællesskaber, og så tog vi dem, satte vi adresser på alle dem, og så tog vi dem ind i Danmarks Statistik, og så har vi sat personoplysninger på bolig oplysninger på. Og det er altså den analyse del af det kan man sige, der ligger i vores projekt sammen med kortlægningen. Altså hvor vi går ind og ser på, hvem af beboerne der bor i bofællesskaber, uddannelse, indtægt, baggrund og så videre. Og så videre. Familieforhold. Og vi ser også på, hvad det er for en type boliger, de bor i. Og hvor ligger de henne? Boligerne. Da kan vi se en lille smule omkring. Altså hvor de ligger hende. Altså, vi opererer ikke så meget med øst vest, der opererer ved mere at sige en kommune inddeling som. Ja, den kan vise, at hvis det er men som snakker om de større byer, altså hovedstadsområdet, de større by og mellem kommuner og øde områder, tror jeg, den inddeling vi har. Og da kan man sige, at der er langt de fleste ligger. Jeg tror det. 40 procent af boligerne ligger i hovedstadsområdet, så der er meget i øst. Men der er også nogle i Aarhusområdet og andre steder i vest.

Maria: Så ja, jeg ved ikke, om du kan svare på det. Det er måske et stort spørgsmål, men hvad tror du? Hvordan kan man få flere bofællesskaber til de her yder kants kommuner?

Jesper: Ja, det er et godt spørgsmål. Altså. Jeg tror det jo. Det er et spørgsmål om, at der er en hvem. Hvem er det, der skal etablere disse bofællesskaber, kan man spørge sig selv om, og det, som vi ser i dag. Hvis jeg tænker, at det jo nok. Det kommer an på, hvad du snakker om, når vi snakker ydre områder. Altså, så er det jo. Så tænker jeg, at det jo typisk er områder, som er præget af, hvad kan man sige? Er mange ældre og også, hvor man kan sige, hvor det er oplagt at lave seniorbofællesskaber? Altså hvor man kan sige at lave alders blandet bofællesskaber? Måske. Det kan måske godt lade sig

gøre. Det er måske, men der har man måske lidt demografiem imod sig. Omvendt kan man jo tale for, at der er billige byggegrunde derude. Man er tæt på naturen. Det kan måske være nogle økosamfund, der kunne være interesserede i at lokalisere sig dør. Men jeg tænker, at de nok sigter mest mod seniorbofællesskaber. At det er det i tænker på, er altså det, som vi kan se. Vi laver en anden undersøgelse af det, som vi kalder developere drevet bofællesskaber. Altså som vi sikkert også er opmærksomme på. Så er der jo flere og flere. Hvad kan man sige? Professionelle aktører, som kommer på banen og etablerer bofællesskaber og har en anden tilgang til det her, fordi de jo ikke kender beboerne på forhånd, så deres proces bliver en noget anden. Til gengæld går de så mere ud af at lave lidt markedsundersøgelser og have lidt mere fornemmelse af, hvad sker der rundt omkring? Hvor stor efterspørgslen på det? Da kan vi da se, at der er nogle få, som begynder at komme på i yderområderne. Altså, det er helt lidt uvidenskabeligt, men nu har vi som en del af den undersøgelse dem med developer drevne. Har vi set på, hvor mange af disse developere drevne ligger i yderområder? sammenligne med den hidtidige udvikling her og der? Ser det ud som om der er lidt flere lige nu, som da i stadig ikke mange af dem måske 5 procent? Eller noget i den dur. Og ikke som blev etableret i landets yderområder. Og om det så skyldes, at de aktører har fået øje på, at godt tør investere de steder her i yderområderne. Det ved vi ikke rigtig. Eller måske er det bare udtryk for, at der er flere og flere, at hvad kan man sige, at boligpriser og den demografiske udvikling ser måske lidt mere positiv ud for yderområderne nu? Så er der måske flere, der godt tør investere der også. Men, men, men, men noget rigtig godt svar på det har man nok ikke. Hvorfor? Om om man kan sige, at det er en tendens. Der er der flere, der investerer i yderområderne, eller eller hvorfor gør det. Det ved vi ikke rigtig. Men vi for eksempel, så snakker vi med en developer i på Lolland, som han i gang med at bygge et bofællesskab. Og han siger, at det er simpelt hen, at der simpelthen stået, som det har stået ret stille på Lolland i mange år. Men, men, men altså. Nu er der virkelig investeringslyst her, og han kaster sig også ud i at lave lave noget af det, han siger. Der er kæmpe efterspørgsel på det der i området. Og det er jo ikke bare mig. Det er jo ikke bare lokalt, men der er faktisk også nogle københavnere, som flytter til. Og så skal man jo også overveje det lidt. Og så siger man Hvem er det, der flytter til? Men der må vi jo så også sige, at vores data viser lidt, at det overvejende er hvad kan man sige? Især seniorbofællesskaber. Der er et lokalråd, rekrutteringen, man snakker om. Det er ikke meget tilflytning, man ser på tværs af kommunegrænser eller på være på

tværs af kommune typer. Skulle man måske sige.

Maria: I forhold til de der developer drevne bofællesskaber har ikke set nogen ulemper ved dem. Eller ja, nogen større fordele ved dem som ikke er developer drevne.

Jesper: Man kan sige sådan helt kort. Fordelen ved det developer drevne. Det er jo det her med at. Det er jo developer, som står for det, og det vil sige, de er vant til at investere, købe jord, lave prospekt og lavet lokalplaner. Og det vil sige hele den proces, som ellers med den sædvanlige top down metode beboer drevne bofællesskaber. Den slipper man jo for. Og det vil sige, at det går hurtigere typisk. Og der bliver truffet en masse beslutninger, som man kan sige. Det er måske også meget godt. Det er sådan lidt, hvordan man ser på det. Nogle vil sige, at det er godt, fordi beboerne slipper for at skulle tage stilling til en masse detaljer og ting og så videre, som kan tage sindssygt lang tid. Og man kan komme op at skaændes om alt muligt. Andre vil sige, at det er en del af processen, og at man skal lære naboerne at kende og sine medbeboere at kende. Men i hvert fald kan man sige Ud fra sådan lidt byggetekniske tilgang vil man nok sige, at der kunne være nogen fordel i, at det går lidt hurtigere, og der blev truffet nogle beslutninger. Og jeg tror også, at dem, der bliver snakket med sig ind i nogle af de steder, de egentlig også meget godt tilfredse med ikke at skulle tage stilling til alle mulige små detaljer. Der kan være nogle ting, man godt vil med ind over osv.. Men, men, men ellers tror jeg, man er meget godt tilfreds med at se. Der bliver, da der foreligger noget, som siger, at der er nogen, der have tænkt over og truffet fornuftige beslutninger omkring en, altså. Men omvendt kan så sige ulempe eller udfordringen. Det er selvfølgelig det her med. Hvor godt kender man egentlig de nye ens nye naboer og altså for eksempel med konflikter? Hvordan løser man dem? Ved man også, hvad det er for nogle forventninger, man har til fællesskabet, når nu man flytter ind i det her. Og hvad er det egentlig, man skal være fælles om?

Maria: Det er ret vigtigt at definere det, inden man går i gang med at danne bofællesskab.

Jesper: Ja, og så spørgsmålet altså hvem der hvem er det, der skal definere det? Fordi beboerne er der jo ligesom ikke fra start? Jo, så så det ville jo typisk være developer, der på en eller anden måde skal melde noget ud og så sige det, som vi sigter mod her, det skal være. Det er jo typisk altså noget af det, der bliver lagt meget vægt på med dem, som vi ser på. Det er jo det her med de uforpligtende fællesskaber.

Altså hvor man gerne vil have det lidt mere af de spontane møder og lidt snik snakken hen over kaffe, altså med naboer og sådan og i mindre grad det her med, at vi skal have nogle, kan vi siger arbejdsgrupper, som skal stå for det, og nogle, der skal tage sig af det. Og og der er krav om fællesspisning mindst to gang om ugen, eller hvad det nu måtte være. Altså. Og det kan jo og det, det kan man sige. Det kan jo. Og det kan jo være meget godt, at sådan på den ene side, at det kan lokke for mange til og at sige, at når man da kan vi godt se os selv i, men, men stadigvæk er det måske lidt det her med. Jamen altså også nogle, der efterlyser lidt det her med at sige Jamen, når nu vi har de her mange spontane fællesskaber, der opstår rundt omkring, og man møder lidt den ene stakkels lidt, men den anden finder måske sin egen lille gruppe, som man mødes lidt mere jævnlig med. Jamen, hvad så med det store fællesskab? Hvad så med os, der bor sammen her. Hvad er det egentlig, vi har til fælles? Hvad er det, vi gerne vil med det her samlede fællesskab? Så jeg tror, det er lidt den udfordring, det er med at finde ud af. Hvad er det for et fælleskab, vi har her samlet set?

Maria: I forhold til et parcelhus atlasset som vi jo kæmpe fan af. Hvorfor stoppede I med at opdatere det?

Jesper: Altså, vi er jo et institut, som vores baggrund er et det, der hed Statens Byggeforskningsinstitut. Og vi har jo aldrig været det. Nej, det er kun, du får de korte svar, der er, at vi skal have nogen, der skal finansiere det. Simpelthen. Og det. Vi har prøvet lidt. Men sagen er den, at når det var, Bygge og Boligstyrelsen, der betalte det her og oprindelig gav os en bevilling til at lave det. Og når vi har spurgt andre, om de så har været med til at opdatere, syntes det ikke det helt så sexet og skulle opdatere noget, som andre er startet ud med at give penge til.

Maria: Så der er ikke nogen alternativer til det i dag, eller der er mere opdateret.

Jesper: Vi har en, vi er ved at søge et nyt projekt, kan man sige, og vi har planer om at i det projekt, og det handler også om parcelhuse. Som en del af det projekt vil vi godt have opdateret vores parcelhuse Atlas. Vi har snakket om det i lang tid, og men det har simpelthen været så svært lige at få sådan en og finde de rigtige midler til det. Og det er lidt det lidt ærgerlige, kan man sige fordi, at der jeg tror, der er mange, som egentlig er meget glade for at bruge kortet dér. Men det er jo nogle gamle data efterhånden så. Og der er også masser af ting, der kunne forbedres i kortet. Det er første gang, vi

har lavet det her, så.

Maria: I har valgt 2013 som reference? Er der en grund til det?

Jesper: Det var de data, vi kunne få på det tidspunkt. Der er nogle data, som er ret forsinkede i forhold til at kombinere ligge i Danmarks Statistik, og jeg mener, der var nogle af de økonomiske data. Altså det med folks indtægter og sådan noget. Der er bare det simpelthen nyeste, vi kunne få på det tidspunkt, og så vil de ligesom nødt til at sige Okay, vi er nødt til have fælles reference over for alle data. Selvom vi godt kunne have fået nogle nye data for nogle af tingene, så er man nødt til at ligesom at tage den laveste fællesnævner. Og det blev så 2013.

Og siden da der var kommet, at datagrundlaget blev noget forbedret. Ikke både med hensyn til energimærker og energiforbrug. Og jeg tror, der er mange af de andre data, som så er blevet blevet forbedret.

Maria: I forhold til parcelhus og så den artikel, de havde skrevet. De danske seniorer bor i halvtomme parcelhuse. Ja, der snakker I om, at vi mener, der er brug for nogle alternativer til de ældre, som de kan flytte ud i. Og hvad for nogle alternativ? Tror du det skal være. Skal det være seniorbofællesskaber eller mindre rækkehuse? Eller hvad har man behov for? Tænker du?

Jesper: Jamen, det er et godt spørgsmål. Altså, det kan være både og. Der er nogle, der er seniorbofællesskaber med, og der er nogle, der kan være til rækkehuse, hvor, hvor hvor man bor der, hvor der også selv tror, der er mange. Kan vi høre efterspørger noget mere fælleskab med, men mindst naboer. Enten fordi de ogsp. Altså ja, af den ene elleranden grund. Ikke også fordi der mange steder nu for folk, der kommer fra der er ikke plads. Der har man ikke nødvendigvis særlig meget med naboerne at gøre. Og det kan også være, at de er flyttet eller faldet bort. Eller andre ting, der måske ikke er så mange i hverdagen, men lige har noget fællesskab med. Så er der er rigtig meget efterspørgsel på det. Men om det så skal være i form af et egentligt seniorbofællesskab eller bare et, hvad kan man sige noget bebyggelser, som giver mulighed for, at man kan mødes med sin naboer? Det tror jeg. Begge dele er. Sådan set vil der være noget efterspørgsel på. Altså det, som jeg ser lidt som udfordringen. Dette her med, at det koster også penge og flytte over i. Hvad kan man sige i den type boliger? Det er jo nybyggeri, vi snakker om, og det er det koster jo bare penge.

Og man kan sige, at i udkantsområderne, der er mange, som som sidder i et hus, som muligvis er faldet i værdi over det siden dengang de købte det. Så det er jo også en i det store udfordringer. Altså hvor meget? Hvad har folk råd til at betale for at flytte ind nogle steder her? Og man kan sige Risikoen er jo lidt. Det bliver kun dem med mad, der har høj friværdi eller en ordentlig. Hvad kan man sige? Pensionsopsparring, som får råd til at flytte ind i de her seniorbofællesskaber, eller hvad det nu måtte være. Og dem, der så bliver tilbage, er måske dem, som ikke har så mange penge, så som kan man etablere noget for dem, kan man sige. Og der kan man så sige, argumenterer lidt og begynder at kigge lidt på. Så siger man så ejerformer, men skal man? Man skal arbejde dem, der lader det. Altså, der kan man sige. Privat udlejning er jo. Selvfølgelig kan jo selvfølgelig være fint ligesom Real danias havtorn. Men nu kan jeg ikke huske, hvordan huslejen er der, men den er jo nok. Altså, der er da jo et minimum for, hvor meget noget koster. Alene det, når der skal det skal bygges nyt fra nyt, som hvad det koster inden. Altså, det vil det vel nok blive dyre for. For for hvad kan man sige for de ældre, som flytter over i seniorbofællesskab, og bo der i forhold til det hus, de kom, eller det? Den bolig, de kommer fra, vil jeg gætte på.

Maria: Har I set en tendens til, at de seniorer, som bliver hængende i de her parcelhuse, at det er nogle, der har boet i parcelhus hele deres liv? Eller er det nogle, der er flyttet ind i parcelhuset senere? For eksempel hvis man skulle forlade sin gård og flytte ind til byen i et parcelhus, eller om man har boet der i flere år med sin familie. Har I kunne se en tendens til det?

Jesper: Nej, det altså. Men det er også nogle ting, vi godt kunne tænke os at kigge nærmere på i virkeligheden sammen med det her. Altså hvor en af vores teser er eller er en af dem, som er ret velbelyst, det er jo det her med stedes tilknytningen, som jo også er noget af det, der holder på, selvom vi som forskere kan gå og sige, at det er jo irritationelt, folk bor i de store huse. Når børnene flytter hjemmefra og så videre og skal jo varme det op og så videre. Men en af forklaringerne er jo, at man har en tilknytning til stedet dér og ikke bare lige har lyst til at flytte væk. Men nej, altså, vi har ikke. Vi har ikke data for det her, men hvor lang tid folk egentlig har boet de steder her, og hvor de, hvor meget de har rykket rundt. Men det er jo nogle ting, der kunne være interessant nok og at tage en betragtning eller analyse af hvad? Altså hvis man skal spørge sig selv om, hvad potentialet for og hvor stor efterspørgsel på det her med at få etableret nogle andre

boligformer for de ældre. Og det er jo ikke, jeg tænker. Der er jo mange af dem, og for mange ældre er det nok heller ikke let, bare og helt entydigt valg. Vil man blive boende, eller vil man flytte i det? Det er jo en svær overvejelse ikke at skulle til at rykke, og svær beslutning og tage så hvor. Der er sikkert mange modstridende hensyn.

Maria: Så i jeres dokument for workshoppen? Så kunne vi se, at de længere nede i workshoppen, da vi gerne snakker om hvordan kommer middelklassen med ind i de her bofællesskaber? Har I gjort jer nogen tanker allerede nu om, at det er et problem, at de ikke er en del af flere bofællesskaber? Hvorfor er det, I stiller det her? Spørgsmål?

Jesper: Jamen, det er jo fordi, at vi kan se, at vores kortlægning. Altså også når du ser historisk på det, så kan man se, at der er meget af dem, der bor i bofællesskaber. Der er meget veluddannet, og det er dem, der er en stor andel. Hvad kan man sige? Folk i lederstillinger og der er store del af folk i de øverste indkomst kvartiler. Så middelklassen er ikke lykkedes, så den virker lidt segmenteret. Den beboersammensætning, der er i hvert fald i de alders blandede bofællesskaber i seniorbofællesskaber. Derimod er der noget værd. Hvad kan man sige? Der er da ikke særlig mange med lange videregående uddannelser, og der af gode grunde heller ikke folk, som er i høje stillinger, fordi de fleste af dem er jo pensioneret. Men grunden, det når vil kigge på det, siger det jo, middelklassen er det jo fordi, at bo ved de alders blandede bofællesskaber er meget domineret af hvad kan man sige? Folk på lange videregående uddannelser har høje stillinger og gode lønninger osv. Og spørgsmålet er så Hvorfor er der ikke flere fra middelklassen, som som hvad kan man sige bor i bofællesskaber? Og det kan jo både være noget med, at bofællesskaberne får den det her. Det der udtryk af at være i mit af at være noget for en bestemt gruppe mennesker og ikke noget for os, og at der også kan være lidt. Man kan sige Det kan da kan også være noget omkring disse stærke normer, der tit kan være omkring at vi skal, vi er et alternativ til det eksisterende samfund. Vi vil godt, at der ligger lidt en protest i eller en afstandtagen fra, som som jo også det jo er bofællesskaber, det kommer af. Der er jo et lidt oprør med de. Hvad kan man sige de konventionelle boformer som parcelhuset og etageboliger. Denne her ønsker om at skille sig lidt ud eller selv at kunne definere sit eget ståsted og sin egen måde at bo på. Det kan jo være det, der har skabt noget sammenhold og tiltrukket en bestemt type mennesker til disse bofællesskaber. Men det kan jo godt være, det er svært for for andre i middel-

lassen eller andre kontekster at se sig selv i det. Altså hvor man godt kunne ønske sig noget mere fællesskab, men hvor det måske ikke lige nødvendigvis er dette lidt værd. Hvad kan man sige? Meget stærke værdibaserede fællesskaber, og hvor vi har, hvor vi godt vil køre det hele selv. Du ved ik, og bo lidt alternativt. Så der kan jo godt være du forklaringer på hvorfor og hvorfor? Hvad kan man sige, at der ikke er så mange mellemløninger og ikke så høje uddannelser, sådan noget som som bor i bofællesskaber? Men ikke desto mindre udelukker det jo ikke, at de ikke efterspørger noget mere fællesskab og nogle andre måder at bo på. Og noget af det, som vi godt ville have undersøgt, men som vi ikke har haft mulighed for endnu, er Hvem er det så? For det er lige præcis. De her ting er jo noget. Det er det developerne, som bygger disse bofællesskaber, som de er meget opmærksomme på. De vil godt lave noget for dem mere almindelige danskere, og med det mener man nok altså brede paletten lidt mere ud og målgruppen lidt mere ud. Om de så også er lykkedes med det, det kunne være lidt interessant at se på, men det har vi som sagt ikke haft mulighed for sådan helt at undersøge der.

Maria: Og ja, det var faktisk alle de spørgsmål, vi havde. Jeg skal lige tjekke med min gruppe, om de har nogle spørgsmål?

APPENDIX 2

*Notes from Visits at Community Livings
Havtorn Naturbydelen, Balancen Ry, Overdrevet Hinnerup*

NOTES FROM HAVTORN

The commen facilities are divided out in the 3 buildings, but oriented towards the central commen "public/urban space" between the buildings.

Nice view to kitesurfers and natural environment - fjord, birds, animals -

They have had a tough starting phase

They use the orangey a lot - drinking coffee and eating dinner - talk about the day and "pille blomster"

They do not have a planned communal eating - they eat together if someone take the initiative

Often on Fridays - a nice way to round up the week.

If you are single you can join a neighbour in making dinner.

Communal eating motivates you to make good food.

At the moment there is 7 residents occupying 5 apartments out of 14 apartments

People have brought furnitures to the commen-room themselves.

Inge - have be traveling a lot in her life - came home and wanted to find a community to take part of. Had tried living in community livings earlier in her life

Hanne - Widow - her an her husband had just bought a house in Ringkøbing when he died a couple of years ago. It is nice that there alway are someone nearby you, and that you can make use of eachother

She has a "summer house" 5 km away

It is nice that there does not live any children here - it is calm

Resident from sønderjylland: her and her husband were looking at some other apartments in the area and came to see havtorn - they went to havtorn and talked to some of the residents

The saw the "fællesskabet" - that people were having a good time in the orangery

They are in the process of getting influence in who is moving into the community living

They are renting through the housing association and do a the moment not have any influence

They think that 10-15 residents would be preferable

"Vestlyder" are a bit reserved - not used to communitylivings - and comes from alot of more space

Build in order to meet each other

The workshop became a parking spot for the bicycles

They eated every monday and friday, now they only eat together at friday.

They take own initiative for having dinner together 14. days house meeting.

Person 1 had lived in another country, didn't want do live alone. Had lived in a community before.

Person 2 Lost her husband, then moved to Havtorn, and bought a summerhouse.

Person, the intension was to move to one of the other buildings. But then they saw this community.

The community should not be smaller.

It is too much eating together every day.

Everyone uses the common space.

Person 1 had difficulty with the tall grass. And also she uses the end of the outdoor hallway as balcony.

A small terrace to the ground floor apartments are saved off.

They cant clean the windows them self, that is not nice.

Person 1 is the only one from Ringkøbing living in Havtorn

Ringkøbing has a bit hard time with Havtorn

The community is a new mentality for the west coast

NOTES FROM BALANCEN

Build in order to meet each other.

The workshop became a parking spot for the bicycles.

They eated every monday and friday, now they only eat together at friday.

They take own initiative for having dinner together
14. days house meeting.

person 1 had lived in another country, didn't want do live alone. Had lived in a community before.

Person 2 Lost her husband, then moved to Havtorn, and bought a summerhouse.

Person, the intension was to move to one of the other buildings. But then they saw this community.

The community should not be smalle.

It is too much eating together every day.

Everyone uses the common space.

Person 1 had difficulty with the tall grass. And also she uses the end of the outdoor hallway as balcony.

A small terrace to the ground floor apartments are saved off
They cant clean the windows them self, that is not nice.

Person 1 is the only one from Ringkøbing living in
Havtorn.

Ringkøbing has a bit hard time with Havtorn.

The community is a new mentality for the west coast.

Bofællesskab skal være frivilligt, lystbetonet, man gör det,
man har ressourcer til.

De fleste er ikke på arbejdsmarkedet i seniorbofællesskabet.

De vil gerne have mere indflydelse på de som flytter ind
(Det sagde de også ved Havtorn). Ved Balancen er det fordi
det skal være folk, som går op i bæredygtighed. Det skal
ikke være et plejehjem eller opbevaring af voksne børns
forældre (fx vores forældre når de bliver gamle).

Herta? Integrerede handicappede -> Steiner inspireret
Ikke en plejetilgang!

Beboerne vil derfor gerne være en del af processen.

De var en lille del af opstartsfasen hvor arkitekterne og
beboerne havde en dialog om møblement (fx sofaerne).

Planlægningsfase. De havde en del zoom-møder med plan-
læggerne. (Her ser jeg MJS at både URB'er og ARK'er er en
del af det). URB'er i en stor skal og henholdsvis exteriør og
ARK'er i en lille skala og henholdsvis interiør.

Bofællesskaberne skal skabe et narrativ om hvem de er. De
er ikke Christiania, som mange tror.

I indledningen, skriv hvorfor det er blevet interessant med
bofællesskaber. Der kommet så mange flere ældre. Skal det
være en erstatning for plejehjem? Skal det løse samfunds-
mæssige og økonomiske problemer?

I balancen har de snakket om bofællesskabets værdier (har
taget billeder af papirerne på væggen).

Det bærende er FRIVILLIGHED. Det skal være frivilligt at
deltage i bofællesskabet.

Se på PensionDanmark

Man kan lave mange ting i fælleshuset.

Tryghed: De kan nemt gå uden at låse døren. Føler ikke
folk kigger ind ad vinduerne. I kontrast til dette så vi
Mads's have lige ved siden af Balancen, hvor de havde
svalegange lige forbi lejlighederne.

Kirsten kunne ikke se hvordan hendes bolig skulle kunne

være mindre. MJS er dog ikke enig, mener godt hendes køkken kunne være mindre.

K er glad for et ekstra rum.

Når hun kommer hjem fra hendes frivillige arbejde, er det dejligt at kunne lukke et rum.

Der kunne være fælleskontor i det ene depotrum i fælleshuset.

Kirsten om mixed bofællesskab: Det er noget helt andet. Det bliver styret af børnene -> hvordan og hvornår de skal spise. Der kommer nogle snævre rammer, når der er handicappede og børn.

Rummene bliver personlige med de personer man er sammen med. F.eks. i sofaen.

Grænsen mellem det private og offentlige

Ikke invader de private rum. Der er ingen private rum på et sygehus fx og det er der, man er allermest sårbar. Man invaderer det menneskelige og intime rum.

Kirsten and her husband live in a dwelling on 99 kvm
They come from 180 kvm in Ry by the lake
They too have a farmhouse in west jutland, where her husband spends a lot of time
Their family/ children and their families lives in the area

The facades are in wood and bricks - windows in untreated wood - tactile

There is a focus in the architecture on the "ind- og udskig"

There is a structure of paths in the area.

Active points.

Sansehaven - clean bathing water.

Pulsparken - her children do a lot of playing here

Intelligent lights.

The green areas around and in-between the buildings are "vild med vilje" - a common decision

Biodiversity and sustainability is a shared value

They needed to downsize from there big former houses they are glad about it - healthy process - and wants to be sustainable.

Sharing stuff in the common room - do not need the big kitchen machines in each of their houses, do only need a "håndmixer"

Very much likes the skylights - can be opened manually but have not been neccesary.

The sloping ceilings gives an open airy felling and a nice accountics.

They wanted to move into something smaller.

Do not miss the private gardens - there is a lot of shared garden where they can pick flowers.

3 shared washing rooms - enough for 50 houses - booking online.

Throwing a lot of "rejsegilder" - one yesterday, once more next week.

There is always someone in the orangery - after work enjoying a cup of coffee, talking.

It takes her husband 45 minutes to go down with the trash, because he meets someone on the way, he needs to talk to.

They are doing and establishing a lot by them selves in the community, building højbede and making gardens.

They have bought a shared chest freezear "folk speder til med ting" symaskinger , making second-hand "shop" (no pay).

Making their own shelves and cabins.

They are talking about and is revising their shared values

They eat together 2-3 times a week - people are register who participates

No structure - own initiatives

There is a guest room 2-4 persons with a bath - costs 50 kr
the frames are made and there is a set of values - it influence how it is used.

Hjersi?: going from 200kvm to 75 kvm
Lived in overdrevet earlier
Soon want to "downsize again.

People are engaged - is is based on "lyst"
It is not neccesary with a structure.

It is not a nursing house.

They would like influence on who moves in.

Hjersi: lives in a dwelling in the middle, sorry that she does not have a view to nature - there is a lot of "indkig"

They use the common room for bigger gatherings - also with family from the outside.

They can look after eachother, there is a feeling of safety.
if one is getitng an operation, the neighbour can look after her.

We have the need for people to look in - (story about storm - locked in in a shed)

NOTES FROM OVERDREVET

The group that established the community living divided into two groups with 2 different sets of values - overdrevet: selvforsyning, energi og mad - Sol og vind i Beder: bæredygtig byggeri.

When they built the cummunity living they started with the common building, to prioritize the community and make sure it was not compromized. if they had started with the dwellings, maybe they would not have had the time and economy to do the shared facilities properly

All the dwellings are connectected with a "krybegang" with the commen building in the middle - technical, energi and internet cables.

Also give something psycological - influence the feeling of community, that they are all connected.

Shared chest freezer, refrigiator, drying-room, washing room.

Working-teams - dinner, taking care of the different animals, the garden, cleaning, "indslusning".

Eat dinner together 6 days a week - they also cleans up on sunday, saturday is special, here they eat desert. dinner-team each 7th week- one week at the time genbrugstøj.

Drying-room with "klemmesystem"

Can facilitate nice parties, they have the gear - fx a bar.

If you throw a party, you invite the community living aswell

You can have visitors for dinner - dinnerteam still makes dinner but you help along with something.

There is a guest-room that one can book.

Earlier they had a shared office with a computer - now everyone have a computer.

The community living has developed with time.

In the dwellings there are only one toilet - can be a bit cramped for the families.

They have "generalforsamlinger" like a "grundejerforening"

They have made a system with a "fordelingsnøgle" of what each family should contribute economically to the community (factors: size of dwelling, number of residents - it need to be affordable for everyone to live here).

But it is complex to figure out how expensive it is - they try to make it more transparent each time someone new moves in.

They eat breakfast and lunch privatly.

Age distribution: 6 months-96 years - they help out Jens because ha have been there for so long - but he also have homecare.

It is nice to live in the community as a parrent, because you can reeflect yourself in others parenting - up front.

18-30 years old does not live here , it does not fit their life they got a "fællesskabsfremmende konto" - have fx bought sup-boards and keramik værksted.

"Fællesskabet er flødeskummet" you should not move in to the community living because you are "lonely" - that is too woundable - you need to have a social life outside.

The children can have a hard time in it - they need a social life outside aswell.

You can also feel lonely within a group.

They try to be inclusive to new comers, but it also happens naturally, because they have the working-groups.

They have a unformal yoga group, everyone is welcome, but it is not structured.

When eating dinner people sits with their families, there is a rule that they need to stay for 15 minutes.

If someone single seems a bit down, you invite them to sit with you.

There is 15 children under 18 years old

Playgroup.

They encourage people to join at least one or two work-groups.

They have shared newspapers.

Once a week they have a community meeting and a work-weekend.

Once a year they go camping together.

The private houses are structured with "gennemgående gulve og lofter" makes it flexible to change and ajust to the individual family.

They fear a bit that it develops into a "oldekolde" - they are happy when new young families moves in - ensures a diversity.

Common house. If you want a party you can freely borrow the room. But if you want to do it on a Saturday, everyone else must come.

The guestroom can be booked.

Energy comes from wind turbine, solar cell, solar collector, geothermal.

It is a landowners association.

The youngest is 6 months and the oldest is 95.

Food team.

When you are 12 years, two times a week.
14 four times a week.

16 years 6 days a week

One applies for common activities.

For that they pay 60 kr. each month.

They eat at 6 pm.

Thay often sit with there familes.

But you can also bring the food home.

Every sits on there space from 18:00 to 18:15

Once a year they go camping.

APPENDIX 3

*Mail Correspondence with Chief Consultant Ann Hein for
Naturbydelen, Ringkøbing K*

From: Maria Juul Sørensen
Thursday 31-03-2022 10:28
To: Ann Hein <ahe@realdaniabyogbyg.dk>

Hej Ann

Vi har et enkelt spørgsmål omkring naturbydelen lige nu, og vi tænker derfor ikke, at det giver mening at holde et helt teams møde.

Vi vil høre om du ved hvem, der kommer til at bo i naturbydelen, og hvem der bor der nu?

Her tænker vi aldersmæssigt og om det er enlige, par eller familier.

Vi ved at Havtorn er et seniorbofællesskab, men vi er i tvivl om beboer i Strandkanten og Fjordudsigten kommer fra forskellige demografigrupper?

På forhånd tak for svar

Med venlig hilsen

Maria Juul Sørensen, Louise Storgaard Nielsen og Elisabeth Stadsholt Westphalen

From: Ann Hein <ahe@realdaniabyogbyg.dk>
Monday 04-04-2022 10:41
To: Maria Juul Sørensen

Hej Maria & Co.

Hvem bor der nu

Ringkøbing K sælger jorden i Naturbydelen til forskellige udviklere, der så udvikler et byggefelt på fx 40 boliger, og bygger boligerne. Så det er ikke Ringkøbing K, hvor jeg er ansat, der står for salget til slutbrugerne – altså dem, der flytter ind i boligerne og slår sig ned i Naturbydelen. Her hyrer udviklere typisk en ejendomsmægler, der så står for salget af den færdige bolig til slutbrugerne. Så vi har ikke som selskab noget overblik over eller statistik på, hvem det er der flytter ind i Naturbydelen. Sådan registrering tror jeg i øvrigt heller er lovlig i h.t. GDPR-reglerne. Så jeg kan ikke svare præcist på jeres spørgsmål.

Naturbydelen er endvidere en forholdsvis "ung" bydel med

p.t. 3 bebyggelser og en fjerde på vej, så de trens, der måtte være nu, er ikke nødvendigvis repræsentative, men kan afspejle, at der er tale om en ny bydel med endnu forholdsvis få beboere. Jeg vil skyde på, at der p.t. bor omkring 100 mennesker i Naturbydelen.

Bofællesskabet Havtorn indeholder 14 lejligheder og store fællesarealer til friske seniorer over 50 år. 3 lejligheder er til 2 personer – de øvrige lejligheder er til enlige. Så ingen børn i denne bebyggelse. Der er tale om private lejeboliger.

Strandkanten består af hhv. dobbelthuse og blokke á fire ejerlejligheder og bygges af firmaet Frifeldt. Der er tale om private ejerboliger. Der kan bo både enlige, par og familier med børn. Som jeg har mødt folk fra bebyggelsen bor der både unge, midaldrende og ældre (ikke længere erhvervsaktive).

Fjordudsigten, der ejes af Ringkøbing-Skjern boligforening, består af 47 almene lejeboliger (og 2. fase der står færdig ultimo 2023 indeholder 33 almene boliger. Disse 33 almene boliger vil være 3 eller 4 værelslejligheder og har altså en størrelse, der i højere grad rettet til familier). I Fjordudsigten kan der bo både enlige, par og familier med børn. Folk er først begyndt at flytte ind i oktober sidste år, så jeg har ikke rigtig noget indtryk af hvem der bor der endnu, udover at det vist generelt er et yngre klientel end i de to øvrige bebyggelser.

Så en væsentligt forskel på Strandkanten og Fjordudsigten er altså, at førstnævnte er ejerboliger, mens den næste er lejeboliger.

Hvem kommer til at bo der?

De tre nævnte bebyggelser afspejler at man i Naturbydelen kan finde et diverst boligudbud: både private lejeboliger, ejerboliger og almene lejeboliger. Der er i overensstemmelse med vores vision om, at der i Naturbydelen skal bo folk i alle aldre (på tværs af generationer) og både enlige, par og familier med børn, der ønsker at bo midt i Naturen.

Beklager, at jeg ikke kan komme det nærmere. I er velkomne til at vende tilbage, hvis jeg på anden måde kan hjælpe. I kan evt. prøve at kontakte Ringkøbing-Skjern Kommunes

bosætningsafdeling fsv. oplysninger om demografi.

Pøj pøj med projektet videre. Jeg vil meget gerne læse det
færdige produkt, hvis det er muligt
Med venlig hilsen

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From: Maria Juul Sørensen
To: Ann Hein <ahe@realdaniabyogbyg.dk>
Tuesday 05-04-2022 08:24

Hej Ann

Tusinde tak for dit svar, det var lige det, vi havde brug for

Vi sender selvfølgelig vores projekt, når vi er færdige, og vi
håber, at det er i orden, at vi bruger dig og denne mail som
reference.

Det bliver engang sidst i maj at vores projekt er færdig.

Med venlig hilsen
Maria Juul Sørensen, Louise Storgaard Nielsen og Elisabeth
Stadsholt Westphalen

APPENDIX 4

Interview with Project Leader at "RealDania By og Byg" Jørgen Søndermark

The interview with Jørgen Søndermark starts with a small explanation about the semester project. Afterwards Jørgen give introduction about the living community Havtorn.

0:00:00 - 0:24:54

Elisabeth forklarer vores project

Maria: det er det der hedder frugtlunden. Så placerer vi et eller to bofællesskaber inden for det felt

Jørgen: nu kan jeg rent faktisk ikke huske om det er et byggefelt, eller om det netop er tænkt til at være et af de tilbageværende grønne områder. Ellers så kan man sige der ligger et byggefelt, - jeg tror vi bygger på det der hedder F8 og lige ved siden af ligger der et andet lille byggefelt, som hedder F9, det er i hvert fald et regulært byggefelt, jeg ved ikke hvor meget i, - om i har set den der masterplan med bygge felterne på?

Os: jo

Jørgen: okay, men hvis i er sikre på at der er byggefelt inden for frugtlunde, så er der givet vis det. Jeg kan bare huske at der er nogle af de der arealer der er lagt ud til at skulle være de blivende grønne områder

Elisabeth: men ja, her vil vi designe et bofællesskab og har diskuteret meget om det skulle være et senior bofællesskab eller et mixet bruger fællesskab.

Jørgen: ja

Elisabeth: det er også noget af det vi gerne vil snakke med dig om i dag, - hvordan hele forløbet med seniorer har været, og begrundelse for det. Men først og fremmest kunne vi godt tænke os, hvis det er okay forklaring af vores projekt? Så kunne vi godt tænke os at høre hvad din opgave i det her havtornforløb har været?

Jørgen: ja, det er sådan at.. - Jamen jeg hedder Jørgen Søndermark, jeg er arkitekt og ingeniør, og projektleder hos Realdania By og Byg. Og Realdania by og byg er datterselskab i Realdania, vi er bygherrefunktionen, det er os der bygger selv og vi laver de her en til en demonstrationsprojekter. Så er det på plads.

Så er der det at Realdania jo arbejder med en række sam-

fundsproblematikker og sådan helt populært sagt, så er det noget for os, hvis man han bygge det væk, siger reklamerne. Det vil sige vi arbejder inden for det bebyggede miljø, vi har sådan rimelig bred formålsparagraf, så vi er for alle – livskvalitet og det bebyggede miljø, det er sådan en elastik i mettermål, så vi kan næsten altid få det til at passe, hvis man nu skal være lidt fræk.

Det her, det stammer fra en samfundsproblematik, som hedder ensomhed blandt ældre. Og så kan man sige den lange indflyvning har været at man fra Realdania har ligesom sat fokus på det her punkt, fordi det er en stor samfundsproblematik og så har man undersøgt, er der en bygge komponent i det her problemfelt. Man er startet med at finde ud af, hvor mange føler sig ensomme? Og hvad betyder det, at de er ensomme? Og der er jo rigtig, rigtig mange, det er et tal der svinger alt afhængig af hvem der laver undersøgelserne. mellem 100 og 250 000 ældre føler sig meget ensomme og rigtig tit. Det er sådan at hvis du spørger helt et gennemsnit af den danske befolkning på det her lykkeindeks, så scorer vi noget med 8,6 ud af 10. Det er meget, meget højt. Vi er blandt de lykkeligste mennesker i verdenen. Som i sikkert også har set rundt omkring. Det er også finnerne og nogle gange også nordmændene, - svenskerne er ikke helt så glade som vi er, men de er også så alvorlige, ikke. men, hvis vi så spørger de ensomme, altså singler dem ud som en særlig gruppe så er deres lykkefølelse nede omkring sådan en 5 komma et eller andet. Det svarer til gennemsnittet i lande som Indonesien og Vietnam. Så der er jo en kæmpe forskel fra dem til resten af befolkningen. Og så kan man næsten også regne ud at der er nogen der er noget gladere end dem, hvis det skal blive til et gennemsnit. Så der er den her ulighed der ligger, som kan knyttes helt specifikt til at være ensom.

Det men kan gøre noget ved, - så finder vi så der, - det næste sæt af analyser handler om at finde på en byggekomponent, så der kigger man som sagt på de her senior bofællesskaber, og undersøger hvor mange er der? Finder ud af at der er ca. 5500 seniorbofællesskabsboliger. Man finder ud af at der på de eksisterende ca. Er 8000 på venteliste. Og at måske 80 000 rigtig rigtig gerne vil ind, uden at have skrevet sig op på en venteliste. med andre ord, opdager man et gigantisk hul i markedet.

Så ruller man en indsats i gang, et initiativ, som vi kalder det, som har flere spor. Et er sådan et artikel-skivespor som Boilius, vores andet datterselskab arbejder med, som italesætter alt det her, så det kommer på tavlen, og der bliver skabt en erkendelse ude i samfundet hos beslutningstagere og andre, og måske også hos ensomme, som opdager at det overhovedet er en mulighed.

Så er der to spor som der så kører, hvor Realdania går ind i nogle samarbejder med andre bygherrer. Det ene sæt bygherrer er pensionskasserne, som så laver private udlejning. Det andet sæt er almene boligorganisationer. Og de to slags bygherrer er mega interessante af to grunde. For det første så er de begge to underligt en eller anden form for medlemsdemokrati, kan man sige. Det funderer selvfølgelig meget forskelligt. Men der er et hvis underliggende præs fra folket så at sige. Og det betyder, at de i mange henseender også for eksempel på bæredygtighedsdagsordenen er frontløbere, hvilket det her pres. Men også på den her del. Den anden del der er interessant ved den, især hvad angår pensionskasserne, der er det jo sådan at, - nu ved jeg ikke hvor meget i betaler ind til pension endnu, men vi poster jo alle sammen milliarder, milliarder, milliarder ind i de her kasser hvert år. Og få at de penge er der, til når vi bliver gamle, så skal de investeres, og trække nogle renter. Og ejendomme er noget af det sikre. Man har selvfølgelig forskellige investeringskategorier, men noget af det sikre er ejendomme. Men de har så mange penge, og der bliver bygget så meget at det faktisk nogle gange kan være svært at finde ud af, hvad filen skal vi bygge næste gang? Så at komme til dem og sige, jamen nu skal I høre, der er faktisk et gigantisk hul i markedet her, der er en enorm efterspørgsel der ikke bliver mødt med byggeri. Det er jo som at få en kæmpe julegave. Så de har så kørt et forløb, jeg tror, - jeg kan ikke huske, - måske 9-10-11 forskellige senior bofællesskaber rundt omkring i landet. Hvor der har her været de her samarbejder med enten en pensionskasse eller en almenboligorganisation.

Det har jo så typisk været i mere eller mindre vækstområder, det handler jo selvfølgelig for dem om at begrænse risikoen. Det kan være sådan noget som Ry, Horsens, Køge, steder som er mere eller mindre inden for, hvad skal man sige, der hvor det går op ad.

Så dykker det fjerde spor op. Man siger; jamen hvad med alle udkantsområderne? Der er jo ingen tvivl om at selvfølgelig er der også potentielle ensomme og seniorer de steder. De er måske netop præget af at de gerne vil blive i deres lokalområde hvor de er vokset op, må så trods alt har en eller anden form for socialt netværk, hvor ramponerer det så end må være. Så kan vi arbejde med det i sådan nogle områder? Og så vælger man at kigge på Ringkøbing. Man kan sige at Ringkøbing opfylder alle de kriterier i forhold til at teste noget af som er sådan ude et sted hvor, - som har den her sjove kombination af at de bestemt ikke er et vækstområde, tvært imod. Men samtidig har de det, vi i Realdania plejer at kalde stedbundne kvaliteter. I Ringkøbing er det jo indlysende; den her nærhed til fjorden og den natur der ligger

omkring, er jo mageløs. Som en af vores ansøgere sagde på et tidspunkt, det spændende ve havtorn er jo at, nu havde hende og hendes mand jo knoklet hele livet, - boet inde i en by og hver gang de fik fri, så flyttede de ud i sommerhus, ude ved vandet og hvor der var dejligt og højt til himlen og lærken sang og hvad ved jeg, og så sagde hun; det er jo det, det bliver som at bo i sommerhus hele året. Og det er det de kan de der steder (00:09:27) og det er selvfølgelig også, hvad skal man sige, den kæmpe driver sådan et sted har for sig. Fordi der er en vægtskål, og det er det der ligger i den positive del, ikke. Den anden del der ligger der selvfølgelig det, at det er ikke sådan et sted hvor folk de bare kommer væltende ind, så der er sådan et massivt pres hele tiden på leje markedet for eksempel. Du kan nemt få en billig lejebolig i Ringkøbing og det er bare sådan, at hvis et byggeri er gammelt, så er det billigt at leje ud. Hvis du bygger nyt, det er det hvor "skævenheden" bliver større. Det er lige så dyrt at bygge i Ringkøbing, som det er at bygge i Horsens. Det vil sige, hvis vi skal lave en investeringscase... Fordi nu står vi jo som ejere af havtorn, men på sigt skal vi ud - vi skal sælge hele butikken til nogle andre. Og på papiret, der lyder det egentlig som en rimelig enkelt case, fordi det der var den første opgave for mig, som projektleder, det var at forvalte et skarpt budget og få det om sat i noget fedt byggeri, som kunne de her ting. Fordi, hvis jeg kan bygge det for, nu siger jeg bare et eller andet: 17 millioner, med 14 boliger, med så og så meget i husleje, jamen så er der måske en forretning på 4-5 procent, som ikke er aktie-tårnhøj, men som til gengæld er lige præcis den der sikkerhed, som er væsentlig bedre at have for eksempel penge i banken. Eller ret mange andre ting. Fordi, jeg vil sige den eneste risiko er, hvis jeg laver et byggeri, som er relativ vedligeholdelsesfrit og fungerer, så er den eneste risiko, man egentlig kan få øje på, det er, om der kommer tomgang. Altså om man får lejet ud, fordi så længe du får lejet ud, så kører møllen rundt, og så har men sine 5 procent. Det vil sige, så får man placeret sine penge sikkert. Så det er det, det hele handler om. Det er; for man så lejet ud? i hvert fald når man har fået krydset den første boks af, om man får bygget noget der er fedt. Og i alt ubeskedenhed, så synes jeg at det er lykkedes i samarbejde med de her dygtige arkitekter fra AART, at få lavet noget som er super fedt.

Og så kunne man måske lige hoppe ud og sige, jamen hvad er det så for nogle guidelines, vi har arbejdet med? Vi har jo arbejdet med det samme guidelines, som der er blevet oparbejdet i samarbejde med pensionskasserne og det almene. Fordi, udover at man egentlig bare har sagt, der mangler senior bofællesskaber, så har man også investeret en hel masse

penge i at få arbejdet med rådgivere og så videre, for at sige; kan vi gentanke det her? Fordi hvis overskriften er ensomhed blandt ældre, kan vi så bygge på en måde så vi er endnu bedre, så vi ikke bare laver et senior bofællesskab. Men vi laver noget som, endnu mere tager fat i det her problem ved roden. Og der har man jo så arbejdet med nogle tanker om.. Altså for eksempel arbejder man med nogle begreber: hverdags fællesskab, festfællesskab. I mange af dem senior bofællesskaber, som har sådan et helt typisk layout, hvor der er et fælleshus i midten og så er der ligesom en krans af små rækkehuse rundt om. Og så ser man flere steder at det genererer fællesskab til at, så låner man fælleshuset når man har en familie fødselsdag og i de vildste tilfælde, så har man fællesspisning om torsdagen, måske en gang om måneden, eller et eller andet, ikke. Og hverdagsfællesskabet er jo meget mere tænkt som at: via byggeri og at skabe en eller anden koreografi for den daglige færden rundt i byggeriet, som gør at du simpelthen helt automatisk kommer til at passere de andre. Og hvis man sådan går helt ned psykologisk i forhold til det med ensomhed, så var der faktisk en dame, som sagde det meget rigtigt. Hende og hendes mand, de arbejdede hele livet i en eller anden isenkrammer forretnig, så sælger de den, køber et lille fint parcelhus på en vej i Ringkøbing, fordi nu skal de til at nyde det. Efter et halvt år, så dør han af sygedom, og som hun siger, de var jo nye på vejen. Folk hr måske lige nået at se, der kom det er ældre par og er flyttet ind, måske har de lige sag dav et par gange på gaden. Så dør han. Så er vi danskere virkelig bare nogle kyllinger. Fordi man skyr lidt. De mennesker, som har det svært, fordi uhh hvad skal man sige. Ej, det kan også hurtigt blive akavet. Og hvad så? Hun sagde Jeg blev usynlig. I det øjeblik min mand døde, så blev jeg usynlig, altså folk kom gående og så. Ja, jeg kunne lige så godt ikke have været der. Noget af det, vi lever af som mennesker, det er jo det der med at møde et andet menneske. Kig dem i øjnene og sige dav. Det er. Altså, man ved det. Det frigør simpelthen nogle lykke hormoner. Og det handler om, at du bliver accepteret som et væsen i verden. Altså det, at en anden kan se, at du er der så. Og så findes her åbenbart. Det er sådan helt fundamentalt livsbekræftende i ordets helt bogstavelige betydning. Så ned fra den der kerne, så bygger man så op. Og så siger man Kan vi skabe nogle af de her uformelle møder tilfældigt. Og det er jo sådan noget med hvad skal du? Du skal vaske dit tøj. Du skal hente posten? Nej, det er altså ikke super meget mere, men du skal ud og ind. Du skal. Til det ene eller andet tredje fællesskabs ting, så det har ligget som sådan en layout parameter. Sådan set for alle de seniorbofællesskaber, der er lavet nu. Så hvis I ville? Lade jer inspirere. Så kunne man også prøve at zoom

ind på, hvordan gør man det for eksempel i en urban kontekst? Jeg kan ikke huske, jeg tror, at det bare var et, hvad det, i Horsens. Så var der man bygget op i etage så er der ligesom et atrium inde i midten. Når man så går rundt på gangen for at komme op til sin bolig, så er der bare nogle gange sparet nogle huller ud og så er det sådan det er. Biblioteket i stedet for en bolig. Så er der lige pludselig, og så er der arbejdet meget subtilt med, at du kommer gående af en gang og så videre. Den ser lige lidt ud, og så står der et passeret møbler, og så har den belægning, som den gang du går på. Men så på den anden side, så skifter den belægning, så du inde i biblioteket. Det vil sige, man får skabt de her overgange zoner. Jeg plejer at sammenligne med det, hvis man. Hvis man er til fest, så er der de der typer, der bare løber ud på dansegulvet og holder en fest med det samme. Og så er der dem, som står og skuler lidt i baren, og så lige så stille kommer med. Og det er lidt det. Her har man mulighed for at sige, om der er nogen, der sidder inde biblioteket det ser godt nok hyggeligt ud, men jeg er simpelthen for genert til at være med. Så kan jeg lige sådan sidde her på kanten, så er jeg sådan halvt med. Næste gang er måske helt med. Det handler jo om at sige, at vi er forskellige slags personligheder, og man kan være den der lidt mere inde, troværdig eller genert type. Og det synes jeg alt dette det er vanvittig spændende. At man egentlig ikke kan sidde og snakke sten, mursten og så de her mere fundamentale psykologisk mekanismer, at de på en eller anden måde arbejder sammen. Og det gøres ved hjælp af god arkitektur. Og ved sådan nogle omtanker i deres små fine ting med at skifte belægninger, så kunne måske være meget sjovt for jer at se. Hvordan har man så løst de tankegang i nogle af de andre? Jeg tror, der er en liste på Realdanias hjemmeside. Men vi har arbejdet med samme design parametre i Havtorn forskellen har så været bygget på bar mark, og det, der så egentlig var den allerførste opgave, det er at sige, at vi har penge til at lave 14 boliger, og jeg har et byggefelt, som fylder så og så meget. Der er nogle magts højder, og det fik arkitekterne fra AART jo så omsat til, at det kunne de som klumpet sammen i tre bygninger. Og det er faktisk ret afgørende, fordi for det første. En og to er for lidt til at danne rum. 2 kan måske til nød gøre det, men 3 er ret geniale til at danne rum. 4. Så begynder det blive noget med symmetri. Men 3 Har du den der mulighed for at lave noget, som ser sådan lidt tilfældigt lidt middelalder landsby, eller hvad man nu skal kalde det. Og det er det, de så gør det her. De sætter deres stænger op på en måde, som gør, at der bliver skabt den indre plads den centrale plads simpelthen ved at stille de her bygninger. Som man nu har gjort. I har set layoutet udefra?

Louise: Ja vi har også besøgt det.

Jørgen: Når I har besøgt super. Men. Det er jo det, der er så interessant. Det koster ikke en skid ekstra. Om man stiller dem vinkel ret eller drejer dem og flytter rundt på. Så der er skubbet og masset med det her byggefelt, sådan at vi kan gøre det præcis, som vi har været ude og se. Så næste guideline det var så, at sætte de her fællesfaciliteter ind i byggeriet, så det ikke var det dér, man gik over til. Og det, der så lykkedes så godt i havtorn, det er jo, at for enden af hver stang, så er den ene ende. Som I ved, er vaskeriet. I den anden ende af en stang er der et værksted, og så over for dem er så fælles et eller andet i den her ende. Alle, som har store vinduer ud mod den centrale plads, sådan at du faktisk kan sidde enten i værkstedet eller i fællesrummet og se, at der er nogen, der er overøre og vaske. Så den der transparent og synlighed, igen hvis vi snakker det der med at være genert? Altså, der er jo kæmpe forskel på at kunne se, at der sidder nogen inde i det der bibliotek igennem en glasdør eller en åben dør frem fra en lukket dør. Og så skal man sige at så skal jeg skal lige åbne og så se. Og så finder man ud af, at der er foredrag. Alle kigger på en af hvad nu? Så? Hele den der sådan i kender det godt. Man kan næsten mærke det. Så det er sådan noget, der er arbejdet med. Og. Ja, så opstår der de der mellemrum, hvor man kan placere orangeriet, den terrasse og de der ting. Så den der stjerneform kan rent arkitektonisk en masse ting. Som er superfed, og det har selvfølgelig også noget at gøre med endelig at sige Hvorfor var det, at vi var i Ringkøbing? Der var det deres sted på under kvalitet? Jamen, så er det jo også noget med at arbejde med præmisserne i Nature bydelen, som jo så også er et Realdania projekt sammen med Ringkøbing-Skjern Kommune, hvor der også er nogle design parametre med et så lille fodaftryk som muligt. Sokkel grunden og det eng areal, som er hjemmehørende planter, kommer helt op til huset som ting. Så det skal hvert byggefelt jo arbejde med, og der kan man sige, det ville jo så også være en guideline, hvis I skal designe noget til et nabobyggefelt? At der er hele denne her kvalitets plan og eksempel sammenligning på, hvordan man skal gebærder sig for at den have biodiversitet. Og det er jo alt fra. Det jeg lige sagde nu med sokkelgrunden, udstykningen og det er også noget, de har lidt svært ved at forstå, at det ikke er deres have. Men de er også ned til, at vi for eksempel ikke laver tagrender og nedløbsrør af zink eller kobber, fordi der er det her LAR system lokale afledning af regnvand. Der er ikke kloakeret for regnvand, og det vil sige, at vandet løber direkte ud i de her recipiente og må selvfølgelig ikke have tungmetaller med

sig. Fordi så skader man jo det der insektliv og så videre. Så vi har lakerede stål profiler, som man jo så ikke afleder noget som helst. Så der er sådan lang sæt guidelines, som vi selvfølgelig skal være opmærksomme på. Så langt, så godt. Så syntes jeg så, vi lander et sted, hvor vi både får skabt nogle materialer. Jeg kan sige at det var en kamp og få lov at lave så meget træ på facaderne. Kun fordi vi havde en meget dygtig brandingeniør. Fordi normalt, så må man træbeklædte i en etage, og så fandt jeg på at sige Nåh, hvis vi nu har mursten, på den første etage, og så stiller vi en etage af træ ovenpå. Det er sådan lidt endelig det der er tricket i det. Og det købt. Det købte de sig. Grunden til, at der kan være to etager på den høje bygning, er så, at det er dobbelt høje boliger, som du har kun stadigvæk en flugt. En person, der skal flygte på trods af at der er to etager, og så man kan sige Det betyder jo rigtig meget for designet derude, at vi har kunne skabe de her meget simple byggerier. Altså som et barn ville tegne snittet i hus, ikke? Bum, bum, bum, bum. At det blev så enkelt og de der byggeklodser, som så stille op i forhold til hinanden. Og så har vi kunne beklæde dem med træ. Det betyder rigtig meget for både for vores økonomi. Men så det er jo en måde klogt at forvalte et relativt stramt budget på og så få noget fedt ud af det. Så langt, så godt. Jeg syntes, at vi endte med et sted, hvor jeg. Hvis det ikke lige lå i Ringkøbing. Og det er måske også en pointe. Godt kunne tænke mig at bo selv synes, det er superfedt, og jeg synes også, boligerne er blevet fine. Altså single lejligheder på 65 kvadratmeter, som er mega godt indrettet. Det, jeg lægger mærke til i den lille opbygning, der er man på relativt lille plads rent faktisk for får lavet en masse lige overgang, man gerne vil have i sin bolig. Hvis I ikke var I inden i en af lejlighederne?

Louise: Nej.

Jørgen: Men igen. Altså, hvis man forestiller sig et kvadrat, så træder man ind. Og så er der simpelthen et område, som er en form for entré. Den er stor, der plads til at hænge dit tøj, og der er der, som dør indtil toilettet, som også er relativt toilet og bad, der er belagt. Vi fandt nogle klinker, som ligner skifer rigtig meget. Rigtig fin italienske klinker, som er solid. Det vil sige du får et sted at stille din våde ting. Du får også den her overgang, du har en entré. Man kunne sagtens bare have kørt gulvet hen til, men så bliver lejligheden lige pludselig mindre. Oplevelsesmæssigt du træder ind hårdt gulv, så træder du ind på trægulv. Men lige til venstre for dig så jeg køkkener rigtigt meget nybyggeri. Der ser man at køkkenet, det er én side i et rum, og så tæller rummet med. Og så hvor fanden blev køkkenet af jamen det er så den der

væg? Ja, her der har man simpelthen en i sjælen. Så der er køkkenborde på begge sider, og du går hen og ender i et vindue, som faktisk kigger mod Ringkøbing Fjord. Det vil sige, du får. Så er det godt nok åbent ind mod stuen. Det kan man jo så som lejer vælge, og du kan hænge noget grønhandler gardiner op, eller du kan sætte noget træ op, eller du gør vælge have det åbent. Du får i hvert fald markerede det som et et form for rum i rummet. Så har du så de store leo rum. Og så har du en dør ind til pæn stort soveværelse. Der kan stå en dobbeltseng. Der kan stå fire flotte skabe, og du kan gå hele vejen rundt om sengen, og du så kan kigge ud I alt det grønne. Og alt det er afviklet på en lejlighed som BBR er 65 m². Og når jeg siger BBR, så er det jo fordi det er den måde man regner på hvor der også er en bid trappe og hvad ved jeg med. Til gengæld har vi så været omhyggelige med, vi har jo 250 m² fælles areal, det åbner jo sådan set for en mulighed for at vi kunne præsentere lejligheden med en nogen større BBR, fordi vi kunne egentlig have fordelt de her m² ud på lejlighederne, det sagde vi fra starten, sådan vil vi ikke gøre, vi synes det er snyd, vi synes det skal være sådan at hvis nu man har sidset derhjemme og sagt, vi skal hen og se den her lejlighed den er 79, jeg skal se den, den er 65 og den er 53 og så tager man rundt og ser på dem, så skal det være samme måde at bedømme størrelse på. Det ville være ærgerligt hvis det var sådan at der er en der er 85 og så kommer man derhen og så er den mindre end alle de andre, det giver jo ingen mening. Så det var et valg fra bygherre side. I udgangspunktet så kan man sige, så starter vi lidt i minus, vi kunne have set federe ud, på en eller anden måde. Omvendt så havde vi også bare skuffet mere, når først man kom derud, det tænkte vi ikke gav nogen mening. Så, både udefra og inde er vi supertilfredse med det vi har opnået, jeg synes der ligger rigtig mange kluge og gode overvejelser over det resultat der nu er. Sådan noget som værkstedet ik, med et solidt betongulv, rulleport, der er faktisk en af beboerne derude nu som har sådan en MG han ruller ind, så går han og makker i den, det er lige sådan noget vi drømte om. Der ligger så også en overvejelse bag, fordi vi ved at en af udforringerne det er at ligesom med rigtig mange andre ting i foreningslivet, alle mulige ting, der er det kvinder der rykker på det. Der er selvfølgelig også en lille overvægt af enlige kvinder, men det er langt fra nok til at forklare det, altså kvinder er bare meget mere modige og fælleskabt søgende eller sociale eller hvad vi nu skal sætte på. Og omvendt kan man sige mænd er meget mere generte, meget mere tilbageholdende. Nogle ville måske sige de ikke har brug for det. Men det er jo løgn, alle har jo brug for at mødes, og så er der nogen der så siger, det er ikke kun mændenes skyld, der

mangler måske sådan nogle fællesskaber hvor der er plads til at mændene bare kan stå og grine af latterlige vittigheder og snakke om fodbold og det ikke er så, uh nu skal vi også lave det her produkt i leer eller hvad fanden det nu er ik? Men det korte af det lange er at der er færre mænd end kvinder der søger ind i de her seniorbofællesskab, og derfra så var der også en tanke med at hvis vi nu viser rent fysisk at der også skal være fedt at gå og rode og rage, så kunne man måske slå en lille smule hul på den byld. Så der ligger også nogle overvejelser, som er udømtet i det fysiske. Så det man skal forstille sig det er, og det har alle arkitekter, til sidst er der et fysisk produkt, men det er jo summen af uendelig mange overvejelser af parametre man ar forsøgt at pudse sammen. Med nogle store parametre som handler om byggeteknik, bygge muligheder, men selvfølgelig økonomi, bygningsreglement, energirammer og hvad har vi, så det er jo bare et gigantisk puslespil, og mange af de der helt formelle parametre er svære nok i sig selv, så det så samtidigt og arbejde med nogle af de ting jeg nu har talt om, er jo en kunst. Så derfor så tager det lang tid at blive en god arkitekt. For der er rigtigt meget at holde styr på, og derfor er det også et team arbejde. Nå, så skal vi have nogle beboere ind. Og jeg kan lige så godt starte med den ærgerlige del, det går rigtigt dårligt med det. Vi har været oppe og have lejet otte af de 14 ud. Pt. har vi lige fået en opsigelse, så nu er vi faktisk nede på fem. Og hvad er der så sket? Ja. Hvis vi spoler helt tilbage til da vi var ved at være færdige, hvor vi annoncerede, der blev skrevet om det i pressen, sådan lidt gratis, virkelig god journalistik, det skabte lidt interesse, vi holde nogle infomøder, der kom mange mennesker, så lavede vi simpelthen den første fejl tror jeg! Fordi så samlede vi dem som var meget interesseret i at bo der, de blev så indbudt til sådan et møde, hvor man sagde, det er jer der skal bo her, nu mødes vi, og så snakker vi sådan lidt husorden. Vores ide var, nu starter vi lige så stille, og vi snakker om noget fredeligt, fordi så kan i lære hinanden at kende, så sætter vi lidt op her. Vi havde også en ide om at vi havde holdt nogle penge tilbage fra entreprenøren. Sådan at vi kunne møblere et fælleslokale, eller sætte nogle planter ind i orangeriet, så der var nogle fælles opgaver fra starten, man ligesom kunne starte ud med, så tænkte vi, så lære man hinanden at kende mens man makker i det, og det er nemt. Big mistake! De her mennesker sætter sig sammen, der sad en 10-12 mennesker rundt om et bord, og så begynder man at snakke, og så begynder folk jo ret hurtigt at, altså så er der sådan en fornemmelse af okay man kigger rundt, er det dem her jeg skal bo sammen med? Måske resten af mit liv. Så er det vigtigt lige at få markeret, hvem man kan holde ud og hvem man bestemt ikke kan hol-

de ud. Og så lige pludselig, så sidder der en psykologtype, sådan super rundkreds samtale, vi skal kunne snakke om det hele, alle skal høres og vi skal igennem nogle demokratiske processer hver gang vi skal købe en ny plante. En lille smule sat på spids, men egentlig ikke særlig meget. Overfor så sidder der en tidligere fuldmaëgtig fra udenrigsministeriet, som simpelthen er et stort XL-ark og kæft trit og retning. Så de kunne ikke være mere forskellige. De andre er så et eller andet sted derimellem. Men de her to, de køre bare op, og de får en kæmpe diskussion. Så sker der det, at der sad sådan et fornuftigt jysk landbrugs ægtepar, som havde sagt, vi sælger gården og vi vil gerne flytte herind. De sad og kiggede på hinanden, og jeg kunne bare se på dem, de tænkte det der, det er lige det vi ikke gider sådan noget her, det bliver uden os. Psykologen blev ked af det, og sagde dagen efter, jeg skal ikke være med alligevel. Den fuldmaëgtige, hun sagde den samme aften, det der føler rigtigt, det kan jeg ikke holde ud, jeg kan ikke være en del af det. Så lige pludselig, så var der faktisk nærmest ingen. Jeg tror vi havde en tilbage fra det møde der. Så hvad var der gået galt? Jamen der var gået det galt at de sad der uden at have skrevet under på en lejekontrakt. Det er i hvert fald vore konklusion. Fordi, det var en gratis omgang, og markere sig så stærkt, fordi man stadigvæk havde en kattelem ude. Eller ikke bare en kattelem, en kæmpe port ude, fordi man ikke skrev under på noget som helst. Hvorimod havde man nu siddet med en underskrevet lejekontrakt, så havde man måske taget det hele mere alvorligt, og man var gået mere i kompromis mode, end de var. Det er ikke til at vide, det kan også godt være, det var gået ad helvede til. Fordi så flyttede rent faktisk nogle folk ind. Det startede rigtigt spænende. Vi har fem – seks lejer på plads relativt. De kommer sådan lidt hurtigt. Og et fantastik blanding. Altså vi har jo, det har jeg glemt at sige, men blandt de der grund parametre, så var der også et mål om at. Undersøgelserne viste at dem som boede i de her seniorbofælleskab, det tror jeg jeg glemte at sige, de var jo netop superlykkeelige. Det var det man kunne se, at når først de var flyttet ind i det, det var en meget vigtig præmis for det jeg sagde i før. At undersøgelser viste at så stiger du bare fuldstændig på lykkeskalaen, du kan nærmest ikke blive mere glad. Og så kan man så sige, hvad tror vi vi kan komme og gøre anderledes, dem der bor der er glade, men dem der bor der er også et relativt lille segment, altså et ikke repræsentativt udsnit af danskerne. Der er manglede de generne og der manglede de fattige, for nu at sige det sådan lidt groft. Det er sådan velstillede akademikerdamer, med sådan lidt silkefarvede tørklæder og kort praktiske frisure, det var sådan nogle som politikken plus segmentet typer, det var dem der var der.

Men når nu det er så godt for så mange, så skal det selvfølgelig også være en gode der bliver udbredt til de mindre heldigt stillede i samfundet. Så en af præmisserne var også at man skulle kunne bo der, selvom du havde været lejer hele livet og kun havde din folkepension, og derfor var der en maks. husleje på boligen på 7500, hvor du så får boligsikring typisk omkring på 4000, så kan det nemlig lade sig gøre. Der er også noget omkring vores organisation, det kan jeg også fortælle jer om bagefter, mind mig lige om det. Som også knytter an til det. Nå men derfor så var der sådan en diversificerings målsætning, så det vi stod med, vi kunne sætte krydser i rigtigt mange ting. Vi havde et aldersspind fra lidt over 50 til 75, det vil sige god bredde. Vi havde. Vi fejlede lidt på det med mænd, men vi havde dog fået nogle mænd ind via deres koner, til de store lejligheder, der var trods alt nogle repræsenteret. Det er ikke fordi vi ikke har haft samtaler med nogle mænd, vi har faktisk haft en del single mænd på tavlen, som så ende med ah! Nogle desværre simpelthen fordi, da de endelig var klar til at flytte fra Lolland eller hvor pokker det nu var, ej! Så synes deres børn det var langt væk, og jeg har haft sådan nogle ret alvorlige samtaler, hvor jeg siger jamen, det synes jeg simpelthen du skal skide på, for når at sige det som det er, fordi hvor tit ses du med de børn og de der unger, så en gang i måneden måske. Det er 12 dage ud af 365, 365 dage hvor du kan sidde og kigge ud over Ringkøbing fjord og gåture i naturen, hvor de jo formentlig godt kunne tage sig sammen til at pakke Volvo en og køre hen og besøge dig i stedet for. Altså jeg synes det var toppen af egoisme. Det har vi haft nogle lange snakke om.

Louise: Men nu nævner du også at det var en fra Lolland. Hvad med dem fra Ringkøbing. Har i haft fokus på dem, dem der bor i Ringkøbing, at de skulle flytte derud?

Jørgen: Jamen det er nemlig det, fordi den anden diversificerings boks vi fik kritik af. Det var at vi både havde en dame fra Spanien der kom hjem. Hun havde boet der i 40 år. Det var nok det længste. Så havde vi en dame fra Dragør. Men så havde vi hende jeg fortalte om, fra Ringkøbing, som så ikke kendte nogen. Vi havde også en anden en som også boede inde i Ringkøbing. Så vi havde fra det helt lokale, til det regionale, til det nationale og så faktisk også ude fra landets grænser. Så det kunne simpelthen ikke blive smukkere. Endda inden for dette meget meget lille felt, på fem-seks- syv- mennesker. Det var ret imponerende. Så alder og uddannelsesbaggrund og geografisk ophav, alt det der det tikkede ind. Mænd nej, men ellers de andre ting. Så spørger du om vi havde særlig fokus på, det havde vi sådan ikke.

Vi meldte bare ud, nu er Havtorn klar, kom hvis I har lyst. Der kom, altså vi havde mange ansøgninger. I skal også vide at, hvor vi gik rundt og tænkte, ej det var godt nok en bred tragt, der er super mange rundvisninger og så ender det i en kontrakt. Men der havde vi et meget interessant fagligt arrangement derude. Der kom andre, altså også professionelle aktører, altså Tetris blandt andre, som laver nogle meget store senior bofællesskaber, fra 50 til 150 boliger. Og der kunne de så fortælle, jamen det er fuldstændig samme konverterings rate vi har, det er 1 til 10. Så når vi havde haft 80 rundvisninger og vi har haft 8 underskrevet lejekontrakter, så siger de, det er fuldstændig det samme de har 10 til 1. Det er jo ret vildt.

Så spørger du om Ringkøbing, da vi så begyndte at synes, nu går det fandme i stå. Vi blev også lidt ramt af det der corona. Vi havde egentlig tænkt nu ridder vi videre på den der bølge. Vi havde egentlig tænkt, min kollega Michael og jeg skulle have været ude, til sådan nogle foreninger, sådan noget lokalt in Ringkøbing, for at fortælle om det her. Blandt andet med særligt fokus på mænd. Vi ville lade os invitere til klubber, foreninger, kurser, hvad der nu måtte være. Alle de der sociale aktiviteter de strandede jo på corona, så der blev vi lidt stækket. Jeg tror vi simpelthen, havde vi kunne holde fast der, kunne vi godt have hentet at være et andet sted i dag. Det kunne vi ikke af gode grunde. Så begyndte vi at analysere på, hvad filen kan vi gøre. Og så snakkede vi blandt andet med vores lokale markedsførings bureau i Ringkøbing- Skjern. Vi skal jo fokusere lokal. Vi skal lære folk at det findes og sådan noget. Og det sjove er, at hvis man kommer fra Dragør så synes man at man flytter til Ringkøbing. Hvis man bor i Ringkøbing så synes man at man flytter lang fanden i vold ud på Lars tyndskids marker, langt fra centrum. På trods af at det der en cykeltur ind til indkøb. Det ved i også hvis i har været rundt i området. Og hvor I kommer fra, I er jo betragtet givet hvis heller ikke som langt fra centrum. Det er jo sådan, der har folk jo sådan et mentalt landkort. Så det var lidt op af bakke med Ringkøbing. Og desværre så begynder også, det er så det når man har boet der i noget tid, så begynder der også at være sådan noget med, så havde dem der boede der hos os, skældt ud på nogen der gik og luftede hund, og det er sådan lidt, der er nok fejl på begge sider. Folk der gik og luftede hund, de havde ikke helt fattet, at nu er de faktisk begyndt at bygge i området. Og de kan ikke bare have deres hund til at rende rundt og skide overalt. Og der er faktisk også nogle regler om, hvornår I må have den i snor og ikke i snor. Og det er der sådan nogle, der er skideligeglad om. Men om-

vendt så vores beboere har måske også udtrykket sig en kende uheldigt. Så der var sådan noget Facebook fnidder med dem, der bor i havtorn. De er sindssyg. Det er et vanvittigt sted. Det er ikke nogen rar stemning. Der vil jeg så haft nogle fraflytninger. Fordi så har vi også haft noget socialt kaos. Så man kan godt forestille sig at når en hel masse fremmede mennesker, skal ind og bo sammen, at det havde været fedt, hvis der bare gik efterskole i den, og det blev en stor fest. Det gør det nok bare ikke, når man har den alder. Man har simpelthen så mange ting. Der er mange kanter, der skal files af, og det er så fra alle sider. Hvor man kan sige et eksisterende seniorbofællesskab, hvor man ligesom har landet en eller anden form for kulturel enighed. Så er der en større kultur, man træder ind i, og så dig selv, der skal fille nogle kanter af mod den. Der vil altid ske nogle forskydninger. Og der kan man sige, at det har vi haft nogle gode møder med OK-Fonden, som er meget vant til det her. Der kan vi jo se, at. Det kræver nok mere, end vi havde forudset som bygge mennesker og arkitekter, fordi der er også noget social enginering i det her, hvor de siger, de kan jo nogle gange arbejde med de her grupper i lang tid inden, at der er et byggeri. Og de vedbliver at være en form for social konsulent på de ting, hvor han sagde for eksempel Jamen, jeg kan godt have et seniorbofællesskab, som er velfungerende i 15 år. Så er der nogen, der flytter, og nogle andre flytter ind. Så er der nye alfaer. Så bliver der rykket fuldstændig rundt på den sociale orden. Så kan det godt være, at jeg nogle gange skal ud igen og køre nogle sessions med dem, men så har han ligesom et grundmateriale at arbejde ud fra. Vi starter helt fra skvat. Så vi har prøvet mange ting. Da de kom op at skændes derude. Vi har haft flere fra Center for Konfliktforsyggelseude at holde et arrangement. Og som jo er et forsøg på at tale til voksne mennesker om. Det minder lidt om parterapi, det må man sige. Du må aldrig sige aldrig. Du skal lade den anden tale ud. Altså pretty basic det hele. Men som er nødvendigt, når man er kørt op i det røde felt. Det, der sker, er. I vores tilfælde i hvert fald. Men sikkert også generelt, at lige præcis dem, som har allermest brug for at høre det, han har at sige, de lukker ørerne for det og synes, at jeg sidder og snakker, med en der siger. Hvad er det for noget? Så kommer de sådan ud og taller til os, som om vi er pattebørn. Vi vil skåne godt. Nej, lige præcis dig. Du ved, at det er det. Det var faktisk dig, der skulle have hørt. Så den totale mangel på selverkendelse. Og det er meget mærkeligt. Som Byggemand lige pludselig at se ind dette her kæmpe felt af social enginering i det der som. Man har selvfølgelig. Man har sin almindelige menneskelige kompetence, man været igennem den tid, man nu har eksisteret, men det jo ikke no-

get, man har træning eller uddannelse i, så man kan godt sætte sig ned og prøve at tale med dem. Vi har for eksempel haft. Samtaler med to kombattanter, hvor man kan sige, at den ene havde en strategi om at råbe. Den anden havde en strategi om at sige, så bliver du usynlig for mig. Og så måtte vi sige. Det går jo ikke. Så I skal jo have en måde at være der på, og i må finde, ligesom vil gøre på et håndboldhold eller i en virksomhed. Det kan godt være, du der er nogen, du synes er nogle idioter. Men det får man jo bare til at glide, og det gør man jo ved at sige jamen så er det jo bare professionelt. Dav og så er det det. Men vi indførte simpelthen hilse pligt. Det, syntes vi selv var rimelig kontroversielt, indtil vi havde dette faglige arrangement, hvor vi så nogle af de andre folk, som også arbejder med de der større seniorbofællesskaber, siger. Jamen, det har vi også hos os. Det var lige godt utroligt. Det havde han havde taget dem med fra sin tid i hæren. Forsvar. Hvor man jo har hilse pligt, når du kommer forbi hinanden. Og det havde han syntes det. Det kan et eller andet. Så sagde han det er ret sjovt, fordi min reference var, at min datters vuggestue, hvor der var hilse pligt, og det er selvfølgelig af forskellige årsager. I vuggestuen handler det om, at alle børnene skulle være trygge i, at alle kendte hinanden. Men jeg havde jo også bidt mærke i, at der var den effekt, at hvis man har sagt tunge goddav til totalt fremmed forældre tre gange. Så den fjerde gang er man goddav, fordi man siger goddav. Det er det, der sjovt, så hilse pligt kunne et eller andet? Så det er slet ikke så kontroversiel move som vi havde regnet med. Men alt det for at sige, at når man er færdig med alle de der bygningsmæssige ting, så ligger der også en en en ting omkring, hvordan man får skubbet sådan noget i gang. Vi har jo bestemt ikke fundet de vise sten. Men vi fandt i hvert fald ud af, at vi skal først begynde at snakke med folk, som er committed. Det var dem med lejekontrakten. Vi skulle også meget længere på plads med en husorden, og det, man kunne kalde en social husordenen, sådan at man ligesom fra start ved, hvad flytter man ind i? Hvad er det for nogle regler, der gælder, og hvor vi havde det sådan? Og det er selvfølgelig også fordi man ikke er uddannet i det, og man tænker det er voksne mennesker. Vi vil gøre så lidt som muligt og egentlig lade dem selv finde et leje. Der kunne vi bare se, at det hjalp dem, hvis hvis alt var på plads. Et eksempel kunne være så banalt som husordenen, udelyst slukker klokken 22:30 eller klokken 23. Hvad synes I? Jamen, når man sidder med sådan nogle ressourcestærke mennesker. De kører fandme procederer hvilke som helst synspunkter og diskuterer hvad som helst. Og så bliver det en diskussion i stedet for. Hvis der, hvis titlen møder en i en husorden, der står lyset slukket klokken 23, så er det, som

det er. Så kan man se efter lang tid sige. Hva til sådan en fællesspisning, der ik over bearnaisen. Så kan man sige, er det egentlig lidt irriterende at slukke så sent? Nogen er der nogle af jer der vil have et problem med det? Jo, 22:30! Og så er der måske måske ikke. Og så er det dér, man løser det i stedet for man sidder med alle bolde åbne. Det giver bare ballade. Det var erfaringen. Men så er der også den der sociale husorden. Hvordan omgås vi med hinanden? Og det er jo også sådan noget med. Og lægge ansvaret flere steder end dem, som kom op at toppe. Dem, som ikke er med, har også et kæmpe ansvar for at holde sig neutral. Fordi vi kan se at det er fandme som pigerne i syvende klasse. Altså nå men så du skal holde med mig, og så hilser jeg i hvert fald heller ikke på hende. Nu er det sat lidt på spidsen, og det er jo heller ikke for at hængedem ud, nu ved jeg jo godt at jeg bliver optaget og skal også passe på. Jeg prøver at tegne det sådan lidt skarpt op, så i kan se, og mit formål med det er egentlig også bare at gøre opmærksom på, at når man designer sådan noget, selvom man egentlig synes, at man sidder designer det fysiske, så udover den implikation på det sociale, som skal sige det, vi snakkede om med de fysiske rammer og den der koreografi, så ligger der simpelthen også nogle overvejelser om, hvordan man ligesom sætter de sociale spilleregler. Det har man jo sådan set på sin banehalvdel, så længe folk kan flytte ind, og man sidder og planlægger.

Elisabeth: Jeg tænke på, om det er, fordi de er jo ikke så mange, der bor der lige nu. Om det har en effekt i forhold til sammenhold, altså om der er et antal, der ligesom er det vise antal på et godt bofællesskab. For det er ikke bare en time der for at det ikke bliver for ukendt person for mange.

Jørgen: Jeg tror, de 14 er for småt. Jeg tror, at jeg tror, man skal højere op. Jeg tror, man skal op i. 25. Og så tror jeg, man skal, man skal nok have en forudgående proces. Man skal trods start rekruttering lang tid før, sådan at man ligesom når bygningerne er klar, så er man klar med i hvert fald et ret stort kontingent, der rykker ind. For hvis man er 25. Det kan godt være, der nogen man synes, man ikke svinger så godt med. Men så vil det være altid muligt at finde nogen andre. Det vil sige eventuelle konflikter. De bliver ikke så tilspidsede, de bliver ikke så synlige. Og det kan bedre skulle gå under radaren, og man kan undgå hinanden og st- adigvæk have nogen at snakke med.

Louise: Så det blev knap så intimt og tæt eller personligt, altså.

Jørgen: Så jeg tror, at med de 14 altså. Måske havde det været okay, hvis vi havde rykket 14 ind med det samme, så havde det måske lige kunne bære. Men jeg tror, vi er nede og ramme en skarp kant. Det tror jeg. Jeg tror 25 30. Så har du ligesom, fortyndet det ud. Det er jo lidt ligesom skoleklasser. Når man kun sidder fem, så er det altså svært. Men hvis man er 25, så kan man jo bedre sådan finde nogen, man gider at lege med. Da var der det der med organisation. En overvejelse, vi havde, fordi det jo også skal blive et udenoms værk uden for det fysiske, men som ligesom er en del af den tankegang, der var det der med, at man skulle kunne flytte ind, hvis man var uformuende. Og der kan man sige, at alt, hvad der hedder ejerlejligheder og andelsbolig, har et relativt højt indstignings trin, du skal enten købe en andel eller til man skal låne til en hel ejerlejlighed. Det er okay, hvis du har, du kommer fra et parcelhus, du kan sælge. Så kan du kanaliserer de penge over i. I en ejerbolig. Men hvis du kommer fra en lejelejlighed hele dit liv, så har du ikke den formue, så vi lagde hovederne i blød for at se, hvordan kan vi. Det var ikke svært at svare på. Hvordan kan vi lave et lavt indstignings trin? Det er jo bare at lave almindelig udlejning. Men. Omvendt ville vi også gerne sige i stedet for man bare. Er lejer. Hvordan kan vi skal skabe et større commitment? Og hvordan kan vi skabe den her indflydelse på egne omgivelser? Hvor grunden til vi havde de her overvejelser det er fordi en ting er, at så kigger man mod dem, som ikke er så formende og siger jamen, dem kan vi få om bord, hvis hvis ikke du skal stille med en stor pose penge. Men omvendt vil man sige hvis vi skal have det her mix, så skal vi også ligesom skabe noget, som man kan se sig selv i, hvis man kommer fra en ejerbolig og er vant til at kunne bestemme. Plus en overvejelse vi havde, så jeg ved faktisk ikke rigtig, hvad svaret endte med at blive på det. Men når nu man bor et sted, hvor et parcelhus koster under to millioner. Så kan alle, der har et arbejde, købe et parcelhus, hvis de vil. Det vil sige, at det slet ikke er så prestige betonet kan man sige, som det ville være i Aarhus eller Ålborg eller Odense eller København og købe sin egen bolig, hvor det jo er latterligt dyrt. Omvendt vil det så også betyde at hvis du så bor til leje et sted som Ringkøbing. Så må det skulle være gået skidt for dig agtigt, og det er så ikke helt så sort hvidt, fordi der er så mange som i transition. Det kan være skilsmisses. Man kan lige være kommet til byen, og man kan have en lyst til at bruge sin penge på noget andet. Så det er jo ikke helt så så skåret ud i sten. Men det var jo en bekymring, vi havde. At det at være lejer, som står i en af de store byer. Så er det bare et blandt mange måder at bo på, hvorimod at komme ud hvor ejerboliger er meget, meget billig, så er det måske en

lille smule stigmatiserende at bo til leje. Det vidste vi. Derfor, vi skal prøve at lave noget, hvor man ikke ligesom synes, man falder i status ved at gå fra sælge sit hus til at gå ind og blive lejer. Det er en del af de psykologiske mekanismer, vi prøver at rode med. Men så var der også selve det dermed. Jeg vil gerne have lov at bestemme lidt her ik. Så vi lavede simpelthen en helt ny konstruktion i samarbejde med en ekstern advokat, som har speciale i sådan noget lejeret og den slags. Og man kan sige det består af tre led. De to led kender man. Der er en ejer og en lejer. Vi rykker dem fra hinanden. Så putter vi en forening ind i midten, så juridisk er den en selvegående institution, som fungerer på den måde, at foreningen har en lejekontrakt af ejer? Det er også med til at gøre det nemt at være ejer. Du har en aftale med din forening. Du har nogle forpligtelser, som ejer med noget udvendig vedligeholdede, men ellers så foregår meget inde i foreningen. Det er foreningen, som administrere. Så fremlejer de. Foreningen fremlejer sig til beboerne, der minder den rigtig meget om andelsforening. Fordi alle beboerne er medlem af foreningen og vælger en bestyrelse for foreningen, som er dem, der træffer beslutninger og så lejer ud til beboerne. Og på den måde er det jo meget ligesom en andelsforening er jo også hvis der er 6 lejligheder, jamen så er der 6 familier, som på den ene side sammen er ejere af en andelsforening og andelsforeningen lejer sig ud til dem selv. Så du har to roller i det der spil? Det er præcis det samme bortset fra at du ikke har købt den andel her. Så er der en bestyrelse på fem pladser, hvor beboerne får tre, så de har flertal og ejer levere så 2 meget for at støtte op omkring det kunnevære sådan noget revisor administration eller bygge kendskab? Hvad nu der måtte være behov for. Så fungerer det på den måde, at når man betaler husleje som lejer eller fremlejer, er det jo så, så betaler man til foreningen. Syv et halvt tusinde kroner. Det gør de allesammen. Så er der en pose penge. Det meste af det er foreningens leje til ejer. Men der bliver en sump tilbage. Det er fælles budgettet. Det fælles driftsbudget. Der kan man betale el og vand i fælleslokaler. Man sætter fra til vedligehold fordi det er foreningen der skal skifte køleskabene for eksempel. Det kan være penge til administrator. Så køber man sig til den kompetence, det er at sørge for, kradse huslejen og holde ind og fraflytning syne. Hvad ved jeg? Det kan være noget med at rydde sne og salte alle de her ting, som nu hører med til at drive, det ligger i foreningen. Da har man sendt driftsbudget til det driftsbudget. Det bestemmer bestyrelsen over. Så følger der for eksempel en revisor kydig ind. Nu fyrer vi vores administrations selskab. Nu kører vi det selv og sparar 12.000 om året, eller hvad det nu kan være. Det kan så blive i forening.

Så kan vi sørge for købe nye flet møbler til orangeriet for de samme penge. Det vil sige man får lige pludselig indflydelse. Så det er sådan et organisatoriske setup, som som sagt har fået stor interesse. Vi har fortalt om det koncept i mange sammenhænge, fordi der er flere, der godt kan se, at det er lidt, man får det bedste fra to verdener. Det lave indstigning trin og engagement og indflydelse.

Hvad tænker i om det, nu har jeg jo snakket i lang tid?

Louise: Det er super interresant.

Elisabeth: Ja, jeg tror, du kommer omkring de fleste af vores spørgsmål. Er det ikke sådan?

Louise: Jo, jeg sidder lige og kigger over på, hvad vi har skrevet. Om der skulle være noget vi mangler. Jeg ved ikke, du snakkede jo en del om om det her med seniorer? Grunden til arbejdet med dem, men har I gjort jer nogle tanker om, om det kunne give noget, at det havde været et mixed brugergruppe, at det ikke kun var seniore, at det ikke bliver den her senioreø.

Jørgen: Sjovt altså fordi det var min aller allerførste reaktion, da jeg blev præsenteret for projektet første gang. Hvorfor det? Hvorfor er det ikke bare blandet. Jeg bor i Aarhus. Der har for eksempel været meget snak om dette generationernes hus, hvor man prøver, at der er både en børnehaven og demens boliger ved ik alt. Det synes jeg selvfølgelig er interessant. Jeg kan. Jeg kunne godt forestille mig, hvor jeg er blevet uendelig meget klogere af at arbejde med de her potentielle konflikter. At det kan enten jeg tror, jeg kan gå to veje. Jeg tror enten så kan udtømme konfliktniveauet, fordi at man er fair fordi mn er så ens og så alligevel bare gå og gnaver på hinanden. Og jeg skal også lige skyde en. Nu går det faktisk godt. De fem, der er der. De har det superfint med hinanden. Og de er. Så sent som i forgårs havde de besøg af en gruppe lidt udenfor Ribe, som var interesseret i dem, dem viste de rundt og der var kaffe. Ja, nu begynder det at køre, og håbet er jo så, at nu er der ligesom den her kerne af kultur bærende individer, som ligesom har noget, man kan træde ind i, som jeg talte om før, selvom det er meget småt. Men vi har skiftet mæglér, og vi vi endnu ikke se en effekt. Det er ikke fordi folk kommer rendende og siger der ville jeg gerne bo. Der er flere ting. Der er jo helt klart noget med huslejeneiveauet. Det var det, jeg sagde før. Men når vi bygger nyt, så for at få den der forrentning på 5 procent, så skal vi have et vist huslejen niveau, og det ville fremtræde højt et sted, hvor der er mange ledige billige lejeboliger, frem for for

eksempel hvis det var Horsens eller Aarhus, eller hvad det var til det. Det kan godt være en barriere i sig selv. Så kan der være dannet nogle rygter. At det kan have fået et image i lokalområdet, så derfor kunne en strategi også være at prøve at trække folk til udefra igen. Så I spørger på et tidspunkt, hvor vi faktisk står lidt og tænker. Hvad gør vi. Men vi klør på, og vi har stadigvæk en masse livlinjer nu nævnte jeg de her professionelle aktører. OK-Fonden, som har arbejdet meget med det, der vi jo så ikke for fine til at række ud til dem og sige hvad tror I? Altså har i lyst til at komme og kigge på det her. Hvad gør vi forkert? Fordi bottom line er nogle fede fysiske rammer, og det er et superfedt sted. Og man får vildt meget for pengene, fordi du får alle de her fællesfaciliteter selv med de rigtige folk, så vil jeg jo synes, at de er super heldige at få lov at bo der. Det er jo også det, der er sjovt. Men i forhold til, om man folder det ud. Jeg tror igen, det har noget med størrelse at gøre. Hvis du sidder, hvis vi havde de 14 boliger, og sagde alle kan bo. Så vil det blive almindelig udlejnings sted. Så tror jeg, at man vil være. Så få, der har noget sammen, at det ville være svært at få det dér fællesskab. Jeg tror faktisk, det ville være svært at forestille sig, at de her fælles faciliteter vil blive benyttet. At man bare siger nu sidder de jo og nyder lidt rosé i orangeriet om aftenen, når solen Skinner ind gennem glasset. Altså hvis der så samtidig kører en lille plastic traktor rundt og to børn, der er kommet lidt for sent i seng, sidder og skændes, så det er bare ikke det samme? Man kunne hurtigt forestille sig, at man går op ad trappen i konfliktniveau. Hvor imod, hvis det er noget større, som man ligesom har flere forskellige grupper? At den ene børnefamilie har en, to, tre andre børnefamilier, at spejle sig i og tale med, og en man kan undgå, fordi man synes, de er nogle folser. Altså, så tror jeg, du får de kritiske masser bare på sin underdelt facon. Så der tror jeg egentlig, man er nødt til at tænke større. Jeg tror selvfølgelig også, at der er nogle positive muligheder. I det. Altså, man kan hurtigt fortælle en smuk, romantisk fortælling om, at så sidder den gamle dame og kigger på de små børn, der leger og er glade og får nogle oplevelser i mit liv. Men. Det minder mig om en anekdote, som jeg fik af vide af en af mine arkitekt kolleger for efterhånden nogle år siden. Det var et plejehjem et sted i Jylland. Og et plejehjem i dag det de rigtig dårlige der er der. Så skulle de udvides til at skulle have dobbelt så stort. Og det er sådan, at man har. Man har man tal for det, man så kynisk kalder omsætnings hastigheden på boliger. Det betyder rent faktisk, hvor mange der dør om året, det, som er interessant i de to år, hvor der blev bygget. Lige uden for deres vinduer. Der droppede omsætnings hastigheden fra i alt 15 året til to tre stykker. Og da byggeriget så var færdigt.

Så kom den tilbage på niveau. Den nærliggende konklusion er, at når der ikke er byggeri udenfor ens vindue, keder man sig simpelthen ihjel. Bogstavelig talt. Her var der et eller andet at kigge på. Det er meget sjovere anekdote at tænke på, når man netop diskuterer det der med generations blanding. Fordi det var en anden type liv, da folk skal noget andet i forskellige aldre, og derfor vil der også ske noget. Og det kan være godt, fordi det er interessant, og det er et andet liv, man kan kigge på. Det kan også være træls, fordi nu havde jeg egentlig lige forestille mig, at der skulle være lidt ro på. Og så var der nogle snot unger der råber og skriger. Eller nogle gamle damer, der kommer, skælder mig ud, hvis det er set fra den anden side? Ja, det tror jeg simpelthen. Det er jeg ikke den rette til at spørge. Jeg kan bare ligne de her forestillinger op. Og så tror jeg, at man må prøve at undersøge de steder, hvor man gør det, fordi. En ting er sådan noget som generationers hus. Der er sådan set kun et kodekser. Her kan du bo og blive blandet. Men så er det jo sådan nogle de dér store kollektiver. Svanholm. Eller hvad ved jeg. Et eller andet eller det kunne også være sådan. Når du kommer ud til nogen, hva er det det hedderude ved Djursland. Friland eller hvad er det det hedder og det også blander en form for fællesskab. Men der skal man lægge mærke til, at nogle fællesskaber er båret af en idé, som alle køber ind på? Ja, og det er så det, man mødes om, og det kan være kollektivisme eller bæredygtighed. Eller hvad nu? Det, vi håbede, der kunne være sådan en bærende idé. Det var interessen for at bo i naturen tæt på fjorden. Så jeg havde forestillet mig, at man i det høje, høje værksted, der hejsede sine havkajakker op, når man sejlede. Men det er jo bare slet ikke der, vi er, når vi har en masse damer plus 70. Ja, altså, man kan have mange forestillinger, men så kommer der noget virkelighed. Det skal også være robust nok til at kunne håndtere.

Louise: Ja

Jørgen: Apropos robusthed. Branchen. De sidste ting. Noget det, der ligger bag design tanken. Det var meget at de der fælles lokalerne, der skulle være robuste, så de kunne udvikle sig over mange år. Og det gjorde man ved, at de fik sådan nogle grundegenskaber, som man ligesom har, det grønne rum. Det grå kolde rum, nemlig værkstedet. Men så er der den varme varme, nemlig den der lounges bibliotek, ting, som er toppen af fællesrum. Og så skulle der selvfølgelig være et fællesrum, hvor alle kunne være. Men så man ligesom har det varme det kolde og det grønne hvor det grønne, jamen, det kan både være et sted, hvor du simpelthen producerer en helvedes masse tomater eller krydderier

til din gin eller rydder, så du kan sidde der, sådan som de rent faktisk have gjort. Eller en blanding. Værkstedet. Jamen, det kan både tage imod sådan noget, som lerdrejeskiver eller motor. Eller det kan også være, det cykelrum som det næsten e nu. Nå, men det, der grundegenskaber som ligger fast, og som så kan tage imod forskellige typer af benyttelse, over tid.

Det var sådan en en ting, som jeg også syntes var rigtig, rigtig smart tænkt. Ja, nu tror jeg næsten ikke jeg kan vride flere gode ideer ud af hovedet. Altså, vi har jo nogle publikationer på det, som I sikkert har læst? Ja, jeg har set mange af de billeder sådan noget med.

Så der ligger en del diagrammer, som fortæller de her ting.

Louise: Ja

Jørgen: Ja. Så jeres overvejelser nu? Det ville så være skal vi bygge lige så småt skal vi lave det? Skal vi udvide paletten?

Louise: Ja, så tror jeg vi, vi kørte lidt på. Ja, med den tankegang om, at vi skal prøve at minimere boligen, og skabe gode fællesaktiviteter. Men der er jo netop mange af de der overvejelser som du også har snakke om, det der med, at kommer man fra et et stort hus selv, hvor man har eget og nu skal ned i en lillebitte lejlighed og være lejer lige pludselig, jamen, går der så noget? Ja, er den der? Ja, jeg ved ikke en identitet. Næsten er det, at man føler, man ejer noget. Men vi vil også gerne prøve at skubbe lidt til det. Det med, at ege.

Jørgen: Der kunne jo netop være en identitet omkring at være bæredygtig. Altså, hvis man simpelthen iscenesætter det. istedet for sige er det lidt ærgerligt, du skal bo lidt småt her. Så sige du, du bliver bæredygtig, fordi her arbejder vi med fremtidens bolig. Man kunne arbejde med begreb som absolutte bæredygtighed, og så har vi altså kun 30 kvadratmeter. Men det gør vi simpelthen ved, at vi deler en masse ting, og da har man ansatsen til det ovre ved havtorn, fordi man kan sige. De har jo allesammen forladt minimum 100 kvadratmeter og skalere ned. Så er der nogle forskellige aspekter ved det for eksempel. Jeg står alle de her fine møbler, hvad skal jegøre. Der har vi jo sagt Jamen, vi har lavet nogle regler for, hvordan man kan tage dem med ind i fælleskab, derfor så så i jeres fællesrum at så stod der en gyngestol, en kommode og chatol og nogle ting, som nogle har haft med. Og der står et sofaarrangement, som nogle har haft med. Og gæsterummet og gæsterummet er jo faktisk også der man siger, hvorfor er det, man har brug for det? Der er meget plads. Jamen, det er jo fordi, hvis mine

børnebørn kommer til påske. Det gør de måske. Hvis de kommer, så har du gæsterummet, og nu har det så vist, at det er jo næsten i brug hver weekend, fordi nogen har nogen på besøg. Så det handler også om at analysere. Hvad er barriererne? Er det noget, vi kan løse på den ene eller den anden måde? Enten ved at lave nogle regler eller bygge et gæsteværelse. Hvad skal viøre? Så der tror jeg egenlig at hvis man vender det på hovedet, og siger det, er det fede her. Det er, at vi arbejder sådan tiny house. Absolut bæredygtighed agtigt. Deleøkonomi. Altså, det er jo bare, det er jo et helt vifte af super megatrends, som man bare samler der. Men med afsæt i et i den der dele tankegang, der allerede er præsenteret i en form for blomsterknop i Havtorn, som det folder vi endnu mere ud og sige. Det kunne også godt være, at I havde en to tre yderligere fælles ting, som man skulle skulle lægge over, det kunne også godt være, at man gik mere radikalt til værks, så man kun havde et te køkken, der har et mega køkken. Men så er det måske også større end det, man har i Havtorn. Måske har de to komfurer og rigtig store gryder. Selv om vi har købt et ekstra bredt komfur, så brokker de sig over, at de ikke kan have de helt store gryder, at prøve at analysere sådan en både en hverdag og et års jul og sådan nogle ting igennem. Og så se hvad er det, der skal til? For at altså det synes jeg jo kunne være et interessant bud. Og hvordan kan vi komme med et et bud på Morten Birk, hvis vanvittige ideer om, at vi ingen pladser har brug på i fremtiden, vi vi vil være absolut bæredygtig? Kunne man, omsætte det i en vestjysk virkelighed, hvor det rent faktisk altså kunne lade sig gøre? Lige præcis imidlertid ikke er fedt. Og så vil det også give den identitet. Det er det, man køber ind på. Så kan man sidde i Dragør eller Nordjylland og tænke det er mig. Det ville jeg skide gerne. I øvrigt er der fedt at bo her. Det vil jeg gerne være en del af den der bevægelse. Så har man også i et idémæssigt samlings punkt. Det, synes jeg, ser spændende ud.

Louise: Men jeg tror også, noget at det der er lidt interessant og er en af de største udfordringer, det er netop også her, problemstillingen du har nævnt. Det er Ringkøbing den her kommune, der ikke lige umiddelbart er i vækst. Og hvor ja, bygger man nyt hjem, så bliver det dyrt, og der er måske også lidt en anden indgroede. Jeg ved ikke, hvordan man skal sige det, men sådan. Der er noget med, at man boer hver sit. Man har måske lidt nogle tanker om, hvad sådan et bofællesskab er. Du snakker jo så, om det kan være, at der er blevet skabt lidt nogle rygter eller ikke rygter og nogle tanker om, om det her er Havtorn. Det er nogle, nogle, nogle mærkelige, nogle der bor derude. Jeg tror, jeg.

Jørgen: I kunne overveje rent byggeteknisk. Hvad kan man gøre for at bringe bygge prisen ned på selve det at bygge nyt? Kunne man forestille sig, at man altså nogle gange, når man laver butikker inde i byen, så laver man sådan noget. shell and core kalder man det, altså sådan noget hvor man sådan set bare har kernen, som er installationerne og en skald så kommer jeg 7-eleven eller McDonalds med sit koncept og beklæder alt med den tid, de overflader, den style, de nu engang har. Men man kunne godt tænke, kan man lave boliger, som shell and core, når folk kommer ind kan de selv? Altså hvis de er sådan nogle typer, som synes, det er fedt at sætte sit eget præg. Det var bare en måde at sige. Så kan du nedbringe prisen med, så skal du skal du selv lægge noget i. Nu skal jeg i et nyt møde her om 3 minutter kan jeg se.

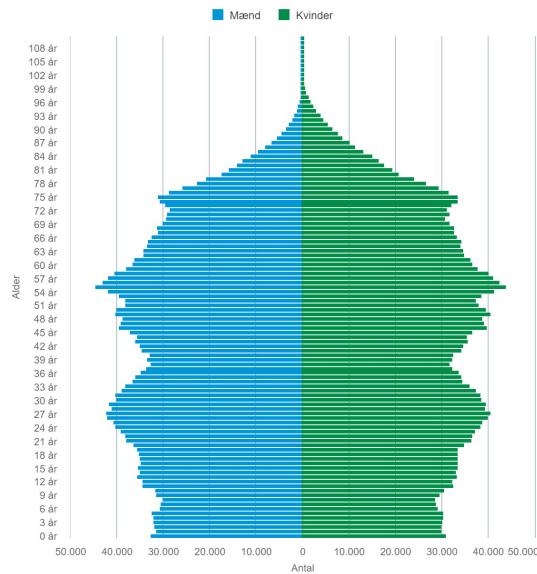
Ja mange tak

APPENDIX 5

Population in Denmark

Folketal den 1. i kvartalet

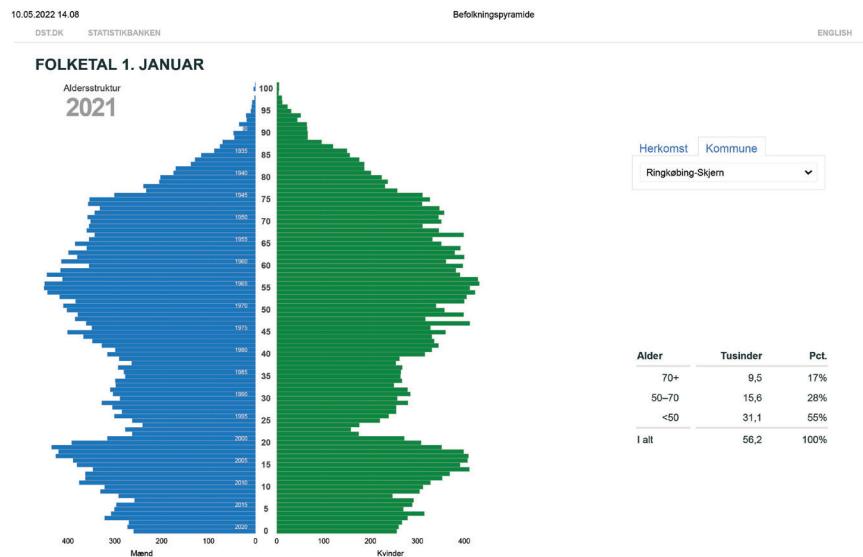
Tid: 1. kv. 2022 | Køn:



The age group that is the most numerous in Denmark is the
55-age group

Statistikbanken 2021.

Ill. 1) Diagram from Statistikbanken 2021.
© Contains data from Styrelsen for Dataforsyning og Effektivisering, Map BEF1, May 2022



In Ringkøbing-Skjern
the most numerous it is
the 57-aged.

Statistikbanken 2022.

Ill. 2) Diagram from Statistikbanken 2022.
© Contains data from Styrelsen for Dataforsyning og Effektivisering, Map BEF1, May 2022

APPENDIX 6

Analysis of Community Livings

Development – huge focus on building sustainable – lost focus on aesthetics/quality?

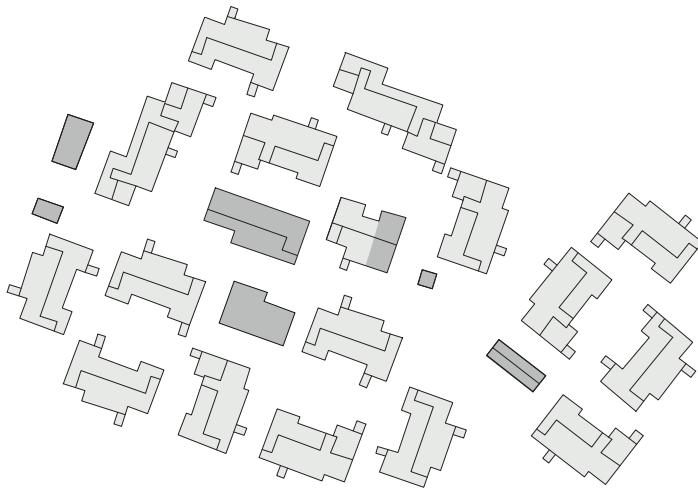
In these new built housing area, there is a lack of quality. The areas seem flat and empty, because they often are a result of an economical scope, a tight timeframe and still increasing number of demands of sustainability regulations.

The living community is a housing form arisen in the 1970th with the community as a focal point. During the years the idea and vision of what the living community is and what it can give has changed. Visions as being able to share and help each other with the daily work or live in a more sustainable way are all thoughts that among others are which is archived by sharing different facilities. (Andersen 2021) In three different community livings the roughly gross area of private apartments and the shared facilities are compared to register the difference of them and how much these lead to private or common space.

CONCLUSION

The two communities Balancen and Havtorn are both housing typologies for either couples or individuals over 50 years old. Havtorn has double as many shared areas for each apartment, but at the same time they are also half as many residents as Balancen. The other Community Jystrup Savvaærk has four times as much common area as Balancen. However, Jystrup Savværk is created for a mixed user group. The larger size of the dwellings in Jystrup savværk might be the result

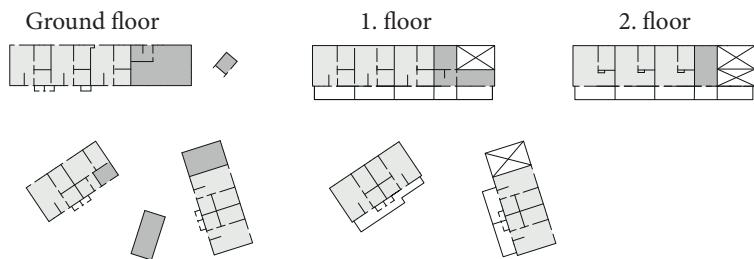
of more residents living in the apartments than compared to Balancen. Therefore, Jystrup savværk might have less living area than the two other cases and instead are using more areas out in the common space. Beside this, Jystrup Savværk has also created a common area between the apartments, with the attention of blurring the private and public area, by functioning as an inner street, a place for common eating and for playing (Vandkunsten n.d.).



Ill 3) Building plan Bofællesskabet Balancen

Balancen

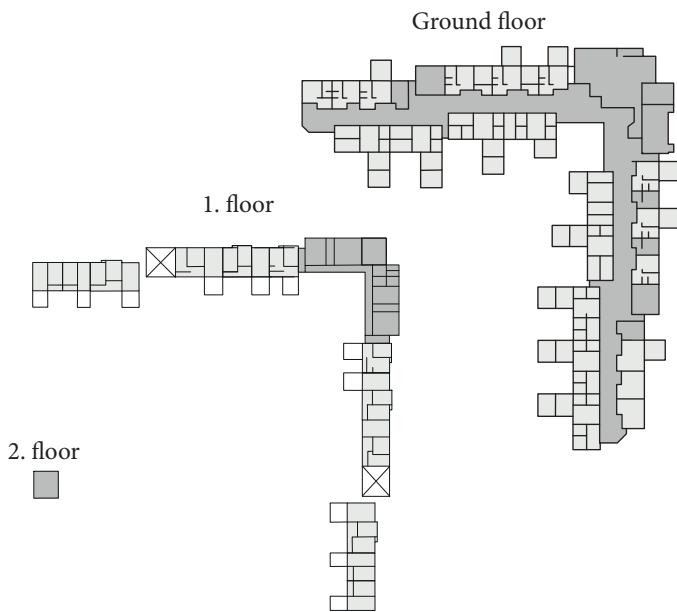
Approx. 13700 m² ground area
Gross area 2 600 m²
20% Land-use ratio
33 rented accommodations
55-100 m² per dwelling



Ill 4) Building plan Bofællesskabet Havtorn

Havtorn

Approx. 2 600 m²
Gross area 1300 m²
50% land-use ratio
14 rented accommodations
50-120 m² per dwelling



Ill 5) Building plan Bofællesskabet Jystrup Savværk

Senior housing

Common = 10.1 %
Private = 89.9 %
Common area (approx) = 9 m² pr. apartment
Housing (approx)= 80 m² pr. apartment

Jystrup Savværk

Approx. 12500 m²
Gross area 2915 m²
23 % land-use ratio
21 rented accommodations

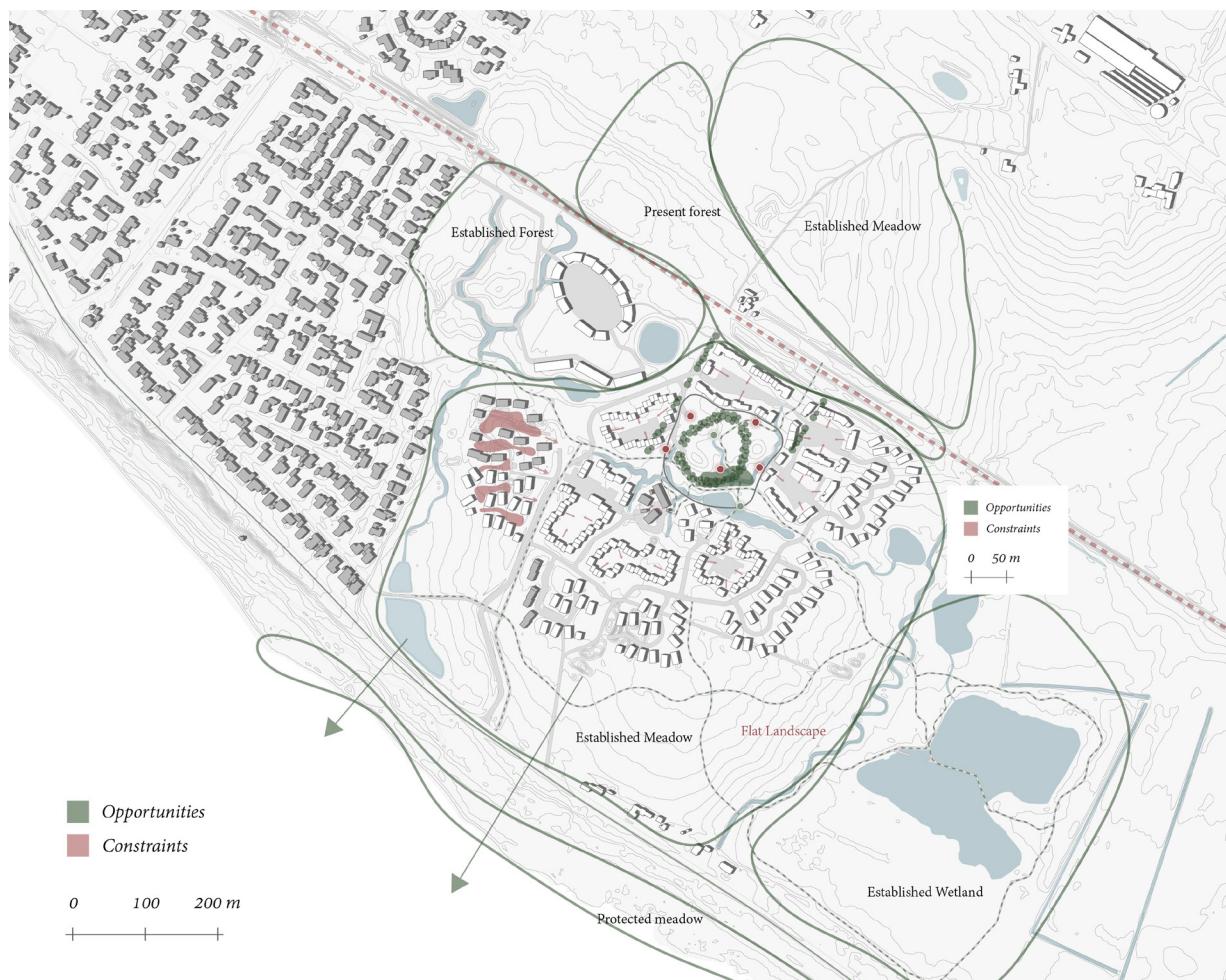
Mixed group

Common = 38.8 %
Private = 60.2 %
Common area (approx)= 52 m² pr apartment
Housing (approx) = 79 m² pr. apartment

APPENDIX 7

Choosing Site

From our analyses a opportunities and constraints map was created.



Ill. 6) Opportunities and constraints in context scale.

To sum up our analyses we found opportunities and constraints at Naturbydelen, where we see opportunities in the existing nature zones which have a high amount of biodiversity. And as constraint we see undefined in between spaces in some of the dwelling areas.

Different optional placements for the community living within the “Naturbydelen” are brought forward and assessed. The investigation takes point of departure in the masterplan for “Naturbydelen” by SLA, where some few structures are already realized; Havtorn, a senior housing community of 14 apartments, Fjord udsigten, 83 rental social housing, and Strandkanten, 40 owner-occupied flats.



Ill. 7) Overall structures in Naturbydelen and marking of already realized built areas; Fjordudsigten, Havtorn and Strandkanten

INVESTIGATION OF SPECIFIC SITE FOR COMMUNITY WITHIN NATURBYDELEN

The illustration X shows 4 places as site opportunities. Each place is considered in the following section:

- 1) By placing it in the forest area, it opens up for working with how to design sensible with/ in nature, and the spatiality of designing between trees. It is a more isolated place in relation to the detached housing area in Ringkøbing and the

rest of “Naturbydelen”. It can support a community within the community living, but with less emphasis on the relation to the rest of the area.

APPENDIX 8

Initial model workshop

	Private - Public	In-between	Build - Landscape
High in the center - graduating low	Defines the public path Watched when walking on the path	Crowded No eyelevel from the path to the top of the volume Hiding the path	Hierarchy of the volumes Opens up out to naturbydelen
Low in the center - graduating high	More welcoming public path Defines the public path	Eyelevel Opens the path leading the volume flow down to the path Good overview from the path all the way up to the top of the tall buildings	Hierarchy of the volumes Tall towards trees - blends in with them Creates a "protected" back in the community
Trees opening the middle for a path	Invites the public in because of the opening in the beginning of the path The trees highlight the public path	Big space between makes the room undefined	Big space between makes the room undefined
Linear path	Watched when walking on the path Unclear hierarchy	Dead space Highway	Defined path Transit path no public stay No relation to the landscape Seems very massive Reminds of "stock" buildings
Dynamic path	Defined path Transit path no public stay No relation to the landscape Seems very massive Reminds of "stock" buildings	Defined path Transit path no public stay No relation to the landscape Seems very massive Reminds of "stock" buildings	Defined path Transit path no public stay No relation to the landscape Seems very massive Reminds of "stock" buildings
Two path	Defines the sections Invites the public in from several places	The path defines four rooms How the volume are placed does not defined the room. Unstructured	Dynamic and organic No relation to landscape
Volume in the center	No intimate space Hierarchy to the center	Equally	Copies the trees typology Round labyrinth Rising landscape in the middle
Cirkel volume	Undefined room in the cirkel Copies the trees typology Flat landscape in the middle the buildings and trees creates together a very strong barrier.	equally volume	Undefined room in the cirkel Copies the trees typology Flat landscape in the middle the buildings and trees creates together a very strong barrier.
Nature experiences	Creating smaller space for groups	Space in-between the neighbor	Following the landscape organic
Following the topography	not sure what is public and private. Can be defined further. It has good potential	Creates activities between the volumes (with the water between)	Follows the topography lines creates a interesting landscape with various spaces

High in the center - graduating low



Low in the center - graduating high



Trees opening the middle for a path



Linear path



Dynamic path



Two path



Volume in the center



Cirkel volume



Nature experiences



Following the topography



Ill 8) First Model Workshop

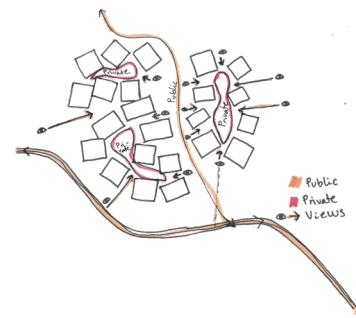
APPENDIX 9

Model Concepts

GROWING FROM THE LANDSCAPE



Ill 9) Growing from the Landscape



GROWING FROM THE LANDSCAPE

Private – Public

- + Community feeling - all under same roof
- + More isolated community from Naturbydelen
- Big focus on the public experience
- Compromising the privacy of the dwelling

In-between

- + Potentials of playing with the levels (vertical)
- + More defined corridor
- Open/ exposed exterior spaces
- Big surfaces - not much spatiality

Build - Landscape

+ Clean shape of hill

- + New experience
 - One big mass in the nature environment
 - No a great relation between in and exterior views/ visual relation
- The Shared (sustainable approach)*
- + Optimized climate envelope
 - Waste space from the triangles in the end. Needs to be worked with - Can it be storage or give create a gesture?
 - Needs to have a heavy/strong construction to carry the load from the roof.
 - The center area has a long distance for view and ability of opening windows .

BUNKERS IN THE DUNE



Ill 10) Bunkers in the Dune



BUNKERS IN THE DUNE

Private – Public

- + Clear defined private spaces.
- + Creates the feeling of ownership (privacy – sense of belonging)
- + View to what is shared/community.

- Traditional. Black and white in what is private and public, it is less nuanced. Needs more degrees of private and public.

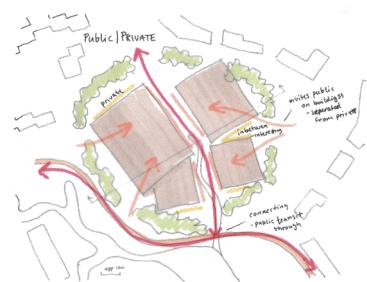
In-between

- + Creates a transition from private zone to community zones.

+ More existing nature in-between.

- Horizontal - "boring"
 - Unsolved potential in the in-between spaces.
- Build - Landscape*
- + View to nature. Your private home is the landscape.
 - + History in the typology (the west coast, bunkers).
 - + Placed randomly in the landscape.
 - Different structure from the rest of Naturbydelen.
- The Shared (sustainable approach)*
- + Uses the existing spaces as a tool to define spaces.
 - Not shared climate envelope. Not optimizing the materials.

FOLLOWING THE LANDSCAPE



Ill 11) Following the Landscape

FOLLOWING THE LANDSCAPE

Private – Public

- + The buildings placed on first floor are more private, as they are in distance to the public flow.
- + The small distance to the public area, creates view and knowledge of what is happening outside.
- Either you are in the public area or in the private dwelling.
- Lack of levels of communities to create affiliation.

In-between

- + By elevating and shifting the volumes, it creates in-between space which could act as shelter, framing passages or framing views, emphasizing the water stream.
- + The placement of the volumes creates dynamic and a variation in its expression.
- Contrast spaces. It is either small in-between spaces or

large, long spaces.

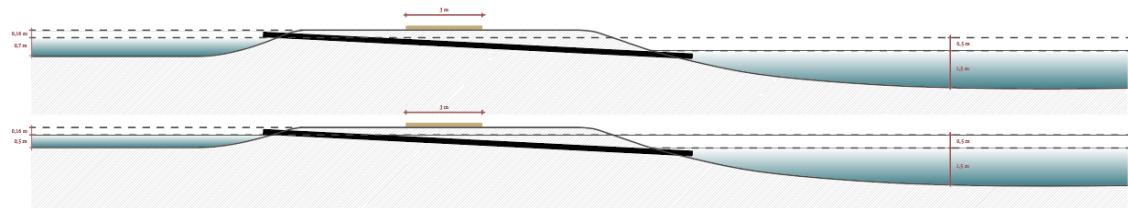
Build – Landscape

- + The concept of the built is to give different experiences of the landscape.
 - + Other forms are dug down in the ground, lying protected in the landscape.
 - + The last buildings are placed normally on the ground but frame the water.
 - The effect of following the contour lines is not experienced in human scale. The hills are too small.
- The Shared (sustainable approach)*
- + Potential making different microclimatic spaces.
 - When elevating the fundament, it is not utilizing the heat of the ground during the winter.
 - Many thermal bridges.

APPENDIX 10

Hydrology

To meet at the demands with a slope of maximum 1:3, a cross section with a depth of 0.6 m down in the middle, should have a length from the edge to the middle of 1.8 cm. Equivalent to about the middle of this section.



Ill 12)

The pond would be connected to the lake south from the site. The two sections here show the connection in two different scenarios. The top section shows to the left the pond with a 0.70 m water table and 0.16 m for delaying the water. The lake has a 1.5 m water table and 0.5 m for extra storage. The section below is almost like the section above. However, the water table in the pond is at 0.5 m.

The bottom section would still fulfill demands of a slope with 1:3. However the cross section with a water table at 0.7 m would no longer fulfill this demand. Then the length from the edge of the pond to the middle of the pond would have to be 2.6 m which would result in a total width of 5.2m. This would result in the pond having to be excavated even more. Therefore, the section with a water table at 0.5 m. is chosen.

Calculations for this:

F = Fall, L = Length

The slope must maximum 1:3

$$F = \frac{\%_0 * L}{1000}$$

$$L = \frac{F * 1000}{\%_0}$$

$$\%_0 = \frac{F * 1000}{L}$$

First section (0.7 m water table, 0.16 delay)

$$0.7 \text{ m} + 0.16 \text{ m} = 0.86 \text{ m} = F$$

L = unknown

$$\%_0 = \frac{1 * 1000}{3} = 333 \text{ (comes from the maximum slope)}$$

$$L = \frac{0.86 * 1000}{333} = 333 = 2.58 \text{ m}$$

Second section (0.5 m water table, 0.16 delay)

$$0.5 \text{ m} + 0.16 \text{ m} = 0.66 \text{ m} = F$$

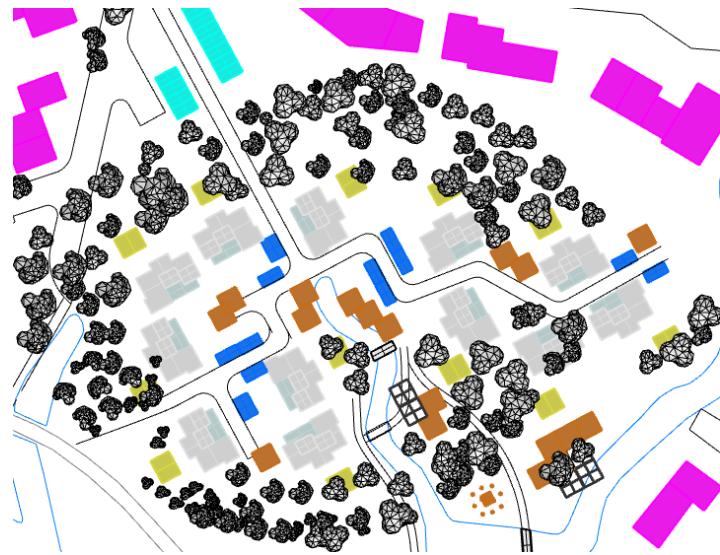
L = unknown

$$\%_0 = \frac{1 * 1000}{3} = 333 \text{ (comes from the maximum slope)}$$

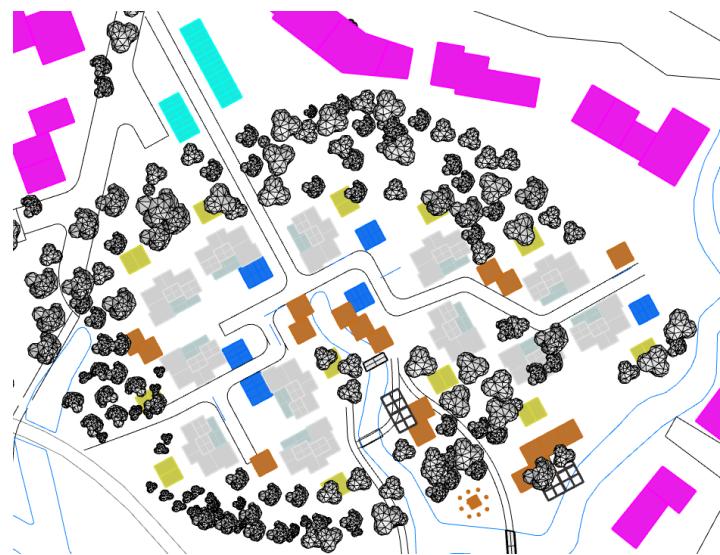
$$L = \frac{0.66 * 1000}{333} = 333 = 1.98 \text{ m}$$

APPENDIX 11

Parking



Parking principle 1
parallel parking spread out



Parking principle 2
Two and two 90 angle parking spaces spread out

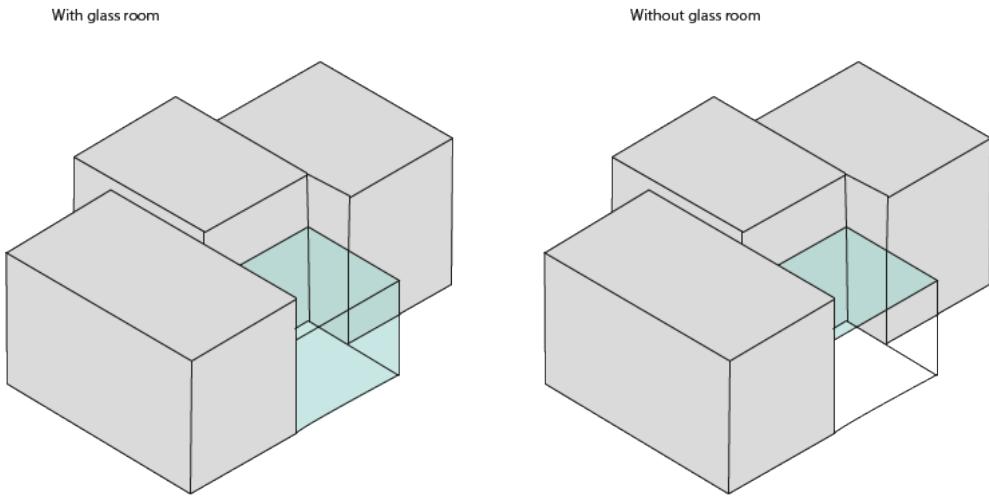
Ill 13) Parking Principle

APPENDIX 12

Energy effect of the glass room

During the design process a common threshold has been evaluated. The threshold will function as a common entrance for three dwelling, a scullery and by that a transformation of being outside in the nature to the indoor environment, and an orangery were one can imagine how fellowship and enthusiasm of growing can arise. In order to argue whether the threshold should be open or if it should be closed with glass the scenario is evaluated with the program Bsim. With

glass room it will act as a warm buffer giving the building passive heat during the wintertime. Comparing the values in scheme one can argue a small advantage having a glass room next to some parts of the façade. However, the improvement of the transmission loss is 2,2 % this will end up as free passive heat. And the threshold will provide a longer seasonal utilization over the year.



Ill 14) Bsim investigation Threshold

Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
-------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

Without threshold

Transmission (kW)	-4289,86	-0.452	-0.469	-0.468	-0.459	-0.451	-0.525	-0.560	-0.542	-0.525	-0.482	-0.465	-0.478
Heating (kW)	2912,07	0.442	0.445	0.437	0.319	0.219	0.216	0.200	0.220	0.302	0.316	0.410	0.471

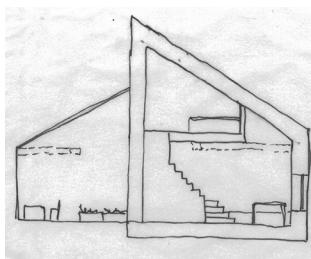
Threshold

Transmission (kW)	-4384.92	-0.459	-0.477	-0.478	-0.468	-0.462	-0.538	-0.576	-0.558	-0.539	-0.493	-0.473	-0.485
Heating (kW)	3074.38	0.460	0.464	0.458	0.337	0.236	0.234	0.219	0.239	0.322	0.334	0.427	0.489

APPENDIX 13

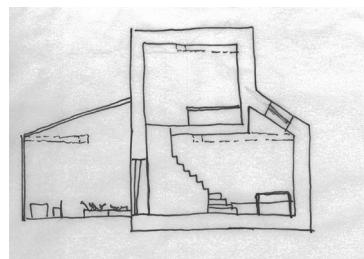
Building section

30° Shed roof



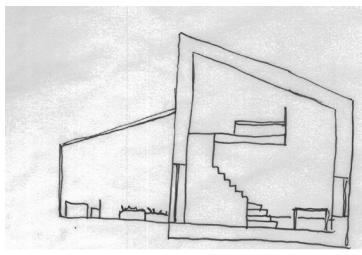
Big difference on the height on first floor.
Optimized thermal envelope.
Small thermal envelope surface in all.
Only the staircase is open to the first floor.

Small slope



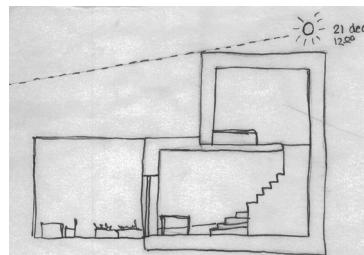
Nice double high room (defined room eating area)
Loss of connection in the form of ground and first floor

20° Shed roof



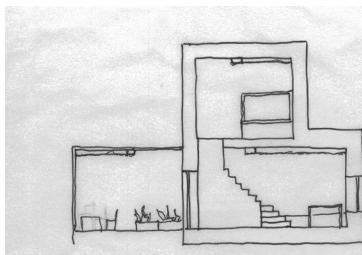
Smaller slope more height in the bedroom
Small thermal envelope
More connection between the two floors.
Intimate because of the height

Move the first-floor reach for winter sun



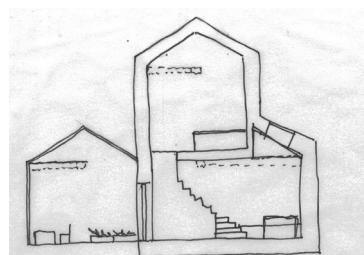
Moved the first floor away from the glass room.
Search for passive winter sun
Not possible.
Conclusion: try only have one floor to the south of the site.

Flat roof



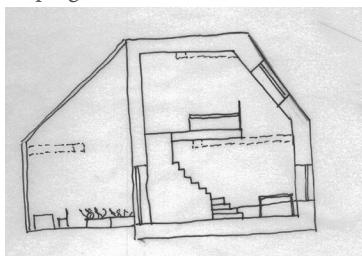
Simplifying the vertical RF system.
Less connection between the floors and elements.
Bend in the thermal envelope.

Gable roof



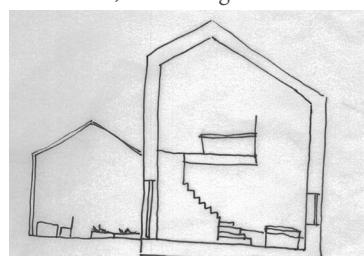
Nice double high room (defined room eating area)
Loss of connection in the form of ground and first floor
Unnecessary high room on first floor

Sloping roof



Very high room in the glass room.
Too connected in the overall form.
Good contact between first floor and ground floor.

Gable roof, double high



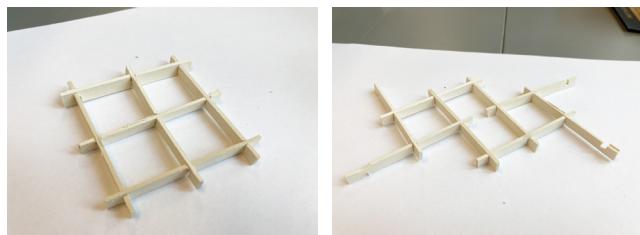
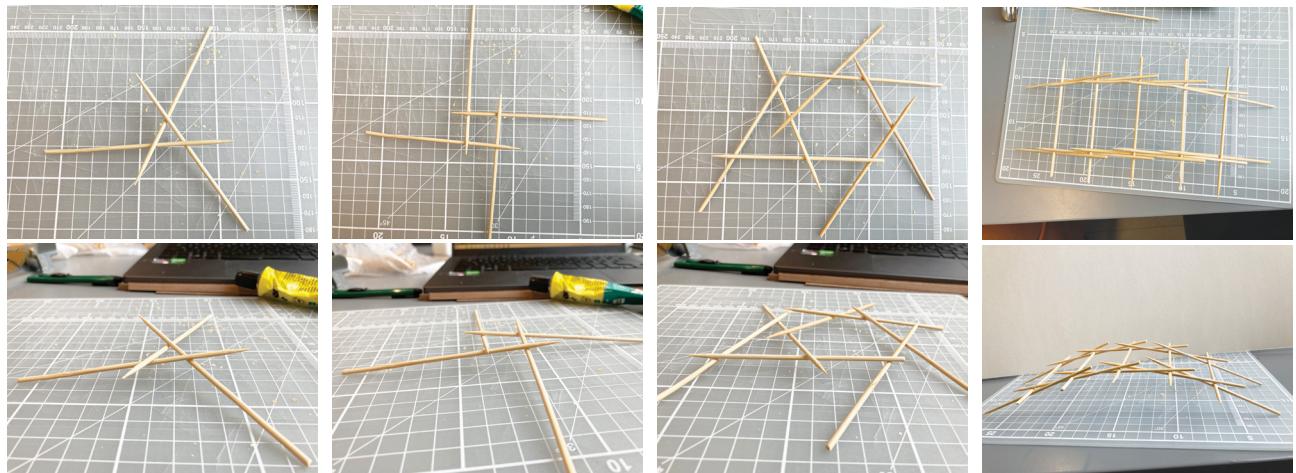
High room on first floor.
not needed
Less intimate room first floor

Ill 15) Building sections

APPENDIX 14

Reciprocal Frame

To get an understanding of how the reciprocal system works and its potential both physical and digital modeling have been done



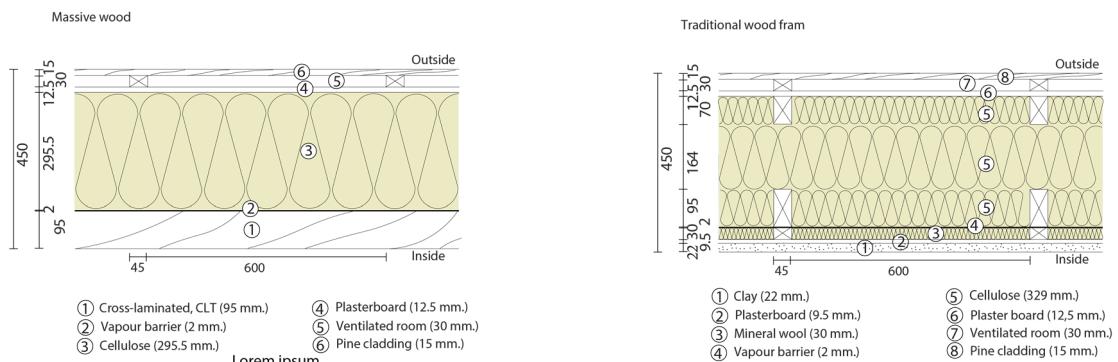
Ill 16) Modeling Reciprocal Frame

APPENDIX 15

Massive Wall Versus Traditional Wood Frame

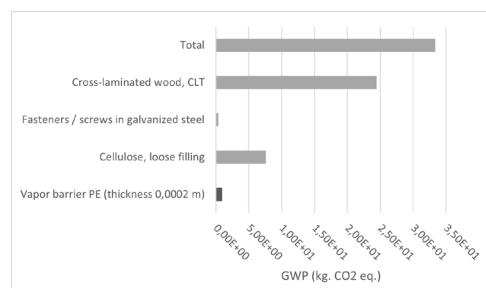
Two different exterior walls are investigated on the impact of the different walls u-value and its environment impact of global warming potential. As the two construction both will have a u-value 0.11 W/m²K, the global warming potential (GWP) becomes the conclusion value. When comparing the total GWP of the two constructions Only the façade with wind barrier and wood cladding is excludes, as they are the same in the two scenarios. The massive wood construction

has the highest GWP value, with 3.33E+01 kg CO₂ eq. Compared with the wood frame with a GWP on 1.78E+01 kg CO₂ eq. When looking at the different emissions of the materials on the graph, one will see that the massive wood CLT emits 2.44E+01 kg. CO₂ eq. Comparing the hotspots of the two scenarios, one will see how they almost look the same. However, the values for the massive wall are larger.

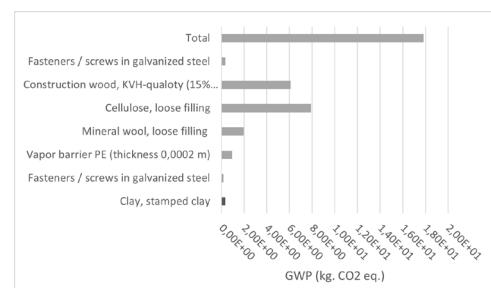


Ill 17) Wall Construction, 1:20

1:20



Ill 18) GWP wall layer



Ill 19) Hotspot LCA

APPENDIX 16

Construction

DEFINING LOADS, TRIBUTARY AREA AND LOAD COMBINATIONS

Wind and Snow load:

These calculation is made based on Eurocode 1

Wind load and snow load

Payload,

$$F_{\text{snow}} = S \cdot x \text{ m}^2$$

$$S = \mu_w \cdot C_e \cdot C_i \cdot S_k = 0.8 \cdot 1.25 \cdot 1 \cdot 1 \frac{kN}{m^2} = 1 \frac{kN}{m^2}$$

Wind direction

$$c_{\text{dir}} = NNV$$

$c_{\text{season-dec}}$

Basic wind speed

$$v_b = c_{\text{dir}} \cdot c_{\text{season}} \cdot v_{b,0} = 0.9 \cdot 1 \cdot 27 = 24.3$$

Moderate wind

$$v_m(z) = c_r(z) \cdot c_0(z) \cdot v_b$$

$$c_r(z) = k_r \ln \left(\frac{z}{z_0} \right)$$

$$k_r = 0.19 \left(\frac{z_0}{z_{0,II}} \right)^{0.07} = 0.19 \left(\frac{0.3}{0.05} \right) = 0.22$$

$$c_r(z) = k_r \ln \left(\frac{z}{z_0} \right) = 0.22 \cdot \ln \left(\frac{5}{0.3} \right) = 1.01$$

Moderate wind

$$v_m(z) = c_r(z) \cdot c_0(z) \cdot v_b = 1.01 \cdot 1 \cdot 24.3 = 24.54 \frac{m}{s}$$

Turbulence intensity

$$l_v(z) = \frac{\sigma_v}{v_m(z)} = \frac{k_l}{c_0(z) \cdot \ln \left(\frac{z}{z_0} \right)} = \frac{1}{1 \cdot \ln \left(\frac{4.74}{0.3} \right)} = 0.36$$

Peak velocity pressure

$$q_p(z) = [1 + 7 \cdot l_v(z)] \frac{1}{2} \cdot (\rho v_m)^2(z) = [1 + 7 \cdot 0.36] \frac{1}{2} \cdot 1.25 \cdot (24.54)^2 = 1.32 \text{ kN}$$

Wind on the shed roof

Form factor

$$c_{pe} = 0.2$$

exterior surface

$$w_{e, \text{roof}} = q_p(z_e) \cdot c_{pe} = 1.32 \frac{kN}{(m)^2} \cdot 0.2 = 0.264 \frac{kN}{(m)^2}$$

As we simplify and say we dont have any opening on the roof, we dont calculate the internal wind load

Wind on the facade

Form factor

When finding the right formfactor we will look for the value for $c_{pe,10}$ as this is the global value, which we will use for calculating a carriageway element

$$\text{Next we have to find the relation between height and width } \frac{h}{d} = \frac{6}{5.7} = 1.05$$

$$c_{pe,10} = -0.5$$

$$w_{e, \text{wall}} = q_p(z_e) \cdot c_{pe} = 1.32 \frac{kN}{(m)^2} \cdot -0.5 = -0.66 \frac{kN}{(m)^2}$$

Data for AutoDesk Robot - Loads, tributary areas, and load combinations

CALCULATIONS of LOADS and LOADCOMBINATIONS'

Data to be put into model in Autodesk Robot

General loads; Light roof construction, Light floor construction and Lifeload (dwelling)

$L_{roofcons} := 0.5 = 0.5$ kN/m² (Permanent)

$L_{floorcons} := 0.6 = 0.6$ kN/m² (Permanent)

$L_{life} := 2 = 2$ kN/m² (Medium-term)

(Gammel 2005)

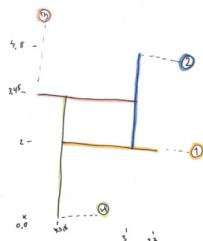
Calculated wind- and snow load

$L_{wind} := 0.264 = 0.264$ kN/m² (Instantaneous)

$L_{snow} := 1 = 1$ kN/m² (Short-term)

$L_{windsuc} := 0.66 = 0.66$ kN/m² (Instantaneous)

Properties of beams and tributary area



Properties of beam 1

$Beam1_length := 2.75 = 2.75$ m

Tributary load:

$L_{dist1} := (2.75 \cdot 1) + (2 \cdot 0.625) = 4.000$ m²

Properties of beam 2

$Beam2_length := 2.8 = 2.8$ m

Tributary load::

$L_{dist2} := (Beam2_length \cdot 0.35) = 0.980$ m²

Properties of beam 3

$Beam3_length := 3 = 3$ m

Tributary load::

$L_{dist3} := \left(Beam3_length \cdot \left(\frac{(4.8 - 3.45)}{2} \right) + (2 \cdot 0.625) \right) = 3.275000000$ m²

Properties of beam 4
 $Beam4_length := 3.45 = 3.45$ m

$$\frac{L_snow \cdot L_dist3}{Beam3_length} = 1.091666667 \text{ kN/m}$$

Tributary load::
 $L_dist4 := (Beam4_length \cdot 0.4) = 1.380 \text{ m}^2$

$$\frac{L_snow \cdot L_dist4}{Beam4_length} = 0.4000000000 \text{ kN/m}$$

Loads on beams in roof (roofconst, wind and snow)

DEADLOAD

$$\frac{L_roofcons \cdot L_dist1}{Beam1_length} = 0.7272727273 \text{ kN/m}$$

$$\frac{L_roofcons \cdot L_dist2}{Beam2_length} = 0.1750000000 \text{ kN/m}$$

$$\frac{L_roofcons \cdot L_dist3}{Beam3_length} = 0.5458333333 \text{ kN/m}$$

$$\frac{L_roofcons \cdot L_dist4}{Beam4_length} = 0.2000000000 \text{ kN/m}$$

WIND

$$\frac{L_wind \cdot L_dist1}{Beam1_length} = 0.3840000000 \text{ kN/m}$$

$$\frac{L_wind \cdot L_dist2}{Beam2_length} = 0.09240000000 \text{ kN/m}$$

$$\frac{L_wind \cdot L_dist3}{Beam3_length} = 0.2882000000 \text{ kN/m}$$

$$\frac{L_wind \cdot L_dist4}{Beam4_length} = 0.1056000000 \text{ kN/m}$$

SNOW

$$\frac{L_snow \cdot L_dist1}{Beam1_length} = 1.454545455 \text{ kN/m}$$

$$\frac{L_snow \cdot L_dist2}{Beam2_length} = 0.3500000000 \text{ kN/m}$$

Properties of the beams and column in 2D for dimension of the column

Beam(1)

$$Beamfloor_length := 3 = 3 \text{ m}$$

Beam (2)

$$Beamroof_length := 3.5 = 3.5 \text{ m}$$

Tributary load::

$$L_{floor_dist} := (3 \cdot 0.4) = 1.2 \text{ m}^2$$

$$L_{roof_dist} := (3.5 \cdot 0.4) = 1.40 \text{ m}^2$$

LOADS

Floor load on beam(1) (floorconst and life load)

$$\frac{L_{floorcons} \cdot L_{floor_dist}}{Beamfloor_length} = 0.2400000000 \text{ kN/m}$$

$$\frac{L_{life} \cdot L_{floor_dist}}{Beamfloor_length} = 0.8000000000 \text{ kN/m}$$

Roof load on beam(2) (roofconst, wind and snow)

$$\frac{L_{roofcons} \cdot L_{roof_dist}}{Beamroof_length} = 0.2000000000 \text{ kN/m}$$

$$\frac{L_{wind} \cdot L_{roof_dist}}{Beamroof_length} = 0.1056000000 \text{ kN/m}$$

$$\frac{L_{snow} \cdot L_{roof_dist}}{Beamroof_length} = 0.4000000000 \text{ kN/m}$$

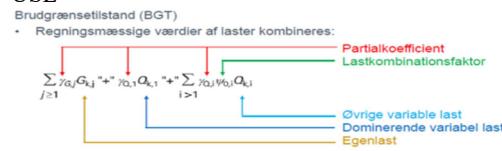
$$L_{windsuc} \cdot 2.3 = 1.518 \text{ kN/m}$$

$$L_{windsuc} \cdot 2.6 = 1.716 \text{ kN/m}$$

Load Combinations

Made Based on Eurocode 0 using diagrams on page 41 and 44
 Eurocode 0 page 44

USL



Konsekvensklasser CC2

$$K_FI := 1 = 1$$

Partial coefficient for permanent egenlast:

$$1 \cdot K_FI = 1$$

Partial coefficient for a variable as the leading

$$1.5 \cdot K_FI = 1.5$$

Øvrige variende laster ved nyttelast som dominerende
 Sne

$$1.5 \cdot 0.6 \cdot K_FI = 0.90$$

Vind

$$1.5 \cdot 0.6 \cdot K_FI = 0.90$$

Øvrige variende laster ved snelast som dominerende
 Nyte

$$1.5 \cdot 0.5 \cdot K_FI = 0.75$$

Vind

$$1.5 \cdot 0.3 \cdot K_FI = 0.45$$

Øvrige variende laster ved vindlast som dominerende
 Sne

$$1.5 \cdot 0 \cdot K_FI = 0$$

Nyte

$$1.5 \cdot 0.5 \cdot K_FI = 0.75$$

SLS (AGT)

Anvendelsesgrænsetilstand (AGT)

- Karakteristiske værdier af laster kombineres:



Factors for SLS

Partial coefficient for permanent egenlast:
 $1 = 1$

Partial coefficient for a variable as the leading
 $1 = 1$

Øvrige variende laster ved nyttelast som dominerende
 Sne
 $0.6 = 0.6$

Vind
 $0.6 = 0.6$

Øvrige variende laster ved snelast som dominerende
 Nyte
 $0.5 = 0.5$

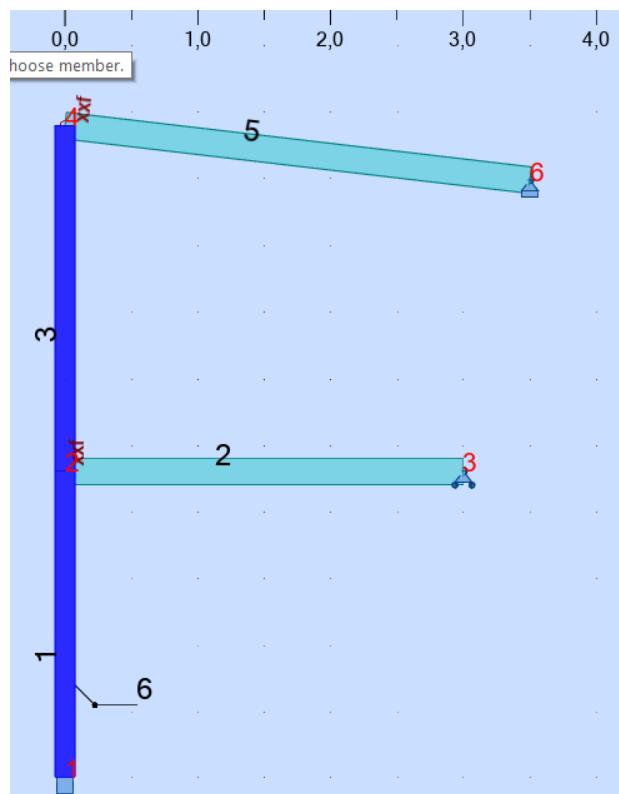
Vind
 $0.3 = 0.3$

Øvrige variende laster ved vindlast som dominerende
 Sne
 $0 = 0$

Nyte
 $0.5 = 0.5$

RESULTS FROM ROBOT

Screenshots from Autodesk Robot - The column



Ill 20) the model in AutoDEsk Robot

EN 1995-1:2004/A2:2014 - Member Verification (ULS) 6

Member	Section	Material	Lay	Laz	Ratio	Case
6 Timber Beam_1	C2415X15	C24	53.12	53.12	0.65	8 BGT - wind leading

Ratio

Calculation points
Division: n = 3
Extremes: none
Additional: none

Ill 21) Results of testing quadric element.
150 x 150 mm endures the load with a ratio of 0.65

EN 1995-1:2004/A2:2014 - Member Verification (ULS) 6

Member	Section	Material	Lay	Laz	Ratio	Case
6 Timber Beam_1	C2410X20	C24	39.84	79.67	0.55	8 BGT - wind leading

Ratio

Calculation points
Division: n = 3
Extremes: none
Additional: none

EN 1995-1:2004/A2:2014 - Member Verification (ULS) 6

Member	Section	Material	Lay	Laz	Ratio	Case
6 Timber Beam_1	C247.5X20	C24	39.84	106.23	0.73	8 BGT - wind leading

Ratio

Calculation points
Division: n = 3
Extremes: none
Additional: none

EN 1995-1:2004/A2:2014 - Member Verification (ULS) 6

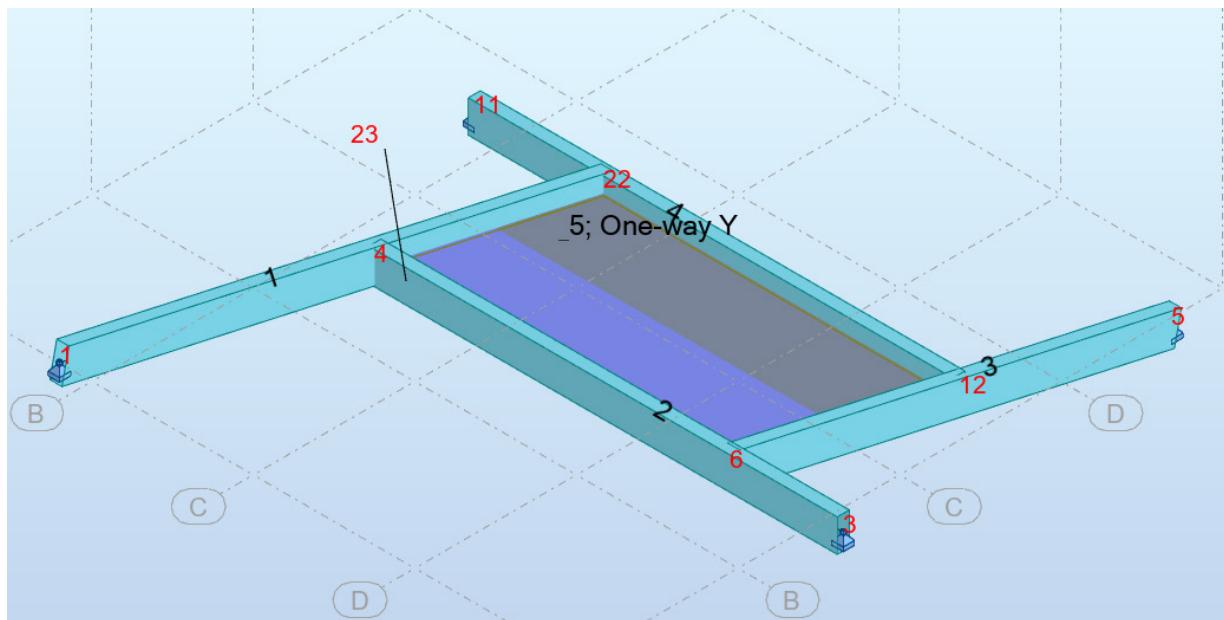
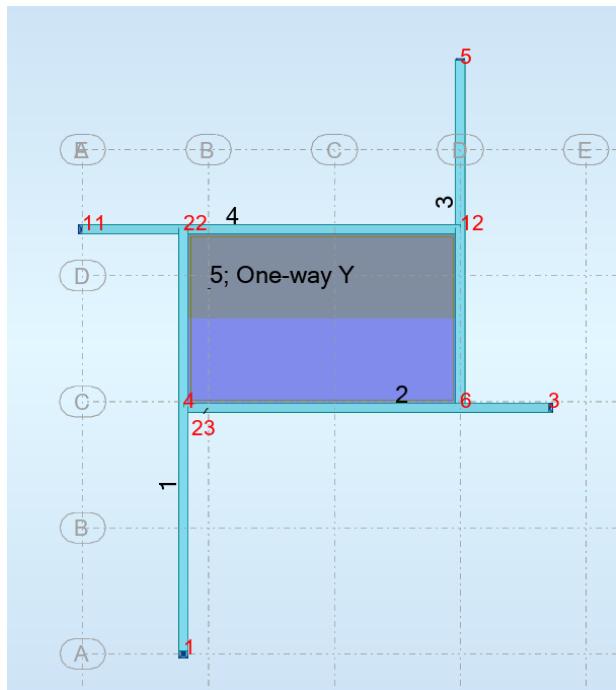
Member	Section	Material	Lay	Laz	Ratio	Case
6 Timber Beam_1	C245X20	C24	39.84	159.35	1.09	8 BGT - wind leading

Ratio

Calculation points
Division: n = 3
Extremes: none
Additional: none

Ill 22) Results of testing rectangular elements.
100 x 200mm endures the load with a ratio of 0.55
75 x 200mm endures the load with a ratio of 0.73
50 x 200mm fails and breakes with a ratio of 1.09

Screenshots from Autodesk Robot - The beams



Ill 23) Autodesk Robot

EN 1995-1:2004/A2:2014 - Member Verification (ULS) 1to4

Member	Section	Material	Lay	Laz	Ratio	Case
1 Timber Beam rf	C2415X15	C24	79.67	79.67	0.68	4 BGT - Snow
2 Timber Beam rf	C2415X15	C24	66.97	66.97	0.60	4 BGT - Snow
3 Timber Beam rf	C2415X15	C24	64.66	64.66	0.50	4 BGT - Snow
4 Timber Beam rf	C2415X15	C24	69.28	69.28	0.63	4 BGT - Snow

EN 1995-1:2004/A2:2014 - Member Verification (SLS) 1to4

Member	Section	Material	Ratio(uy)	Case (uy)	Ratio(uz)	Case (uz)
1 Timber Beam rf	C2415X15	C24	0.01	(1+0.6)*1 + (1+0*0.6)	0.86	(1+0.6)*1 + (1+0*0.6)
2 Timber Beam rf	C2415X15	C24	0.16	(1+0.6)*1 + (1+0*0.6)	0.72	(1+0.6)*1 + (1+0*0.6)
3 Timber Beam rf	C2415X15	C24	0.01	(1+0.6)*1 + (1+0*0.6)	0.51	(1+0.6)*1 + (1+0*0.6)
4 Timber Beam rf	C2415X15	C24	0.17	(1+0.6)*1 + (1+0*0.6)	0.76	(1+0.6)*1 + (1+0*0.6)

RESULTS - Code - EN 1995-1:2004/A2:2014

Member: 1 Timber Beam rf_1

Section OK

OK

Displacements Detailed results

Member deflection

$u_{fin,y} = 0 \text{ mm} < u_{fin,max,y} = L/200.00 = 17 \text{ mm}$ Verified

Governing load case: $(1+0.6)*1 + (1+0*0.6)*2 + (0.5+0*0.6)*3$

$u_{fin,z} = 15 \text{ mm} < u_{fin,max,z} = L/200.00 = 17 \text{ mm}$ Verified

Governing load case: $(1+0.6)*1 + (1+0*0.6)*2 + (0.5+0*0.6)*3$

EN 1995-1:2004/A2:2014 - Member Verification (ULS) 1to4

Member	Section	Material	Lay	Laz	Ratio	Case
1 Timber Beam rf	C2410x20	C24	59.76	119.51	0.56	4 BGT - Snow
2 Timber Beam rf	C2410x20	C24	50.23	100.46	0.48	4 BGT - Snow
3 Timber Beam rf	C2410x20	C24	48.50	96.99	0.42	4 BGT - Snow
4 Timber Beam rf	C2410x20	C24	51.96	103.92	0.50	4 BGT - Snow

EN 1995-1:2004/A2:2014 - Member Verification (SLS) 1to4

Member	Section	Material	Ratio(uy)	Case (uy)	Ratio(uz)	Case (uz)
1 Timber Beam rf	C2410x20	C24	0.00	(1+0.6)*1 + (1+0*0.6)	0.71	(1+0.6)*1 + (1+0*0.6)
2 Timber Beam rf	C2410x20	C24	0.11	(1+0.6)*1 + (1+0*0.6)	0.56	(1+0.6)*1 + (1+0*0.6)
3 Timber Beam rf	C2410x20	C24	0.00	(1+0.6)*1 + (1+0*0.6)	0.44	(1+0.6)*1 + (1+0*0.6)
4 Timber Beam rf	C2410x20	C24	0.12	(1+0.6)*1 + (1+0*0.6)	0.60	(1+0.6)*1 + (1+0*0.6)

RESULTS - Code - EN 1995-1:2004/A2:2014

Member: 1 Timber Beam rf_1

Section OK

OK

Displacements Detailed results

Member deflection

$u_{fin,y} = 0 \text{ mm} < u_{fin,max,y} = L/200.00 = 17 \text{ mm}$ Verified

Governing load case: $(1+0.6)*1 + (1+0*0.6)*2 + (0.5+0*0.6)*3$

$u_{fin,z} = 12 \text{ mm} < u_{fin,max,z} = L/200.00 = 17 \text{ mm}$ Verified

Governing load case: $(1+0.6)*1 + (1+0*0.6)*2 + (0.5+0*0.6)*3$

III 24) Results of testing quadric element.

150 x 150 mm

Considering ULS, the element endures the load with a ratio of 0.68

Considering SLS, the beam endures the load with a ratio of 0.66 - resulting in a deflection of 15 mm

III 25) Results of testing rectangular elements.

100 x 200 mm

Considering ULS the element endures the load with a ratio of 0.56

Considering SLS the beam endures the load with a ratio of 0.71 - resulting in a deflection of 12 mm

EN 1995-1:2004/A2:2014 - Member Verification (ULS) 1to4

Results Messages

Member	Section	Material	Lay	Laz	Ratio	Case
1 Timber Beam rf_1	C247.5x20	C24	59.76	159.35	0.75	4 BGT - Snow
2 Timber Beam rf_1	C247.5x20	C24	50.23	133.95	0.64	4 BGT - Snow
3 Timber Beam rf_1	C247.5x20	C24	48.50	129.33	0.56	4 BGT - Snow
4 Timber Beam rf_1	C247.5x20	C24	51.96	138.56	0.68	4 BGT - Snow

Calc. Note Close Help

Ratio Analysis Map

Calculation points
Division: n = 10
Extremes: none
Additional: none

III 26) Results of testing retangular elements.

75 x 200 mm

Considering ULS the element endures the load with a ratio of 0.75

EN 1995-1:2004/A2:2014 - Member Verification (SLS) 1to4

Results Messages

Member	Section	Material	Ratio(u _y)	Case (u _y)	Ratio(u _z)	Case (u _z)
1 Timber Beam rf_1	C247.5x20	C24	0.01	(1+0.6)*1 + (1+0*0.6)	0.73	(1+0.6)*1 + (1+0*0.6)
2 Timber Beam rf_1	C247.5x20	C24	0.15	(1+0.6)*1 + (1+0*0.6)	0.63	(1+0.6)*1 + (1+0*0.6)
3 Timber Beam rf_1	C247.5x20	C24	0.01	(1+0.6)*1 + (1+0*0.6)	0.44	(1+0.6)*1 + (1+0*0.6)
4 Timber Beam rf_1	C247.5x20	C24	0.16	(1+0.6)*1 + (1+0*0.6)	0.67	(1+0.6)*1 + (1+0*0.6)

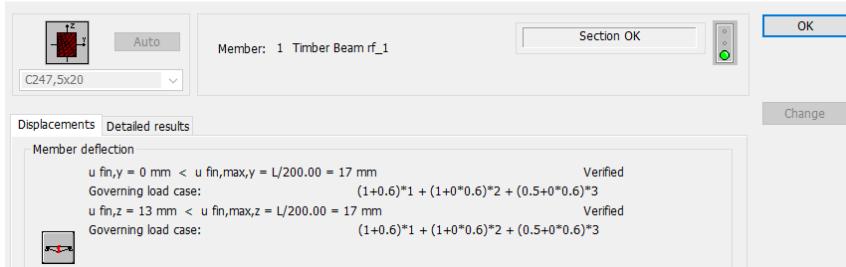
Calc. Note Close Help

Ratio Analysis Map

Calculation points
Division: n = 10
Extremes: none
Additional: none

Considering SLS the beam endures the load with a ratio of 0.73 - resulting in a deflection of 13 mm

RESULTS - Code - EN 1995-1:2004/A2:2014



EN 1995-1:2004/A2:2014 - Member Verification (ULS) 1to4

Results Messages

Member	Section	Material	Lay	Laz	Ratio	Case
1 Timber Beam rf_1	C245x20	C24	59.76	239.02	1.15	4 BGT - Snow
2 Timber Beam rf_1	C245x20	C24	50.23	200.92	1.00	4 BGT - Snow
3 Timber Beam rf_1	C245x20	C24	48.50	193.99	0.83	4 BGT - Snow
4 Timber Beam rf_1	C245x20	C24	51.96	207.85	1.05	4 BGT - Snow

Calc. Note Close Help

Ratio Analysis Map

Calculation points
Division: n = 10
Extremes: none
Additional: none

III 27) Results of testing retangular elements.

50 x 200 mm

Considering ULS the element fails and breaks with a ratio of 1.15

EN 1995-1:2004/A2:2014 - Member Verification (SLS) 1to4

Results Messages

Member	Section	Material	Ratio(u _y)	Case (u _y)	Ratio(u _z)	Case (u _z)
1 Timber Beam rf_1	C245x20	C24	0.01	(1+0.6)*1 + (1+0*0.6)	1.10	(1+0.6)*1 + (1+0*0.6)
2 Timber Beam rf_1	C245x20	C24	0.23	(1+0.6)*1 + (1+0*0.6)	0.95	(1+0.6)*1 + (1+0*0.6)
3 Timber Beam rf_1	C245x20	C24	0.01	(1+0.6)*1 + (1+0*0.6)	0.66	(1+0.6)*1 + (1+0*0.6)
4 Timber Beam rf_1	C245x20	C24	0.24	(1+0.6)*1 + (1+0*0.6)	1.01	(1+0.6)*1 + (1+0*0.6)

Calc. Note Close Help

Ratio Analysis Map

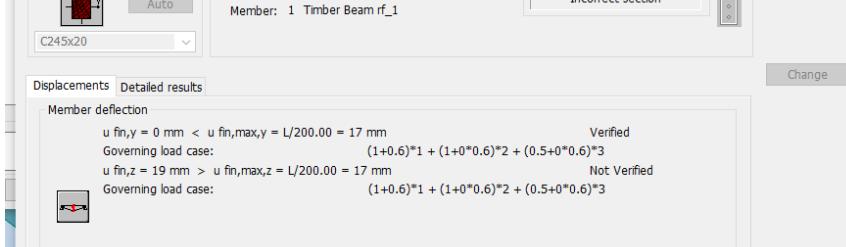
Calculation points
Division: n = 10
Extremes: none
Additional: none

Considering SLS the beam fails with a ratio of 1.10 - resulting in a deflection of 19 mm compared to teh accepted 17 mm

RESULTS - Code - EN 1995-1:2004/A2:2014

Results Messages

Member: 1 Timber Beam rf_1 Incorrect section OK



APPENDIX 17

Month Average and 24 Hour Average

The difference between having a window close to the façade or placing the window deep in the wall, are in this chapter investigated. This result will we used as a technical evaluation of where to place the window in the wall. All the val-

ues of the two scenarios are the same. The only difference is the value for the shading, simulating the window deep, is changed.

Differences	
Scenario	F(Shadow)
Window in line with the face	
North window	0.8
East window	0.6
South window	0.6
Deep window	
North window	0.7
East window	0.5
South window	0.5

Results			
	24-hour average (°C)	Max. Temperature (°C)	Energy consumption (kWh/m ² year)
Window in line with the face	24.0	28.0	19.5
Deep window	23.7	27.6	20.7
Difference	1.6 %	1.4 %	5.8 %

The common values of the different scenarios.

Konstruktioner mod det fri

A m ²	Beskrivelse	U W/m ² K	Bu W/K
13,18	North wall	0,11	1,4498
7,22	East wall	0,11	0,7942
18,04	South wall	0,11	1,9844
8,6	West wall	0,11	0,946
25,74	Roof	0,1	2,574
24,57	Floor	0,1	2,457
			0
			0
	so		0
Specifikt varmetab, konstruktioner mod det fri, (W/K)			10,2054

Vinduer

A m ²	Retning	U W/m ² K	Bu W/K	g-værdi	f(beta)	f(afsk)	f(skyg)	f(glas)	Fsol
4,82	n	0,53	2,5546	0,53	0,9	1	0,8	0,85	0,32436
	ne	0	0	0	0	0	0	0,9	0
1,38	e	0,53	0,7314	0,53	0,9	1	0,6	0,85	0,24327
	se	0	0		0,9	0	0	0,9	0
1,76	s	0,53	0,9328	0,53	0,9	1	0,6	0,85	0,24327
	sv	0	0		0,9	0	0	0,9	0
	v	0	0		0,9	0	0	0,9	0
	nv	0	0		0,9	0	0	0,9	0
	ovenlys	0,53	0		0,53	0,9	1	0	0,85
Specifikt varmetab, vinduer, (W/K)			4,2188	= Bu_vin					

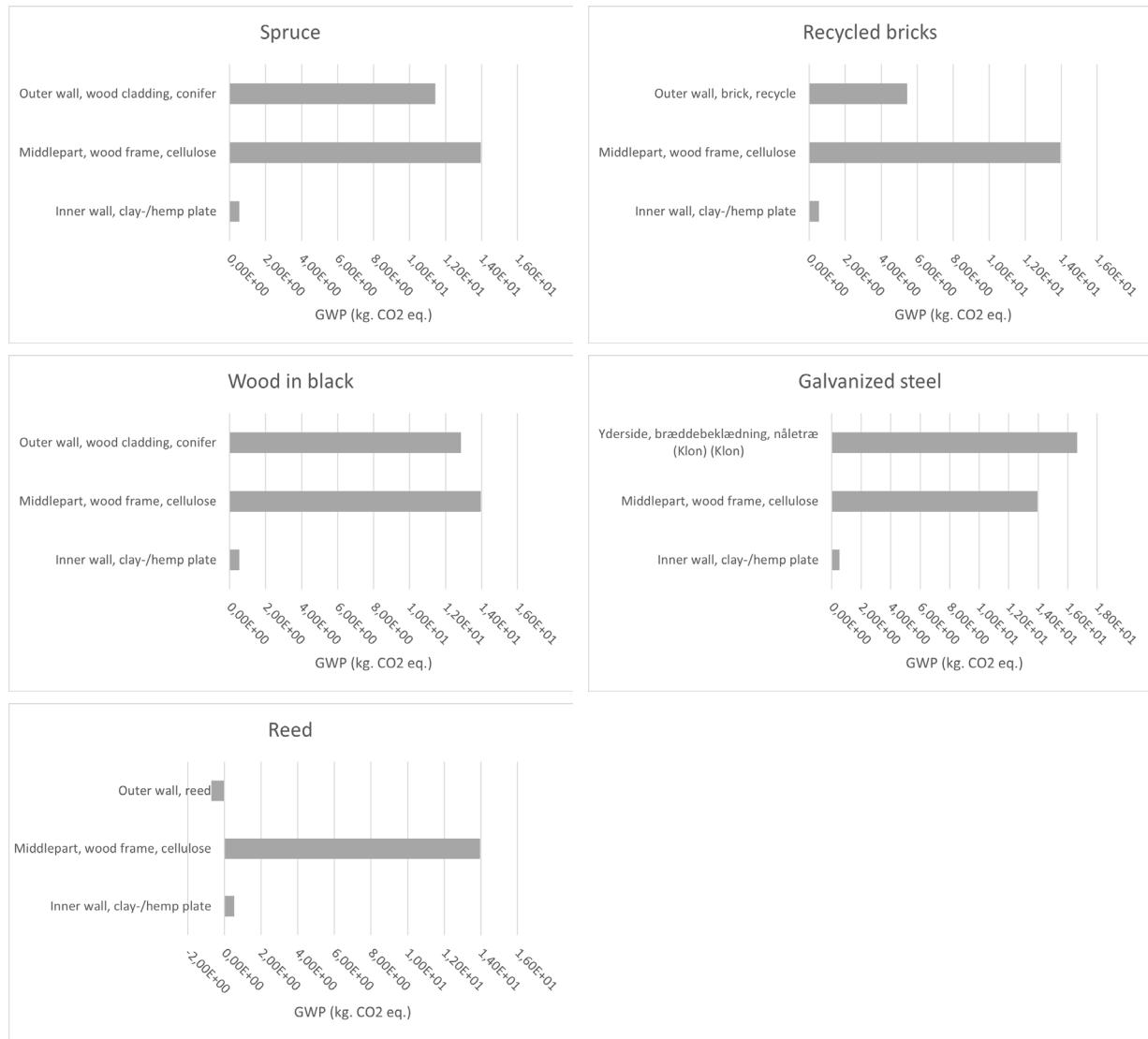
Varmekapacitet

Varmekapacitet	80
Tidskonstant	40,6
a	3,5

APPENDIX 18

Exterior Wall LCA

On the graph of the wall with the reed one can read how the outer wall ends up with negative Global Warming Potential (GWP). Opposite the wall with galvanized steel shows as the only one with a higher GWP than comparing to its own middle / insulation part.

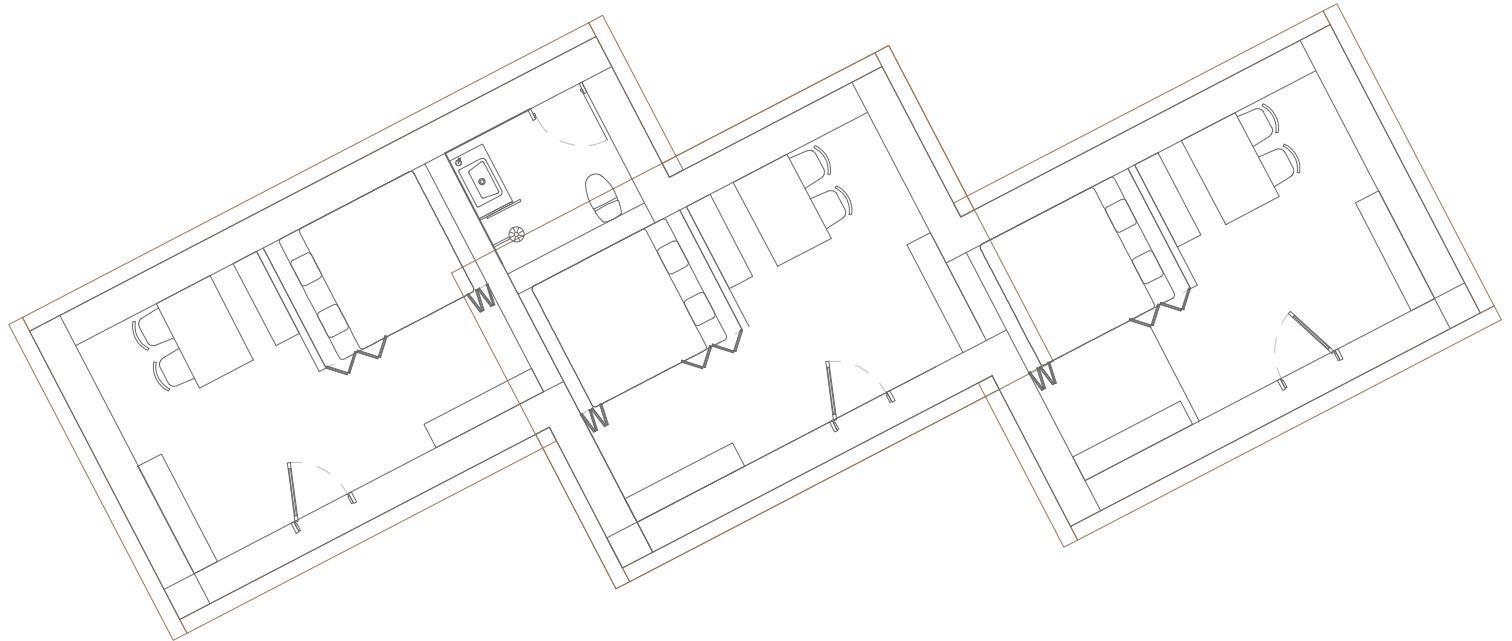


Ill 29) GWP LCA different external walls

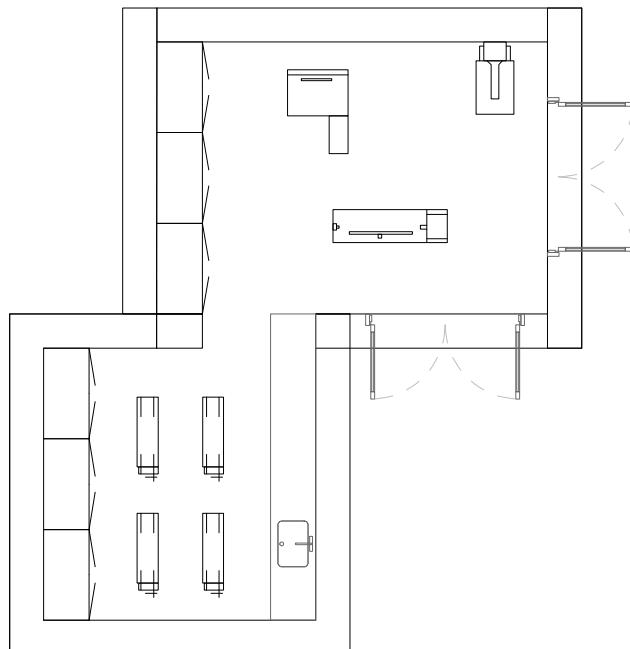
APPENDIX 19

Common Plans

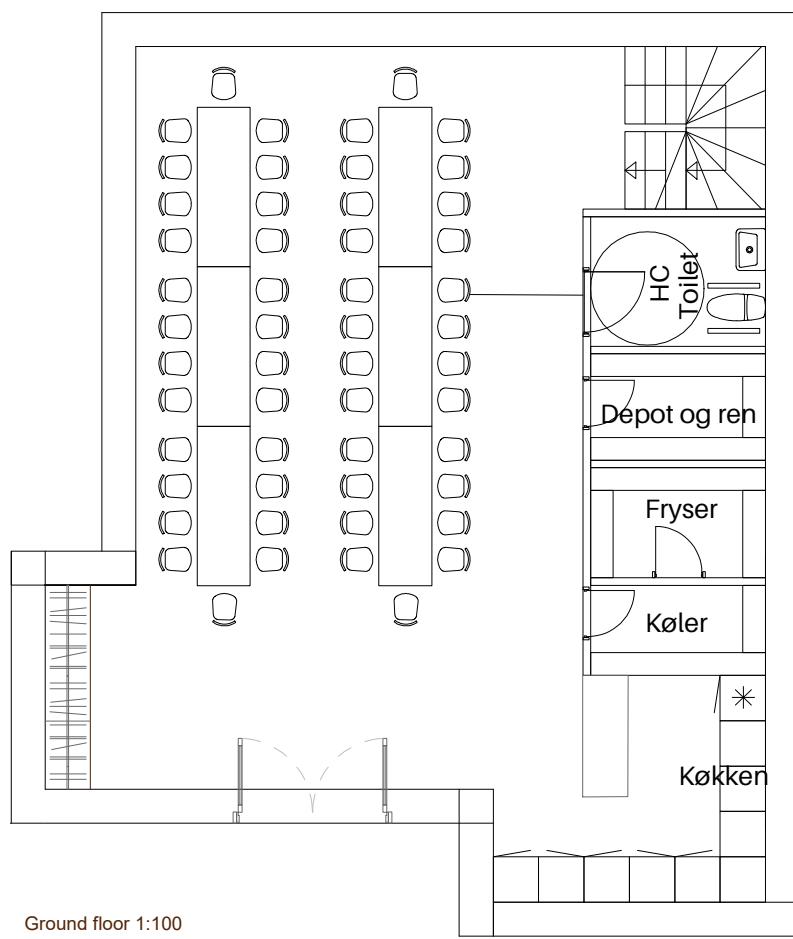
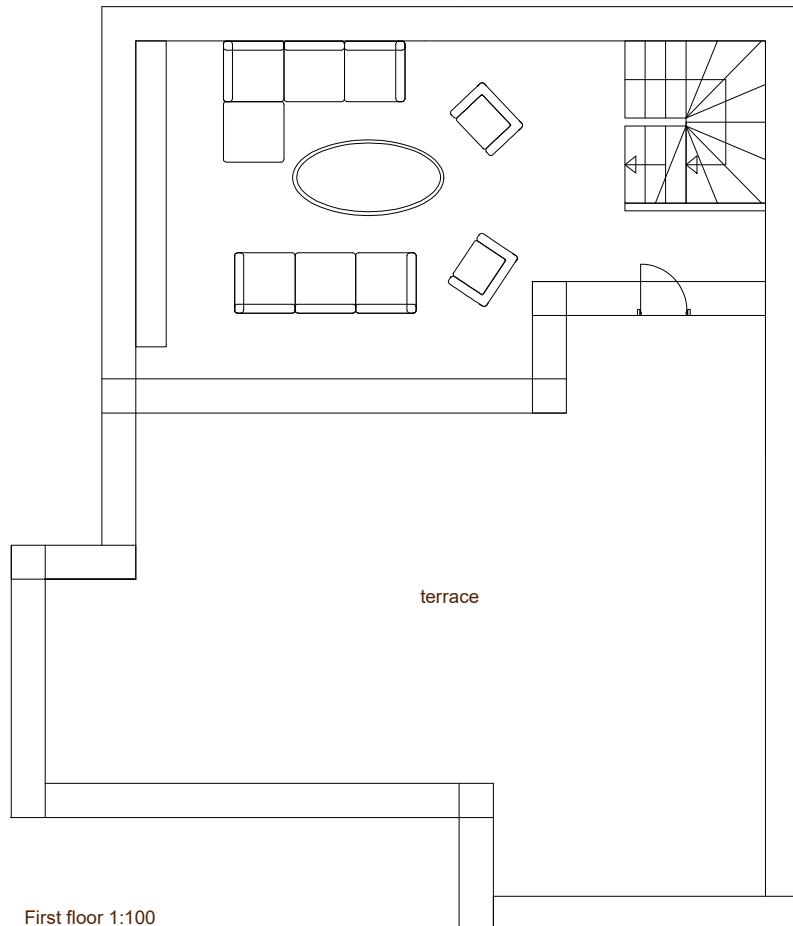
In order to make sure that the building plots on the site plan fits with the facilities. Some building plans have been created.



Ill 30) Cabins 1:100



Ill 30) Hard Workshop 1:100



Ill 30) Common house 1:100

LIST OF REFERENCES

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