



Another Way of Living

Danish Intergenerational Co-housing

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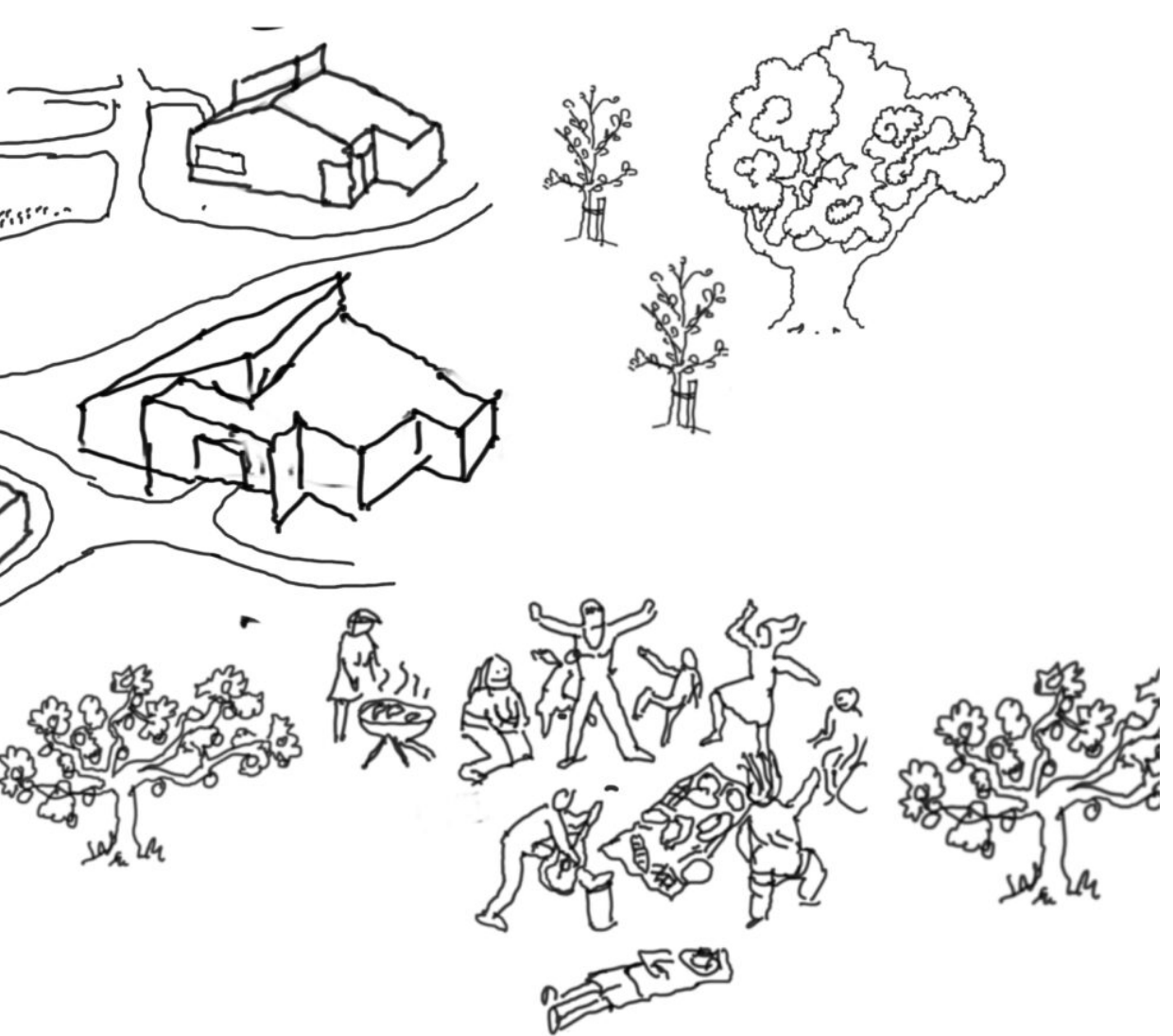
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ANOTHER WAY OF LIVING

DANISH INTERGENERATIONAL CO-HOUSING

BY
ANNA FALKENSTJERNE BECK

PhD Thesis 2025

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DANISH INTERGENERATIONAL CO-HOUSING

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AALBORG UNIVERSITY
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AUTHOR CV

Anna Falkenstjerne Beck holds a master in Visual Culture from Copenhagen University. Besides that she has been trained in visual art practices, dance, and art history (BA). Her original background was thus in the creative fields of art and architecture, which included art museum educating and giving talks about different art and architectural exhibitions. However, soon she was occupied with visual ethnography and anthropological methods doing fieldwork in the built environment, focusing on human interaction, living, and dwelling (e.g., in her master thesis and at Institute of the Built Environment, BUILD, Aalborg University). Human motivations for creating new approaches to life either through art practices or by bettering the environments for living socially and sustainably together, including our coexistence with the natural world have been key points in her working life and ambitions.

Social and cultural production and meaning of community in relation to the materiality of architecture are central themes in her research and work with the development of intergenerational co-housing projects. In 2019, Anna founded the company Falkenstjerne Fælles to work with these issues as a consultant and facilitator. In the company, Anna works as CEO with co-housing consultancy, facilitating new co-housing groups, advising developers, and giving talks based on her research on co-housing. She has written research publications about the creation of co-housing in both English and Danish, and has been part of a co-housing research group (collaboration with BUILD and Bofællesskab.dk) and working teams developing co-housing in a sustainable way (e.g., with Kuben Management, Front Arch, and others). Moreover, she sits on different advisory boards for building co-housing, which can sometimes be combined with other public facilities (e.g., care homes for the elderly, and day care for children) or be part of large scale city developments, making these developments more complex.

Anna has through her company also functioned as consultant for creating green local

neighbourhoods and communities (Grønne Nabofællesskaber), working with the challenging tasks of climate change. The focus here is to take collective environmental action in local groups. This work included collaborating with local institutions (Frederikssund Campus and Frederikssund Library), which was an important method for developing new sustainable conditions. This also led to that Anna together with her husband founded the network 'Green Propaganda Art' who collaborate on creating and exhibiting works of art focusing on climate change and what we as humans can do about this challenge in our everyday lives.

RESUME (IN DANISH)

Denne PhD afhandling omhandler danske aldersblandede bofællesskaber, der som selvorganiseret fælles boligform, udviklede sig i 1960'erne og 1970'erne på basis af en kritik af de traditionelle livsformer. Udviklingen af en række bofællesskaber er siden hen blevet til en bofællesskabsbevægelse, omend det blev en udvikling i forskellige faser, og med forskellige typer og former. Idag er danske bofællesskaber som begreb for første gang blevet del af den almindelige bevidsthed og dermed interesseobjekt for flere, inklusiv nye aktører og udviklere.

Fra et forskningsmæssigt synspunkt ved vi dog ikke ret meget om motivationerne for at etablere danske aldersblandede bofællesskaber og flytte ind i dem. Hovedfokus i afhandlingen er derfor på skabelsen og motivationerne for at bosætte sig i aldersblandede bofællesskaber idag. Dette inkluderer, hvad et aldersblandet bofællesskab er, og hvordan det er organiseret. Til dette formål er den danske bofællesskabshistorie blevet undersøgt, idet denne historie og dens forandring fra en 'nedefra-og-op' tilgang til en meget mere integreret del af samfundet, endog nogle gange anført af professionelle udviklere, afslører et billede af hvordan udviklingen har været, og hvad et aldersblandet bofællesskab egentlig er. I Danmark har mange bofællesskabsgrupper siden 1970'erne etableret bofællesskabsprojekter ved at købe jord uden for byerne, bygge og flytte ud af byen. Denne mod-urbane trend inspirerede til at undersøge nutidige grupper af kommende beboere, der ønskede at skabe og flytte i bofællesskaber på landet, som et alternativ til det bredere og mere kendte fænomen bestående af mere og mere urbanisering. Derfor indgår både landligt beliggende aldersblandede bofællesskabsprojekter og eksisterende aldersblandede bofællesskaber i forskningsundersøgelsen.

De udvalgte bofællesskabsprojekter og eksisterende bofællesskaber blev undersøgt på baggrund af en visuel, sensorisk og etnografisk tilgang ved at udføre feltarbejde, der strakte sig over 2 år, og følge projekterne under udvikling. De forskellige steder blev besøgt og fotograferet. Beboere i bofællesskaber, der havde eksisteret i mange år, såvel som kommende beboere i nye bofællesskaber, blev interviewet og fulgt gennem deltagerobservation. Ved at benytte visuelle etnografiske metoder fremgik det af undersøgelsen, at der er tre grundlæggende forskellige typer og måder at konstruere bofællesskaber på, som i nogle tilfælde bruges i samme projekt. Dertil viste forskningsundersøgelsen, at der er mange forskellige grunde til at skabe og flytte i bofællesskab på landet, når man analyserer motivationerne i relation til det biografiske perspektiv. En af de mest tydelige pointer fra bofællesskabsgrupperne og deres medlemmer er dog ønsket om at etablere et fællesskab, hvor det er muligt at udføre ting sammen og dele hverdagens aktiviteter, samtidig med at hver husholdning bor i hver sin individuelle bolig. Dertil viste det sig at nogle af nøglemotivationerne for at flytte ud af byen og bosætte sig i bofællesskab sammen, var at leve mere bæredygtigt og komme tættere på naturen. At bo på tværs af generationer og skabe gode livsbetingelser og nye muligheder i et naturligt miljø, viste sig dertil som generelle motivationer. Særligt, ville familier med børn gerne have gode legemuligheder og legestuer til deres børn.

På den måde mimer det landligt beliggende aldersblandede bofællesskab landsbyen, selvom det er på en noget anden måde, da det er en social og fysisk konstruktion udviklet af en gruppe mennesker, som gerne vil bo sammen, hvorimod landsbyer traditionelt set er udviklet over mange generationer og typisk af folk fra en bestemt egn.

I dette perspektiv er aldersblandede bofællesskaber 'et socialt sted at lande', og selvom der meget vel kan være udfordringer med at skabe og bo i aldersblandede bofællesskaber, så inspirer de på et samfundsmæssigt plan til at gentænke vores opfattelser af naturen, boligmiljøer, brug af ressourcer, og delemuligheder på tværs af generationer.

Et centralt tema for bofællesskaber er, hvordan de er organiseret i relation til de fysiske omstændigheder, ejerformer og det sociale. Derfor benyttes teorien 'The theory of the commons' [ordet 'commons' svarer til en 'fælled'] hvilket inkluderer 'a practice of commoning' (verbum af 'commons') til at opnå mere viden om skabelse og organisering af aldersblandede bofællesskaber. Ved at forstå bofællesskabet som en 'fælled', der sætter bofællesskabsbeboere i stand til at handle i fællesskab og skabe nye livsomstændigheder, slutter PhD afhandlingen med at fastslå at beboere i aldersblandede bofællesskaber etablerer et nyt socialt og bæredygtigt livsterræn. Det gør de udfra forskellige tilgange, eksperimenter og motivationer, men de gør det sammen.

SUMMARY

This PhD thesis is about Danish intergenerational co-housing, which is a self-organised collective housing form that evolved in the 1960s and 1970s, as a critique of traditional living forms. Developments of a range of different co-housing projects have since turned into a co-housing movement, albeit it took form in several phases, and from different forms, and types. Today, the concept of co-housing has for the first time come into the mainstream and thus an object of interest for more people, including new actors and developers.

However, from a research point of view we do not know much about the motivations for creating and moving to Danish intergenerational co-housing. The main focus of the PhD is therefore on the creation and motivations for living in intergenerational co-housing today. This includes what intergenerational co-housing is and how it is organised. To this end, the Danish intergenerational co-housing history was studied, as this history and the change of it from a bottom-up creation to a more mainstreamed, and sometimes even led by professional developers, reveals a picture of how this involvement has been and what intergenerational co-housing in it's essence is. In Denmark, many co-housing groups have since the 1970s created co-housing projects by buying land outside the cities, building, and moving out the city. This counter-urban trend gave inspiration to studying contemporary groups of future co-housers who wanted to create co-housing and settle in the countryside, forming an alternative to the broader and well-known phenomenon of more and more urbanisation. Therefore, both intergenerational countryside co-housing projects under development and existing intergenerational co-housing communities formed part of the research study.

The chosen projects and communities were researched from a visual, sensory, and ethnographic approach by conducting fieldwork for about two years and following the projects under development. The different sites were visited and photographs were obtained. Co-housers in long term existing as well as future co-housers in new communities were interviewed and followed through participatory observations. By using visual ethnographic methods, it was found that there are basically three different types and methods of constructing co-housing, which are in some cases used in the same projects. In addition, the research study revealed that there are multiple reasons for creating and moving to a countryside co-housing, when analysing the motivations from a biographical perspective. However, one of the most essential points for these co-housing groups and their members is a wish to create a community, where it is possible to do things together and share everyday life activities, while at the same time co-housing households live in each their individual dwelling unit. Moreover, it was found that living more sustainably and being closer to nature were other key motivations for future co-housers to move out the city and settle in co-housing together. Living across generations and creating good living conditions and new possibilities in a natural environment were found as other general motivations. Especially, families with children wanted good playing conditions and playmates for their children.

In this way, intergenerational countryside co-housing mimes a village, although in a rather different way because it is a social and physical construction developed by a group of people, who wants to live together, whereas villages traditionally have evolved over several generations and typically by people from a specific location.

From this perspective, Danish intergenerational co-housing is 'a social place to land', and although there might well be several challenges when creating and living in intergenerational co-housing, it can inspire on a societal level to rethink our perceptions of nature, living environments, use of resources, and sharing possibilities across generations.

A central theme of co-housing is how it is organised in relation to the physical circumstances, tenure forms, and the social. For that reason, 'The theory of the commons', which includes a practice of 'commoning' (verb of commons) was used to get more knowledge on intergenerational co-housing creation and organisation. Perceiving co-housing as a commons, which empowers co-housers to take collective action to create new living conditions, the PhD thesis ends with determining that intergenerational co-housers create communities as a new social and sustainable life terrain. They do this from different approaches, experiments, and motivations, but they do it together.

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The PhD thesis is based on an industrial PhD project, which was formed as a collaboration between an academic institution and an industrial partner. The academic institution was Department of the Built Environment (BUILD) at Aalborg University in Copenhagen (former Danish Building Research Institute). The industrial partner was Kuben Management, which is a client consultancy company, providing consultancy, building expertise, and analyses for building owners, developers, non-profit housing organisations, and municipalities. Moreover, the PhD project had a third-party institute, Danish Town Planning Institute, who was associated with the project on a non-compulsory basis. Before getting the PhD project started, I spent some time to initiate the PhD, find an industrial and an academic partner, and seek funding for the project. Thanks to former director of Kuben Management, Jens Henrik Haahr for initially engaging the company in the project. I also want to thank Professor Claus Bech-Danielsen, Department of the Built Environment for welcoming me in the architectural PhD research group even before I could start the PhD. I had many interesting debates and learnings in this group. When starting the PhD, I continued as a member of the group and of other research groups at the department, where we had fruitful discussions across disciplines. As the project was an industrial PhD, I also want to thank the company of Kuben Management for supporting the project and receiving me in the company as a PhD fellow. The Danish Innovation Fund runs an industrial PhD program and sets the regulations of the program, which stated that the PhD fellow should be employed in the company and be fulltime working with the PhD project both at the university and in the company. Due to the industrial PhD regulations, two industrial supervisors in the company should be associated to the project. Thanks to Jakob Le Klint and Stine Jensen, as well as their predecessors Jette Søndergaard and Signe Sloth Hansen, who all have undertaken this task in a supportive and duly manner. Jette Søndergaard retired and Signe Sloth Hansen got a new job. Ellen Højgaard Jensen, former director of The Danish Town planning Institute faithfully followed the PhD project as a third-party supervisor. Thank you for this fine coaching effort. Also, thanks to The National Building Fund, Landowners Investment Foundation, and Danish Innovation Fund, from which the PhD project received support.

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Being part of and building up a professional network around the subject of co-housing

has been an ongoing theme in the journey of conducting this PhD, giving me many thoughts and the courage to continue to develop my research and convey what all the collaboration in co-housing is about, including how it might develop in the future. It connected me in a wonderful way to researchers and practitioners in Denmark and abroad. Thanks to Professor Vincent Gruis, and assistant professor Dr. Darinka Czischke at Delft University of Technology (TU Delft), Faculty of Architecture and the Built Environment, Department of Management in the Built Environment, for receiving me as a visiting quest researcher. A special thanks to Dr. Darinka Czischke, who took time to discuss my project, for involving me in the activities going on at TU Delft and letting me know about her work on collaborative housing. Besides that, Darinka came to stay for a week at the Danish Building Research Institute as a guest researcher. We had the opportunity to go on fieldwork together and to have meetings with different people from our respective networks. Darinka is also involved in the European Network of Housing Research (ENHR) as member of the ENHR board and initiated together with Professor Richard Lang and Dr. Claire Carriou the coordination of the working group 'Collaborative Housing'. Being part of this working group, I want to thank both the coordinators and the group for being one of the most interesting current networks to accomplish fruitful discussions on current issues of collaborative housing. It was an interesting period at TU Delft meeting many colleagues, including Dr. Lidewij Tummers, who was at that time finishing her dissertation on co-housing, self-management and renewable energy, and Dr. Sara Brysch, who was in the initial phase of starting a PhD on minimal, affordable, and collaborative housing. Thanks to both of you taking time to talk with me on shared issues.

Deeply thanks to everybody in the field of Danish co-housing, who has been involved in this project. Without the visits to all the co-housing projects in the record and the many interviewees, who took their time to talk with me, as well as other people, who has come across this PhD project, giving me feedback, it would not have existed. While following projects that were not yet realized, I visited and got involved in several participatory activities such as development days, meetings, general assemblies, a foundation stone ceremony, a ceremony of raising the rooftree, and walking in the landscapes or in the forest together. The possibilities for informal talks with participants in these activities made me aware of aspects of the creation of co-housing, which I would not have learned without these dialogues. Thank you for these dialogues and for letting me participate in these group activities. It gave this project a beautiful and meaningful flavour.

Lastly, but not at all least, thank you to my lovely supportive husband Ole Lorin Rasmussen and our two children, Rued and Ella, as well as my wider family. You have all supported me through both the worst and the best days, which of there has luckily been mostly good days, in carrying out this project.

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3. Co-Housing Commons as Horizontal Organizational Entities. *Submitted to Housing Studies May 2024. In review process*

PREFACE: ABOUT COMMUNALITY AND THE NOTION OF LIVING TOGETHER APART

The thesis is based on a PhD study, which treats a collective housing form, designated co-housing (also spelt cohousing) that supports social interaction and sharing between neighbours. Dwelling in co-housing links to communality, sustainability, and building a community-oriented way of life, while at the same time, the inhabitants have also private dwelling spaces.

Communality

As humans we are deeply dependent on each other, especially in the very beginning of our life. When we are born, we are essentially born into community, being together with other humans, belonging to a family and being part of a society. The saying “No man is an Island” coming from a quotation from John Donne’s ‘Devotions’ 1624, witness that no human is self-sufficient and that everyone relies on others. As humans we are on a fundamentally plane deeply depended on communality; on being part of a group. One of the worst punishments is isolation and exclusion, not being allowed to be with others. Held in solitary for long periods of time can drive a prisoner crazy. Being part of a community is important for the human condition and the social quality of life. Robert Waldinger, who is the forth director of the longitude research programme ‘The Harward Study of Adult Development’, and his team found that having good relationships are of highest importance for the human condition in terms of health, wellbeing, and quality of life (<https://www.adultdevelopmentstudy.org/>). Developing good and close relationships to people we live with, family, neighbours, and local community members, is an essential part of life.

The dwelling situation

The dwelling situation constitute a framework for human life and social interaction. We connect to each other (and to each other’s life) living in families, in households, and in dwellings that are designed in ways that are supposed to support our living. However, we divorce, live as singles with or without children, in new family constellations, across generations, as couples living apart, or as rainbow families, etc. In 2012, there were in Denmark reported 37 family constellations (Statistics Denmark 2012). We have not yet designed houses for all these different ways of living. Many dwellings are still designed for the nuclear family, which is perceived as an ideal, although in Denmark only 18 % of all households live in exactly this family constellation (Bech-Danielsen et al., 2018:121). In addition, more and more people live alone. Today, 40% of all Danish households are occupied by only one person (Bech-Danielsen et al., 2018; Statistics Denmark 2024). Individualistic living has many benefits, but the dark side of single life is loneliness. To dine alone day in and day out can be depriving. Many elderly people live as singles and are lonely, but also young people can be lonely. Although, people who live as singles can have a fantastic life filled with family, friends, relatives, colleagues, and neighbours, social life could in a broader community perspective be better connected to our dwellings. We live in each our square or box: apartments, or detached houses on lots with each our

private home surrounded by walls, hedges, and fences and often the only space shared with the neighbours is the street or the staircase. Sometimes we do not even know, or want to know, the people we live next to.

Resonance and togetherness

In 2020, I was asked by Co-lab Research to write about my personal motivations for studying intergenerational co-housing. I wrote a blog, which I called: 'Living Together Apart'. Here is what I wrote: "Talking about the resonance of the instruments and musicians playing in an orchestra, how they join with one another in symphony, and in the notion of sympathy, professor of anthropology Tim Ingold in a conference about architectural anthropology, used two words for such a musical experience: 'together apart'. He was not only talking about the notion of human beings and things (instruments, etc.) coming together, assembling, but also about the human activity of gathering and communality: the feeling of togetherness, of going along together and at the same time, the knowing that everyone is on his or her own with each their instrument. This is the doing and sounds of the instruments, the collaboration of doing things together. The thoughts Ingold presented are connected to human dwelling and the making of a community. The proposition 'together apart' can have both positive and negative connotations, depending on whether one most wants to be together or apart, but there is something essential about it. We cannot run away from this condition of human life; maybe the best is to try to balance, how to be on individual terms and at the same time being together, respecting both the need for privacy and the need for communality". I think, it is this doing things together, joining up, and joining with each other, which residents in co-housing communities are so good at.

My personal motivation

In relation to my personal motivations, I continued as follows: "I was born into a large family with aunts, uncles, and cousins, and a grandmother, who was in many respects the centre of the family, for example, she helped our parents taking care of all us grandchildren. We lived quite nearby each other. At one point, I remember that two of my aunts with their families were living in the same small village as my grandmother. Therefore, we saw each other on a regular basis and did everyday activities together, for example, we were often drinking tea or dining together, skiing in wintertime, or helping my grandmother in the garden. When my grandfather suddenly died, and a few months later my parents got divorced, my mother, my sister, and I stayed at my grandmother's house for half a year. Helping and caring for each other daily, was a natural thing in my large family. I think it was a gift of my childhood to be part of this family community, and that it formed me as a person. I know the fun and the benefits of communality. The motivation for researching co-housing is rooted in these experiences from my childhood. Today, in my family we still care for each other, but we live much more separated, further away from each other, and we do therefore not see each other daily anymore. This is also the case for many other people in our society: we live separated in each our small households, with distance to our relatives and friends. Our homes, workspaces, and shopping facilities are separated. This separation of functions and

spaces for living, working, and doing other activities in daily life, is something that we have got so used to that we mostly do not even question this way of living. However, people in co-housing do ask questions like this and many dissociate themselves from residential areas, where people live in detached houses divided by fences and hedges not having much to do with each other. For residents in co-housing an important notion is to know the neighbours, to share, and have a social life connected to the dwelling, while still having space for privacy and a life in each household. In one way, they seek to live ‘together apart’” (www.co-lab-research.net/page2/).

These thoughts and considerations form the background for the first steps taken into the PhD study, which is about creating co-housing, which includes how to organise together, and not least the motivations to create and move to a co-housing in the countryside.

CHAPTER 1. AIM AND PERSONAL POSITIONING

1.1 MY ACADEMIC BACKGROUND AND HOW IT HAS INFLUENCED THE PHD

To clarify the intension with the PhD project, I will start to introduce my academic background, before informing about the aim with the PhD. By doing so I follow the methodology of ‘situated knowledge’, which was used as a way of thinking in the PhD project (Haraway, 1988; Madison, 2005). Situated knowledge always include a subject and a situated body in the research, or what we would call the ‘I’ of the researcher. The ‘I’ of the researcher built on the professional, academic, and personal background giving the researcher his or her point of departure towards the researched. To position the academic viewpoint and situation of the researcher, the researcher’s background need therefore to be explained. In the preface, I have already explained my personal background and motivations for researching intergenerational co-housing and will now continue with my academic and professional background.

My academic background is in the disciplines of Art History and Visual Culture studies. History of art builds on a long tradition for treating, perceiving, and relating art and architecture as aesthetic and material works of art to different historical times, epochs, spaces, and contexts which they are created in. When studying art and architecture, art historians typically investigate the materiality of the artwork, including styles, aesthetics, and the contextual relations to the cultures of society. The contextualization hereof is about connecting to different tendencies in contemporary or historical culture, when the artwork or piece of architecture was produced, as well as understanding how artwork and architecture impact it’s users and society today. These interactions, connections, and contexts are at the core for art historians to convey. Because the creation of art and architecture forms part of society, this includes how participants perceiving or using art and architecture get involved. The art viewer becomes user and through his or her perception also a co-producer of art and user of architecture by forming life inside and outside the building. Thereby, a connection or interaction between materiality and sociality occurs. In this PhD, it is the interactions between the architecture of dwelling, and inhabitant’s co-production of co-housing communities, including their motivations for creating and moving to a countryside co-housing, as well as how co-housing is organized, and conceived, that is in focus. In this sense, the sociality of architecture has priority, and the study is therefore not about the aesthetics of single architectural co-housing cases.

The academic discipline of Visual Culture stemmed in Denmark from the institute of Art History at Copenhagen University and is now under the Department of Arts and Culture Studies at Copenhagen University. Visual Culture is an interdisciplinary academic field with focus on visual, spatial, and cultural topics, which are not necessarily aspects of

art or art related, but which are connected to culture studies, social studies, ethnography and human geography. Bridging theory and praxis in the crossing fields of architecture, art, design, photography, fashion, sound, performance, urban studies, anthropology, and social studies form the basics of Visual Culture. Visual dimensions, aspects and issues are thus combined and analysed with a focus on human being and on groups of people in different life situations. A visual-sensory ethnographic methodological approach of the PhD (Pink, 2015 and 2013; Rose 2007), which will be described in chapter three, had formed a basis in the experience I had of conducting fieldwork for my master thesis, which was about an alternative community and cooperative trailer-park, primarily used as secondary homes (Beck 2012).

Because co-housing is a multi-faceted housing concept, many things come together across disciplines when starting to explore this field. An interdisciplinary and creative approach, which I had been trained in through my academic praxis through the study of Visual Culture and my former work with art and architecture as a visual artist and teacher in art museums, has therefore shown productive throughout the investigation of the subject of studying the creation of and motivations for intergenerational co-housing.

1.2 THE OVERARCHING AIM WITH THE PHD

Due to ongoing urbanization, which was some years ago developing quite fast in Denmark leaving many rural areas and small towns behind (stagnation, decrease in population, school closures, and so on) the PhD project was first thought as a study of combining urban-to-rural migration research with co-housing research. Knowing that groups of prospective residents were planning to move out of the city to create intergenerational co-housing projects together in the countryside, I got interested in why these groups were creating co-housing and who they were. Apparently, they were doing the opposite than most other households, who wanted to live in the city centres or suburbs close to their jobs or studies, even when they settled down to have a family. I wondered how these groups of future co-housing residents organized, arranged, and managed to create their projects and what their motivations were.

1.2.1 Lack of up-to-date research on intergenerational co-housing

However, when I initiated the PhD project, I found that up-to-date research on Danish intergenerational co-housing was lacking, whereas there had been more focus on senior co-housing (Choi, 2004; Durrett, 2005; Pedersen, 2013 and 2015). Therefore, a starting point of the PhD, was to write about the concept of intergenerational co-housing and how different designing types of co-housing had been developed. Furthermore, as the industrial partner Kuben Management has as one of their important consultancy concerns how the organisation and creation of housing is conducted, it was appropriate to also have a focus on how co-housing is created, built, and organized. Therefore, I included a stronger emphasis on the creation and organization of co-housing, than thought in the first place, and I connected the organizational and social part of co-housing to the theory of the commons.

The overarching aim with the PhD was thus to get an understanding of what co-housing is, how, and why Danish intergenerational co-housing is and has been created, including how co-housing is organized and why future residents take the choice to be part of a co-housing group and move out the city together. Because Denmark has been a pioneer country, when it comes to co-housing, the fieldwork was undertaken solemnly in Danish co-housing communities and projects under development. Therefore the PhD is on Danish intergenerational co-housing, which is a rich and was as mentioned a somewhat under-researched field, when I started the PhD study.

The choice to make the PhD based on academic papers about these themes of intergenerational co-housing, was decided as a method to get into an international forum and to treat each subtopic of the PhD in papers presented at international conferences. The purpose was to deliver academic knowledge on Danish intergenerational co-housing to both a national and international audience and to take part in international research networks. Different theoretical angles were fitted to the subject of each paper. The investigated subtopics were explored and approached through fieldwork findings, analysis, and theoretical discussions, and related to existing co-housing literature. As part of the introductory document (the text you read now), an analysis of the findings of the PhD study related to the papers and the history of intergenerational Danish co-housing was also conducted

1.2.2 Media coverage and growing attention to co-housing

The field of co-housing has developed throughout the years when conducting the PhD study. In Denmark, like in many other countries, the desire for co-housing has re-emerged (Tummers, 2017). People have become interested in this kind of collective housing as a more socially way of living. Concurrently, there has come a new focus on the subject in public media, and from developers, municipalities, politicians, researchers, etc.

During the time of the PhD project, the subject of co-housing received an overwhelming interest and growing media coverage. I received many emails and phone calls from journalists, students, consultants, municipalities, researchers, architects, new developers in the building industry, and several other national and international actors. Throughout the study, I participated in newspaper articles, blogs, talks, seminars, workshops, conferences, and on national television- and radio programs, besides giving talks at several occasions and presentations on international academic conferences as well as on internal seminars at Kuben Management. Furthermore, different Danish municipalities and co-housing communities invited me to speak at conferences and development days. In addition, I was invited by the Danish-Finish Culture Fund to Helsinki to give a talk on Danish co-housing for a Finish audience.

Every year a large meeting, Byplanmødet, for all planners and politicians in the municipalities of Denmark is held by the Danish Town Planning Institute. I conducted a publication in Danish (Beck, 2019), which was released at the meeting, where I was invited to give a talk about the creation and planning of co-housing. In 2020, I was also invited to give a presentation at a meeting with the working group of different

co-housing actors set by Ministry of Interior and Housing to further the creating of building groups- and co-housing projects (Indenrigs- og Boligministeriet, 2021). Therefore, when carrying out the PhD project, I also moved in new directions while obtaining knowledge throughout the study, learning from the fieldwork, making analysis, conducting talks at seminars and conferences, giving interviews, and learning the academic discipline to write papers. Throughout the last few years, more and more investors and developers have got interested in building co-housing, followed by non-profit housing associations. These steps have brought new attention to the subject of co-housing developments in Denmark. This has influenced the perception of the PhD study and the knowledge produced in the PhD, in terms of people acknowledging and perceiving the subject as an issue of today's housing, in another way than, when I started the study, where I sometimes met people asking: 'But what is co-housing?' and wondering why I wanted to study such an alternative subject. During the time of carrying out fieldwork for the PhD, the attention of co-housing became a mainstream subject.

1.2.3 Research project together with BUILD and Bofællesskab.dk

In the spring 2018, I was elected to become a member of the board of the national co-housing network association Bofællesskab.dk, which had been established as a proper association only some months before. The webpage Bofællesskab.dk had previously been a low-key self-register site, where co-housing communities could self-register, but in 2018 the site was updated with help from Realdania, which is a Danish philanthropic business fund working for the built environment, and the association was founded to better connect existing co-housing communities and encourage the building of new co-housing. I was a member of the board of the association Bofællesskab.dk for two years because I was interested in the creation and organization of co-housing.

After these two years, I was as a researcher deeply involved in a research project mapping and analysing Danish co-housing through both quantitative (register based data) and qualitative methods (Jensen et al., 2022a). The research project was a cooperation between BUILD at Aalborg University, Bofællesskab.dk, and my company Falkenstjerne Fælles, which is a co-housing consultancy firm, founded in 2019. We registered 418 communities with about 10.000 dwelling units (Jensen et al., 2022a). However, there might well be many small communities that we could not register because they do not have a homepage or are known by bofællesskab.dk.

My responsibility was to write a literature review, conduct all qualitative work, and qualify the report (Jensen et al., 2022a:10-35). In order not to have too many titles, I stopped as board member at Bofællesskab.dk. Furthermore, over the last years, I have through my company as project leader, facilitator, and coordinator of the social and organisational design processes been involved in creating new co-housing schemes, including a new built cooperative co-housing named Vænget in Torup, which is soon going to be built on the same site, where the group of 'Torup Overdrev', which was investigated as part of the PhD study, wished to create a co-housing but failed.

2. INTRODUCTION TO THE SUBJECT OF CO-HOUSING

2.1 THE EVOLVEMENT, DESIGN, AND CONCEPT OF DANISH CO-HOUSING

Danish co-housing has evolved for over half a century, taking form from different visions, experiments, designs, tenures, and methods of creating and building housing projects collectively. In contrast to co-housing in other countries (e.g., Sweden), which have developed urban and high-rise communities, the Danish co-housing model to begin with evolved as low rise and dense communities (Nygaard, 1984; Vedel-Petersen et al., 1988). The design of low rise and dense clustered communities, the so called 'tæt-lav' [dense-low] model, used for many Danish co-housing communities, had its historical roots in the late 1960s and early 1970s, reflecting a critique of how society had constructed uniform and anonymous housing for the nuclear family with very little room for interactions with other families and spaces for children to play and express themselves (Gudmand-Høyer, 1968; Graa, 1967). By building co-housing as dense communities the wish was to have more social contact and sharing with like-minded families and by building low-rise to be closer to green areas and nature, including possibilities for children to run and play. This factor played a central role in the location of many co-housing communities. They were typically built in sub-urban, semi-rural or rural settings away from larger city centres and formed thus part of the counter-urban story of the 1970s (Nygaard, 1984; Larsen, 2020).

2.1.1 The critique of the 1960s and 1970s

A social and psychological awareness connected to the physical dimension of the dwelling situation was in the 1970s analysed by Ingrid Gehl in the report *Bo-miljø*¹ (Gehl, 1971:71). New family structures with both parents in the workforce meant at the time new ways of living. Anti-authoritarian critique of society in the late 1960s also meant a new awareness of cultural, social, and political issues of gender and power equality, property rights, creativity, and democratic organisation leading to the emergence of the movement of commune settlements with shared economy (Christensen and Kristensen, 1972). A substantial critique of alienation in the large plans of uniform high-rise residential areas was concurrently provided (Gehl, 1971:6). This went hand in hand with the renewed orientation towards more community-life, local democracy, participation, decentralisation, and experimentations with collective and shared living of the late 1960s and 1970s (A-70, 1971; Jensen, 1985; Nygaard, 1984:204-230; Prins & Reich, 1972). In response to this critique, the Danish Building Research Institute (Statens Byggeforskningsinstitut SBI, now Department of the Built Environment) organised an architectural ideas competition for developing a new system of low-rise and dense clustered housing in 1971 (SBI, 1971a; SBI, 1971b; SBI, 1976). The young architectural firm Vandkunsten won the competition with a project that was designed as an organism that could expand over time and develop into a modern village as dense areas of low-rise clustered houses with streets and squares

1 Bo-miljø can be translated to 'dwelling or living environment'

connected to common houses (SBI, 1971a; SBI, 1971b). This led to the development of two large co-housing communities, Tinggården 1 from 1979 and Tinggården 2 from 1984 (Vedel-Petersen et al., 1988:7).

'Tæt-lav' clustered neighbourhoods

To overcome the problems with large uniform residential areas, 'tæt-lav' neighbourhoods were developed over the coming decades to build a model inspired by community/village-like structures (SBI, 1971b; Nygaard 1984:273). In Denmark, there are today many such 'tæt-lav' neighbourhoods with clustered houses, a common house, playgrounds, and parking on the periphery designed from inspiration to this building model (Nygaard, 1996; Nygaard, 1984:230 and 260; Vedel-Petersen et al., 1988:7 and 81). The physical design of 'tæt-lav' neighbourhoods have some of the same features as in co-housing and are often of high architectural quality. However, it seems as it is not enough to design a physical space of dense housing with common facilities to get a socially well-functioning community. In a large survey investigation, inhabitants in some of the 'tæt-lav' neighbourhoods expressed that they were disappointed not to find the social community they thought they would, when moving in (Ærø, 2002:126-131). Besides good physical structures the condition for social interaction is presumably also dependent on the inhabitants doing activities together and organising a culture of social interaction for their residential area to become a social place. This is also what Skifter Andersen (1985), professor and former co-houser indicated. About the experience from co-housing, Skifter Andersen stated that "Physical nearness and shared facilities are not enough to create social contact and a strong network. It is through common work and activities that people get to know each other and establish social relationships" (1985:62). The sense of becoming is important here: A continuously becoming in an interplay with the physical circumstances, while doing things together because there are important tasks to get carried out. Creating a culture for the social structure and organisation of the community seems to lay a groundwork for the social doings and to taking active part in the community.

Different designing types

The 'tæt-lav' model in its many variants (e.g., rows, terraced houses, or clustered houses with a common house centrally located, or integrated structures for example in spilt-levels, and glass-roofed streets connecting dwelling units with the common house) became a standard design for new-built Danish co-housing (Blød By, 1981:9; Nygaard, 1984). However, continuously different types, forms, and sizes of co-housing have been designed and built in Denmark (Jensen et al., 2022a). For example, during the 1970s and 1980s adaptive reuse/rebuilding of old building structures for co-housing projects, such as farms, manors, former factories, and school buildings, became another method of creating housing collectively. The first example is Toustrup Mark, which was rebuilt on the structures from a former factory area bought in 1970 and located in a small village (A-70, 1971; Jensen, 1985). The rebuilding took form during living there and it was some of the dwellers who got paid by the community to carry out the work (Jensen, 1985). Another type is eco-communities, which were built in Denmark from around

1990. They comprise self-built or self-designed houses built on each household's own lot but with common land and a common house. Eco-communities are also built over time and like co-housing of the 1970s and 1980s for all ages, and they are typically located in semi-rural or rural settings (Marckmann, 2009). Because eco-communities evolved as a refinement of the co-housing movement combining ecological values with village-like designs, which were modelled over traditional Danish villages, eco-communities are in the PhD treated as a further development and a special subset of co-housing (Dilling-Hansen, 2003:12; Gram-Hanssen & Jensen, 2005:171; Marckmann et al., 2012:417). Senior co-housing also form part of the different methods of creating co-housing. However, senior co-housing was not part of the studied communities in the PhD project.

2.1.2 The concept of co-housing

The term 'co-housing' or 'cohousing' was originally coined from the Danish term 'bofællesskab' (McCamant & Durrett, 1989:95, Vedel-Petersen et al., 1988:101). The word 'bo' [to live/reside/dwell] is in Danish linked to the word 'fællesskab' [community/communality/togetherness]. Therefore, 'bofællesskab' literally means 'to live in community' or 'to live with communality', which can be translated into 'co-housing community' (Vedel-Petersen et al., 1988:101). The word 'community' denotes, in this context, a group of people living in independent homes close to one another, who interacts socially, share norms and values about how to organise their community, and use common spaces (Beck, 2020, *paper 1*). In co-housing communities, each household has its own individual kitchen-, bathroom, and living spaces, like in ordinary dwellings, and where privacy is respected. In addition, the communities normally have a centrally located common house or dining hall, where residents prepare and share meals and other common activities on a regularly basis (McCamant & Durrett, 2011; Vedel-Petersen et al., 1988). A balance between privacy and communality seems therefore to form a basic feature of co-housing (Lietart, 2010; Meltzer, 2005; Vedel-Petersen et al., 1988). In Danish, another connotation of the word bofællesskab is an institutional home for disabled or vulnerable people, who live together while getting help from professional caretakers. These institutions were not covered in the PhD study.

The dwelling units in co-housing can be everything between two and hundreds or more units. Many intergenerational co-housing communities (76 %) have 10-30 units (Jensen et al., 2022a:61) or are organised as one large co-housing in clusters, for example like the co-housing Munksøgaard, which consists of 100 dwelling units allocated in five clusters of 20 units built with each their common house. In the centre of Munksøgaard, an old farm building is located and used for common purposes. In this way, old structures are sometimes combined with new structures.

Intergenerational co-housing

Co-housing can basically be either intergenerational or exclusively for seniors. In its initial form, co-housing was thought as intergenerational and was created by families with children, who wanted to live with other families and people of all ages in a

more social way, than was possible in ordinary residential neighbourhoods (Gudmand-Høyer, 1968; Illeris et al., 1997). In the 1970s and 1980s, the communities were mainly inhabited by young families and less were from the beginning seniors or singles, but because some of the residents became seniors and some divorced, while still new young families moved in, over time the communities naturally became more diverse, especially in terms of age (Jensen et al., 2022 a:77 and 84; Illeris et al., 1997). Today, 46% of households in intergenerational co-housing are couples with children and 12 % are singles with children, which is an overrepresentation in relation to the Danish average (Jensen et.al 2022 a:41). Against this, 17 % of the inhabitants are today seniors over 68 years (2022a:76). However, in terms of socio-economic and educational backgrounds the residents in intergenerational co-housing and eco-communities are not that diverse. They are higher educated than the Danish average and they have in general also a higher income than the rest of the Danish population, for example there is an overrepresentation of people with professions as leaders. Concurrently there is a higher degree of students in Danish intergenerational co-housing than in the average population (Jensen et al., 2022a: 41; Jakobsen & Larsen, 2019).

Senior co-housing

Senior co-housing, which is only for people over 50-55 years who do not have children living at home, is yet another form of co-housing, but it was only by the late 1980s, that senior co-housing as a concept emerged (Pedersen 2015). The first senior co-housing was initiated by a group of women in Copenhagen in 1987. They got the idea to transform two sections of a block into senior co-housing in Mjølnerparken, which is a large housing scheme built and owned by a non-profit housing organisation². They became a fraction of the local housing division of Mjølnerparken (Pedersen, 2013:22). According to Pedersen, approximately 200 senior co-housing had in 2013 been established all over the country and primarily as low-rise and dense developments but with a high percentage of inhabitants (60 %) in the non-profit housing sector (Pedersen 2013:12-15). This is in accordance with what Jensen et al. (2022a) found, namely that 62 % of senior co-housing inhabitants live in non-profit housing (2022a:65). Inhabitants in senior co-housing have become older too, and today senior co-housing is dominated by pensioners, but they are more diverse in terms of educational backgrounds than inhabitants in intergenerational co-housing. They have a high degree of vocational educations and their income is also generally lower (2022a:42 and 97). However, Danish senior co-housing had already been researched by Choi (2004), Durrett (2005), and Pedersen (2013; 2015) so although senior co-housing has some general similarities with intergenerational co-housing, senior co-housing did not form part of the PhD study.

Communes

Likewise, communes are not part of the PhD, although communes and co-housing are conceptually and practically connected (Navne, 1987). Some communities were

² *The sector of non-profit housing organisations is in principle for everybody and thus not restricted to socially vulnerable or low-income groups. Therefore, the term 'non-profit' is used.*

developed as communes but turned more and more into co-housing over the years. For example, was Toustrup Mark a commune village, and Svanholm Gods was from the beginning a large farming commune but today both these communities are recognised as co-housing. Other communes like the ones in old villas, where families moved in and shared one large kitchen and a bathroom have in several cases dissolved, while some have continued as communes, for example Kollektivet Hundrede Blomster (Kelstrup, 2021).

Kollektivhus

Another predecessor to co-housing is the concept of kollektivhus, which in Denmark is collectively tenanted high-rise houses in the cities with serviced apartments and shared facilities, such as a restaurant and other services in the floor plan. The first kollektivhus, called Centralbygningen, was developed in 1903-05 in Copenhagen by Otto Fick as a one-kitchen house (Andersen, 2022:9). In the beginning, they were called one-kitchen houses, because the idea was to provide central housekeeping. Meals were delivered with a food lift from the central kitchen to the flats. The same concept was developed in other cities too, for example in New York, London, Berlin, Zurich, and Vienna (Vestbro & Horelli, 2012:321). The houses were typically in inner cities and had paid staff working in a central kitchen on the floor plan or in the basement. In the 1930s, the notion of one-kitchen houses was further developed into the concept of kollektivhus, which included a more social way of living as the inhabitants could now dine together in a shared restaurant (Andersen, 2022:11).

In Denmark, there are still several kollektivhus buildings spread all over the country. They have paid staff and tenants live a collective life sharing a restaurant in the floor plan, where they are committed to dine together some days a week. Most Danish kollektivhus projects are today for specific groups (e.g., single living people, seniors, handicapped people, whereas a few is also a combination of seniors and young people). Danish kollektivhus are thus not really like intergenerational co-housing and therefore they do not form part of the PhD-study. However, the idea of kollektivhus spread to Sweden in the 1930s (Vestbro & Horelli, 2012:322) and in Sweden and Finland, the concept of kollektivhus was changed into what was called ‘the self-work model’ in the 1980s, where the residents themselves carry out housework, prepare food together, share and manage the house together as a co-housing. Therefore, in Swedish and Finish the term ‘kollektivhus’ is the same as co-housing (Caldenby, 2020; Vestbro & Horelli, 2012:327).

2.1.3 New co-housing concepts

The subject of co-housing has today (as before mentioned) caught attention in the Danish news and through the fund Realdania, who has for example conveyed knowledge of and built senior co-housing from experimental methods. Additionally, there has been developed new concepts, where co-housing is built as high-rise buildings, for example Generationernes Byhus, which is a cooperation between five large non-profit housing organisations. In this concept, the houses must be high rise blocks in the cities

with different activities and ages living together in co-housing groups on different floors and on the ground floor there will be public institutions, for example a café, a kindergarten, shops, and other activities. The issue of this type of co-housing was also on display in the architectural research exhibition ‘Welcome Home’ at Danish Architecture Centre (DAC), which was about Danish housing both through the last couple of decades and for the future (Bech-Danielsen et al., 2018). Another concept, inspired from the Netherlands, is a magic mix of 50 % young refugees and 50 % young Danish people living together in co-housing, for example the concept of Venligbolig Plus. Moreover, during the period of the PhD study, several new developers started to develop businesses to build co-housing projects (EcoVillage, Almenr, Bærebo, Plushusene, Bovieran, etc.). The very field of co-housing is therefore developing in these years, and there are now several up-starting concepts and building activities in the field of co-housing, which has affected the general view on what co-housing is and how it might develop, which is not necessarily related to the connotation of 1970s ‘hippie’ communes and co-housing, nor self-built eco-communities.

Today, the development of urban co-housing, including other related collaborative concepts, is thus rising. Urbania, UN Village, CPH village, Grønne Eng, and Mini-bofællesskaberne retrofitted in Kollektivhuset are urban examples recently built or under construction in Copenhagen. In Århus, Generationers Hus, which is a hybrid form of small co-housing groups, day care institutions for children and senior care homes, was finished in 2021. It is a high-rise building with eight floors and a restaurant open for the public including spaces for public gatherings in the floorplan (Jensen et al., 2022a:28-29). Byfællesskabet Thomas B. Thriges Gade in Odense is another urban example of a collective self-organised building project, and at Køge Kyst, the project Fællesbyg has been realised, which was developed with future residents, whereas the projects of the urban non-profit co-housing concept Generationernes Byhus are under construction in several larger cities (e.g., Roskilde). Some of these examples are bottom-up motivated and some are top-down initiatives, but they all have the intention to create stronger communities and ties between neighbours (Jensen et al., 2022a; Jensen et al., 2022b).

2.2 RESEARCH ON INTERGENERATIONAL CO-HOUSING IN DENMARK

As introduced above, continuously new co-housing communities have been constructed in Denmark making the concept of co-housing a multi-faceted phenomenon. However, more recent, systematic research, and conceptual frameworks on intergenerational Danish co-housing was lacking, when I started the PhD study. Danish researchers and architects had throughout the 1970s and 1980s been deeply engaged with the subject of intergenerational co-housing (also just referred to as ‘co-housing’) as an alternative living form, which were developed as ‘tæt-lav’ (dense-low) clustered housing (Skifter Andersen, 1985; Lind & Vraa, 1984; McCamant & Durrett, 1989; Nygaard, 1984; SBI 1971c, Vedel-Petersen et al. 1988). Research was therefore carried out along with the first evolvement of co-housing, especially in the 1970s and 1980s (e.g., SBI, 1971a; SBI

1971b; SBI, 1976; Nygaard, 1984; Jensen, 1985, Lind & Vraa, 1984; Skifter Andersen, 1985; Vedel-Petersen et al., 1988).

2.2.1 The spread of the Danish co-housing model

Since co-housing (bofællesskaber) evolved in the 1960s/1970s in Denmark and in the Netherlands as a bottom-up, self-organised collective housing form with extensive participatory involvement, also in the design process, it spread to other countries, including the redefinition of kollektivhus in Sweden in the 1980s (Fromm, 1991 and 2000a; McCamant & Durrett, 2011; Tummers, 2017; Vestbro, 2010).

In Sweden, research has been undertaken since the 1980s and further on, whereas research on intergenerational co-housing in Danish institutions somewhat faded out by the end of the 1980s. With inspiration from Danish cases, co-housing projects were also developed in America. Two American architects, McCamant and Durrett, came in the 1980s (and several times later) to Denmark. They studied Danish co-housing and brought co-housing as a collective 'dense-low' housing model back to implement it in the US and Canada, where it has since flourished (Giese, 1990:12; McCamant & Durrett, 1989; 2011[first ed.1988]). McCamant and Durrett wrote a book on Danish co-housing and based their first analysis on the study of 38 Danish co-housing projects (McCamant and Durrett, 1988). From this development followed research on co-housing and several architects and academics from countries abroad came to study selected Danish co-housing cases (e.g., Fromm, 2000; Lietart, 2010). Due to McCamant and Durrett (1988; 1989), and Fromm (1991), and later Marcus (2000), who all went to Denmark, Sweden, and Holland to conduct cases studies, the research they carried out affected the evolution of the Anglo-Saxon co-housing research (Fromm, 2000b; Franck & Ahrentzen, 1989; Meltzer, 2000;2005) including the first special issue on co-housing (Fromm, 2000a).

McCamant and Durrett's edition from 2011, building on seven Danish cases and their experience of having designed about 50 American co-housing projects, became an influential text for co-housing research worldwide. Since then, international co-housing research (e.g., Ache & Fedrowitz, 2012; Lietart, 2010; Meltzer, 2013; Jarvis, 2011 and 2015; Ruiu, 2014 and 2016; Sargisson, 2012; Torres-Antonini, 2001) referred to Danish cases or to the concept of Danish co-housing. Other examples of research in English speaking countries on co-housing architecture, including the social creation and living in co-housing, are Chatterton (2015; 2016), Markel et al. (2015), Sanguinetti (2012; 2014; 2015), Williams (2005), Jarvis (2011; 2015), whereas for example Boyer & Leland (2018) and Williams (2008) conducted analysis on the future of co-housing and how co-housing could be more mainstreamed. Moreover, for example Meltzer (2000; 2005; 2013) and Daly (2018) focused on sustainability as an issue of living in co-housing and eco-communities.

2.2.2 Research on Danish intergenerational co-housing in later decades

Many co-housing projects and eco-communities were built in Denmark but research in the field of intergenerational co-housing conducted by Danish academic institutions

continued strangely enough to be rather scares during the 1990s, 2000s and until the mid-2010s. This might be explained due to the new trends of sustainability in housing and therefore the focus shifted towards eco-communities. Some exceptions were Manzanti (2007) and Stender (2014), who studied a few single co-housing cases. Their research was case-based qualitative studies. Stender (2014) conducted a qualitative PhD on place making in new built areas comparing three cases, where one case was a co-housing. Manzanti (2007) wrote a paper on a new built co-housing project and the motivations for moving out the city choosing this living form. Otherwise, it was mostly master thesis's that was conducted, (e.g., Madsen, 2012) who made a master thesis on social living and the sharing practical aspects in two co-housing cases.

Three comprehensible ministerial reports with different subthemes of co-housing were produced in 2016 (e.g., Dansk Bygningsarv, 2016). Since then, renewed research on intergenerational co-housing started to come. For example, Jakobsen and Larsen (2019) conducted a survey study on intergenerational co-housing, and Larsen, who formed part of a Swedish co-housing research group (Hagbert et al., 2020), carried out work on the history of tenure forms of Danish intergenerational co-housing (2019). In 2019, I wrote a report in Danish based on my research on the development of Danish co-housing, including some advice for municipalities (Beck, 2019). As part of the PhD, I conducted a paper developing a conceptual framework of Danish intergenerational co-housing (Beck, 2020) and, as before mentioned, I formed part of a research project, which was a register mapping and analysing of Danish co-housing (Jensen et al., 2022 a). This research project was conducted as a collaboration between BUILD, Bofællesskab.dk, and my company Falkenstjerne Fælles, and it was supported by Realdania. Thereafter, another BUILD report about commercial developer-built co-housing was released (Jensen et al., 2022 b). Moreover, a co-housing book in Danish was released (edt., Andersen, 2022) and a paper about co-creating the architecture of co-housing (Andersen & Lyhne, 2022). Up-to-date research was thus conducted while the PhD thesis also took form.

2.2.3 Research on eco-communities and green building transissions

Green building and alternative energy consumption became an awareness of the built environment in Denmark, as early as from the middle of the 1970s in the aftermath of the oil crisis in 1973 (Gram-Hanssen & Jensen, 2005:170). Although the rationales of the first green building methods were foremost based on experimental technical solutions and implementations, it led to new grassroots developments for sustainable alternative communities as part of the co-housing movement. For example, in the co-housing community Sol og Vind [Sun and Wind], which was finished in 1981, the focus was on renewal energy consumption as well as on the social relationships between co-housers (Lind & Vraa, 1984:79-83; Vedel-Petersen, 1988:71-74). In 1988, the Brundtland report was released and showed a new direction. This led during the 1990s towards the notion of sustainability (Boonstra, 2016).

Concurrently, urban ecology became a new orientation and a research issue of the

built environment. Danish researchers left the research of co-housing and started to conduct studies about the newly built and at the time more radical eco-communities. Gram-Hanssen & Jensen (2005), and Jensen et al. (2014) carried out research on green building transition methods in eco-communities. Eco-communities were also studied by Marckmann (2009;2014), and Marckman et al. (2012), and by Boonstra (2016) who conducted a study on the planning of two eco-communities. Marckmann (2009) conducted a PhD thesis from a social and everyday practice perspective of Danish eco-communities. Moreover, Martinussen (2010) conducted a master thesis on self-grown sustainability focusing on eco-communities and co-housing in the light of sustainable urban planning. Different reports were also conducted, for example reports evaluating on low-impact environmental living and sustainability in the co-housing Munksøgård (Foldager & Dyck-Madsen, 2002; Pedersen, 2002).

In eco-communities the focus is on sustainability and a culture that better balance nature and humans is sought out (Gram-Hanssen & Jensen, 2005). Eco-communities were studied as examples of alternative infrastructural designs by Jensen (2001), and as examples of the development of ‘green building rationales’ (Gram-Hanssen & Jensen, 2005). Eco-communities have been developed all over the world. Inhabitants in eco-communities across Europe have made a community learning network with support from the ERASMUS+ programme, which include a guide for creating communities (CLIPS, 2017). Recently, two inter-disciplinary research projects, called COMPASS (finished) and SAMSKAB (ongoing), about collective movements and pathways to sustainable societies conducted by Copenhagen University in collaboration with different green organisations have as part of their studies focus on green transition in eco-communities and co-housing (e.g., Gausset, 2020; Høite Hansen, 2019; Høite-Hansen, 2020).

2.3 CO-HOUSING AND COLLABORATIVE HOUSING RESEARCH INTERNATIONALLY

In contrast to the lacking effort of Danish research institutes about intergenerational co-housing during 1990-2015, more active research was continuously carried out in other countries. Since the first co-housing emerged in Sweden under the redefinition of ‘kollektivhus’ in the beginning of 1980s, especially Vestbro (1982; 1997; 2000; 2010; Vestbro & Horelli, 2012) and other Swedish researchers (e.g., Caldenby & Walldén, 1984; Palm-Lindén, 1997; Blomberg & Kärnekull, 2019) undertook research of Swedish and European co-housing and collaborative housing projects. The first European seminar about co-housing and collaborative housing was held in Sweden with researchers from all over the world, leading to a book with proceedings from the seminar (Vestbro, 2010). Furthermore, a research study on a Swedish senior co-housing case was coupled with the theory of ‘gemeinschaft/gesellschaft’ and the in-between-dynamics of these notions (Sandstedt & Westin, 2015). In 2012, the Finish architect and researcher Karin Krokfors delivered a special issue with the title: ‘Co-housing in the Making’. The same year, a European conference on collaborative housing was held in France (Tummers, 2015:1) leading to another special issue entitled: ‘Towards

a long-term perspective of self-managed collaborative housing initiatives', where the purpose was to move beyond case studies to look at the implications and perspectives of the trend of collaborative housing and co-housing more broadly (Tummers, 2015:1). The term 'collaborative housing' is a generic term for different methods of constructing self-managed or resident-led housing and building groups, who engage in self-organising their housing situation (Czischke, 2018; Czischke et al., 2020; Fromm, 1991; Vestbro, 2010). It can be in different ways of working together, either before and throughout the building of a collective housing project, or when living in the houses by involving in different self-managing collaborative housing modes and sharing different kinds of facilities. Collaborative housing is thus an umbrella concept of collective housing forms taking a wide diversity of tenure forms, organisational, and social practices in different countries (Lang et al., 2020). Because Danish intergenerational co-housing has been, and to some extent still is, a bottom-up process, which involves residents who actively wants to live in co-housing, it is a model in an exemplary manner of the concept of collaborative housing.

A research group, who conducted comparative research has recently followed up on the Swedish line of research (Hagbart et al., 2020). They researched co-housing in Sweden and Denmark and carried out comparative studies of co-housing in the cities of Göteborg, Hamburg and Barcelona (Hagbert et al., 2020; Jakobsen & Larsen, 2019; Larsen, 2019; Scheller & Thörn, 2018). In Germany, both cooperatives and squatting have for long been part of a bottom-up collaborative housing movement. Moreover, the concept of Baugruppen was generated, which is in essence a bottom-up group process of designing and building developments from affordability. The group build together with guidelines from the respective municipalities, where the projects will be located. Sometimes the group are self-builders or participate in building the houses, but often the group enter into agreement with contractors, who built the houses and thereafter the group comes to live there. Typically they self-organise a community (Droste, 2015; Lafond & Tsvetkova 2017).

In France the notion of L'habitat Participatif was from first a bottom-up concept with self-supportive groups but was soon involved with institutionalization practices and large networks were developed (Carriou & D'Orazio, 2015; Bresson & Denèfle, 2015). These networks are united across countries: Urbamonde is a Swiss and French initiated association, who provide support and professional advice to groups wishing to carry out community-led housing projects in Switzerland and France. They also have an international cooperation and promote collaborative housing worldwide together with the organization CoHabitat, which is a network of community-led housing organisations and allies, who collaborate to secure housing through collective, non-speculative, people-led solutions all over the world. This is also the agenda for the Global Ecovillage Network (GEN) supporting knowledge transferred across self-organised eco-community groups (Jackson, 2003).

In the Netherlands, the co-housing movement developed from the late 1960s/early 1970s and is called Central wohnen, which was typically built as low-rise and dense

clusters with a central collective kitchen area for a group of households to share, so in this model they do not have separate kitchens for each dwelling unit, which is slightly different than Danish co-housing (Fromm, 1991; Marcus, 2000). Moreover, Tummers (2017) in her PhD thesis, focused on co-housing in relation to sustainable energy transition and urban development across Dutch and other European co-housing cases. However, Dutch co-housing and collaborative housing have also evolved in different directions throughout the years. For example, a new housing concept concerned about a ‘magic mix’ of 50 % young refugees and 50% young Dutch students living together was developed (Czischke & Huisman, 2018).

Furthermore, Lang and Stoeger (2018) conducted a multi-level (national, regional, local) framework study of the institutional and political environments for collaborative housing in Austria. In Austria and especially in Vienna, there is a tradition for housing cooperatives and non-profit housing organizations, including the subsidizing of housing (Gruber & Lang, 2018), but over the years these institutions have grown ever larger and with little possibility for collective self-organization. Lang and Stoeger therefore put weight on collaborative housing as a self-organizing method and how it is possible to create this within the institutional framework, which for a large part has instead come through as *baugemeinschaften* and *baugruppen* (Lang & Stroeger, 2018).

Another collaborative housing concept Community Land Trusts (CLTs) evolved as affordable developments off the market involving a collaboration process between residents and were first developed in the US and since in England (e.g., Thompson, 2020). In England, it is also possible to create cooperative co-housing, (which was the case for LILAC co-housing) through a model called Mutual Home Ownership Society (MHOS), which link equity to an index based on national wages instead of local housing prices (Chatterton, 2016).

2.3.1 The umbrella concept of collaborative housing

All these concepts are ‘cousins’ to Danish co-housing and they all belong under the umbrella of collaborative housing (Czischke et al., 2020; Lang et al., 2020). Co-housing projects have today developed and spread to different countries around the world, followed by new research and publications. The field of co-housing and other types of collaborative housing, including housing cooperatives, have thus over the last years gained considerable focus in international research. For example, in the European Network of Housing Research (ENHR) the working group ‘Collaborative Housing’ was set up in 2016 (coordinated by Czischke, Carriou & Lang) and a row of seminars, workshops, and so on, was arranged subsequently. This research group has since 2018, grown to be the largest group at the ENHR conference (Mullins & More, 2018). Concurrently, interdisciplinary research on collaborative housing across countries became more and more relevant comparing cases and elaborating on more systematic and theoretical approaches (e.g., Czischke, 2018; Daly, 2017; Hagbert et al., 2020; Jarvis, 2015; De Jorge-Huertas, 2020; Lang et al., 2020; Lang & Stoeger, 2018; Laine et al. 2020) as there had been several empirical studies on single cases (in a Danish context e.g., Marcus, 2000; Manzanti, 2005; Stender, 2014) but fewer

that had addressed collaborative housing and co-housing from theoretical approaches (e.g., Boonstra, 2016; Sandstedt & Westin, 2015). Especially, a more conceptual approach was needed. This led to the special issue: ‘Collaborative Housing in Europe: Conceptualising the field’, which was co-edited by Czischke, Carriou and Lang (2020). Paper 1 (Beck, 2020) obtained publication in this special issue. Yet another special issue about professionalisation and institutionalising of collaborative housing was co-edited by Palmer and Tummers (2019). In this way, Danish co-housing has today become part of the global collective housing tendency referred to as collaborative housing (Czischke, 2018; Lang et al., 2020; Van Bortel et al., 2018).

2.4 RESEARCH QUESTIONS AND PAPERS OF THE PHD

This section covers the research scope and questions in relation to the themes of the PhD study and the subjects of the three papers. In the research papers, I wanted to unfold different relevant themes in relation to the above state of the art on co-housing and collaborative housing research. When I initiated the PhD project, I quickly recognized that contemporary research in the field of Danish intergenerational co-housing was lacking, as referred to above. Because co-housing research from Danish academia had been falling behind over the years, even though co-housing projects had continuously been built, I decided that the PhD project should be concentrated solely on Danish intergenerational co-housing. Due to the lack of research on recent intergenerational co-housing, I focused the PhD research on following four intergenerational co-housing projects under construction. To understand what co-housing is and how it is created, I also needed to investigate how co-housing had been developed historically. Therefore, I broaden out my research field to cover studies of existing co-housing too, including which types of co-housing existed and how they were organised in different tenure forms.

Empirically informed and explorative research

It follows, from the above considerations, that the priority of the PhD subjects and fieldwork had to focus on both existing and future co-housing using visual and ethnographic methods. Furthermore, the approach of asking explorative and open questions was also used to clarify the research themes, when framing the study. The questions, which I was wondering about and asked myself, were like the following:

- What is intergenerational co-housing? Why such variety? How did intergenerational co-housing evolve throughout the last five decades in a Danish context?
- Why do future residents choose to create intergenerational co-housing in the Danish countryside and move from an urban to a rural or semi-rural context?
- How is intergenerational co-housing created and organised as this other way of living?

2.4.1 Research questions

From the above questions and the described thoughts of the PhD, including the above state of the art, the objective of the PhD was formed as an ethnographic research study following these research questions:

RESEARCH QUESTIONS:

The main research question raised was:

How and why has Danish intergenerational co-housing been developed?

This was followed by the below indicated qualitative sub-questions

- *How have the different designing types and different phases throughout the more than five decades of Danish intergenerational co-housing evolved, including how the creation of this collective housing form can be conceptualised from a spatial viewpoint?*
- *Why do future residents settle in an intergenerational countryside co-housing today? What motivates them on a personal level to become part of a group, involving in, and creating a co-housing project and move to countryside co-housing?*
- *How is co-housing organised? How can co-housing be perceived as a commons, doing and creating this way of living together through a horizontal and social practice of commoning?*

2.4.2 The three papers and the introductory document

The three papers treat different subjects, but they are all related to Danish intergenerational co-housing and the reasons to choose, create, and organise co-housing communities. For the papers, state of the art was handled in relation to the theory used specifically for the subject of the paper. For the first paper, the subject was about developing a framework for the conceptualisation of intergenerational co-housing. For the second paper, the subject was about the motivations for creating and moving to a countryside co-housing. The followed projects under development created in a countryside location were in focus in this paper. For the third paper, the subject was on co-housing as commons and therefore using the theory of the commons in relation to the organisation of co-housing as a horizontal entity.

Paper 1: About conceptualising intergenerational co-housing

As before-mentioned, I found that the conceptual framework of co-housing could be better clarified. It seemed like co-housing had developed in different ways and types throughout the five decades of Danish co-housing, but it was not described, nor analysed, how co-housing had further developed spatially and conceptually, especially the more recent developments were not covered. Thus, due to the variety of co-housing designs and therefore how the concept of co-housing could be comprehended, I found that the first task was to write about co-housing from a conceptual and spatial viewpoint, perceiving and comparing the different co-housing designing types. From this approach Paper 1 was born. A clarification on the conceptual comprehensions about collaborative

housing was apparently also a need across other European countries. This became evident, when a seminar arranged by the ENHR group was held for the process of starting to collect papers that fitted the special issue ‘Collaborative Housing in Europe: Conceptualising the field’ in the journal *Housing, Theory and Society*. Because co-housing in Denmark had developed through five decades leading to a wide variation in designing types of co-housing, a conceptual framework and grouping of three designing types for co-housing was provided in paper 1, which was published as part of the special issue. The creation of Danish co-housing build on the history and evolvement of co-housing, which is profound and could not be comprehended in a single paper. In addition, a review of the history of Danish intergenerational co-housing is therefore conducted as part of the introductory document (chapter 5).

Paper 2: About motivations for creating and moving to co-housing in the countryside

Initially, I wanted to find out what motivated future residents to create countryside co-housing communities and move out the city. Prioritising the PhD research study in the above-mentioned way, meant that the theme about motivations for choosing and moving to co-housing in the countryside became more a subset of the broader theme developed by the duration of the PhD. However, as planned when initiating the PhD, I combined the two research areas: urban-to-rural migration and co-housing research in paper 2. In this paper, urban-to-rural migration theory was related to personal motivations for co-housing. Although, future residents were both part of a co-housing group and concurrently were migrating from urban to semi-rural or rural areas, it seemed like this field, had gone under the radar for research in urban-to-rural migration studies. Because residents in intergenerational co-housing are often young families and seniors with an overrepresentation of long educational backgrounds (Jakobsen & Larsen, 2019; Jensen et al., 2022), for small rural towns and villages with a decrease of especially young families with children and a lack of highly educated people, co-housing groups would be an attractive match for semi-rural and rural areas. Some municipalities in peripheral areas had thus to become aware of the potential of these groups. To understand the motivations of the groups wanting to create co-housing in the countryside, I decided to follow some groups, who were at the time in different phases of creating co-housing schemes in the countryside. As the research question concerned both an urban-to-rural migration choice and a choice of living in co-housing, the study was theoretically informed both by migration research and co-housing literature. This was combined with empirical fieldwork research of the followed co-housing projects and an analytical framework was developed in the paper. Paper 2 is the product of this part of the study. Furthermore, the fieldwork findings about motivations and abilities used in creating co-housing are also analysed in chapter 4.

Paper 3: About organising and creating a co-housing commons

While studying co-housing literature, I became aware that issues concerning the organisation of co-housing while under production as well as in consumption phases, had not had much focus in the literature although this is an important part of co-housing. Moreover, to gain more knowledge about co-housing organisation, that is the

construction of tenure forms, decision-making, and social structures in co-housing, I wanted to approach this from a theoretical perspective. Because Danish intergenerational co-housing was in general under-researched, the collectively organisation and the very creation of co-housing, could be better clarified through theory. Therefore, I started searching for a theory that could qualify for perceiving co-housing from a collective self-organisational and creational entity. I found that coupling this collective housing form to commons theory would make sense. To get a better understanding of these issues, I chose in Paper 3 to solely concentrate on organisation and creation of co-housing from a theoretical viewpoint based in commons theory. Commons theory covers all kinds of fields, reaching from the use of land and water resources such as foresting and fishing, including the creating of community in relation to the use of these resources, and to urban spaces, digital networks, and social movements. When focusing on housing, I found that different researchers had already connected co-housing and eco-communities to the concept of commons, for example Pusey and Chatterton (2017) and Chatterton (2016) wrote about co-housing as an example of an urban commons, building on co-housing as a housing cooperative, commitment to transformation, and direct democracy. Moreover, Pickerill (2016) operated with eco-communities as sustainable and social commons, while Tummers & MacGregor (2019) worked with co-housing commons from a feminist perspective. Meltzer related empowerment and commons to co-housing as a self-organised bottom-up process (2005:153), and in the book ‘The Communal Idea in the 21st Century’, Meltzer (2012) wrote a chapter on collective housing connected to how community had been and could be developed bringing forward sustainability in a future scenario with focus on co-housing and collectivism. I wanted to apply commons theory to co-housing studies. From that point, paper 3 was developed with focus on combining the organisational design of co-housing with the notion of commons (Ostrom 1990, De Angelis 2017) and, with what commons theory had advanced into, namely the subject of ‘commoning’, which is about organising and doing things together as a horizontal and social practice (De Angelis 2017, Huron 2018). This seemed like a consistent match for the organisation of co-housing and led to an analysis of how co-housing is organised as both a commons and as a commoning practice.

How to read the introductory document and the papers

The research was empirical informed by visual ethnographic fieldwork, which is further described in the methodology in chapter 3. The findings from following the four different co-housing projects under development and from studies of 18 existing co-housing communities are presented in the three papers and in the introductory document. The theme of co-housing as another way of living is further accomplished in the analysis of chapter 4, which combine results from the papers with an analysis of the four followed co-housing projects and selected interviews of the 18 existing communities. Moreover, the issues from the papers are connected to the history of co-housing, which is explored in chapter 5. By studying the lines and ideological contexts of this history, different ideological rationales are found and discussed in chapter 6 leading to the conclusion of the PhD-study.

CHAPTER 3. METHODOLOGY

3.1 THE METHODOLOGICAL APPROACH AND CHOICE OF CO-HOUSING CASES/PROJECTS

The PhD study is based on ethnography, including different ethnographic practices ranging from traditionally qualitative interviews and participant observations to visual and sensory methods. Having formerly carried out studies informed from visual ethnography, which was applied to housing research (Beck, 2012), I wanted to use a visual ethnographic approach in the PhD study, too (Pink, 2013; 2015). I think that visual ethnographic methods are highly relevant for housing research because visual ethnography can be used as a method to think in visual, spatial, and material ways, which in a qualitative understanding of inhabitants and housing relate to both the architecture and the social fabric of dwelling. According to Sarah Pink (2013:15), visual ethnography is an interdisciplinary research method developed across the disciplines of anthropology, ethnography, human geography, sociology, visual cultural studies, and art practices.

3.1.1 Ethnographic practises and situated knowledge

Ethnographic practise is an explorative fieldwork method traditionally used by cultural anthropologists and ethnographers, but today ethnographic methods are used across diverse disciplines to understand different groups of people and their settings (Pink, 2013; Hastrup, 2003). It is the individual researcher, who arrange and design the fieldwork in relation to the research topic. The fieldwork design should first and foremost support the aim of the research. Doing participant observations, obtaining fieldwork notes, and carrying out qualitative interviews can be done in several ways, but it is through the personal and embodied engagement that ethnographers learn about people's lives (Pink, 2013:39). The researcher positions him- or herself in relation to the researched and is in this way part of the researched. Therefore, the knowledge production is situated through the subjects and bodies of both the participants and the researcher (Haraway, 1988). The researcher learns from the fieldwork situation and can therefore adjust, how the fieldwork is carried out.

Focus can sometimes change, for example due to new circumstances, or to receiving new information and answers from research participants. Methods can be invented or evolved while going along doing the fieldwork, but the researcher must keep being reflexive and stick to the aim of the research (Pink, 2013:11; Kvale & Brinkmann, 2009:325). An important issue here is to keep to what is researched and keep being reflexive about how the knowledge is produced and obtained. The visual ethnographic fieldwork is thus not only about collecting data obtaining information, but also about learning, producing visual meaning and ethnographic knowledge (Pink, 2013:47). It is a creative explorative method related to sensory ethnography, which together with more traditional ethnographic practices formed part of and informed the fieldwork studies for the PhD (Pink, 2015).

Another ethnographic method is through a multi-sited approach to follow situations, things, and people while they move, carry out projects, or create things (Marcus, 1995). As part of the fieldwork design, I chose to follow some future countryside co-housing projects and their participants. They were either in the initial phases of gathering a group of people who wanted to create a co-housing project, or the projects were under construction. Because there were already these groups, before the projects were built and before the participants moved in, it was possible to start follow their processes of creating the projects and how they organised their future co-housing communities (Marcus, 1995; Passaro, 1997). They were in-between their contemporary living place and the new living place in a countryside co-housing. I combined this multi-sited approach with an investigation of the research participant's motivations for choosing a countryside co-housing. Normally, urban-to-rural migration motivations are investigated when the research participants have already moved and lived in their new destination for quite some time. With a focus of following groups and their members, the PhD study brought a new method of investigating the motivations for moving to intergenerational co-housing projects in the countryside. Moreover, in some of these groups, it quickly became clear that there was a flow of new people getting interested in becoming part of the project, especially in the beginning stage of formation of a group. For different reasons some also left the groups. Therefore, the multi-sited approach showed to be a good choice, because this method includes that things can change while the researcher follows actors in a mobile ethnographic path with multiple sites (Marcus 1995).

3.1.2 The fieldwork

Only two months after beginning the PhD project, I went into the field with enthusiasm and an explorative mind. I had an urge to go out and sense the co-housing world, to ask questions, participate, and to get started learning and exploring different types of co-housing. The field of co-housing was not unknown to me, as I had been doing some fieldwork in co-housing beforehand. Therefore, it was obvious to me that there was a certain diversity of how co-housing is designed. The reasons for starting the fieldwork early in the PhD study, was because I knew it would take time to network, get appointments for interviews, and carry out this kind of explorative fieldwork. A PhD study gives a unique opportunity to use time for this purpose. I decided to do fieldwork in both existing cases and cases under development. Four groups constructing co-housing were chosen because the sites were in the countryside. They were attracting people mainly from larger cities, like Copenhagen and cities around Copenhagen, to move out of the city, while a few people came from other places. This was then related to visits in and investigations of 18 existing co-housing communities to get a deeper understanding of what co-housing is and how it is organised.

The fieldwork was running over a period for a little more than two years in a continuing process of going into the field for a single day or two or just some hours doing interviews, recording photography, obtaining fieldwork notes, and participating in different co-housing activities, including following the co-housing groups on social

Name	Year of establishing	Units	DESIGNING TYPES:				TENURE FORMS:		
			Architect design	Retrofit/rebuilt	Selfbuilt	Private ownership	Cooperative	Rented	
Skråplanet	1973-74	33	x			x			
Svanholm Storkollektiv	1978	50-54		x				x	
Stavnsbåndet	1979	26	x			x			
Æblevången	1980	36	x			x			
Jernstøberiet	1981	20	x	x		x		x	
Jystrup Savværk	1983	21	x						
Drejerbanken	1983	20	x			x		x	
Gl. Grevegården	1990	24	x	x				x	
Lysningen	1990	18	x				x		
Dyssekilde	1990	82	x	x		x		x	
Fælleshave	1991	16	x				x	x	
Munksøgård	2000	100	x	x		x		x	
Bauneholm	2002	14		x			x		
Fri&Fro	2004	17		x			x		
Hallingelille	2005	27		x			x	x	
Gresmarken	2007	25							
Lange Eng	2008	54	x				x		
Nygården	2010	3		x			x		
Cases followed while establishing:									
Nielstrup Manor	2016	4	x	x			x	x	
Frikøbing	2016-17	23	x				x		
Karise Permatopia	2018	90		x				x	
Torup Overdrev	Failed to establish								

Table 1. (Beck 2020, paper 1)

Explanation table 1 (Beck 2020, paper 1)

The table shows the 22 co-housing cases in the study. Four of the cases were followed while they were under project development. The year of establishment is the year, when moving in. The units are how many dwellings there are in each case, showing different sizes of the communities running from 3-100 units. (first three columns).

The three next columns show the different designing types of co-housing, which were observed in the field studies: 14 have architect-designed houses, nine have retrofit or rebuilt houses, while six cases are designed as self-built types. Each co-housing is uniquely designed. Six of the cases are with two or more different designing types. By combining these different designing principles co-housing is achieved and designed from many creative methods.

Furthermore, a mix of tenure forms are evident in six of the cases. The reason for combining tenures is typically due to a wish for different economic situations of the inhabitants in order to encompass both students and seniors with small pension savings. In Munksøgård and in Karise Permatopia all three designing types are combined and at the same time all three tenure forms are evident. These two cases are quite large with 90 and 100 dwelling units.

media and homepages. Because co-housing groups are drawing on the digital era, using social media and collaboration software intranet for facilitating and encouraging people to join the projects, three of the followed countryside co-housing groups were in addition to the physical fieldwork, investigated through digital observations. The homepage www.bofællesskab.dk, which is a self-registering site for co-housing that has considerably developed over the last years was also visited regularly throughout a period of three years. However, the fieldwork was mostly physical and included participating at meetings and having informal talks with future residents and residents in existing communities.

The duration of the fieldwork ran parallel with other activities in the PhD, such as PhD courses, presentations of the PhD project, conveying the analysis and results, and a stay abroad at TU Delft, Faculty of Architecture and The Built Environment. At a certain stage, termination of fieldwork became an issue of attention. As important it is to go into the field, as important it is to get out, and as I had been going in and out constantly, I had become quite used to this, but at a point I had to finish it completely, to stop getting more information and learnings, and get ahead writing and completing the PhD thesis, including the related papers.

3.1.3 Selection of cases/projects

The research of the PhD was based on fieldwork studies of 22 co-housing projects. Both existing co-housing cases from the five decades of the co-housing history and co-housing projects under development were researched. They were chosen so they represent different tenues, types, and sizes (see table 1, Beck 2020, paper 1). In the building industry, there is in general a sharp distinction between the building phase of a project and the phase when residents are living in the houses. Normally, such distinction is also evident when a co-housing project is under development (production phase) and the phase when living in the co-housing (consumption phase). However, as future residents are involved in creating co-housing there are continuations of who the groups are, how the groups have organised during the building phase, and how they organise when living in the co-housing. In this study, I included both production and consumption phases because I wanted to explore what co-housing is, how it is created, including how it is organised and what motivates to move to a countryside co-housing. It was a way to understand and couple what was going on in contemporary situations of creating prospective co-housing, as well as to understand the co-housing communities that had existed for decades.

As seen in Table 1 (Beck 2020, paper 1), the diverse choice of cases is representative for the variety of co-housing schemes. The selection of fieldwork cases was conducted so that there were different types of co-housing represented within variable year of construction, sizes, and tenure forms. Four of the communities were co-housing in the initial phases or under construction. They were in the countryside and were followed in the process, while the groups were established, and the co-housing projects were constructed. The year of construction/moving in vary from 1973-2018. The existing

communities are in all categories of urban, suburban, semi-rural, and rural areas. Moreover, a variety of types and methods of how the co-housing schemes were designed, was attached importance. Some were long term established co-housing communities, whereas the four emerging projects were co-housing groups forming communities. These projects were in different stages of group formation, building and construction phases, and of moving into the houses.

The 18 existing communities

The existing co-housing communities were studied from different methods, ranging from informal visits to deeper qualitative interviews with informants. Some cases were also revisited conducting focus group interviews. The most usual method for visits was a tour in the co-housing guided by one or two of the inhabitants. In some cases, it was possible to participate in common dining and parties or stay overnight. Furthermore, photography was recorded when visiting these co-housing communities.

The four projects under development

The four followed projects were in the initial phases, under construction or being created as for example retrofit. The projects were followed for around two years, during planing and establishment. Most of the inhabitants were moving from urban areas, whereas a few were moving from other places or from abroad. The four groups were studied in-depth and followed, while I went in and out of the field and of the different cases. Professional actors, who were related to these co-housing projects were also interviewed. The differentiation of the four co-housing schemes studied while under development is seen in figure 1 on the next page.

When the research started, the groups were in different stages of forming the projects:

Tenures:	PROJECTS UNDER DEVELOPMENT		
Rental	<p>Nielstrup (4 households) Retrofit, just about to move in</p>		
Private ownership	<p>Torup Overdrev (8-14 households) Should have been self-building In the beginning of group formation Failed</p> <p>Frikøbing (21 households) Lot model Self-built, customized unit built, and architect-designed houses Under site preparation</p>		
Mixed: Private ownership/co-operative/non-profit rental	<p>Karise Permatopia (90 households) Comprehensive design principle: Architect-designed row houses, retrofitted farmhouse and rebuilt barn (partly self-built) In the process of finding financing Preparation for rebuilding the barn</p>		
Sizes	Small	Middle	Large

Figure 1. Differentiation of the four followed co-housing projects under development.

3.1.4 The four followed projects under development

The four followed projects had like the other cases in the fieldwork record different designs and were initiated from different methods, but they were all four in rural or semi-rural sites. Being quite different in designing types, tenure forms, and sizes, they represent the wide range of diversity in the field of co-housing (figure 1).

Nielstrup When the research started, in one case a family had found the manor Nielstrup to retrofit for their across-three-generational co-housing extended with a couple not in the family, thus becoming four households. They could as renters without much to lose move into the manor quite quickly. When the fieldwork ended, they had been living at the manor for a little less than two years.

Torup Overdrev was when the fieldwork started in the initial phases of becoming a group formed on the initiative of and with help from the local community council and the municipality. They wanted to build 8-14 houses. This project was developed due to a specific plot in the village of Torup. Whereas the other three communities were successfully established, and the groups now live in the communities, the group of Torup Overdrev failed to construct a co-housing community.

Frikøbing was in the stage of site preparation and the construction of a wastewater cleaning facility made of willow trees when the fieldwork started. They were going to be 21 households developed from private ownership. This project depended on each household choosing either self-building, architect-designed or customized unit-built houses, where the owners could customize and decide materials and the distributing of the rooms in the house. Frikøbing also encompasses shared land and a common house on the best site of the plot. When the fieldwork finished, most of the individual houses were built but the community had not yet started building their common house. They were discussing the economy and the design and plans of, how it should be built.

Karise Permatopia was developed from a specific plot, which was a farm with farmland going to be cultivated from permaculture principles. A bank with alternative visions had employed a project leader to help develop it and a group was established, but the project was split from the bank, and they had to find bridge financing before building. This project encompasses 90 architect-designed clustered row-houses, a retrofitted farmhouse for common purposes, including the rebuilding of a barn with the purpose of common dining and meetings, and land for cultivating. Recycling of energy from a wind turbine and a cleaning facility made of willows, which purify wastewater, is also part of the project. There are 44 dwellings organised as rentals under a non-profit housing organisation, 23 dwellings that are private ownership, and 23 are cooperative ownership. However, all houses look the same although some are larger than others, as the inhabitants could choose extra rooms. This project was not yet in the building stages when the fieldwork started. When the fieldwork finished, the houses were under construction and the group was in the middle of rebuilding and extending their barn for the purpose of a large common house.

3.2 CONDUCTING ETHNOGRAPHIC FIELDWORK IN ONE'S OWN CULTURE

A field of attention is related to that the fieldwork took place in my own culture, close to, or even in the very working field of the institutions in the building research and consultancy sector, where I was conducting the PhD. For example, it turned out that some of my colleagues, both in the university and in the company, were privately involved in creating co-housing projects, and some were living or had formerly been living in co-housing. This was beneficial to easily get in direct contact with stakeholders of co-housing projects. In one case, a colleague, who was one of the founders of the project Frikøbing, connected me to the project and I got involved doing fieldwork in that project. Moreover, it turned out that a family member of mine was involved in helping to initiate a co-housing group in Torup. I started to follow them and chose that the group should be part of the fieldwork. In another case, I visited a colleague in his co-housing Lysningen and interviewed him. In yet another case, together with two visiting researchers from abroad and a researcher from the university I visited a colleague and his wife in their co-housing Æblevangen. We were showed around and got an interview in their private home.

According to cultural anthropologist Kirsten Hastrup (2003:7;13), present-day anthropology is a method, where you are travelling in the world, in contrary to previous methods of conducting anthropology, which was more about travelling to foreign or unknown cultures to bring home knowledge of these cultures. 'Otherness' with connotations to 'the exotic, the foreign, the original, the natives, and the colonised' was thus embedded in anthropology from its beginning. Distance, in the form of travelling out to the fieldwork sites, and nearness, in the form of intervening into and learning to know the foreign culture by staying with and being part of a community over a certain period, paid part of the anthropological convention (Passaro 1997:153). Today, the ethnographic fieldwork is a travel that can take place everywhere in the lived world, where people dwell, work, live, act, or interpret their world and culture and it can well be entangled with the researcher's own culture. It has become possible to 'take the subway to the field' as Passaro (1997) stated and did, when researching homeless people and the contrasting coexistence of the elite in nearby quarters of the postmodern New York City (1997:151-54).

3.2.1 Taking the tube to the field, or just talking with colleagues?

It can seem convenient that the field unfolds to be part of one's own culture, and I think in accordance with Hastrup (2003), Passaro (1997) and Stender (2014) that thinking of this is part of 'the travel'. By asking like Passaro (1997): 'Can you take the tube to the field?' or with some other words: 'How far away do I have to go to conduct fieldwork?' I got to think about that it can be a long or a short travel, a physical or mental 'travel'. This showed me a way of learning and reflexing on how I conducted my study of co-housing, which even sometimes was through my own working places, where I met several architects and engineers, who were personally involved in co-housing projects.

Either some of them were part of a prospective co-housing project or they had been or were living in a co-housing community. Therefore, I had to pay attention to and be aware that I could suddenly get information and knowledge that contributed to my fieldwork, while being at the office, having lunch, or being in other situations with my colleagues, for example, when going out to have dinner together. In this way, I just had to get used to that ‘the travel’ I was on, sometimes unexpectedly took form in the middle of my everyday life. For example, at a family dinner party while speaking with one of my relatives, the conversation could turn to the subject of the co-housing case I was researching, and I learned more about what was coming up in this project, etc. The field was thus entangled with my professional and private life. It has therefore been a task to produce clarity in my head and body of, how to handle these situations: To know when I was ‘travelling’ and when I was not. What I did, was first to take notice of, when the dialogue turned into a more fieldwork like situation and when it switched back again to the more normal colleague or family conversation. I also told my colleagues and relative that what he or she had just told me, I could use for my fieldwork in the PhD study, or if it was myself asking them something, I made them aware that I asked as part of and due to that I was doing fieldwork for the PhD. Afterwards, which could be later in the day or evening, I normally took notes of, what had been said in relation to the co-housing cases and the sensations and feelings I had got from it. Both my colleagues and my relative were as well formerly interviewed in other environments than the office or at the family dinner party.

3.2.2 Same cultural reference point

To do fieldwork in my own culture meant that I had the same cultural reference points as the research participants. In this way things are easily understood but there can be some blind spots, or as Stender points out to avoid ‘the blindness of home’ the fieldwork must be distinguished from other daily activities and life through a consciousness of the continual interplay between nearness and distance (2014:54). This can well be done by looking at the field like taking a pair of ‘fieldwork glasses’ on when doing fieldwork and off when not, paying attention to the mentally movements in and out of the field and in this way, knowing when fieldwork is carried out. It is important for the researcher to select, create, distinguish, and delineate the field even though and maybe especially, when it takes form from explorative methods in the middle of one’s own culture. The field sites are by the researcher selected and pieced together (Stender 2014:44).

Mentally ‘travelling’ in and out of the field became an awareness I carried with me to distinguish when doing fieldwork. I found it necessary to make it clear for myself, when fieldwork was undertaken and when not, to define boundaries for the fieldwork and for myself as a researcher. Finally, I had to pay attention to receiving information from colleagues and my relative after ending the fieldwork, and what I should do with this new or following-up information. I decided to stay with the learnings and information I had already got over the period of the duration of the fieldwork, and not take much notice of new information but instead see it as the continuation of networking and personal relations.

3.3 QUALITATIVE INTERVIEWS

The fieldwork entailed qualitative interviews, either as individual interviews, as couples, or as group interviews, and for a few occasions also focus group interviews. For instance, to understand co-housing from the perspective of home feelings, a focus group was conducted in the co-housing Jernstøberiet that has existed since 1981. In all, 55 research participants were interviewed. In the four followed projects, a total of 30 research participants were interviewed. Of these, 23 were future residents, but three lapsed from taking further part in a project, and seven were professionals. Only one interview was conducted in the case that failed. However, the group had been followed at several meetings and events. In the existing communities, 25 residents were interviewed. The four followed co-housing projects forming communities were studied through participant and digital observations, informal talking, and qualitative interviews. Qualitative interviews, or group interviews were conducted in 13 of the existing communities combined with a guided tour in the co-housing, while in the rest of the existing cases a formalised guided tour in the co-housing conducted the central part of the visit. Seven of the existing cases were revisited to conduct further personal interviews or focus group interviews. The four followed projects were in different stages from initiating a group to actual construction sites. The followed projects were revisited in between three to nine times, during the period before and under construction until the residents moved in, whereas individual members of the groups were interviewed in different places such as in cafés, in their private, temporary, or new homes, and the groups were followed in several activities in multiple sites. A few interviews were conducted as telephone interviews but only with research participants that I had met and spoke with beforehand on different occasions, for example at a development day for the co-housing group. The professionals related to these projects were interviewed to understand their role in the projects.

3.3.1 Interviews as dialogues

The future residents of the co-housing communities under development were when interviewed ask about their motivations for creating and wanting to live in co-housing. The professional actors were asked about their role and organisation in constructing co-housing. The interviews lasted between one hour and three hours; with the professionals it was often one hour, whereas with future residents it was typically between two and three hours.

The qualitative interviews were conducted through dialogue asking questions, actively listening, getting answers, and getting to know the interviewed person/s, their experience, etc. In this way the qualitative interview is about understanding the world through the interviewed person and his or her point of view on the topics in focus. The interview is thus a way to share points of views, and an exchange of knowledge is constructed between two or more people in an inter-active dialogue (Kvale & Brinkmann 2009:19 and 50). The interviews were structured so that I started with a short presentation of the project explaining what the research was about, which institutions I was from,

explaining what an industrial PhD is about and my background for conducting the research. The research participants were also asked to present themselves. Then I typically opened the dialogue further, stating that I was investigating the motivations for creating and moving to co-housing in the countryside, the participants often naturally started talking about their motivations for creating and moving to co-housing. I did not use an interview guide and therefore the interview developed like a dialogue situation. The interviews were thus arranged as dialogues comprising open questions, and in respond to what the research participants said following up on specific themes mentioned in the conversation, and by formulating further questions to let these themes to be deepen (Kvale & Brinkmann 2009:159). Being aware of my own breathing, sensing, and listening to the research participants was for me part of the situation. Asking the research participants to tell their motivation about why they choose co-housing, could for some indicate a story, which included a narrative of their past. I was asking further questions in relation to their statements. From there, the conversation could take many directions as the answers were personal and qualitative.

Questions were posed in an open way and in the vein as the following formulations:

For interviews with future residents

- What led you to choose to be part of a group creating co-housing?
- Why did you want to move to a co-housing in the countryside?
- How is your situation?
- Who took the initiative to start a co-housing project?
- How has the process been?
- How did you create and organise the project?
- Some research participants started by themselves telling me about their story of why they had become motivated to create and move to co-housing.

For interviews with residents living in co-housing

- Often a narrative about the co-housing was told on a guided tour in the co-housing and from that point I raised more specific questions, for example I asked:
- How many dwellings are there?
- How many people do you live here?
- How did you create and organise the project?
- Why did you want to live in co-housing?
- How do you think it is to live in co-housing now?

For interviews with professional housing actors

- In several cases, after I had made my presentation, the professionals just started answering questions like the following by themselves:
- Who took the initiative to create the co-housing project?
- What is your role in it?
- How is the project organised and how has that been arranged?
- What do you think about it?

3.3.2 The interview situation – not as a normal dialogue

Although the interviews were conducted like dialogues, the interview situation is not a free open dialogue giving equal status between the researcher and the research participant. The power relations are asymmetrical in this situation, as it is the researcher defining the situation, asking the questions in focus, and deciding what themes to go deeper into, as well as closing the interview. The researcher has the expertise and the power of, how to construe the response from the interviewed participants analysing and interpreting what was said in each situation. Moreover, the researcher has a base in and represent an academic institution (Kvale & Brinkmann 2009:51). In my case it was two different institutions, a university, and a company. To be conscious about and recognise this power relation is important, and in order to respect the interview participants and the situation, tune in and listen to the interviewed research participant showing interest and respect to his or her viewpoints: Therefore I did consciously not oppose to their views, rather I wanted to go with the flow of the dialogue and elaborate on the topics by asking more questions, although sometimes critical, to understand the participants (Kvale & Brinkmann 2009:63).

In some of the interview situations, it was a couple or a group, who was interviewed. In these situations, it is important to take notice of that everybody should be given time to speak and to response to the questions. Here it is even more crucial to listen and to structure the interview, for example by doing a round, where everybody can present themselves and speak. Focus group interviews were also conducted, taking a focus on more specific questions in the fieldwork. Focus group interviews are collective discussions normally comprising between six to ten persons and conducted to give different viewpoints and knowledge on a specific topic (Kvale & Brinkmann 2009:170) In one case it was about the perception of home in terms of being both on private and common terms at the same time. In another case it, it was about the experiences of how it was in that moment to live in a specific co-housing. In a few cases, an interview with future residents was conducted as a telephone interview, because they did not yet have a home in the co-housing or they were too busy in their daily life, while at the same time creating their community.

3.3.3 Anonymization

All names are pseudonyms for anonymity. Some of the names are anonymised twice to separate the residents mentioned in the papers from the residents mentioned in this introductory paper. However, what cannot be anonymised is the co-housing cases or the photographs of the projects. Paper 2 is based on biographical viewpoints and motivations for creating and moving to co-housing in the countryside. This encompasses sensitive and personal references and quotes. As some of the future co-housing cases were quite small it could be too easy to recognise individuals in each case. Due to the sensitive information and that each co-housing is presented with name and photos, the analysis in paper 2 was undertaken across the four projects. This disconnected the analysis of

the personal motivations from the specific co-housing projects. Individuals were in this way not related to information about specific co-housing projects or photographs. The four prospective projects are different in tenure forms and design, but nevertheless there are several overlapping similarities of motivations for creating these projects. The interviews and field studies of the case that failed also formed part of this cross-analysis. Furthermore, a focus group interview about the perception of home, privacy and communality was conducted in an existing co-housing case. In this co-housing 43 people live and the discussion in the focus group was conducted to show different attitudes and perceptions of the whole group. In this sense, the different viewpoints represent a variety of views, but the co-housing itself was not anonymized.

3.4 DOING VISUAL AND SENSORY ETHNOGRAPHY

The methods of visual and sensory ethnography that I have used for the PhD were especially inspired and informed by the studies of Sarah Pink, who connected ethnographic methods to visual and sensory approaches (Pink, 2013; 2015). Besides qualitative interviews, the field studies included participant observation, informal talking, obtaining fieldwork notes, recording interviews and photography. Photography can quickly and in a very simple way tell specific details of a housing environment. Sensing the people and the place, while visiting co-housing cases and following groups in different stages of creating their co-housing, was for me essential in carrying out fieldwork. By including photography and having informal dialogues with residents and future residents experiencing the environments, writing descriptions of the places, and analysing the obtained knowledge (Collier, 2001), the aim was to achieve and convey a picture of co-housing, how it is created, organised, and lived in, including what motivates people to create and move to a countryside co-housing.

3.4.1 Participatory fieldwork

The fieldwork was also conducted by doing participatory observation attending common activities such as meetings, development days, a ceremony of laying the foundation stone, a ceremony of raising the rooftree, a course on sociocracy, and other events, or while cooking, dining, and partying with co-housing dwellers. Sometimes, when it was possible, while staying overnight in some of the existing communities. My attention was focused on observing the social fabric, the organisation, and the design of the co-housing.

When visiting the existing co-housing projects, I did slightly different things according to what was arranged on beforehand and what was appropriate in the situation in each case. In most cases, an interview situation was arranged with co-housing representatives on beforehand. In a few cases, I visited the co-housing as a friend. Then the conversation got more informal, however I always notified that I was doing PhD research and told what it was about. In one case, I was also interviewed by journalists as part of a television feature that took place in a co-housing. In some of the co-housing, I was part of a group guided tour, as described below. Otherwise at separate occasions, I also participated in workshops arranged in co-housing communities. One of these

workshops was a day of visions for the Danish co-housing association, Bofællesskab. dk, and as a member of the board, I was together with the other members arranging the day, at the co-housing Drejerbanken. I stayed overnight in there and had the opportunity to interview one of the residents. The workshop was open for everybody interested in co-housing to participate. Later we were showed the co-housing, as part of a guided group tour. In the time of the PhD study, several researchers from abroad came to Denmark, and I had meetings with them. In some cases, foreign researchers and colleagues also participated in the fieldwork visits, due to the huge interest in the field of Danish co-housing from abroad. In this way, the fieldwork was not only about me as a researcher obtaining information, but rather it has been a two-way dialogue, and a learning-, networking-, and experimenting process.

3.4.2 The guided tour in the co-housing

A guided tour, where visitors are showed the co-housing by a resident, who speaks about how things are organised, and how it is to live in the community, etc., is a specific cultural produced routine in many co-housing communities, due to the many people interested to live in co-housing or people just curious to come and visit these places. In some co-housing communities, it is arranged as a regular event, announced on their homepage, when it will be running, usually once a month. Typically, the event of such guided tours is a task in line with other tasks of working groups in the co-housing. The participants of these guided tour sometimes pay a small amount of money for the tour. When participating in these tours I did not conduct interviews or nor recording, because the purpose for me was to find out more about the specific co-housing case. However, I typically wrote fieldnotes of my observations afterwards. In other situations, the guided tour was not that formalised. I have been received in many co-housing communities, where residents used several hours showing me the co-housing, while meeting other residents on the way getting an informal talk and being showed into different private households of the community. In these cases, the tour was more like an interview, while walking, getting showed different parts of the co-housing, asking questions, and talking. This kind of interview situations were audio recorded, which I got permission to, also from persons, who came across the dialogue of the interview. Also, I got permissions from the residents to record and use photography.

By obtaining photography, while residents showed their co-housing community, my senses of viewing and feeling through the embodiment of being there with the camera were activated. This informed my visual and spatial comprehensions. I used my sensitivity towards the qualities of the sites and how the buildings were designed or rebuilt for social interaction: Walking the route through the co-housing discovering and trying to get a feeling of the layout of the community, gave me insight in the architecture and principles for the physical structures, while at the same time talking with research participants about how their co-housing was socially created, used, organised and maintained. Walking in the landscape of co-housing projects, taking photographs, and talking together with initiators on sites and surroundings of the four future and prospective co-housing projects, also formed part of this type of fieldwork.

In some cases, I had the opportunity to walk around on my own on the site and in the landscape of the community. By walking with the camera in the landscape, I used my senses, felt the atmosphere of the site and the community, while recording photographs on the route, and sometimes meeting and talking informally with residents.

3.4.3 The production of photography

The production of images is an inevitable part of everyday practise in our digital world. Especially photography is an interwoven practise of the experience and the environments we live in. Photography has also become a more and more integral element of the work of researchers and ethnographers, using visual and digital media forms as part of the ways in which ethnographic knowledge is constituted (Pink, 2013). Visual ethnography engages with images, technologies, and ways of seeing, including creating photographic collage figures, research graphics, and diagrams. The method of visual ethnography is today used in a wide range of disciplines creating both images and texts that are produced in rather different ways creating new or different representations of ethnographic knowledge. In addition, visual ethnographic research accommodates presence, embodiment, and the senses. Visual ethnography combines visual methods, film, and media with ethnographic methods and re-conceptualises the ways that we think of the role of the images in the world (Pink, 2013:1-5). Experience, learning, and knowing is part of the ethnographic process. Knowledge in writing and knowledge through images contribute to ethnographic meanings in quite different ways. However, texts and images also complement each other (Pink, 2013:10). Texts and images can be related by captions, references to pictures in the text, as documentary photographic evidence supporting or illustrating written points, through analysis of the pictures, through following the social life of images, or just through juxtaposing, or even separating text and image (Pink, 2013:170; Rose, 2007:217). Images and words can together give a fuller picture about a specific housing environment than can only an explanation in words, or only a showing of pictures. Research can be produced in more narrative ways than normative academic writing, for example through flexible representations producing different kinds of texts and photography (Pink, 2013:166). The researcher can produce the photographs him or herself or involve research participants in active collaborating, for example by handing over the camera to, or speaking with participants about photographs in the interview situation (Rose, 2007:237).

Photography and texts

Photography is therefore not something that is added on in research, but rather it forms part of the produced knowledge. However, the knowledge produced in photography is different from the knowledge produced in written texts. The photographic image holds specific and rich knowledge of a situation captured in a moment in time and space. In architectural literature and exhibitions, photographs of buildings, dwellings, and their inhabitants, are used for showing how and what the houses look or looked like. From housing photographs, we can learn about the life and the housing situation of a specific time. By time the photograph quickly turns into a moment that-has-been-there,

or a moment in a kind of being-there, and of being now looking at the photograph at the same time (Barthes, 1987:115). For example, these sensations of being present in different times, while still knowing that the time has passed, can be very actual if the photograph shows a house or a street that oneself has experienced or lived in at a certain time. The meanings of a photograph can for viewers therefore have diverse connotations, which demonstrate a richness of the photograph's potential for facilitating and communicating ethnographic understandings (Pink, 2013:153).

Photography of architecture and ethnographic housing research

Recording photography of architecture and using photography in the production and research of architecture is as valuable an issue for architectural knowledge as for housing research. Architectural knowledge is situated between visual-spatial design practices and human needs for dwelling, working, living, etc., combining the functionality, the aesthetics, the inhabitant's, or the user's interactions with the materiality of the house and the social life of people in the house. Architectural anthropology is a housing research field that over the last years has evolved, bringing together an understanding of spatial knowledge, design practices, the uses of the buildings and inhabitants' way of living, dwelling, interacting, and interpreting their life, combining the field of architecture with the field of an anthropology (Stender et al., 2021). This can well be part of the anthropologist's own culture, as described above. By producing photographs showing specific elements of housing sites coupled with knowledge obtained from dialogues with the residents of, how lived life is in their house and residential area, visual ethnography seems acutely relevant for this kind of housing research, also in relation to the inevitable production and use of today's digital photography.

Manipulation of photography

Manipulation of photographs is a reality of today's digitalisation twisting and distorting the images of the subjects and the objects of the world, giving them new expressions, colours, light, and shadows. As the analogue photography could as well be manipulated by light, shadows and recording from different angles, doing trick photos, etc., manipulation is not something new. However, the ethnographic research photograph should avoid manipulation as far as possible, or if it is manipulated account for how it is done. What is at stake in research photography is to show what-is-there, becoming what-was-there, not to manipulate the image. Still, there is always a person behind the photograph, shooting the photograph. This is done through the photographer's presence, embodiment, and ways of angling the shooting of the photograph and deciding what to record. Therefore, we get to see through the eyes and viewing angles of the photographer. That is an unavoidable fact, also of research photography.

Photography of the PhD project

In the fieldwork of the PhD project, there has been a focus on sensitivity towards visual and spatial qualities of co-housing. I have used this sensory approach, obtaining photography of the different sites of the cases, experiencing the co-housing, the residents, and the sites, for instances while showed different co-housing communities

(Pink, 2015:113). The photographing act is an interaction of bodily sensory, sight, and perceptions obtaining visual records of the built environments. When walking and talking with research participants, being equipped with a digital voice recorder and a camera, meeting others on the way and talking informally with them, or when visiting the sites alone walking with the camera sensing the site, or when conducting interviews, the sensory part of the fieldwork, through embodied observation, has been essential to my understanding of the field of co-housing. Image making and doing ethnography has thus been something that has happened in movement (Pink, 2013:81). In such embodied sensory engagement while touring through the environments, walking in the landscapes, sites, and surroundings of the co-housing projects, sometimes stopping up recording photographs on the route, or while interviewing research participants recording our voices through a digital device, there is always also the bodies, the sensing, the sounds, the air, the weather, the materiality of the houses, the soil, the plants and the trees, etc., which forms part of the situation (Pink, 2015:26-31).

The fieldwork photographs I have produced showed how different co-housing sites look, including the type of buildings, the environments of the location and the interiors of the communities. In some of the pictures there is people. I have tried not to make close-up portraits (as the point of the research was not making portraits), in order not to expose the residents but rather to show them in their environments. Zooming in on details of some parts of the buildings or other parts of a home, garden, or landscape has been part of photographing. Sometimes I have cropped a photograph to focus on only a part of the picture, or corrected the light, but I have purposely not manipulated the photographs digitally further than that. I did not hand over my camera to research participants, but I have, with permission, used visual material produced by the communities and their professional actors.

3.5 THE PROCESS OF ANALYSIS

The process of analysing has been closely entangled with the process of doing fieldwork. The normative perceived method of doing qualitative fieldwork is at first the researcher entering the field, then collecting data and thereafter leaving the field taking the data home to analyse. Fieldwork and analysis procedures do have different ends. However, doing visual and sensory ethnographic fieldwork can be more entangled involving the senses, embodiment, experience, and thoughts, than traditionally perceived ways of conducting fieldwork and analysing data records (Pink 2015:142). Some of the analysis in this project has taken place in the field, for example while experiencing specific co-housing sites, it became clear to me, how the co-housing was organised structurally or socially or that some of the future residents had challenges that I did not think about in the first place. Suddenly, it stuck me in a conversation with a research participant that a certain theme could be questioned from another angle than I had first thought. Moreover, some of the research participants, who are generally well educated, have under the interviews been very reflective in the way they think and have shared their thoughts with me suggesting possible analytical themes that could be a way to see relevant topics.

Although, I sometimes got inspired by such comments to be aware of different issues, I have as the researcher been carrying out the analysis, taking a step back sometimes long after being involved in fieldwork and sometimes immediately after an interview situation. The analytic process was thus evolving during the period of conducting fieldwork, as well as long after, comparing my experiences across the studied cases, and combining this with knowledge from co-housing literature and theoretical approaches. Evaluated or elaborated thoughts were sometimes tried out in the fieldwork, seeing if a certain analytical lens could be useful. Besides this, two of the papers were initiated before field studies finished. In short, this process has been entangled with both doing fieldwork and undertaking analysis before finishing the period of doing the fieldwork, in a coming and going in and out of the field, sensing and taking different views of what I learned combined with what I already knew. These analytical thoughts from the fieldwork were thereafter structured, related to patterns in the fieldwork, and connected to theory. As Clifford Geertz stated, the process of analysis is about 'sorting out the structures of signification' (Geertz 1973:9).

3.5.1 The coding

While taking field notes and listening through interviews, the coding process reveals details and information, which comes to the fore as new understandings emerge. This opens to the process of analysis. Transcription is often outsourced to professional transcription services; due to that it can be very time consuming to transcribe a large interview record. However, there are some disadvantages not to do the listening and transcription of the recordings oneself, as listening through the recordings become evocative of the situation and the environment, where the interview was held (Pink 2015:152-154). In line with Pink (2015:152), I have found that it was important for me to listen through the interviews, while recalling the sensory and affective dimensions, or sometimes correcting my remembered experience with details that I did not get, when I was in the situation. Thereby, I was recalling and renewing my remembered experience of the interview. In the analytical work, I have carefully listened through the interview material, while taking notes and transcribing significant quotations. I did not produce a full complete transcribed record out of this process, but by listening through and taking notes of the interviews I found the analytical frameworks and structures of signification for the analysis in the produced papers, and I related to the interviews again in a sensory way by hearing the voices and intonations of the research participants. Often, I have listened to an interview several times and certain passages repeatedly. This was combined with reading the obtained fieldwork notes, looking at the pictures, and other collected material connected to the cases. Likewise, with the photographs, when looking at the images produced in the fieldwork, information from the images came to me, being evocative of the process of which they were produced (Pink 2015:143). Most of the interviews were held in Danish, while six interviews were held in English as foreign researchers were participating. I have chosen which statements that was most relevant for the analysis and translated them into English (if they were not already in English). Like the way Pink did her fieldwork analysis, the analytical process happened along with listening and transcribing, trying if an

analytical viewpoint could be applicable as a way of interpreting the material. I did therefore not separate the sensory and evocative experience of listening to what was said, also between the lines, from the process of interpreting (Pink 2015:152-153). The results of this process formed the basic components in producing the texts and were in the end folded out in the writing of the papers, coupling to theory, and to the other parts of the PhD study.

3.5.2 Historical documents and theory combined with fieldwork findings

The analysis in chapter four is based on findings from the papers and the fieldwork studies. This is then related to co-housing literature including historical documents. Chapter five is also based on co-housing literature and historical instalments and documents, which are discussed and combined with the knowledge obtained in the PhD study. Some of the historical texts were written retrospectively by architects, researchers, and others, for example architect Erik Nygaard (1984), who summarized the history of Danish housing architecture styles and challenges, which he related to societal contexts and developments in the book “Tag over hovedet, Dansk boligbyggeri fra 1945 til 1982 [Roof over our Heads. Danish Housing from 1945 to 1982.]”, whereas other documents are contemporary newspaper articles (e.g., Graa, 1967; Gudmand-Høyer, 1968), historical instalments of the time written by co-housing groups or the national co-housing association (e.g., A-70, 1971; Mayhoff, 1989; Nielsen & Skifter Andersen 1981), or other materials like manifestos made by activists and future co-housers (e.g., Prins & Reich, 1977, 1.edt. 1972). The four followed co-housing cases, including visual observational findings from visits in existing co-housing, and results from the papers, which include analysed interviews, are also incorporated in the historical review of the five decades Danish co-housing history. Concurrently, the introductory paper of the PhD thesis refers to the papers.

3.6 ABOUT THE SITES AND THE WRITING PROCESS

3.6.1 A multi-sited approach

Due to the subject of the PhD of creating co-housing in contemporary situations as well as researching co-housing cases that have existed for decades, the approach to the fieldwork was situated in accordance with these circumstances. As some of the residents did not live in a co-housing yet, I did not carry out all the fieldwork in co-housing sites, but the projects under development and the future inhabitants were followed ‘on the way’ of creating co-housing. This meant that the fieldwork was approached in many different sites, or with one term was ‘multi-sited’ (Marcus 1995).

According to Marcus (1995), a multi-sited approach to ethnography implies that the ethnographic field study has moved from its conventional single-sited location to multiple sites of observation and participation. This encompasses both the ‘local’ and the ‘global’, the ‘lifeworld’ and the ‘systems of the world frameworks’ (Marcus 1995:95-97). As anthropology and ethnography have become companions in various

combinations of studies across different disciplines in academia (such as media studies, feminist -, science -, technology -, and visual cultural studies), the multi-sited approach has advanced, too. Moving from the single sites and local situations to examine the circulation of cultural meanings, objects, and identities resonates with the production of systems, networks, and spaces across disciplines in the post-modern society. The methodological approaches and research strategies in the field of interdisciplinary arenas have thus a favour, or an opportunity, to be oriented towards multiple sites with diverse connections, relations, or juxtapositions in diffuse time and space boundaries (Marcus 1995:96-98). This is a mobile understanding of how sites, patterns, and systems evolve. Therefore, both Marcus and Passaro argue for the idea to follow or to trace actors, objects, patterns, metaphors, networks, etc. in a mobile ethnographic path with multiple sites (Marcus 1995) or in an extended, explorative perception of the field site (Passaro 1997).

In a visual sensory ethnographic study as this PhD, the field work has not been bound to a single site or a complete group of people but is rather an investigation in a field, where groups are under way of creating their new dwelling destinations. Rather it has been an investigation of how co-housing is arranged as start-up associations finding structures and systems for how to create their co-housing. In the process of establishing co-housing, the groups do not necessarily stay the same, as there are for different reasons people coming and going in these groups. Essential to this kind of fieldwork is therefore the challenge of diffuse boundaries. The focus was not one community but many and some of them were under construction, meaning that it was the relations to the sites and types of houses, the organisation of the sites and tenures, the groups, and their motivations for doing and creating co-housing that was the object in this study.

The research comprised making interviews with different stakeholders; residents, future and prospective residents, and professional actors related to the projects. The interviews with future residents and professional actors were carried out in cafés, offices, canteens, private homes, rented second homes, on the telephone, at the university, or by the end of the fieldwork in the new homes of the co-housing. The residents living in co-housing were interviewed in their homes. The groups were followed in several activities in multiple sites, when participating in common activities. Sites such as halls in different buildings were lent out to the groups so they could arrange development days. Sometimes the field sites changed, for example, when going for a walk in the nearby forest together with one of the up-starting co-housing groups as part of a social activity arranged by the group. The sites were also digital, as three of the groups announced their project and what was going on in the project on social media and on their websites. In one case, I had the opportunity for a period to be part of an intranet of a future co-housing group. In these digital sites, I presented myself and that I was doing this PhD. I did not use any of the personal comments from the digital sites directly in the research, but it gave me an account and an understanding of how the digital sites are used to establish the group's social systems and relations.

3.6.2 Physical sites of projects under development

The fieldwork was also conducted on physical sites of the co-housing projects under development. Following the building and construction phases, or the retrofitting of existing building structures, accounted part of the fieldwork. This was combined with a focus on human and social aspects of the groups. Because I had the opportunity to stay some days at the retrofitted manor, the group was interviewed several times both together and individually, at the manor and I attended practical and common activities there, too.

Huge changes of sites and landscapes took form in the building processes. It was a process of a physical building and restructuring of sites, forming the landscapes, and housing materials into actual houses. In Karise Permatopia the design was co-developed with professional actors, whereas in Frikøbing the design of the houses was decided and, in some cases, also built by the individual households. Some of them had architects or building consultants to help them. Along with these changes of landscapes and building sites, in the groups there were many things going on, in terms of discussing and negotiating their visions and values, developing social relationships, group dynamic, ways of formation, and of how to further organise the projects. Negotiating with financial institutes, municipalities, architects, contractors, etc., formed part of this ongoing development. People are busy, while creating co-housing. This meant that it could in some periods be difficult to get an interview with them and therefore I decided not to disturb them too much in the situations where they were very busy, for example when moving in. I was therefore cautious to try to find the right time for an appointment to do an interview. That was not always easy and still there were a few people who did simply not have time, although most people took time to talk with me and sometimes even for quite long.

3.6.3 Situated knowledge production: 'Thick writing'

While the fieldwork was multi-sited, the knowledge production was as well situated in different sites of producing images and writings. The chapters of the thesis introductory paper cover and combine a conventional paper based academic writing process with visual and sensory oriented approaches, and what I call, 'thick writing', which is a combination of the anthropological 'thick description' (Geertz 1973:6) and architectural 'site writing' (Rendell 2005; 2010). Geertz depicts 'thick description' as the very object of ethnography, because it is a method to "explicating the explications" of people's situations, particular events, customs, rituals, and ideas (Geertz, 1973:9). It is such descriptions that in depth explain, what people are doing in a particular situation, what they are up to, and how they live. According to Geertz (1973), the ethnographer is faced with "a multiplicity of complex conceptual structures, many of them superimposed upon or knotted into one another, which are at once strange, irregular, and inexplicit, and which he must contrive somehow first to grasp and then to render" (1973:10). Furthermore, Geertz (1973) stated that, ethnographic descriptions based on this kind of approach are extraordinary 'thick' in contrary to 'thin' descriptions, which are based on more simple descriptions that does not explain the explications. Thick description

is thus a type of produced text, which is the anthropologist's own construction of other people's constructions (Geertz, 1973: 7-9). Understanding 'other' cultures by "seeing things from the actor's point of view" forms the 'ostensibly objectivity of anthropology' (Geertz, 1973:14). However, the ethnographer's activity of observation and participation is in thick descriptions entangled with the activity of interpreting. Ethnographic research balance thus between an objective observational and a subjective interpretative mode at the same time (Geertz, 1973:14).

Ethnography is therefore an interpretative praxis, but the researcher must still seek the real and convey the complex specificness of the studied culture and people. With the words of Haraway (1988), objectivity can be obtained as 'situated knowledge' through 'seeing together and joining with another' (1988:586). As subjectivity of the knowing self is, according to Haraway, partial and never finished or whole but constructed and stitched together, research forms possible as "a scientific knower seeks the subject position, not of identity, but of objectivity" (1988:586). Positioning of the subject and the embodiment in dialogue with and in relation to 'the other' are a key to reflective research (Haraway 1988:587, Madison 2005:7-9). 'Otherness' in feminism is typically understood as everyone and everything that is other than the privileged 'Western, white, male', and thus in this context 'the other' is the studied culture and people. Therefore, like Madison (2005), I must ask myself: 'With which eyes and who is it, who sees, writes, analyses, views, and interprets? Who has the power to interpret?' (Madison 2005:4). The anthropologist sees from his or her professional scientific perspective and subjective embodied knowledge, following, observing, and imaging, how it is to see from the actor's point of view. In this sense, subjectivity combines with the ethnographic methods and skills in carrying out anthropology, understood as both an embodied medium and a professional method (Geertz 1973:14-15, Haraway 1988:575). This becomes part of the produced anthropological knowledge, analysis, and interpretations, coming to life and conveyed through ethnographic writing and thick descriptions based on field note journals, interviews, being there, participatory observations, informal taking, critical and ethical thinking, etc. (Geertz 1973:17-20, Madison 2005:4).

Situated knowledge and 'site writing'

The position of the writing subject should not necessarily aim to be invisible as in the case of the academic discourse in writing papers that strives to have a non-existent 'self' (Madison 2005:6, Pollock 1998:74). The positioning of the 'I' in writing is manifold but there is always a situatedness and a writer behind the writing. Producing texts, images, and other materials from the situated knowledge of spatial sites, architecture, art, and art critique is the framework for the concept of 'site writing', introduced by Jane Rendell (Rendell 2010:9-12). Here the writing in-itself is as well a site of production, which can be created in many possible ways, for example as thick descriptions, drawings, and artefacts combining poetic writing with theoretical analysis, to articulate hybrid voices (Rendell 2005:23). With Redell's words: "This writing is spatial, it is an active writing that constructs as well as traces the sites

between critic and writer, artist and artwork, viewer and reader” (Redell 2005:23). Rendell develops a mode of writing architectural texts that draws on spaces as they are remembered, dreamed, and imagined as well as observed. In this way she challenges art and architectural criticism, leading to ask questions like: Why not, like in ‘feminist autobiographical writings’, be clearer on the way the research is produced and seen through the eyes of the researcher in the writing, letting in the ‘I’ in the text? Why not show the personal investments, the intellectual affiliations, and the influence on the choice of the frameworks for the research, including the relationship between the researched and the private life of the researcher? (Rendell 2010:15-18).

In some sections of this PhD thesis, I have chosen to combine thick descriptions with the notion of site writing, in what I call ‘thick writing’ where knowledge and writing is situated in the sites of the research as well as in the writing process, which has a creative and narrative focus in accordance with how I wanted to present a refinement of the descriptions of the cases combined with some of the significant research findings. This is done through a hybridizing of field notes, case descriptions, quotes from interviews, remembering the sites and landscapes from being and walking in them, and the atmospheres of the spaces, what was said, and the life situations of the inhabitants. In the PhD thesis, there are four sites of knowledge production, which are all based on situated knowledge but from different ways of producing and conveying ethnographic analysis and interpretation:

1. The introductory paper, where I use the first tense and an academic language. Here, I have built a framework for the papers through analysis, discussion, and different ideological rationales of Danish co-housing history. Moreover, I have analysed empirical material that there was not space for in the papers.

2. The three papers, which have their own academic logic and discourse but nevertheless convey analysis and points of views, which I have produced in relation to the co-housing actors and through selecting and depiction of relevant theory.

3. The visual materials which are sites of knowledge production, too: The photos, which I have produced as part of the fieldwork. Visual materials such as photos, maps, and figures produced by research participants or municipality actors.

4. 'Thick writing', based on a combination of thick description and site-writing. An example is as follows (on the next page):

On a Saturday morning, I am driving on the highway heading for Lolland. I am a little tense and excited about meeting the family that I got in contact with through the site bofællesskab.dk, a homepage for co-housing. They are going to move into a manor called Nielstrup. It is 1 hour and 45 minutes' drive from where I live on the outskirts of Copenhagen. There is at this moment not much traffic. Driving off the highway, I arrive quickly on a small road in the middle of a flat countryside. First sight of the manor is a small bridge over a moat leading to a porch. This sight arises the question in me: 'Wow, is it here that I am going?'...

Next, I am sitting in the main house of the manor having brunch with the family, who is going to make a co-housing and move into the manor to live across three generations of same family, although they also want to extend the co-housing with another household. They are a young couple with a baby, a grandmother, and her sister. They serve delicious homemade buns and rye bread, homemade honey, and homemade marmalade for our brunch. With great enthusiasm, they tell me about all their ideas, visions, and motivations. They have many ideas of how to use the manor's large rooms, for example they want to make a playroom one day a week for nearby children and parents who are taking full-time care of their children at home, because the young mother wants to take care of their baby at home until she reaches school age. They show me the buildings that they have just started to renovate. I am asking questions while we walk, recording the talking and obtaining photos. The interior of the manor is worn-down due to the former use of the building as a home institution for vulnerable youngster. Renovation is needed. However, the family see possibilities with the place rather than obstacles. Upstairs there is a row of bedrooms, which they want to use for visiting relatives, friends, and guests. In the future, they dream of yoga retreats or other events, which they hope they will be able to arrange at the manor. We also go for a walk in the garden and a small forest, which belongs to the manor, with a shelter and a bon-fire space. Maybe this place can be used for people trekking in the area or people coming by who needs a place to stay overnight in the summer? I asked if this is something they want to profit from, but the grandmother Mette says that they will not, rather they think of these things as an exchange-economy stating that: "When you give something, you will also receive" and she continued: "We have already received a lot of help from friends and family". Then, we notice another sister to the grandmother, who have just started working in the garden.

On a wall inside, there is an old overview photo of the manor. We start talking about the history of the place. The location of Nielstrup is a historical place, first inhabited in the middle age, where there was a medieval castle with double moats. This castle does, however, not exist anymore. Since a little before 1800, Nielstrup manor became tenant farm of the nearby estate Krenkerup Castle and is today still, owned by Krenkerup. The current manor house of Nielstrup is from 1856. Some of the buildings have also been used as a dairy, which have since been converted into living spaces, and there has been more farm buildings than there is now. Mette, and her sister, Inge, have formerly been living in some of the other houses that Krenkerup rents out. Mette saw that the

manor stood empty and, as the family had for a period looked for a place suitable for converting into co-housing, she proposed the idea of using the manor for this purpose. The family thought: Why not try out to live in co-housing across generations in a manor? The young couple, Anne, and Martin had already moved to Lolland and lived for a period in one of the Krenkerup houses next to Inge and Mette. To fulfill the dream of living across generations, they asked at Krenkerup Castle, if it was possible to rent Nielstrup. Krenkerup was willing to enter into a rental agreement that, the family found favorable, for example the castle supported the installing a new wood pellet furnaces and a new kitchen, so each of the four households can have a private bathroom and kitchen. "Krenkerup said yes to us because they trust us and, because they could see that Mette and Inge have maintained their houses well and made flourish gardens", Martin states.



As shown in this old overview picture, there has been several large farm buildings and different types of houses at Nielstrup. Today, only the main house, the former dairy now used for living, and a part of the long barn is left.

4. ANALYSIS AND DISCUSSION

4.1 CREATING ANOTHER WAY OF LIVING

During the fieldwork study, I found that co-housing is typically created as an alternative to other housing options. The different methods of creating and organising intergenerational co-housing, as another way of living, became therefore one of the focus lines of the PhD study and brought the issues of the papers together. By using terms like ‘creation’, ‘organisation’, ‘social design’ and ‘horizontal decision-making’, the PhD study highlight that co-housing is much more than the physical structures and that self-organisation, group formation, formal and informal activity, community building, social interaction, and visions and values are all elements in creating and building co-housing as a commons (see paper 1 and paper 3). This was also related to the reasons for moving to a countryside co-housing (see paper 2). The alternative option, which make the individual household part of a close-knit housing community, forms part of the motivation for choosing co-housing and are in different ways encompassed in the three papers. In short, the issues of community as an alternative to other housing options formed an underlying theme of the PhD. The issues of community build on the following elements of co-housing creation.

4.1.1 Bottom-up or top-down processes?

Ever since the 1970s and until recently, the creation of Danish co-housing has primarily been a bottom-up process, although often in collaboration with municipalities, architects, lawyers, consultants, or non-profit housing organisations (McCamant & Durrett, 2011; Jensen et al., 2022 a; Vedel-Petersen et al., 1988). A few intergenerational co-housings were during the 1970s and 1980s created by the non-profit housing sector, while experimenting with participation of future residents, although through a more top-down approach, for example in the case of Tinggården, where the initiative came from the SBI competition and the architects in collaboration with the non-profit housing sector and the municipality. The municipality had according to Kløvedal, much more to say in contrast to the future inhabitants (Kløvedal, 1981:19). Against this, the architects claimed that Tinggården was created listening to prospective inhabitants during the programming phase (Johnsen, 1981:39). Another example of a non-profit co-housing development was the bottom-up collaboration with the group of Bondebjerget, who themselves chose the plot and the architect. They had a fruitful collaboration with the architect and the non-profit housing provider (McCamant & Durrett, 1988:125).

Interestingly though, the most usual approach used to form a co-housing community, has at first been a relatively small group of people promoting their ideas about another way of living to gather a bigger group (McCamant & Durrett, 2011). McCamant and Durrett called these groups ‘the founders of a project’ or ‘dedicated participants’ and stated that it could start with just one person, a fiery soul, but that six to twelve people are quite normal for a start-up group (2011:26). Hence, these groups have often started out to discuss ideas, visions, and values about how to live together, where, and how to

settle. They have then self-organised a group of people taking the initiative to create a co-housing project and thereafter found a plot for the project (Vedel-Petersen et al., 1988; Boonstra, 2016; Martinussen, 2010; Sargisson, 2012). Today, this picture has changed, as we now see developer-led co-housing, which means that co-housing has become a market-strategy for producing new housing developments from a top-down process, for example as turn-key products combined with a host who facilitate the community (Jensen et al., 2022 b). Concurrently, there are still collectively self-organised groups who built from bottom-up. In this PhD study, only two of the 22 communities were initiated from top-down but both with involvement of future residents. In the case of Karise Permatopia, the purpose was to involve and collaborate with future inhabitants in creating the project and in the case of Torup Overdrev the purpose was to let a small group of engaged people take over the process. All the other 20 communities in this study were bottom-up initiated, although in some cases created as a collaboration with different professional housing actors.

4.1.2 Different designing types, tenure forms, and sizes

The PhD study revealed that there are generally three different designing types of co-housing:

- **Architect-designed (often building from scratch)**
- **Retrofitting or rebuilding existing structures**
- **Self-building (either by designing own houses through customized homes or building houses oneself, which are often experimental)**

Co-housing can therefore be constructed from different methods and sometimes two or three of the above listed designing types are part of the same project, which in the record of this study (see table 1) was the case in six out of 22 co-housing communities (Jernstøberiet, Gl. Grevegården, Dyssekilde, Munksøgård, Frikøbing, Karise Permatopia).

Crossovers of the possible designing types can thus be used as a method for creating co-housing projects,

- **Through a ‘comprehensive design principle’ (paper 1).**

The same variety is valid for the choice of tenure form(s). All possible tenure forms of a society can be used for creating co-housing. For Danish intergenerational co-housing the dominant form is the cooperative tenure, which in our mapping and analysis study (Jensen et al., 2022a) make up 47 % of the communities, although the distribution per co-housing inhabitant is rather different as 41 % of the inhabitants live in private ownership, whereas 33 % live in cooperatives, 20 % in non-profit, and 6 % in private rentals (Jensen et al., 2022 a:62). For eco-communities the numbers are as follows: 49 % live in private ownership, 10 % cooperatives, 19 % non-profit, and 22 % private rentals (2022 a:65). A mix of tenure forms is evident, too, although this category did not form part of the study of Jensen et al., 2022. In the PhD study six out of 22

communities built on a mix of tenure forms (Drejerbanken, Dyssekilde, Fælleshave, Munksøgård, Hallinglille, Karise Permatopia). As seen in the record, the sizes of the communities also vary notably, from three to one hundred units (table 1). In this way, each co-housing is unique (Beck 2020, paper 1).

In a study of Danish housing areas, Ærø (2002) connected lifestyles to the choice of dwelling. Ærø (2002) operated with all housing assessed in four different types of general housing categories and placed co-housing and eco-communities in the low-rise cluster type, probably due to that co-housing in the 1970s was developed as low-rise clusters and rows of houses connected with a common house (*tæt-lav*). However, co-housing can as before mentioned be designed as high-rise blocks (which would belong to another of Ærø's categories), retrofit, and from what Fromm (2000) designate 'the lot model' which is parceling out lots from a large plot, done by building individual houses (either as self-built, customized, or architect-designed houses) on each lot and sharing the rest of the land for common purposes and a common house. Therefore, co-housing does not belong only to the low-rise cluster type. Ærø (2002) did not notice the different designing types, including the uniqueness of each co-housing.

4.1.3 Another way of housing

Co-housing communities can thus appear quite differently regarding development, design, size, and tenure forms. Due to the complexity of how co-housing is designed, where it is located, how it is lived in, used, and maintained, the concept of co-housing is a multi-faceted phenomenon (Beck 2020, paper 1). It is not just a design, nor is it just a method of using a certain tenure form, or just a group of people living together as close neighbours, or just about social sustainable living. It is all of it together in different combinations and variations.

When this said, it was also evident that there are some common denominators in the co-housing form (Beck 2020, paper 1). For example, are private homes combined with a community, and residents share a common house (or hall) with the purpose of having common dining on a regular basis, meetings, working groups, parties, and other social activities together. The private homes are provided as normal residences, although typically slightly smaller than average residences (Jensen et al., 2022 a:39 and 66) whereas the common house is shared and with full access for everyone in the community. The common house normally consists of a large dining hall, but it also includes other features, for example a large kitchen for preparing food, a playroom for children where they can run and play, while the parents finish their dinner, a guestroom, an office, a workshop for creating and repairing things, and sometimes also shared washers and dryers.

As noted in paper 1, outdoor areas are shared too, except for a garden in connection to the private home. The outdoor shared facilities typically consist of green areas, playgrounds, kitchen gardens, a common terrace, fireplaces, green-houses, animal sheds, waste recycling areas and land that can be cultivated or used for recycling, for

example on-site willow trees cleaning facilities. A few have shared sport facilities. Most co-housing communities are car-free zones. Parking spaces are shared on the periphery, and many have carpooling (Beck 2020, paper 1). Children can therefore freely run and play. Co-housing is thus a combination of private and common living arrangements. This is another way of constructing homes, forming a balance between privacy and communality.

4.1.4 The heart of the community

As above mentioned, co-housing residents typically dine together some days during the week. In this study it was found to be between one to seven days a week. Only one co-housing in the fieldwork record had given up arranging common dining. In all other 17 existing co-housing communities, it was confirmed that common dining is provided on a regular basis and that three of the communities under development were planning for common dining, while the residents retrofitting Nielstrup moved in during the fieldwork period and created a system for common dining four days a week. Common dining is regarded as ‘heart of the community’ because this is where co-housers meet informally on a regular basis, work together, and get to know each other (Beck 2019:24; Illeris et al., 1997; Skifter Andersen, 1985). They can also chat and inspire each other about everything from practical to philosophical issues (Illeris et al., 1997; Marckman, 2009). Moreover, the social organisation is an important task because this lays down a social foundation for the co-housing. In this study, it was found that the communities decide different models of organising the social everyday practice and tasks for the community regarding for example common dining, common meetings, social gatherings, parties, maintaining common areas, tidying up and so on. New communities are often inspired by older communities and therefore there are certain models in use for the organisation. This was evident of how common dining practices is organised (see also table 5).

Organisational dimensions of horizontal decision-making and the social relational dimension of co-housing encompass both formal and informal activities and these elements form part of creating a community as another way of living than in traditional residential areas, which typically have a much more private focus. The formal organisational activities are typically about tenure forms, financing, building, how to make decisions in common meetings, committees, and general assemblies, whereas the informal activities are the actual social activities, related to social relations, interactions, and networks, which form the community as a living platform for communality and the social organisation of for example creating common dining systems.

These social interactions are coming to life through doing things and being together at common dining, meetings, celebrations, and through the distribution of work tasks, which are undertaken in smaller working groups. The organisation of co-housing, which is based on decisions from such horizontal practices, was also discussed using commons theory, which is studied in paper 3.

4.2 A MULTI-FACETED PHENOMENON: SPATIAL CONCEPTUAL FRAMEWORK FOR CO-HOUSING

To deepen the understanding of the creation of co-housing from a conceptual perception, paper 1: *What is Co-Housing? Developing a Conceptual Framework from the Studies of Danish Intergenerational Co-Housing* was conducted. In this first paper, due to the complexity of the co-housing phenomenon, a conceptual framework was developed based on spatial dimensions and different types of designing co-housing (Beck 2020, paper 1). What I tried to do with this rather flexible conceptualisation, was to embrace the variety and to show some different designing types of co-housing and their historical evolution. The visual approach was intertwined with ethnographic methods with inspiration in Pink (2013) and Rose (2007). The fieldwork had thus focus on studying visual and spatial qualities obtaining photography, comparing the different co-housing designing types, and combining that with qualitative interviews and participant observation when visiting the communities. Typically, I was taken on a guided tour in the co-housing by one or two of the inhabitants and here I often met some of the other inhabitants, who I spoke with informally. As analysed in the paper, co-housing designing types refers to the three different methods of designing co-housing (architect-designed, retrofit/rebuilt, and self-built eco-communities) developed throughout the five decades of Danish co-housing. The analysis in paper 1 was thus ‘a combination of framing the spatial dimensions of co-housing and a synthesis of the different co-housing types found in the literature and observed in the empirical work’ (Beck 2020, paper 1). In all three papers, I touched upon or directly referred to this conceptual spatial framework, which explain co-housing dimensions and therefore I address this mutual starting point here as well. See Figure 2 on the next page. Conceiving spatiality from this interconnecting approach is rooted in recent interdisciplinary theory developed across disciplines, such as cultural- and human geography, visual culture, social science, and architectural theory. Concurrently, the spatial dimensions in figure 2 interrelate and are depended on each other. The four spatial dimensions will be elaborated in the followin

4.2.1 Spatial dimension of visons and values

Co-housing tend to be created from a vision formed by a group, who wants to live in another and more social way than is possible in normative housing typologies. What I found in paper 1 (Beck 2020), was that the most essential vision of a co-housing group is to bridge privacy and communality. This was also essential for the architect Jan Gudmand-Høier, who founded the first co-housing group in 1964 in Denmark and they created Skråplanet built in 1973 (Gudmand-Høier, 1968; McCamant & Durrett 2011:5). The intension is to create a daily life community. What the co-housers want is the private dwelling units to be linked to common facilities to get a feeling of togetherness and sharing, like in a traditional village but from a new method (Gudmand-Høier, 1968; Navne, 1987:9; Skifter Andersen in McCamant & Durrett 2011:24). The group shares common facilities and build up a community while still having their own residence. Typically, it is of high importance for the members that they have own units

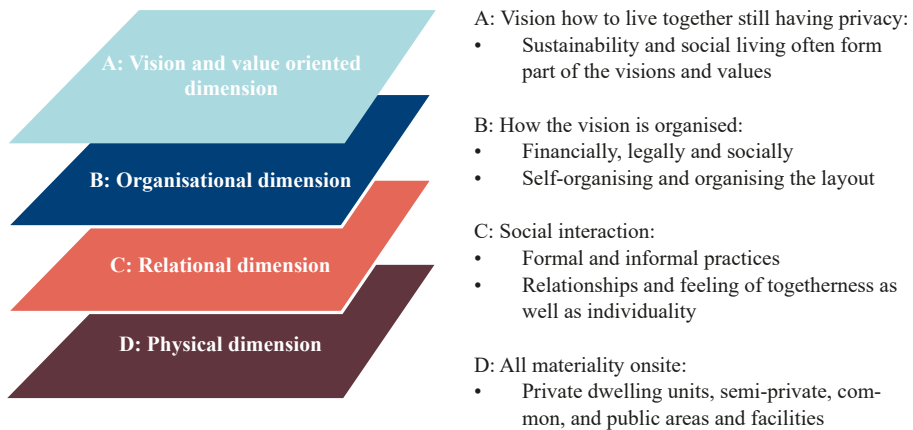


Fig 2: Conceptualising co-housing in four interconnecting spatial dimensions. The concept of co-housing comprises four spatial dimensions: a vision/value-oriented dimension, an organisational dimension, a relational dimension and a physical dimension, which play together and are interconnected (Beck, 2020; paper 1).

and thus private space. Therefore, co-housing projects are not like communes, although a few projects started as a commune and has later been converted into co-housing (e.g., Toustrup Mark, Svanholm). Communes typically comprise of one large household unit, whereas co-housing comprises separate household units (Navne, 1987:11; Jensen et al., 2022a).

The fieldwork of the PhD revealed that when choosing to create and live in countryside co-housing, the vision for future inhabitants is to be part of and participate in a community, often with a focus on sustainability, direct democracy, and for creating room for new possibilities together (paper 2). This is in accordance with other studies, which found that co-housers wish to know their neighbours, and be part of a social entity, who creates a community as an alternative to other housing options (McCamant & Durrett, 2011:4; Navne, 1987:10). McCamant & Durrett stated it in this way: 'By deciding to live there, they are consciously choosing to participate' (2011:11). In line with other research studies (e.g., Marckmann, 2009; Manzanti, 2007), the fieldwork of the PhD also revealed that yet another vision is to ensure good and safe conditions for children. This corresponds with some of the first visions stated by Graa (1967) and the first communities in the 1970s (A70, 1971; Illeris et al., 1997), which focused on better conditions for children and families. In the four followed co-housing projects, a central vision was to live in a sustainable and climate-friendly way (paper 2), as it has been in eco-communities, where the visions were about transforming society through own practice of living in a better balance with nature (Høite Hansen, 2020; Gram-Hanssen & Jensen, 2005). In this way, the groups agree on basic values for how to live. To live and help each other in families across-three-generations who was formed part of a project showed an issue, too (paper 2). When living together in a family across-three-generations, it is of high importance to have similar values. Non-hierarchical decision making is another vision and an issue of great value in co-housing (McCamant & Durrett 2011:26-30). In co-housing, the intension is thus to live in a non-hierarchical atmosphere based on a horizontal organisational structure.

The visions and values of a co-housing project are important for how to develop and live in the co-housing. As I wrote in paper 1: 'The visions that the group agrees upon influences the set of values. Visions and values are discussed, when creating the project and provides typically the basis for a written document for start-up groups. They agree on a set of core values which lays the visionary foundation for later when living together' (paper 1). In this way a spatial dimension of visions and values is established: It has incorporated a moment of initiation, which the groups now and then return to, while living in the co-housing. For example, this was the case in Stavnsbåndet, where a woman spoke to me about the importance of revisiting their vision of the original project to review their direction and feeling of togetherness in the community.

4.2.2 The organisational spatial dimension

When building up a co-housing community an important step is to find out how the co-housing can be organised financially and legally. This includes which tenure

forms to choose for the project and how to become an association. The community is dependent on how the organisation is accomplished and arranged. Because co-housing can be created from all tenure forms in a society and even a mix of them, there are quite different and sometimes complex methods of organising co-housing. Especially the method of mixing tenure forms can be quite complex (e.g., one of the followed projects Karise Permatopia operated with three different tenure forms). This step can also involve how to purchase land and conduct local district plans devised with the municipality. The organisational dimension is spatial because the method of organising lays a basis for the project configuration. The prospective resident's different professions and personal abilities are often used in the planning and designing process in collaboration with for example an architect.

At the same time, it is important for the members to stand together as a community, and to have the power to take action to get the co-housing project created and afterwards when living in the community finding a method for organising daily life in an equal and fair way. This is accomplished through the creation of an association, which follows the tenure form(s) used for the community. Private ownership in co-housing will usually be organised as a homeowner's association, securing the property parts that are shared. For co-housing cooperatives, it is mandatory to create an association, whereas for non-profit co-housing it would normally be a division of the non-profit housing association, that represent the inhabitants. Traditionally, it has been the community itself who through the association would be the developer of the project taking both the economical responsibility and the decisions of how the project should be. However, if the non-profit housing sector is involved, it is their housing association, who would be the developer and the decision-maker. Today, co-housing has come on the market and therefore there are now also private developers in the field, who take the full responsibility and will not necessarily involve future residents in project decisions.

The intension with co-housing is to create a community, which is organised in a horizontal way, where every member accords equal status. It raises questions like: How are decisions made in the community? How can tasks and responsibility be delegated. Who should sit on the board and how much can they decide? How common decisions are made is dependent on democratic and horizontal structures (e.g., voting, direct democracy, consensus, or sociocracy) and the organisation hereof. In addition, to legal rules of the association, it forms part of the organisational dimension to find a structure for the social formations. This includes deciding how to structure common meetings and create formalised practices of common dining, committees, and workgroups. A fair organisation, based on equity is of high importance for the members of the communities. In paper 3 the organisation of co-housing is therefore analysed and discussed through commons theory.

Co-housing can thus be perceived as a commons, where co-housers built relationships and where the ideal is a non-hierarchical community. However, relations in households and families are not necessarily non-hierarchical, for example relationships between

parents and children are basically built on hierarchically patterns because parents have the responsibility as providers and caretakers in children's lives (Vacher, 2022:63). A family in co-housing enters with its members, close-knit relations, and hierarchical orders as a small defined unit into the community. The community is contrary based on non-hierarchical and horizontal arrangements, where relations as close neighbours are built over time. In this perspective, being part of both a family and of a community is sometimes quite opposite experiences. Because these two experiences are combined in co-housing, frictions appear, for example Vacher referred to parents who had to set boundaries for other children who played with their children and be very clear when they wanted them to go home (2022:61). Boundaries for the household had to be clear and pronounced.

This is in line with, what was observed during the fieldwork of the PhD: Co-housers become good at setting boundaries and saying 'yes' and 'no' in accordance with what they want for themselves and their family. Boundaries can also be indicated through visual effects. From the glass-covered streets in Jystrup Svæværk (page 92), it is as part of the social contact design, possible to get a glimpse into the private dwellings through the kitchen windows. When visiting the community, one family had their blinds down to signal that they were at the time not available for the community. Albeit, in some cases, this would not be sufficient. One family had moved out of Jystrup Svæværk because they had the feeling that there was not enough space to maintain and develop their family relations internally. They experienced Jystrup Svæværk as a very social and lively community, but for them there was not appropriate balance between community life, with common dining six days a week, and their private family life (see also paper 1). However, when moving away they had missed the community so much that they decided to move back to settle in the village of Jystrup and in this way become neighbours to the community, where they could be part of the community from a distance and participate on different occasions. In the same community, it was also observed that sometimes other than the parents could be extraordinarily friendly and openminded in the way they perceived and treated children of the co-housing, simply because they were forming part of the community, and because they had known them since they were born. For example, when I was invited for breakfast in a co-housing household, who had lived in the co-housing for many years, a small boy from another household joined us, and the hosts told me that this was quite usual and that they welcomed him to do so because the parents had a hard time with their newborn child. In this way, they helped both the parents and the boy. Here, the boundaries were more blurred. However, when being well-trained in setting boundaries, when needed, it might be easier to be open to more interactions with neighbours and their children.

4.2.3 The relational spatial dimension: Relationships between co-housers

The relational dimension is about the social formal and informal formations coming to life through participatory design processes and while living in co-housing. This dimension connects to the engagement of members taking part in the creation and maintenance of the community. Here, affective aspects as feelings of belonging,

well-being, thinking, learnings, and building up relations to each other are essential to the community, the household, and the individual (Jarvis, 2015). The group is in this way empowered to manage together both through the building phases and later when living in the co-housing.

Building relationships to each other is at the core in the communities. An example of this relational importance came through in the fieldwork conducted in Jernstøberiet. From a focus group interview in Jernstøberiet, which has existed for more than 40 years, it was revealed that over the years, the inhabitants in this co-housing had got to know each other well. Relationships were developed and were felt as essential for the co-housers. The members had a feeling of being an extended family because the other co-housers felt like aunts, uncles, and cousins to them. It also came through that some inhabitants were closer to each other than others, but this was experienced as a natural thing when forming part of the community. Many became close friends and former inhabitants kept attending parties although they did not live in the co-housing any longer. Also, grown-up children formed still part of the co-housing because their parents lived there and sometimes looked after the grandchildren. Some of the grown-up children had created a new co-housing in another place of the city. Furthermore, Jernstøberiet had a social community culture, where a conscious open-minded decision was made to creating a generational shift because by time there had become an overweight of seniors. This shift was conducted by inviting new young people to move in when somebody moved out. One of the newcomer families felt warmly welcomed, for example had the community changed dinner time for common dining, so that families with young children had a chance for early dinner, but it was also the attitude towards the newcomers, wanting them to be part of the social community that had court the attention of the new family: The co-housing insisted on staying intergenerational and on keep developing as a social place with new members and relationships. This will be further elaborated in section 4.3.2.

4.2.4 The physical spatial dimension

Finally, the community is materialized through the physical spatial dimension. The physical dimension consists of all materiality onsite: The land and the houses, which are shared as well as private. It can be built as either architect-designed from scratch, rebuilding or retrofitting existing structures, self-building, or as a mix of these different designing types. Co-housing is a design for both privacy and social interaction and comprises on the physical level private, semi-private, common, and sometimes public areas. In the following, the physical architecture of co-housing is analysed in relation to the social interaction and feeling of home, which also clarify that the four spatial dimensions are interwoven.

4.3 THE ARCHITECTURE OF SHARING

An important component of co-housing projects is how the physical space for social interaction is designed and how the residents perceive and use their shared spaces. Several researchers emphasise that, co-housing is designed for social interaction or

as ‘social contact design’ and is thus more, than just the physical structures and spaces, as the social space and the creating of relations to other co-housers are essential in the practices developed in co-housing (Fromm 1991, McCamant & Durrett 2011, Torres-Antonini 2001, Williams 2005, Jarvis 2015, Sanguinetti 2014). Williams (2005) investigated the influence of different factors of social interaction in a comparative qualitative study of two American co-housing communities. By looking into how private, semi-private and common areas were distributed and used, she studied the spatial design factor in social interaction. She found in line with Torres-Antonini (2001) that a strategical location of the common house, shared open spaces, peripheral parking, and shared pathways to activity sites together with proximity and thus density of structures, increased social interaction. Yet, the social interaction was higher, when there were substantial semi-private areas as buffer zones (gardens, verandas, terraces, courtyards, pathways, platforms, staircases, etc.), providing a gentle transition between private and common areas. Too high density and overcrowding could enforce withdrawal from community (Williams 2005:217-23).

It is therefore not only the central situated common house that invites for social interaction, but also the in-between-zones (transition from private to common areas and vice versa). According to Williams, semi-private zones create a protective barrier with a degree of privacy and territorial control, but in transition to common spaces and with the option of active contact into adjacent common spaces, semi-private zones also function as a social space connecting private and common areas (2005:198 and 213-18). Semi-private spaces protect residents from overexposure to the community and, at the same time, provides opportunities for surveillance and potential meetings, as well as it is an area for residents to express themselves and their lifestyles. Therefore, semi-private areas increase the threshold between private and common zones; they are interactional spaces, creating opportunities for both informal and formal meeting situations. Shared pathways to community activity sites and to the common house also increase the informal meeting possibilities. Car parking on the periphery is another kind of shared space, where there is possibility for social interaction, meeting each other while walking between the cars and the private homes.

4.3.1 Social interaction as formal and informal practice

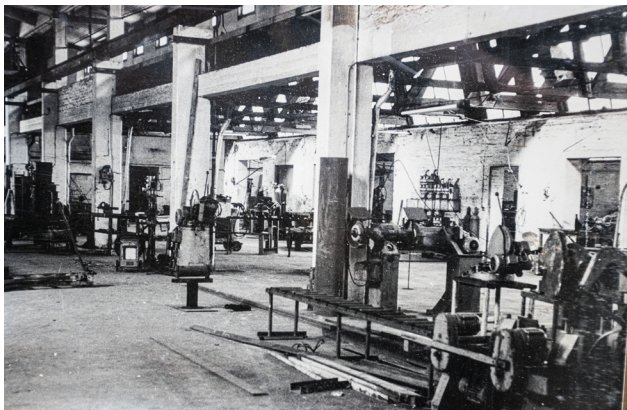
Social interaction is, however, more than the design factor, configuring both formal and informal social factors as well as personal factors. According to Williams (2005:208), formal social interaction is attached to the management and organisation of the community, for example in decision-making processes and monthly common meetings but, also through the maintenance of common areas and facilitating of common activities. Informal factors were regarded as the evolvement of relationships, reciprocal engagement, and trust between neighbours. Shared spaces and semi-private areas increase the informal meeting possibilities. Moreover, Williams (2005:208-11) found that the informal social interaction is affected by the age of the community, as the first year of existence of a community is characterised by instability, conflicts and changing social relationships, whereas older communities is characterised by



JERNSTØBERIET

Jernstøberiet is an old iron foundry building converted into co-housing by the architect Jan Gudmand-Høyer in 1981. The co-housing comprises 20 dwelling units in different sizes (between 30 to 100 m²). Some of the dwellings are where the old offices were on the edge of the hall. Most dwellings are constructed in split-levels and the frontdoors face the inside of the hall. Other dwellings are in an area, where the canteen of the factory was, and are in one plan, bridged to the hall by a glass-roofed path.

This hall is the re-building of the iron foundry machinery hall (see picture of how the hall was before re-building) now used as common and semi-private spaces for all the inhabitants. The common house is built in the middle of the hall with kitchen and common dining room on the ground and common living and meeting rooms on the first floor. The individual homes are in this way tied together with the common areas through semi-private areas. There are different personal furniture, toys, and plants in the hall, which creates a feeling of semi-private buffer zones.



much more stability, as residents have settled into their roles. Mutual confidence and clear rules amongst residents ensure greater cooperation in common tasks. Conflict resolution become further advanced in communities with some years of practice, which again evokes higher levels of interaction and satisfaction with decisions made.

4.3.2 The notion of an extended home feeling

From conducting fieldwork in Jernstøberiet, I found that the members of this co-housing had in general a feeling of their home as extended into the community. To examine the members' experience of home more deeply, a qualitative focus group interview was conducted. Here, the residents agreed that they had feelings of being at home in the private, semi-private, and, common areas although this was from slightly different perspectives. A middle-aged man stated:

'There is a difference of being at home in Støberiet [short name of the co-housing community] and being at home in the dwelling unit; it is more private in the dwelling, ... but the doors are open, and people come and knock on the door or say hello while entering'.

Some of the members had lived in the co-housing since it was built, and some had lived there only a few years. Some residents are therefore closer related to each other than other residents. However, everybody in the focus group interview had a feeling of belonging and they stated that at the moment every one in the co-housing formed actively part of the community.

When the co-housers visit each other in Jernstøberiet, the custom is to knock on the door while walking in. If the door is locked, the neighbour does not want to be disturbed. A young woman born in Jernstøberiet stated:

'Home for me is to be welcome. I feel welcome everywhere I come. But you can also lock the door if you really want to be private, which is as saying: no, not right now'.

Further, another middle-aged man indicated that:

'There are different degrees of being at home. I feel 'half' home when I enter the parking lot and 'partly' home in the hall. When I am behind my door, I feel hundred per cent at home'.

In accordance with these different notions of home in co-housing, the front door of the dwelling has a threshold of openness and sociality on one side and a threshold of privacy and the possibility of locking the door on the other side. It is thus possible to exclude others that do not live in the private dwelling if the inhabitants want to be on private terms but at the same time it is possible to participate in the community. In Jernstøberiet, the thresholds of the front doors are extended through semi-private zones and common areas and through social interaction, and by relating to each other, the



Jernstøberiet

Jernstøberiet is based on private ownership. Each household own their dwelling unit and a 20th fraction of the common areas and the land.

Semi-private areas with terraces and gardens in front of the dwellings

There are no fences and hedges between the dwellings. A shared path in the grass shows that, residents walk here regularly, quite close by each other's dwellings, connecting the garden alongside the house. Boundaries of private areas (such as terraces) are 'felt'.





The kitchen of the common house



Some of the residents have extended their dwellings through re-building and a new construction of the roof.

individual households are linked to the community.

'There are many informal meetings in the hall, especially during summer, and a little less in the winter' [as the hall is cold during winter], a middle-aged woman indicated.

Some of the focus group participants had the feeling of being home in a more 'all-over way', as indicated by a young woman:

'When I swing into the parking lot on my bike, I feel at home. The smell of food makes me feel at home. We are three families sharing a large terrace with our closest neighbours; with them we feel totally at home at each other's places. Due to that, our kids play together [and] the boundaries have degraded'.

The feeling of home is in this perception expanded to the closest neighbours and even to the whole community, when she arrives at the parking lot and smells the food from the common kitchen and dining hall.

'Feeling at home can bend in different degrees', an old man stated. Then, he told a little story about when he and his family came home from summer holiday and many of the residents had rented out their dwelling units. He suddenly had the feeling of not being at home in the co-housing because he did not know the people living there on temporary terms.

The feeling of home is thus related to knowing the other residents and having social relationships with them. This is in line with Easthope's (2004) notions of home as a place with nodes in a network of social relationships. However, in co-housing, this feeling is extended over the threshold of the frontdoor. A middle-aged woman indicated:

'When I enter the place, I feel at home immediately, moving from the parking lot and in transition down the hall; as soon as I meet somebody, we relate to each other'.

Home perception is for her a relational space, knowing each other as an extended family. Another woman continued, on this track:

'I think we must use another word than 'home' related to the traditional understanding of housing research. It is home in another way; we feel at home while having social relations and knowing each other'.

From this perspective, building relationships is an essential part of living in Jernstøberiet, because co-housers come to know each other well while living as close neighbours having an everyday life together. In this sense, the feeling of belonging to the community and knowing each other is what creates a home feeling, even though the feeling of home can for each resident's perspective be slightly different from the

other resident's experiences. Home is a relational perception, knowing each other as an extended family or, like cousins, aunts, and uncles, as one of the participants stated. Jernstøberiet is thus an example of how co-housing is a social place, where the home feeling is an extended notion, and where relationships to the other co-housers are built and developed over time.

Conflicts or potential conflicts are in this co-housing usually solved through dialogue between the conflicting parties. Everyone cannot be best friends in the community, but due to the size of Jernstøberiet, this is not necessarily a problem for the community, because it is still possible to be part of the community and respect each other, even though some inhabitants do not agree with each other about things or are not really getting along to begin with. However, it was also experienced that inhabitants learned about the others and developed themselves through arranging things with the other co-housers and that some relationships were slowly built.

Through a period, the community had problems with attracting new young families. However, they have now succeeded in a generational shift, by consciously talking about it and, warmly welcoming young families, making small changes that applied with the wishes of families with small children (e.g., changing dinner time).



Children can run and play in the hall, also during wintertime

4.4 ORGANISATION, TENURES, AND, SOCIAL PRACTICES

The organisational dimension includes how tenures comprise part of co-housing. However, a tenure form does not on its own premise constitute a co-housing project. Rather, co-housing is a social construction of living together by linking private dwellings with common facilities, creating social structures, and living in a community together, for example in creating systems for common meetings and for common dining, which is considered as heart of the communities. This is combined with the choice of one or more tenure form(s) for the community. An example of this social practice is displayed in the comparison of two co-housing communities from the 1980s with different tenure forms, meaning different practices of selling and buying a dwelling unit but otherwise alike in a number of informal structures (see table 4 in the next page). The two cases are both based on an integrated architectural design and the number of households living there is nearly the same. See pictures and descriptions of Jernstøberiet (page 80) and Jystrup Savværk (page 77 and 90).

The tenure form of Jernstøberiet is private ownership. Each household own each their dwelling unit and a 20th fraction of the common areas and land. Due to the private ownership model, the community has principally no say, about who are to become members of the community, as the decision and choice is taken by the sellers of the dwelling for sale. Therefore, the community cannot decide who is going to live there. However, in practise there is normally a meeting and dialogue between the community and the newcomers, before buying. Potential new members are also invited to attend a common dining and a guided tour in the co-housing, to see if this way of living, is something they will agree on. Prospective members are in this way introduced to the whole group of the co-housing. Concurrently, the group gets the opportunity to talk informally and internally about, who they prefer. Hereafter, they speak to the seller advocating for the ones, they would like to get into the community. Only due to this informal practice in Jernstøberiet, members have an influence on, who is going to move into their co-housing community. Otherwise, they must trust that newcomers really want to live in co-housing and take part in the community. This was by the focus group considered as a proces that had functioned well with a few exceptions, where the newcomers had not felt that it was a living form for them and had thus sold their dwelling unit again. Moreover, due to the regulation of private ownership and home owners associations, it is not possible to exclude members of Jernstøberiet. Disagreements have to be solved or members must live with them.

In contrast, Jystrup Savværk is created from the housing cooperative tenure form, where the property is collectively owned. Here members must buy a share of the co-housing cooperative and pay a monthly fee to live in there and use common facilities. This means that it is the community who has to decide on who is going to move in, when there is a dwelling for sale. In Jystrup Savværk, there can be quite long discussions on common meetings, who is going to be the next new members of the community. As a result, a working group prepare and present, who they think will be the best to

Table 4. Formal and informal institutions in two compared co-housing cases.

Formal institutions	Jystrup Savværk (1983)	Jernstøberiet (1981)
Tenure:	<ul style="list-style-type: none"> Cooperative: Buildings and land is cooperative owned and shared. A monthly fee is paid for living there. 	<ul style="list-style-type: none"> Private ownership, land is shared. Each household owns part (1/20) of the common area and land.
Dwelling units:	<ul style="list-style-type: none"> 21 dwellings, 2 teenage rooms, 3 guestrooms. 	<ul style="list-style-type: none"> 20 dwellings in different sizes from 30-100 m².
Formal management:	<ul style="list-style-type: none"> Cooperative association, rules and bylaws, board, and assembly meetings 	<ul style="list-style-type: none"> Private ownership association, rules and bylaws, assembly meetings.
Property right:	<ul style="list-style-type: none"> Common: Discussions on meetings who will be next to move in, possible to exclude. 	<ul style="list-style-type: none"> Not possible to decide who will move into the co-housing or to exclude.
Formal agreements:	<ul style="list-style-type: none"> Common meetings: highest level of decision making, monthly meetings. 	<ul style="list-style-type: none"> Common meetings: highest level of decision making, monthly meetings.
Informal institutions	<ul style="list-style-type: none"> Working groups and a board are responsible for different areas and arenas. 	<ul style="list-style-type: none"> Working groups and a board are responsible for different areas and arenas.
Common dining	<ul style="list-style-type: none"> 2 common working days per year. 	<ul style="list-style-type: none"> 4 common working days per year.
Functionality and actual use:	<ul style="list-style-type: none"> Common dining 6 days a week Private dwelling used for private activities and for inviting guests as well as other co-housers. Terraces forms part of dwelling unit, used privately and semi-privately. Common green area used by everybody. Common spaces used for common activities and informal activities. Sometimes private use of common areas for parties. Only possible to extend dwelling units with an extra room, which with the association's permission can be converted from guest room to part of unit. 	<ul style="list-style-type: none"> Common dining 3 days a week, plus 1 day on voluntary basis. Private dwelling used for private activities and for inviting guests as well as other co-housers. Terraces used for privacy but owned in common, semi-private agreements between gardens Common green area used by everybody. Common spaces used for common activities and informal activities. Common living room used for meetings and film nights. Extensions of dwelling units conducted separately but sometimes in joint application and with the boards permission.

Informal institutions	Jystrup Savværk (1983)	Jernstøberiet (1981)
Semi-private areas and arenas	<ul style="list-style-type: none"> • Straits and squares creates informal meetings. • Frontdoors and windows between private kitchen areas and straits: Close connection to common straits and squares. • This creates semi-private spheres between private dwellings and common areas. • Some use curtains or blinds for signalling need of privacy or social contact. • Only a small terrace as semi-private area, otherwise no hedges and fences. 	<ul style="list-style-type: none"> • Common hall used semi-privately and for common activities. • Close connection between private and common spaces: Front doors turn towards common hall. • This creates semi-private spheres between private dwellings and common areas and informal meetings. • Limits of terraces and gardens are felt, discussed and carried out by close neighbours, no high hedges and fences between gardens.
Decision-making:	<ul style="list-style-type: none"> • Consensus democracy. • Decisions on who can move into the co-housing and who can extend their home or have a teenager in the rooms for young people can be discussed in meetings. 	<ul style="list-style-type: none"> • Consensus democracy. • Decisions about have to share and divide common expenses, done as an average of how everybody says it should be and rules.
Shared norms in social interaction and working groups:	<ul style="list-style-type: none"> • Visiting each other privately, especially the children. • Efficient working groups for cleaning and keeping the common spaces. • Turns of cooking and dishwashing mandatory: done in groups by three persons for one week per six months duty. 	<ul style="list-style-type: none"> • Adjusting organisation and time for dinner. • Social interaction in common dining and activities in daily working groups and working days. • Turns of cooking and dishwashing mandatory in groups where each person has the duty once every month.
Symbolic and social practice:	<ul style="list-style-type: none"> • In dining situations interaction with family and with other co-housers. • Awareness of a delicate balance between privacy and communality. • Sharing culture and 'commoning'. • Parties for all co-housers, also former co-housers not living in Jystrup Savværk anymore. 	<ul style="list-style-type: none"> • Social informality while working together and 'commoning'. • Extended family feeling, sharing culture, knocking on the door while walking in to each other. • Every 3-4 years an outing weekend to discuss in depths about the community. • Yearly party for all co-housers, also former co-housers not living in Jenstøberiet anymore.

get into the community, using some neutral terms as age, size of household, sex, etc. Furthermore, it is possible to exclude members, if they do not pay their monthly fee or, if they do not behave in accordance with the bylaws that are set up for the community. If a member is excluded, it means that he or she will have to sell his/her share of the co-housing and move. However, this is very seldom or, never effectuated. Practice is to come to agreements, if there is trouble, or residents chose by themselves to move.

4.4.1 Danish tenure forms and the co-housing movement

All kinds of tenures of Danish society have been used to create co-housing. There are several variants of Danish tenure forms, but the main models are: 1) owner occupied, 2) housing cooperative, 3) a division of a non-profit housing organisation, and 4) private rental. Each tenure form in Denmark has a different legal organisation and rules. If the agreement is through private ownership, it is a homeowners association with bylaws and mandatory membership. If it is through a housing cooperative, it is a membership association with bylaws. Co-housing projects can also be arranged as rentals, either as an autonomous division of a non-profit housing organisation with resident democracy or as private rentals.

The cooperative movement

The ideology of the cooperative movement (*andelsbevægelsen*) of the late 19th century played a central role in agrarian reforms and self-organised communities. It also became an important part of the evolution of Danish modern society. Like many other cooperatives (e.g., dairies, local consumer stores, local saving banks), the cooperative housing movement emerged from the bottom-up and was a reaction to housing shortage, speculation, building crisis, and bank failures (Bruun 2011:67). As an alternative to private property, trade union leaders and workers took the initiative to form the first cooperative housing association in 1912 (Bruun, 2012:58). These housing cooperatives were collectively owned, and built for their members to have a place to live. The members rented their dwellings and the owner was the association, in which the members had a share. In the 1930s, with the first large social housing act, the cooperative housing movement was split into two:

1. The non-profit housing sector (*almene boligorganisationer*) and
2. Private cooperative housing associations (*andelsboligforeninger*).

1. The development of the non-profit housing sector laid the ground stone for building the Danish welfare system. The non-profit housing sector is in one sense public housing, as it is for everyone in need of housing and in another sense it is social housing, because it helps low income and vulnerable groups to have a place to live. However, because it is not restricted to income levels, the sector can in principle provide housing for all income levels and because it is driven as non-profit, the most neutral designation is non-profit housing. The sector is managed as independent non-profit housing organisations, regulated by the state and new built houses are subsidised by the respective municipalities with 10-14 % of the building sum giving the municipality a possibility

to usher housing units to people in need of housing (Larsen & Lund Hansen, 2015). Because the housing organisations are owned as independent non-profit, they can decide to cooperate with a co-housing group to design and built a co-housing scheme. These projects are built and organised as divisions of non-profit housing organisations (Pedersen, 2013). There are many examples of well-functioning non-profit intergenerational co-housing that was developed together with future inhabitants, but some schemes were also developed from a top-down process with very little or no involvement of prospective residents. This created conflicts with the housing organisation and challenged the functioning of the co-housing groups who found that they had no influence on the further design. It also meant that some members of the group had no interest in communality (Mayhoff 1989:8, Skifter Andersen 1989:16). Today, 62 % of the inhabitants in Danish senior co-housing live in non-profit co-housing, whereas only 20 % of the inhabitants in intergenerational co-housing live in non-profit co-housing. (Jensen et al, 2022a:65). Some intergenerational co-housing uses a mix of tenure compositions, where a non-profit division forms part. Non-profit housing organisations are sometimes used as delegated developer of the whole building project with mixed tenures.

2. Private cooperative housing associations are self-organised with membership, democratic control, and shared profits of collective investments (Bruun 2011:67). In the housing cooperative tenure form, members collectively own the property, in which they buy a share, and pay a monthly fee to the association for living in their dwelling unit and sharing common facilities (Jakobsen & Larsen 2018:9; Larsen & Lund Hansen, 2015:266). Due to a rule from 1975, where the inhabitants in a property should have the offer to create a private cooperative housing association and collectively buy the property before a landlord sells the property on the estate market, in Copenhagen today, a third of all housing units are organised as housing cooperatives. This number is for the whole country 7% of all housing (Bruun 2011:68), whereas about 20 % of all housing units are non-profit housing (Larsen & Lund Hansen, 2015). The cooperative housing tenure has been characterised as a model ‘in-between’ owner occupied and non-profit housing (Träff & Juul-Nyholm, 2011; Bruun 2012). Today, 33 % of intergenerational co-housing inhabitants live in the housing cooperative form (Jensen et al., 2022 a:62).

Co-housing created in the 1970s

The cooperative movement, which has historically been strong in Denmark, worked together with the communes from the 1960s and 1970s as inspiration for the co-housing movement due to the emphasis on sharing (A-70, 1970, Gudmand-Høyer, 1968). For example, the cooperative model from before the spilt in the 1930s was combined with shared economy and used for buying and creating Toustrup Mark in 1971 (A-70, 1971). However, in the 1970s, most co-housing projects were designed from the private ownership model, because that was the only possibility for obtaining loans to build new co-housing schemes. In this tenure model, each family owns their dwelling unit and a share of the common house, common land, and other common facilities. Because the organisation of co-housing took form primarily through private ownership

JYSTRUP SAVVÆRK

The co-housing Jystrup Savværk was designed by the architects from Vandkunsten and built in 1983. It was built on the plot of a former sawmill. There are only one building left from that time, which is now used for storing and located apart from the residential houses. The structure of the co-housing, with 21 dwelling units, is integrated in split-levels and the dwellings are connected to the common house by two glass-roofed streets and small squares. Even during wintertime, the dwellers can therefore walk to the common house without taking on jackets.



From the main entrance the glass-covered streets lead to either the dwellings or common house. Frontdoors and kitchen windows face towards the streets. The space in front of the dwellings are used semi-privately and private furniture, prams, bicycles, jackets, and shoes are placed here. Plants give an organic atmosphere and there are small squares with for example a sandpit for children.

The community is a dynamic and active place, where the dwellers are aware of creating and keeping a delicate balance between privacy and communality.





Preparing for common dining and a salsa party, a small group of residents in the common kitchen are nearly ready to ring the bell for dinner, while a child run around while some of the other children wait on the balcony. For the party some of the villagers, who had formerly lived in the co-housing, were invited. Furthermore, I was told that several other former co-housers now lived in the village and that they were invited for a yearly party and at different other occasions. In this way, the community extends into the village.





In Jystrup Savværk there is common dining six days a week, and residents take turns in groups for a whole week of cooking, besides being in working groups and participating on working days. In this way, Jystrup Savværk is a very dynamic place for social interaction and a close-knit community. For some families this might be too much as it was for the family, who described an ambivalence about living there (see page

these communities were mostly built and populated by quite well-off, left-wing residents with an overrepresentation of high educational levels (Jakobsen and Larsen 2019). An exception was Tinggården 1+2 (1979 +1984), which as explained on page 26 was an architect competition and a housing experiment won by Vandkunsten. Both Tinggården 1 and Tinggården 2 form a division of a non-profit housing organisation. Another exception was the development of a 50/50 mix of tenures with half ownership and half non-profit units in Drejerbanken, designed by Tegnestuen Aarhus and finished in 1978. A few others were organised from other tenure forms, for example as limited partnership, like Svanholm which is a large co-housing started in 1978 as a commune in a retrofitted manor.

Cooperative co-housing

In 1981, due to a new regulation of the cooperative housing model, it became possible to take up state subsidised index loans for creating housing cooperatives. It was developed as a quota system, so that there was a certain amount of quotas each year in each municipality for new built housing cooperatives. This possibility could keep the building expenses relatively low and it paved the way for many new co-housing cooperatives (Jakobsen & Larsen 2019, Vedel-Petersen et al., 1988:8). They were primarily architect-designed and built as 'tæt-lav' ('dense-low') communities. In this way the history of cooperative housing is weaved together with the co-housing movement. Many co-housing communities were thus based on the cooperative economic model in the 1980s and 1990s making co-housing more affordable for more people. Suddenly, singles and people with one income could afford to be part of creating a co-housing project (Skifter Andersen 1990:3, Vedel-Petersen et al., 1988). The success and spread of co-housing in Danish society in part coursed from this change of the cooperative housing law (Jakobsen & Larsen, 2019:9). However, the subsidising possibility came to an end. The state-supported cooperative financing model ran until the beginning of 2000s but was in praxis phased out throughout the late 1990s and fully stopped in 2004 (Larsen 2019). Moreover, a commodification of cooperative housing was brought into effect by the neoliberal government in 2005, which many cooperative housing associations chose to follow (Bruun 2015).

Throughout more than twenty years (between 1981 and 2004) due to this regulation, a large proportion of Danish co-housing was constructed from the cooperative tenure leading to more diverse communities. However, after the phasing-out of this subsidised regulation and the commodifying of the housing cooperative sector, many new-built co-housing projects have again been constructed from the owner-occupied model (Jakobsen & Larsen, 2019).

4.5 COLLABORATING AND BUILDING CO-HOUSING

Both during the creation, when a co-housing is getting materialized and while residents are living in co-housing, there are as shown many facets coming together, including building and maintaining the physical and social structures of the community. Bottom-up processes such as the group's self-organisation, the search for appropriate sites, financing, and the process of local district planning have traditionally been performed by the groups themselves (Nielsen & Skifter Andersen, 1981). Sometimes architectural firms or other professional consultants can be involved in these processes aiming to create co-housing. That would normally be because they were hired by the groups (e.g., Jernstøberiet, Jystrup Savværk, Lange Eng, Karise Permatopia) or because the architects or engineers were themselves part of the group (e.g., Skråplanet, Lysningen, Frikøbing). The choices are typically made together with the members of the initiating group, and this sets the first framework for the materializing of the community. However, during the process of developing a co-housing project, the choice of financial organisation is also dependent on the assessment of the project from financial institutes. The municipality has influence on the project, too, when devising a local district plan with the group. Moreover, architects have great impact on the physical design although listening to the group's visions and wishes.



4.5.1 Studying four co-housing groups settling in the countryside

To get a picture of how co-housing is created, including the motives for an urban-to-rural migration choice, the initiating process is interesting because it shows the intension behind the projects. Therefore, I chose to follow four projects under construction in the countryside. By following these groups and projects, I learned about their process and motivations for creating and moving to a countryside co-housing (see fig. 3 next page). What I also learned, was that these processes can take long, especially the planning and building processes are certainly longer than the two years I followed the projects.

The four followed projects represent different sizes, tenure forms, and designs of co-housing

This part of the fieldwork verified that co-housing projects can be initiated in different ways. Nielstrup was a retrofit project and, therefore, not a building project. Torup Overdrev failed and was therefore not built, whereas Frikøbing and Karise Permatopia were built.

In two of the projects, Nielstrup and Frikøbing, the initiative came from groups who wanted to form a co-housing community from a bottom-up approach. These projects were initiated by a small group of people, who gathered a bigger group to develop the project and search for a plot or for some existing structures to retrofit. By contrast, in the cases of Torup Overdrev and Karise Permatopia, the idea of building a co-housing came from how to develop specific local sites. These projects were developed with

<p>Figure 3.</p>	<p>The group was initiating the projects through a process of finding a location/site</p>
<p>Retrofit/not built</p>	<p>Small project: The manor of Nielstrup</p>  <ul style="list-style-type: none"> • Bottom-up project: Initiators were a group of family members • Private rental (landlord) • Trust between renters and landlord • Retrofit, decorating, putting up a kitchen and pulling down a wall • 4 housing units
<p>Building process</p>	<p>Medium size project Frikøbing</p>  <ul style="list-style-type: none"> • Bottom-up project: Initiators were a group of friends and family members • Collaborating with different housing professionals. • Private ownership • Developed as a lot-model: mix of customised built houses from standard units, self-built, and architect-designed houses. • 22 housing units

	<p>The location/site was the underlying basis and starting point of the project</p>
<p>Retrofit/not built</p>	<p>Small project Torup Overdrev</p> <div data-bbox="520 365 924 651" data-label="Image"> </div> <ul style="list-style-type: none"> • Top-down initiated process by the municipality and Torup Ting creating a group • Private ownership • Ramshackle house should have been torn down • Failed • Should have been 8–14 housing units
<p>Building process</p>	<p>Large project Karise Permatopia</p> <div data-bbox="520 1021 938 1294" data-label="Image"> </div> <ul style="list-style-type: none"> • Top-down initiated combined with the process of collaborating with a small group of future inhabitants and initiators • Mixed tenures: private ownership, cooperative, renting through non-profit housing organisation, who was delegated/assigned developer. • Developed as a combination of architect-designed row houses, retrofit, and self-built common house. • 90 housing units

the purpose to sell land and create a project, and for the municipality to attract new residents to an area.

In all four followed cases, the fieldwork showed that the groups, which were studied while creating their communities, were promoted through social media, webpages, and personal network to get more people to join. In the case of Nielstrup, it was a family across generations who started the project. They announced for another family interested in living at Nielstrup on the webpage Bofællesskab.dk. In the case of Frikøbing, it was a dedicated group of friends and their families, who were the initiators. They announced their group on social media. When they had found a site for the project, they made a webpage and continued to announce on social media and other webpages (e.g., bofællesskab.dk). They also had several interviews about the project in the local newspaper. Some left the group and new people came. This is a common challenge for starting up co-housing projects (Nielsen & Skifter Andersen 1981:24).

In the two projects developed from specific sites, the materiality of the site formed the underlying basis and starting point for the actors involved. Their primary focus was to sell the idea of co-housing and search for people to sign up for the project in that specific site. In the case of Karise Permatopia, it was compiled as a project sale based on a webpage, adverts, prospectus, info meetings, newspaper articles, and announcing on social media and webpages. The location of the plot was in the small town of Karise. The actors of the Karise Permatopia project included a bank, who owned the land and a project leader who gathered a small group of future inhabitants with different competences and an architect-firm. Whereas in the case of Torup Overdrev, it was the local community council, Torup Ting, and the municipality, who started the process of trying to gather a group of people, who could be interested in creating co-housing from the specific plot, finding a way to build, and searching for project financing. This plot was in the village of Torup. The municipality and Torup Ting wanted to attract new residents to Torup. They started the process by inviting prospective residents for an open inspiration meeting. They announced the meeting on social media, webpages and the local newspaper wrote about it. After this, Torup Ting facilitated several meetings with a group of people interested in the project. When a small group took over, they announced the project on social media, but the group were not persevering enough to carry through the project, partly because some of them dropped out and partly because they could not get a satisfactory agreement with the investor to buy the plot. When they failed in buying the plot the group dissolved.

Developers and other professional actors, who start the process of creating projects with the idea of co-housing as a possible development using a specific site for the initiation process, is a relatively new orientation in the field of co-housing (Beck 2020, paper 1). This has been followed by a development, where co-housing is built in a more top-down fashion, although in some cases still with a strong involvement of future inhabitants (like in Torup and Karise). This method of initiating a housing development is more equivalent to how the traditional building industry construct housing. Today,

there are also companies, who help facilitating and organising groups to develop co-housing together with the groups. Therefore, there are currently several parallel methods of construction co-housing schemes, which can be either from a bottom-up fashion, a top-down fashion, which is as before-mentioned relatively new, or different combinations of these two fashions in which a co-housing company collaborates with future inhabitants. However, bottom-up initiated co-housing is still distinctive for many existing communities.

4.5.2 The planning process

For groups in search of a site, the discussion of how to build the community and develop the infrastructure and social organisation lays the groundwork for making a project draft, which can be presented to several municipalities, to find a place and acquire land to build the community in a municipality that is supportive of the idea and willing to collaborate (Martinussen 2010:67). In Denmark, it normally takes at least six months or more before a local district plan is approved. In some cases, the sites chosen for the projects have already been earmarked for urban development by the municipality. For example, the urban development area of Trekrøner in Roskilde went through planning along with the construction of the first co-housing Munksøgård, which since gave rise to more new co-housing communities in Trekrøner. This happened in Hvalsø, too. Here the co-housing community Frikøbing was the first community to be developed as part of the Hyllegården local district plan (Lokalplan LK 34 for Hyllegården), which is part of a larger urban development area with the farm Hyllegården as a centre for further co-housing developments. Some co-housing projects have thus come to play roles as parts of larger scale strategic city developments, whereas other co-housing projects have served to revitalise depopulated rural villages, for example eco-community Dyssekilde in the village of Torup, where the site of Torup Overdrev also is (Busck and Jepsen 2018, Martinussen 2010:82). Often the projects are by time of the development of the co-housing going through a change of zoning status from rural to urban zoning (Martinussen 2010:67). Then some parts of the land will typically remain rural zoning for cultivation, grassing of animals, or re-cycling infrastructures (e.g., on-site willow trees cleaning facility for wastewater). This was for example the case in Frikøbing and in Karise Permatopia.

The core groups can be extraordinarily active in the process of planning and conduct in many cases the local district plans themselves (Martinussen, 2010), as they did in Frikøbing, whereas in Karise Permatopia there had already been attempts of a local planning process, because the farmer of the land, had visions of an eco-community before he died and the farm went through bankruptcy. However, the project developer and the group soon found out that the site for building should due to planning regulations be in proximity to the small town of Karise and the building site of Karise Permatopia had thus to be located on the fringe of Karise. Therefore, this part of the land went through urban zoning, whereas the rest stayed as rural zoning. Professional housing actors were involved, and a comprehensive building design created by House Arkitekter in dialogue with the group took form. A top-down process started, although the project

leader ensured that it was in collaboration with the group, which was growing quite fast.

4.5.3 Planning and financial obstacles for co-housing projects

For small rural towns and villages with a decrease in families with children and a lack of young people with higher education, intergenerational co-housing groups hold promise as an attractive match for rural areas because these prospective residents are creating intergenerational co-housing with a mix of young families, single parents with or without children, couples, and seniors. However, countryside co-housing initiatives do not always fit into the normative categories in financial and municipality planning regimes, when for example a co-housing group wants to construct a project where they are themselves the developer as a cooperative housing association or wants environmental circular building- and infrastructure or self-built houses from untested materials. It could also be shared experimental initiatives from permaculture designs and with many organisational levels and mixed tenure forms, as for example in the case of Karise Permatopia. Municipality planners and financial institutes are not necessarily used to such complex or experimental methods of building projects, and it can therefore take longer to obtain loans and get permissions for building.

In this way, co-housing experiments sometimes challenge planning regimes and financial systems. The study showed that some of the prospective residents were not able to obtain loans because their banks were reluctant to the projects or because they did not have a solid economic situation. Another obstacle is to obtain loans for the whole building project. It was for example extremely difficult to get bridge financing for Karise Permatopia. It was only due to that the non-profit housing organisation KAB took the role of assigned developer and through intense negotiations with the bank that they succeeded. At these meetings with the bank the lawyer of the project was also present. I interviewed the lawyer, who stated that she had asked the bank why they were so reluctant in the relation to this project. The answer had been that co-housing does simply not fit into the normative categories of how to finance new building projects. In general, the financial system considers co-housing an experiment, which can make it extremely difficult to obtain loans. Therefore, it is usual that the building of co-housing is regarded as high-risk investments. Partly due to this, the project of Karise Permatopia got in the end more expensive to build than expected.

Furthermore, the chosen location of a project can be a challenge because Danish financial institutes are obliged to follow the value of properties, which depend on the location. In the countryside the value of properties is in general low, meaning that the rate for how much it is possible to loan will be low. Therefore, obstacles are quite normal, when creating countryside co-housing. Moreover, financial institutes are generally not used to new built cooperative housing anymore, especially not if the housing cooperative association is the developer. Sometimes it is easier to get financed the projects if it is through private ownership, because the banks find this model safer than for example the cooperative tenure form. No matter what, it takes risks to be part of a co-housing

group and build together. This might well be one of the reasons that it is mostly well-paid academics who are successful in building private ownership co-housing. The other building project, Frikøbing, also became more expensive than expected and some had to leave due to this challenge, whereas renting the rural manor of Nielstrup gave possibilities for more space and for one of the households to live from only one income still having a sustainable lifestyle. On the other hand, this meant longer travel time to the jobs in the city.

The study was informed empirically by ethnography using the method of following the groups and projects. Using this methodology, it was revealed that one of the followed projects failed. This is not unusual for co-housing groups, but it is seldom investigated or reported. The group process of engaging in creating the projects appeared essential for developing co-housing, be it a bottom-up process or a top-down process with the group's participation. Self-organising and collaborating with professionals showed to play a central role in becoming a co-housing group. The group of Torup Overdrev failed to create co-housing because these processes are fragile for groups in terms of being sure of each other's commitment. The fact is that it can take several years to create such a group, but people joined and left this group because they were trying out the idea of creating co-housing and there was only a very small group of people who stayed. Initially, there were very different views on how to create the project and no agreement of a vision for the project. The small group who took over agreed that it should be a 'lot model' with self-building or self-design of houses and that the common meeting point should be an orangery. However, negotiating the price of the land turned out to be not in favour of the group. The lesson learnt is the importance of having a compiled programme for the shared visions and values and for how to organise and finance the project, including a fee for becoming part of the group from the very beginning. Moreover, the municipality/local community council-initiating was difficult, especially for the municipality, because they are not able to take part in these processes in the long run due to the obligation of being an authority for the whole area and everybody living in the municipality.

4.6 THE FOUR FOLLOWED PROJECTS IN PICTURES AND TEXTS

1. NIELSTRUP

The group of Nielstrup started with a family across-three-generations, who wanted to live together. They had for some time been talking about creating a co-housing, and had been in search for an appropriate site. When the grandmother walked in the area where she lived in Lolland, she found out that the manor of Nielstrup was vacant. It had before been occupied by an institutional home for youngsters. Apparently, the grandmother lived in a house owned by an estate, a nearby castle, which was also the owners of Nielstrup. They showed forthcoming to the proposal of the family wanting to rent the manor and the family reached an agreement with the owner of the manor to rent the whole property from a relatively low rent. Through adaptive reuse of the existing building structures (retrofitting) they created a co-housing with four dwelling units and a large common dining room. The family retrofitted the manor and prepared for a large ecological kitchen garden and for keeping hens and built a greenhouse. They reconditioned the structures of the old manor, sorted out the large garden and the small forest, fenced some large fields for sheep, and prepared to grow vegetables. With a few alterations and quite some reconditioning, they could move into the manor. Through extending the group with the sister of the grandmother and another family who they were not related to, the co-housing could accommodate four households.











The members of Nielstúp agreed to have common vegetarian dining four days a week by taking turns of cooking for the other households on one weekday each. Because this co-housing is small with retrofitted structures and because they are tenants, the process of creating this co-housing was quite uncomplicated. Their process of retrofitting, moving in, and finding more members took about 9 to 10 months. Moreover, if they dislike the collective living they can move away without problems. However, because they are related as a family across generations and therefore forever connected, they must be extraordinary open-minded and at the same time respectful towards each other.



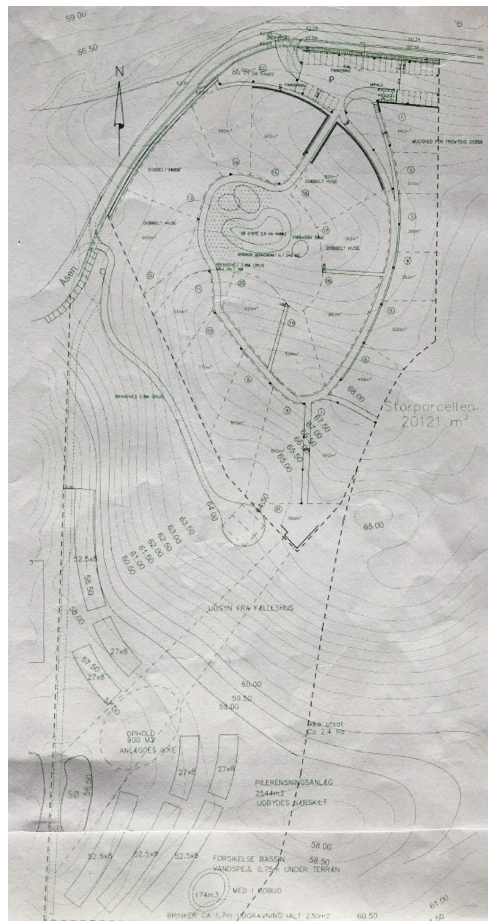
2. FRIKØBING

The starting point for the group of Frikøbing was some young friends, who discussed how to live a free, self-sufficient, and more sustainable life. After one of them, in a master thesis about sustainable planning had studied eco-communities and co-housing, they invited for a meeting and more people joined the project. Friends and families across generations attended and many of them became members of the group. The group discussed visions, values, organisation, financing, and planning processes. They established an association with the visions on sustainable and affordable living using direct democracy. The name 'Frikøbing' meant for them shared land and the creation of a community with a centrally located common house. In this way they would become free of debt over time and live together with friends and family. Space and land for possibilities to create new things, for example a playground of natural materials, a space for wild nature, and kitchen gardens formed part of the vision. They created working groups with different tasks (a design group, a financial group, a communication group, and a social group, etc.) and they started a search for appropriate sites.

The group agreed on contacting the municipality of Lejre, who branded themselves as 'the ecological municipality' and because Lejre is in a distance a little less than one hour in both car and train from Copenhagen, the group found the area attractive. The municipality of Lejre showed forthcoming to the group and invited them on a trip to look at possible sites.

The group chose a beautiful hilly landscape, and they planned to build detached houses around a winded path and a common house on the top of the hill with the best view.

On the map the area of Frikøbing is shown. It is a large lot (20.121 m²), which is quite long. Only the upper part is urban zoning, whereas the lower part is rural zoning with an on-site willow trees cleaning facility, which filters wastewater. In the urban zoning the area is divided into 20 lots and a lot for the common house, a parking area, a small lake, and paths.



The group set up a homepage for the project, announced the project on social media, and local journalists wrote about it. The municipality wanted dialogue (e.g., helping the group to arrange a public meeting) and involved them in the municipality planning process. The local district plan 34 was conducted in co-ordination with the municipality.



The picture above is from the ceremony of raising the roof structure of the first house in Frikøbing. Some were self-builders, whereas others had their houses built by a company producing unit wood-built houses, which the future residents customized. Others again, had their houses designed by an architect-firm.

Frikøbing was under site preparation when the research started. The project was organised as a lot-model with private ownership and the sharing of large parts of land in a homeowner's association. Each of 21 households bought a lot (or half a lot) and a part of the common land.





They also deposited a certain amount of money for the common house, site preparation, and the construction of the on-site willow trees cleaning facility, which filters wastewater (see picture on the left). Personal resources of the group members were activated and a number of groups were created for the purpose of planning, designing, financing, building, and doing things together. For example, The Design Group conducted guidelines for sustainable building materials, hedges and fences, and different sizes of the lots, which the whole group agreed with.

The group also had a day on the ground where each household placed a stick with a flag on which lot they wanted. This showed quite uncomplicated as most of the future residents had distributed themselves on different lots (see also thick writing about this subject). Thereafter, each household built a house on their lot, making the community a visual multiplicity due to the mix of self-built houses, customized unit built houses in wood, and small architect-designed houses. Some families kept their costs down by choosing small size lots and building a small house, whereas others could afford bigger houses (see for example picture below). A few built either a house for three generations (first black house on the left) or a semi-detached house.



The residents of Frikøbing were mostly young families. Some were seniors or singles, and some were family members across three generations. They were generally highly educated and primarily from the Copenhagen region, although, in their early lives, many had been living in smaller towns or villages in the countryside.



The group was from the beginning open to people with different economies and wanted to comply with affordability, making it possible for two households to share a lot and build a semi-detached house. Some single parents were part of the group, but by the end they were not able to build because it got too expensive for them. The banks showed reluctant to lend them money and the site preparation and incidental expenses costed more than expected. Moreover, prospective residents did not know exactly how much it would cost them to build and they had to be willing to live with uncertainty and risk.



Examples of self-built houses



Straw bale house and small kitchen garden in front of the house





Example of architect-designed house by Sigurd Larsen. The kitchen-dining area, which also comprises living area is the central room in the house. It is designed as a double high room. The ground plan of the house is quite small but due to the height of the room the house does not feel small. In front of the house the residents have created a large kitchen garden.





The common house was the last house to be built and because, it would either cost more than expected, or the common house would be too small and simple, the group had arranged a row of dialogue meetings where the issues attached to this situation were discussed without taking any decisions but only listening to different concerns. Only thereafter, a decision meeting was held, where the decision to moderately higher the costs had most votes.





Frikøbing in summer time after the residents had moved in and started planting and forming different play ground equipments and opportunities for the children





3. TORUP OVERDREV

This project was initiated by the local community council of Torup, which is called Torup Ting, and the municipality of Halsnæs. The site had been acquired just before the economic crisis (in 2008) by an investor, who wanted to re-sell with the purpose of creating a row house project or dividing the site into parcels (local district plan 10.6), but the investor had not had much luck with re-selling the property for this use. The investor asked Torup Ting for help. Inspired by eco-community Dyssekilde, the local community council came up with the idea of creating a co-housing on the site. They contacted the municipality to get some help with facilitating meetings and attracting prospective residents. This was of interest of the municipality because they wanted to support newcomers to move to Halsnæs. An inspiration day was held in Dyssekilde, which is the first eco-community in Denmark, and located in Torup. Anybody interested in starting a co-housing group in Torup was invited to participate. Around 60 people came to this meeting, which was followed up by a succession of initiative meetings (I attended five of these meetings), posters, and social media notices to initiate a group who could take over the process of creating a co-housing scheme for Torup Overdrev.



The site is in the center of the village of Torup and has a size of 6815 m². It comprised a ramshackle house, which has recently been torn down, and a large garden overgrown with brambles. Originally, it had been a flower garden, but after the owner died and the investor took over the property, everything dilapidated.

A little lake, which historically had been a cul-de-sac for watering the calfs of the village, forms part of the site.



Devision of the group present at the first initiating meeting After the meeting it was possible to join a tour to the site.

A small group of prospective inhabitants was thereafter established. New people continuously joined this group, while others left the group. A wide range of different possibilities were presented and discussed in the meetings, for example architect-designed row houses formed from the 'Almenbolig Plus' model, domes, tiny houses, self-building, etc. The different methods of building could not be in the same project and some people left because their wishes were not the favoured. Finally, half a year later, a small group took over the process and the project ended up as a lot-model with the possibility to build different houses either as self-built or customized standard houses on each lot, inspired by the nearby eco-community Dyssekilde.

Unfortunately, this small group failed in buying the plot, because they were still in the initial phases of becoming a group and of forming visions and values, which they would fight for together. Throughout time of the existence of the group, it had many temporary members. In the first meeting over 60 people attended but only a few of them were part of the group half a year later. Therefore, the group was not a closeknit group and it had few members. Furthermore, the financial negotiations with the owner of the plot did not turn out in favour of the group and when some members of the group left, the others were not able to buy the plot.

Although a row of well-coordinated and -intentioned meetings was held, the municipality and Torup Ting had not much experience in this type of projects and there was not a clear organization of the project from the beginning. The municipality wanted to attract resourceful people to create a co-housing project, and the local community council wanted to develop the village further in accordance with the values of doing things together, which included the visions of more sustainable living. However, for the municipality there was also a limit for how long and how many resources could be used to stay involved. The group and the project dissolved because the vision and values and the whole framework of the project had not been evident or strong enough to gather more prospective residents, who would keep on fighting for the project. The site was then again for some time neglected.



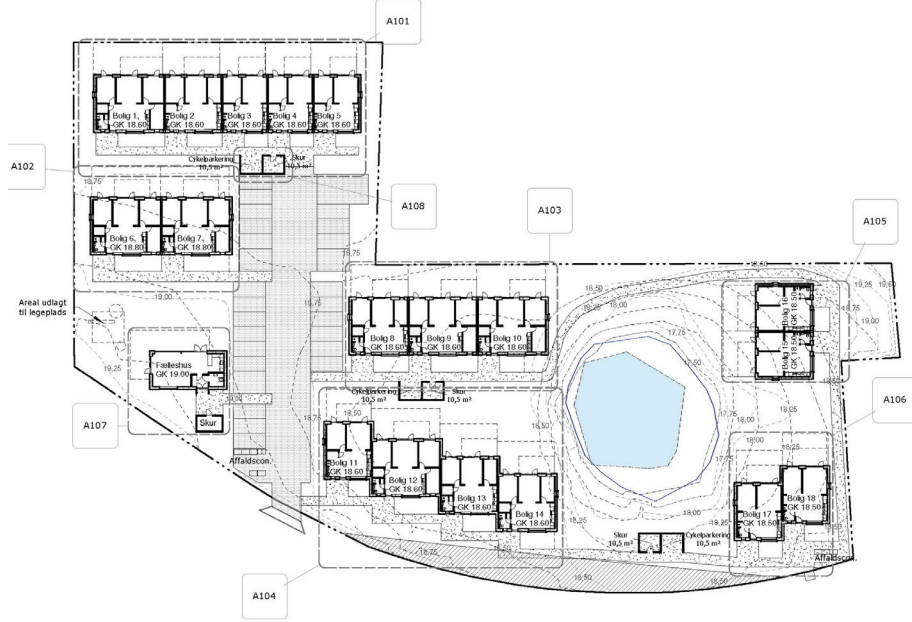
Today the ramshackle house has been torn down (the materials from the house are used in other places) and the garden and the small lake has been cleaned up. The name of the site was originally called 'Vænget' (a cul-de-sac) which letters also decorated the facade.

The site was bought by my uncle and aunt, who are Torup locals, with the purpose to resell the plot for building a co-housing project. With help from Kuben Management, and Front Architects and in cooperation with my company Falkenstjerne Fælles, we created an intergenerational co-housing project and attracted a group of future co-housing residents. A group, who also had a number of members, was created. Together we organised and registred a cooperative co-housing association, and named the project Vænget as a continuation of the tradition of the site.

The plot is now owned by the association of the co-housing cooperative and a persistent group have taken over as developers of the project strongly helped by the professionals involved, including the turnkey contractor Cento. The old buildings (the house and a number of smaller sheds) on the site has been torn down and a climate-friendly co-housing in wood is going to be built soon. It will be 18 units in three different sizes and a common house.

My company has been involved in facilitating the process of gathering future residents, coordinating the project in relation to the association, working for the participation of members and the project sale, including leading workshops and meetings. This involvement has been going on long after the fieldwork studies were finished.

The site plans below from Cento show how the project will be.



On the left is site plan from 2022, whereas the above site plan is from 2024, showing slightly different size of the common house and some of the dwellings.

4. KARISE PERMATOPIA



The drawing above is created by House Arkitekter and shows the idea of the 90 dwelling units, which form part of the project Karise Permatopia. In all, there are eight clusters. In each cluster two curved rows of housing face each other creating semi-private pocket gardens between the rows. There are two owner occupied clusters, two cooperative clusters, and four non-profit clusters.

Below is a picture of the construction of the houses showing that this idea of rows facing each other was accomplished. The houses were slightly offset forming small private spaces in front of each house.



The project of Karise Permatopia was initiated as a top-down process by a small bank who worked with alternative visions about collective financing. They had acquired a farm after it went through bankruptcy. This happened because the farmer died, but previously he had wanted to create an eco-community on the site of the farm. The bank employed a social economist, who had beforehand worked with ecology. He became leader of the project of converting the farm and develop the site. The project leader gathered a small group of prospective residents interested in experimental and environmental sustainability. He created together with the small group, which also included an architect and a specialized engineer, a vision and organization of the project. They developed the project from permaculture design principles to create both a co-housing and co-farming site.



The name Permatopia is a contraction of ‘permaculture’ and ‘topia’, meaning that the group wanted to use this specific site or 'topia' and combine it with the organising and cultivating from design ideas of permaculture. Permaculture is oriented towards that the resources of the site and soil should be kept on-site and that balancing the uses of resources, including the resources of the co-housers, is part of living in harmony with nature. Permaculture builds on a regenerative way of farming, where the soil is not ploughed up when cultivating vegetables for self-sufficiency of the community. It is a climate-friendly vision and a praxis of sustainable living.

Long before relocating at Karise Permatopia, the co-housers grew vegetables on the farm (e.g., these fields with kale).



The vision of Karise Permatopia reflected an interest of a larger group, who wanted to chance lifestyle to live in community with sustainable self-sufficiency. Through dialogue- and info meetings, more than 400 people showed interest and many of them registered to become member of the project association. They filled out a questionnaire with personal data and their motivations for wanting to be part of the project. Because the vision included being a diverse community across generations, professions, and with a balance of sexes, the project leader compiled a list of potential residents to match them (in terms of age, sex, members of household, profession, wishes of tenure form, and motivations for living in a permaculture community).

By the end, some members dropped out of the project and new members came. Therefore, this matchmaking did not totally complete but it put forth a system of living together across generations with a diversity of interests yet having a shared goal of sustainability concurring with permaculture solutions. When the research started, a large group of 200 members had been established, but the group needed to find bridge financing before building. Before building, the project was separated from the bank and sold off to the formation association of Karise Permatopia, which was formed by the project leader, the group, and the non-profit housing association Sydkystens Boligselskab.



Here are some details of the farm buildings, which is from 1857. The main house was retrofitted and the barn was extended and rebuilt.



The components of this large project comprise the site, which is 29 hectares and the 90 row houses, which are slightly offset and thus forming curved rows that face each other. A shared retrofitted farmhouse, a redesigned barn converted into a common house, a forest garden for growing vegetables, a forest reserve, a wind turbine, land for farming, and on-site willow trees cleaning facility for wastewater also form part of the project.



First year onion harvest



The pictures below are from the extending and rebuilding of the barn, which was undertaken in different working gangs by the co-housers, who worked together with an ecological building company named Egen Vinding & Datter.





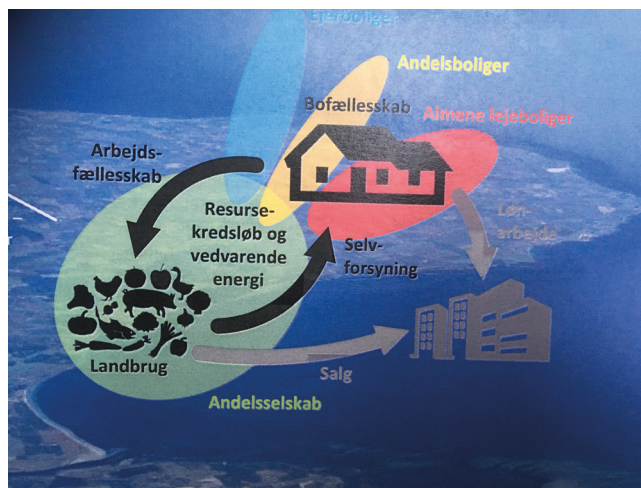
The wind turbine produces energy for geothermal heating and hot water used in the houses. On the picture is seen the large tank, which comprises hot water for the 90 households.



The houses were designed by House Arkitekter as sustainable ‘breathable’ dwellings. Prospective residents could choose between five different dwelling sizes and three tenure forms because the housing is based on a mixed tenure composition: 23 private ownership units, 23 cooperative units, and 44 units non-profit driven as a department of the housing association, Sydkystens Boligselskab, which is under the umbrella of the non-profit housing organisation KAB (Københavns Almindelige Boligselskab).

KAB/Sydkystens Boligselskab went into the project as part of their strategy with experimental building. The three different tenures have each their housing organization form. The non-profit department was organized from ‘Almenbolig Plus’ model, which is an experimental affordable housing form that lowers the costs by letting the tenants build their own partitions between the rooms and take over the maintenance of common outdoor areas. Some tasks are thus ‘given back’ to tenants, who become more self-organizing. The non-profit housing provider took the role of being delegated developer of building all houses. The private ownership clusters are organized as a homeowner’s association and the cooperatives clusters are in a cooperative housing association. These associations were then nested under an umbrella housing association of Karise Permatopia.

Besides that, an association for the farm, the farmland, and the common house was created. In this association, 26 working- and interest groups were coordinated. The complex organization of this co-housing project was structured in nested associations. As a nested organization, the co-housing had a quite complex organizational structure.



The prospectus of Karise Permatopia showed how resources are circulated and how the dwellings are in different types of tenures and associations.



Houses created by House Arkitekter. Due to the opportunity of the non-profit rentals, access was possible for low-income groups like artists, musicians, actors, and others from the creative class, as well as technicians, kindergarten teachers, nurses, and seniors with small pension savings. Like in Frikøbing and Nielstrup, some inhabitants were family members from across three generations .



The future co-housers of Karise Permatopia had many different capacities and resources. Working groups took responsibility for different tasks, for example arranging working days at the farm site cleaning up old stuff and iron items in the yard, planting trees, planting willows for the on-site cleaning facility, growing vegetables, working in gangs rebuilding the barn, or being part of the association board: The 26 working groups took care of different community tasks. Some 'permatopians' also arranged to serve soup in the farmhouse on a regular basis. Because the community wanted to use sociocratic decision-making, some of the members attended a course in sociocracy, which is an efficient consensus model based on a horizontally coordinated system sharing responsibility in committees and working groups. In this way, future residents were engaged, and their personal resources were activated in the project long before moving in.



Throughout the process of creating Karise Permatopia the group held monthly ‘development days’, where members were informed and had dialogues about the project in its different phases and aspects. These days started with singing in a circle. New members could also attend and to welcome them they were asked to take a step forward into the circle to say hello. The day’s issues were presented in the large forum and thereafter discussions went on in smaller groups (see also thick writing about this subject). Mostly, the atmosphere in the room was an energetic feeling of communality but at other times, frustration came through because the project got delayed several times.



The forrest reserve at Karise Permatopoia

Attention was paid to the project by the municipality of Faxe and the media. The project was also given various awards because this large intergenerational co-housing combined well-known environmentally sustainable techniques in a new way and contributed to another way of living and to the growth in the population of Karise. This growth was equal to one-tenth of the population in the small town of Karise, meaning that the local school and day-care institutions were surer of their means of survival (Stensgaard 2016). In addition, the co-housing added to the local cultural community life.

4.7 CO-HOUSING AS AN ATTRACTIVE MATCH FOR RURAL AREAS?

Although some municipalities in Denmark are very engaged with co-housing (e.g., having a co-housing secretariat or homepage with guidelines for people interested in co-housing or involving in creating meetings for the actors in the field), co-housing could still by more municipalities be considered as a beneficial strategy for local development planning. For example, the planning strategies of rural villages with applicable conditions for co-housing projects (e.g., appropriate land sizes and good logistics of physical and digital infrastructures) could be assigned more attention, although the processes can challenge. This was the case in the village of Torup, where eco-community Dyssekilde and the site of Torup Overdrev are located. The municipality of Halsnæs initiated a process arguing that they would like to see a further development of eco-community Dyssekilde on a specific site, but the inhabitants of Dyssekilde and Torup did not want to extend the village in this way. Because the municipality kept open to the involvement of the villagers and their say, discussions in the local community council, Torup Ting, started with the purpose to find another site for the extension of the village. They created a fund, where every villager could pay in a sum of money and a farmer on the other side of the village sold his farm for the project. This new development, called Hvidkilde, is a large plan for extending the village and located on the other side of the street from the site of Torup Overdrev/Vænget. Suddenly, there are now three co-housing/eco-community projects in the same village.

By extending a village or a small town (such as Torup or Karise) with an intergenerational co-housing community, local communities and municipalities get more people to settle, meaning more taxpayers and children for the schools (Steensgaard, 2016). In this way, municipalities and local communities have become more open to recognise and welcome co-housing projects than in earlier decades, where co-housing projects were often dismissed because the municipality or the locals got worried that the projects would not fit in because it would be hippies who would come to live there in line with the Christiania project (Nielsen and Skifter Andersen, 1981:22; Jensen et al. 2022:20-27). In 1971, Christiania was created as a 'Free Town' by squatting in an old military site and self-building small houses but the community with its 'free' hashish turned out to have extensive drug problems (Thörn et. al, 2011). However, co-housing and eco-communities are not like Christiania and today, more and more municipalities are interested in co-housing groups because of their potential of increasing the number of inhabitants in the further development of small rural towns and villages, for example was the major of Faxe municipality overwhelming encouraged by the development of Karise Permatopia. In the municipality of Lejre, the Frikøbing group was also warmly welcomed and assisted through the process of finding land, planning processes, and getting the project started.

The initiating group can as before mentioned, be quite small, but through advertising the visions of the project in their respective networks and on social media, they persuade more people to join. On the one hand, for the municipality it is important to

keep openminded to these groups. On the other hand, for the groups it is important to organize as a community association to be able to obtain loans and to seriously show that they want the project to become real.

4.7.1 The example of eco-community Dyssekilde and Torup

The eco-community Dyssekilde, which was the first eco-community in Denmark, acquired a farm and land in Torup in 1988 and started to build houses in different housing groups. The farm was on the other side of the street from the community and has today been converted into a free school, a kindergarten, and a community centre, which are all part of the structures of the former farm buildings. On the initiative from eco-community residents, and together with the local villagers, they rebuilt the farm formerly owned by the eco-community. Over the last 30 years, the development of the eco-community has increased the population of the village of Torup. Nearly half of the inhabitants were in 2017 from the eco-community.

Table 3. Inhabitants in the eco-community of Dyssekilde and in Torup

Age groups	Women	Men	Total
Children/youth 0–17	51	42	93
Young grown-ups 18–30	11	15	26
Grown-ups 30–65	104	88	192
Over 65	52	30	82
Total	218	175	393

Inhabitants in Torup, Feb. 2017, created by GIS coordinator Carsten Andersen, Municipality of Halsnæs.

In total, 393 people of different age groups lived in Torup in 2017. No exact numbers exist of those who lived in Torup before the eco-community of Dyssekilde was established. However, if we examine the residential properties existing before 1988, which are marked with green dots on the map (fig. 4, see next page), 176 inhabitants are living in these dwellings now. This is less than half of the population in Torup today.

The grey residential properties built after 1988 housed 217 inhabitants as of February 2017 (fig.4). The eco-community of Dyssekilde, shown on the map as assembled grey dots, had 185 inhabitants. People living in Torup in 2017 were of all ages, including families with children (table 3). More women than men were represented in table 3, which might be due to, the fact that there are a slightly more women than men who get

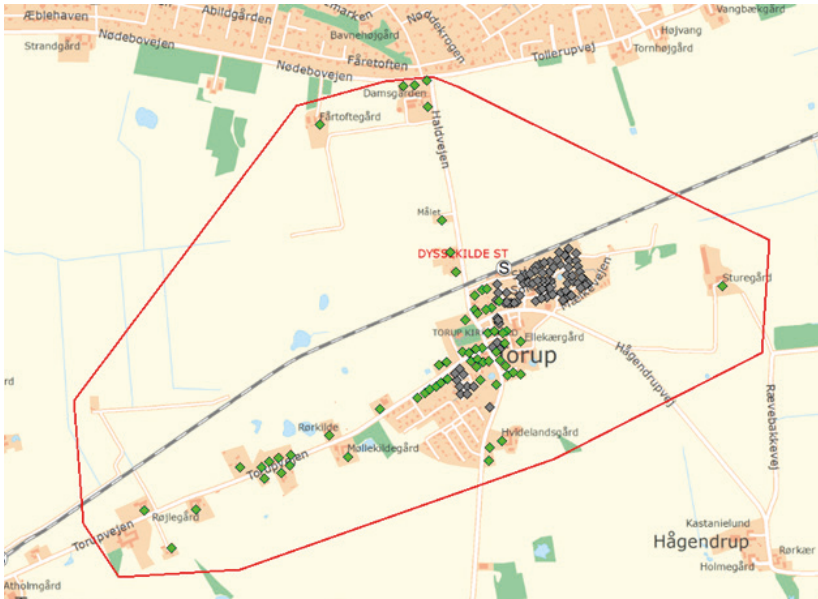


Figure 4. Number of inhabitants in Torup (including surrounding farms as shown on the map)
GIS coordinator Carsten Andersen, Municipality of Halsnæs.

attracted to co-housing communities (Margolis & Entin, 2011). The young grown-ups were under-represented, which is however normal for rural areas, because the young people tend to move to the cities for education, jobs etc. However, households with children were well represented.

Thus, population figures from the village of Torup (Carsten Andersen 2017), and the small towns of Karise and Hvalsø, too (Stensgaard 2016, Statistics Denmark, 2024: Inhabitants in Karise and Hvalsø 2017-2020), indicate that the construction of intergenerational co-housing or eco-communities in these areas contributed to an increased number of inhabitants and because these new inhabitants were in all ages, it included young families and more children in local schools. In this way, intergenerational co-housing communities have the potential for naturally increasing the number of citizens in semi-rural and rural areas, reducing the risk of school closures, etc.

Furthermore, evidence from Torup showed that interactions between local villagers and co-housers from eco-community Dyssekilde on the long run entail collaboration, exchange, and establishment of activities and shared places (Busck and Jepsen 2018). Busck and Jepsen emphasized that these activities and places attracts people to use and visit the village of Torup (e.g., summer food market, booktown, community center,

yoga classes, music- and health festivals, café, school, kindergarten, gallery, local food shops). Intergenerational co-housing in small semi-rural and rural sites is thus likely to contribute to and enhance local activities, and therefrom, get more people to visit, and even take the choice to move to the village (Busck and Jepsen 2018). Activities and inhabitants taking initiatives like those described above is something most rural municipalities yearn for to gain thriving local communities and villages. Over the last years, intergenerational co-housing has gained acceptance in Denmark and can thus be considered a development that can show one of many paths for the future of semi-rural and rural areas. However, as this PhD study revealed, on the one hand it is not easy to construct co-housing and attract inhabitants to the process of creating co-housing groups and projects. Many prospective inhabitants did by the end not take the choice to become a co-houser. It takes time to gather a group who will fight for the project. It also takes both economic and human resources to create these projects. There has to be some very persistent people in the front or professional housing actors who are used to these long planning and building processes. On the other hand, three of the projects were created and people moved to these places and contributed to an increased number of inhabitants locally. The Torup project, which is now transformed into Vænget and although a totally other project than the former group of Torup Overdrev had wished, it will soon be built and further increase the number of inhabitants in Torup.

4.8 MOTIVATIONS FOR COUNTRYSIDE CO-HOUSING

Based on the studies of the four intergenerational groups in different stages of creating and building co-housing communities in semi-rural or rural settings *paper 2: Contemporary trends and motivations for creating intergenerational co-housing projects in the Danish countryside* was conducted. The paper is here followed up by an analysis of the deeper motivations of being part of a co-housing group in terms of life approaches, including how this influences to take part in the community. However, first the results of the process of following the groups and the personal motivations analysed in paper 2 will be introduced. The paper is about the personal motivations for taking the choice to be part of creating co-housing and move to a semi-rural or rural site. This typically included a move from an urban context. Therefore, in the paper I combined urban to rural migration research with co-housing studies. A counter-urban motive was included in the analysis of the paper. Rather than following categorizations, for example, noted by Mitchell (2004) or Halfacree (2001:404; 2006:313) such as marginal settlement (contrasting to mainstream society) and back-to-the-land (food self-sufficiency and small household scale farming connected to counter-culture critique), the analysis was related to Halfacree's expanded notion of counter-urbanization (Halfacree, 2008; 2012), which basically covers everyone who move from an urban to a rural context (paper 2).

The choice of moving to a countryside co-housing was studied from an ethnographic approach: To find out what attracted future inhabitant to choose to move out the city and create co-housing in semi-rural and rural sites, the interviewees were asked about their personal motivations for participating in a co-housing project, which they took

part in when they were interviewed. Moreover, the projects and its participants were followed over two years, for example by attending meetings, participating in social events, and reading updates on webpages and social media. Besides interviews, the ethnographic multi-sited fieldwork included fieldwork notes as the knowledge was also obtained through participatory and sensory observations. The analysis was conducted across all four prospective projects. As part of the analysis in paper 2, a framework for urban to rural co-housing motivations were set up showing a complex set of factors and intersecting reasons.

From migration research, it appears that a bundle of complex motivation factors is in play, when deciding on where to settle and in which kind of housing. Halfacree & Boyle (1993) addressed the individual biographical perspective as an in-depth-approach to understand the motivations and the intensions of migration decisions (1993:343). An individual biographical perspective has focus on the biographical history and the individual as a decision-maker. This includes an everyday life approach because life cycle changes, identity, employment, economic situation, lifestyles, values, previous life places, and projections of intentionality into the future form part of the choice to move (Halfacree & Boyle 1993:339-44). The situation of the whole household also has an important influence on the choice of housing (Ærø et al., 2005).

Attention should also be paid to Ærø's (2002) findings of some people feeling socially isolated, when moving to residential areas with villas or areas with clustered houses. They were disappointed that the social life and livelihood of children in their neighbourhood, which they had expected, did not exist, as it did during their own childhood (2002:126–131). This reflects a longing for a social community, where children and adults can take part. Similarly, in her study of people from the creative class moving out of the city of Copenhagen to different rural settings, De Neergaard (2014) found that a family who had moved out of Copenhagen to an idyllic village on the outskirts of a town had the same sort of disappointment. Because there was insufficient social life for the children, the family wanted to move again, whereas another family who had moved to a co-housing scheme in a new residential area had the social life they wanted, but the area of the community was not fulfilling their dreams of a rural idyll (2014:160–166).

In urban to rural migration research, decisions for moving to the countryside are thus motivated by multiple reasons and intersecting factors, including a counter-urban perspective and the hope for rural idyll (Nørgaard et al., 2010; Skifter Andersen & Nørgaard 2012; Andersen et al., 2022). Qualitative urban to rural migration research showed that, when exploring the choices in depth, a complex understanding was needed and formed the basis for urban to rural migration, which involved very personal combinations of reasons that effect the choice to move (Stockdale, 2014; Halfacree & Rivera, 2011). These can be summed up to be factors as: 1) life cycle changes (e.g., Halfacree & Boyle 1993; Andersen et al, 2022); 2) job and mobility perspective (e.g., Nedomysl & Hansen, 2010; Halfacree, 2012); 3) rural idyll, amenities as nature and

green locations (e.g., Skifter Andersen & Nørgaard, 2012); 4) lifestyle, preferences, norms, values and experience from living in other places (e.g., Halfacree & Boyle 1993); 5) sudden life changes (e.g., Stockdale 2014); 6) house type, an areas reputation, local community (e.g., Ærø et al, 2005; Bijker & Haartsen, 2012); 7) economy and house prices (e.g., Aner 2014; Aner & Hansen 2014), 8) family and friends in the chosen area (e.g., Reichert et al., 2014) and 9) return migration (Nørgaard et al., 2010).

In addition, for people wishing to create and move to a countryside co-housing, I found that a general motivation was to have a more social life doing things together with closely neighbours, helping each other, and being part of a community, which often are built on sustainable ideals. Discussing vision and values, on how to design and organize a co-housing, is a process of getting to know each other long before relocating together. As co-housing residents are settling together, in addition to the above-mentioned factors, their motivations are also based on community, which relate to social structures and communality of the groups. Therefore, it is necessary to add a tenth factor for the choice of countryside co-housing: 10) the group, social life, and communality (paper 2). A recurrent motivation was 'not to sit alone in the countryside'. An example of such complex motivations and choice for where to move is as follows (conveyed through 'thick writing'):

Chicago or Lolland?

On a warm sunny day at Nielstrup, I am told a story that leaves a special impression on me. The family co-housing has been extended with the young couple Jens-Peter and Josephine. Josephine is pregnant, expecting a baby soon. She tells me that they were very close to leaving Denmark for Chicago. It was due to Jens-Peter's job, which were about to be moved to Chicago together with the whole company. Jens-Peter and Josephine explain that they took the choice to follow the company to Chicago. They were on the one hand kind of thrilled, although on the other hand reluctant about going to live in Chicago, due to the dense high-rise city with all its noise and traffic. Had it been five years earlier in their life, it would have been exiting to live in this vibrant city experiencing another culture, but with a small child they did not find it attractive. They wanted to live in the countryside, where they were also born and raised.

Their apartment in Copenhagen was small, so they really wanted to move. They had for some time been talking about living in the countryside and had looked for opportunities for buying a house affordable in price in the countryside near Copenhagen. This seemed quite difficult to find. They had a wish to be closer to nature and outdoor life, for example Jens-Peter wanted to go fishing, but they also had discussions about Josephine sitting alone in a house in the countryside when Jens-Peter goes on his regular trips to Chicago for working a fortnight a time. Therefore, to be part of a co-housing community was a possibility, they had been seeking out visiting different co-housing projects. The company had to apply for a permit for Jens-Peter, and they had to get a permit to assure that he would be able to create new jobs and not just take a job. The company applied twice but failed. Therefore, he kept his job in Copenhagen and four

months later they were settled in Lolland. The 'compass needle regarding where to live', can thus sometimes be read on a wide scale, comprising different choices and coincidences in our global world, and in this example, it included both the possibility of a large city like Chicago and a peaceful manor converted into co-housing in the countryside of Lolland!

4.8.1 Choosing to be part of a countryside co-housing group

The diverse choices of future inhabitants in the four followed projects for taking part in a co-housing project were in the framework of paper 2 combined with an urban to rural migration decision. The aim of the paper was to examine what motivates for creating intergenerational countryside co-housing schemes today (paper 2).

What I found in paper 2, was that a significant driver for involving in creating these co-housing schemes were to live in a more social way and concurrently becoming part of a community in the countryside. The social element was a key point. Therefore, collaboration, and self-organisation of the groups was found as an important factor, too. This type of motivations included the opportunity to do things together and create social events. These people helped to create socially and functionally sound communities. They were concerned about developing relationships among their coming neighbours (paper 2).

Other key factors for choosing countryside co-housing, were environmentally sustainable living, including being closer to nature. Many were aware of organic living, and several were also interested in organic farming, whereas others were oriented towards technical sustainable housing solutions with less environmental impact and co2-imprint of the community. They were experimenting with more green building methods and self-building.

Most participants found that doing things, for example planting trees, was a uniting experience and because there had been so many participants to perform this task, it had been a fast process, which was an uplifting feeling. Others again, were more focused on the new possibilities this way of alternative experimental living arises, for example organising direct democracy, building up infrastructures for common purposes and sharing cultures, and creating new living spaces.

Another concern was to get a better work-life balance to be more with family and friends, but several factors were coming together, for example formed classical biographical migration choices (e.g., birth of children, children's school start, having ended studies, becoming a pensioner, loss of spouse, etc.) often part of the decision. Creating good environments for children was also observed as an important factor for choosing countryside co-housing, because this type of housing support that children can safely run and play together. A possibility to live together with own family members across generations was another motivation. Here it was a concern for taking care of each other across generations because care institutions of society were perceived to have grown

ever larger and combined with insufficient staff meaning less care for the individual child or senior person (paper 2).

The co-housing projects were created by urbanities (or urbanities were involved in the early phases) and the projects attracted many people from the cities. An important element in the decision to create co-housing in the countryside was therefore the location of the community in relation to the distance to the city, where most of the residents had moved from but many still work. The city of Copenhagen and other larger cities around Copenhagen were in researchable distances to the co-housing sites (within 1-1,45 hours commute). An urban-rural culture mix was therefore evident, due to the mobility between urban and rural sites, as many kept their jobs in the cities and because the residents had been used to a city life, which included a city identity. Their city identity was when moving out of the city combined with a new or continued rural identity. In some instances, a rural identity was already part of the identity due to that the co-housing member's original place of birth and upbringing had been in rural, or semi-rural sites. In addition, return-migration was an element for some of the future resident's choice of moving to and creating a countryside co-housing. From digital and physical observations of the existing co-housing communities in the study, it was also clear that countryside co-housing projects and eco-communities are often located in places that are connected to infrastructure, such as railways or highways, which link to cities. This indicates that it is important for co-housers to retain the connection to the city, probably because their identity is related with city life and some still work there due to their academic or specialized backgrounds (paper 2).

Costs of the building project and affordability was another concern, which is related to different ways of organising, tenure forms, and sizes of the communities (paper 2). In Karise Permatopia, three different tenure forms were mixed (private ownership, cooperative, and non-profit). Here, there was with 44 rental units out of 90 units, a possibility for renting through a non-profit housing association. Moreover, there was 23 cooperative units. This meant that people on middle and lower incomes could be part of the project. This was also the case for the tenants at Nielstrup, which was private renting, whereas the other two projects were based on private ownership and was thus a large investment for each household.

The choice of how to finance the project of Frikøbing was in the end, decided to be through private ownership because the non-profit housing association, they had contacted, would have had to use too long to develop their part of the project. This could have been a senior co-housing as the group of Frikøbing was in dialogue with a group of seniors who wanted to create a non-profit co-housing. In general, non-profit housing actors are mostly interested in larger scale developments and will therefore not want to be part of building from the lot-model method. In Frikøbing, the ideal of keeping the costs low was present and the future residents therefore decided to make it possible for sharing houses or creating semi-detached houses. However, this generated confusion of how to share in the community (should the share in the community be organised

through a share of houses, households, or individuals in the houses) and it turned out that some of the people who wanted this type of house could not afford it anyhow, because their banks were reluctant to give them loans. For Torup Overdrev the intention was also private ownership. However, this project was not realised.

The biographical factors and the motivations for co-housing are combined in paper 2. In the analysis here they are also coming together in what I call ‘the approach to life’, which is used in the following analysis, which investigates the choice to take part in a countryside co-housing group and project from three different subsets of life approaches.

4.8.2 Approach to life and motivations for being part of a co-housing group

When choosing to participate in a co-housing group and move out the city together, several factors are as shown in play. Creating and moving to co-housing in semi-rural or rural sites certainly implicates new possibilities. Furthermore, as Stockdale (2014) found urban to rural migration often involve making a shift in life due to deep or sudden changes in life situation. Reasons for inventing or taking part in and moving to a countryside co-housing project, were in this study also found to be connected to new approaches in life and changes in life or life situation of the individual household. During the fieldwork study and process of analysis, I found that different underlying subsets of motivations formed the choice for taking part in a co-housing group. In the next section I analyse these findings, which are related to life situation and the approach to life on a deep level, when taking part in a co-housing group and building up a community together. The following analyses the intersecting personal reasons through developing a framework of three subsets, which combine the motivations based on the approach to life.

Based on the analysis of interviews and observations of co-houser's motivations, I developed a framework with three different subsets of approaches to life situation, forming either an experimental approach, a continuous approach, or a pivotal change in life. These subsets are related to the group dynamics of creating co-housing and the diverse choices for future residents to create a co-housing project.

4.8.3 Framework of the three subsets

To find or build a new house is not something that is consumed like other items in everyday practice. Rather, it is a life event that is deeply connected to everyday reality where all aspects of the household and its dwellers must come together (Aner 2009). Creating and moving to co-housing from an urban to a rural context together with other families have implications for the lives and habits of the inhabitants. To be involved in co-housing was experienced by the interviewees as a change in living and dwelling form, although it could be experienced as a gradual change due to the long duration of constructing the project. Whether it is a change in life that motivates the choice, or it is the choice that is perceived as a change, these personal related reasons were based on the approach to life situation, which was observed and categorized into three main

subsets: an experimental approach, a continuation of the same approach to life, and a pivotal change in life. The subsets create a picture of the group and how they are part of an intermediate togetherness although their perspectives and approaches are different (see figure 5 on next page):

4.8.4 Experimental pioneering life approach: Frontrunners

Reasons for creating and moving to co-housing are based on an experimental life approach for some. People in this subset speculate about a new way of dwelling and living, where sustainability, communality, and decision-making is in focus. They experiment with how to design this in the best possible way. People with this underlying reason were characterized by being initiators of the projects having the feeling of being 'first movers' or 'frontrunners'. They were sitting on the board of the association of the projects. They created the first framework for the project with other members and/or professionals. They were visionary, resourceful, innovative, entrepreneurial, and engaged, and some of them had to be persistently steady and insistent, as Gregers indicated:

'From the beginning, there has to be a strong driving force in the front, a core group who really wants to engage in the project'.

In addition, because many co-housing projects start as self-organised projects it takes will and resources, including a good deal of time and work: Therefore, at least some of the participants, who are initiating and creating co-housing projects, must be frontrunners. Some of these frontrunners take a critical choice through their actions pointing at structural problems of society, for example the need for more sustainable living or the need for more direct democracy and communality. Gregers, a man in his thirties, who lived with his wife in Copenhagen, became part of the initiating group one year into a project. They had been searching for a co-housing because they thought they would find it difficult to live in a residential area with villas, where they thought there are no ideas or attitudes. Gregers lived in his childhood in such an area, and he did not want to repeat it. They wanted something else, which involved community and a more sustainable life. Gregers became through his economically expertise part of the initiating group and the board in one of the projects.

Often, the initiating group have different competences that are necessary to move the project along and who are willing to take risks. Birgitta, a middle-aged woman, expressed it in this way:

'There is some entrepreneurial spirit about it or 'front creators' that I like to be involved in'.

They can have the role of organizers, facilitators, designers, economists, or promoters or contribute other relevant personal resources that complement each other and are used to collaborate carrying on with the project.

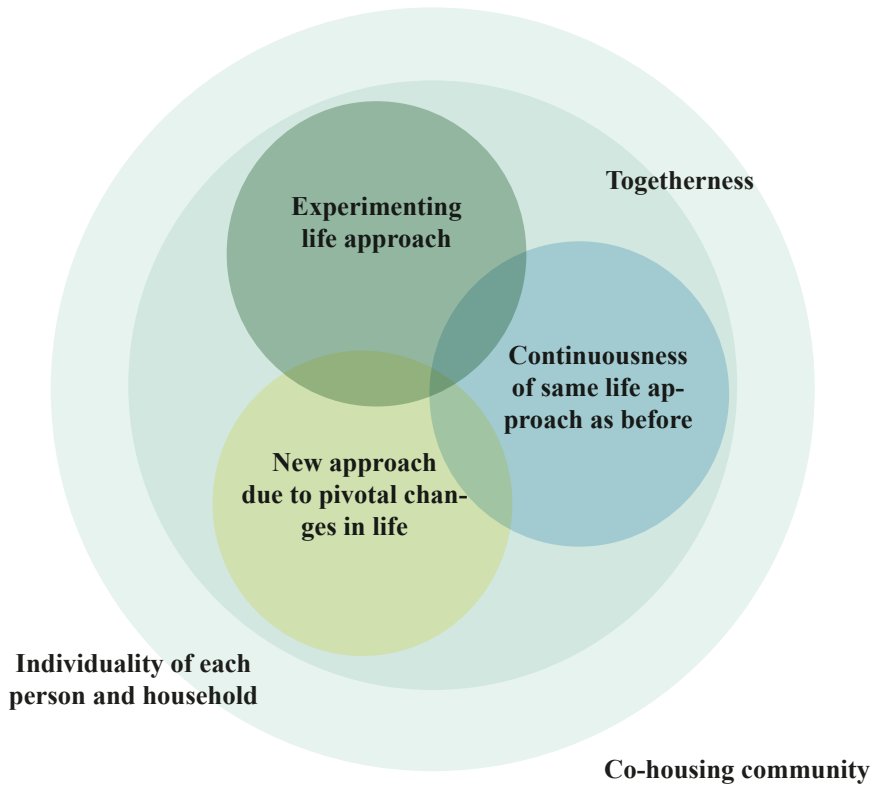


Figure 5. Motivations for creating and moving to co-housing from different life approaches. The different subsets of life approaches and reasons for creating and moving to co-housing:

- **Experimenting life approach and reasons:** Visions, design, seeing possibilities, trying out ideas, do-it-yourself and –together culture, professional skills used in the projects.
- **Continuousness of same life approach as before:** Having typically already a green lifestyle or a culture of doing things together, adding some more values or features, for example more social life.
- **New approach due to pivotal changes in life:** Essential to make a shift in life.

People experimenting with self-building projects also belong to this subset. However, when they are building, they are typically so occupied that there is no time for being part of the board, but later they can again be active in the group. A process-oriented approach to the co-housing group is needed, as these projects take a long time to develop and are formed by the whole group. Peter stated,

'The project has got its own democratic life, which is negotiated by the members, but you can affect it from within, it is not a framework set by somebody else. You can form the framework'.

This showed important for many of the participants because when engaging in a community it is essential to have room for the voice of each participant. Ellen, a woman in her sixties moving into a project together with her adult children and grandchildren, was one of the facilitators in the group. She said,

'I am motivated by community and learning processes.' And she continued: *'I think that as a learning environment this co-housing has the will to connect to the surrounding society'.*

She thought that the co-housing should not be a closed community or an island of itself but in dialogue with its surroundings and a model for how to live in another way, without dropping out of society. This way of thinking about how the community should be, was reflected in many other interviews.

Moreover, a do-it-yourself and do-it-together culture combined with trying out new ideas is an approach used in the processes of creating the communities. Thomas, in his thirties, was living in Copenhagen with his girlfriend and co-initiated a project from the beginning. He experimented with the other initiators regarding how to produce the best design of supply and renewable energy recirculation systems. He indicated that:

'It is all well-known technologies we have used, but it is the combination of elements that's new'.

4.8.5 Continuousness of the same life approach as before

Another subset of motivations is the continuation of the same life approach as before, meaning that the choice is built on a life approach of a conscious lifestyle that is already established, for example, a green lifestyle or a social lifestyle, but with the aim to add more to this life approach. People with this underlying reason are characterized by being skilful, visionary, and conscious about how to live life. They have practical experience, resources, knowledge, and social capabilities, which are brought into the projects. Some of them can also be politically active or through a critical choice wanting to create a change in life.

For Ulla, the decision was about living sustainably and working together to cultivate

the land from permaculture. Ulla had her own allotment garden, where she lived during the whole summer as a contradistinction to urban life. In wintertime she lived in a Copenhagen apartment. She gave that up to co-house with others. Another example was Ellen, who was part of different activist groups in 1970s, such as the feminist movement. She had been politically engaged throughout her whole life and had a deep motivation to do things together, to find new ways, and to make things happen in the community:

'Somebody must make a difference. There is another way to be together. About these things I have two important learnings from my life, which is one, when [there] are plenty [of] people, there is a lot that can happen, and two, when you run the head against the wall, then there is nobody who says that it is the wall that stands'.

She saw the project as a solution to some of the struggles with individualisation and to take up the challenge with the climate situation. She also suggested that there is room for many different personalities in co-housing and that everybody has resources, which offers the possibility to overcome more together than on individual terms when they are used right. For example, when the group planted trees together, it went very fast, faster than anybody had expected. This was a recurrent theme in many of the interviews, but for Ellen it was a continuous of her former life.

Mette, her husband, and two young children came quite late into the project, and their reasons for choosing co-housing were primarily because, they previously had a life occupied with sustainable farming, self-sufficiency, and low-economic-effect living in the countryside, although they were due to their studies most recently were living in the city. They wanted to continue living sustainably, but because she was socially extroverted, being part of a community was the right thing, and the location of the project was good. Mette also wanted to give her children the same childhood as she had, being a free child playing outside in nature.

Gustav, in his fifties, had long been part of the eco-community movement. Occupied with sustainability, social learning, conflict solving, and decision-making processes, he was thinking in a holistic and visionary way and was motivated by designing solutions together:

'There is some collective wisdom and active learning in designing together that only comes as bottom-up processes', he stated.

In both their ways, these people continued their former life but in a deepened fashion

4.8.6 New approach due to pivotal changes in life

Another reason to decide to co-house is when life takes a pivotal turn. Camilla, a young woman with her boyfriend, changed their lifestyle to ecological food and sustainable living when she became pregnant. When their child was born, living in the city was

suddenly much different. Before, the city was wonderful to live in with many people on the streets, whereas now the city had become stressful. A wish for more space and to be able to open the door directly to a garden formed a longing for another way of living. During this time, Camilla's mother had decided to take part in a co-housing project. The young couple was inspired to follow her so that they could each live in their dwellings in the same community. Camilla stated:

'Maybe we will miss the city when it is dark living in the middle of a building site, but then we just go for a Copenhagen trip, but I know it will be fantastic, there are just some shifts in life that you take'.

Life can also take other pivotal turns, which was what happened for a family across three generations when they suddenly lost their daughter/sister. They had been talking about living in co-housing together with her for some time, but when she suddenly died, life changed for them. They stopped just talking about it and did it. The mother, Anne-Mette, a woman in her sixties, said:

'I am from a large family, as we were seven siblings. We help each other and are very communality oriented. When we lost Anita, everybody came and helped, and we were gathered.... We have many of the same values, so when people ask: How do you dare to choose a life together in co-housing? I respond that we have similar values and agree upon many things'.

Sara, the sister in her thirties, stated:

'You really must think about how to live life. When I lost my sister, I was asking myself what I really wanted to do, and that was not sitting in an apartment in the city. I wanted to get out and feel life, to live from what really gives value'.

The deeper reasons for choosing another way of living were here connected to life circle changes. These people took new approaches to life and dared to make life changes in accordance with their values even though they had suffered from sudden life changing circumstances or when their life changed in relation to family formation. The most fundamental part of the life circle changes: birth and death were thus represented in this subset.

4.8.7 The three approaches in the process of co-creation

The above analysis presented the investigation of the choices from a myriad of three complementing explanations of personal motivations because the residents had different situations and approaches to life, dwelling, and community (see also paper 2). The choice to take part in a countryside co-housing project could basically be from an experimental approach, a continuous approach, or a pivotal change in life. Some participants were represented in more than one of these subsets, but together, it offered a picture of the whole group, their dynamics, and the intermediate feeling of togetherness.

In figure 5, the inner circle represents this group feeling of togetherness being part of a co-creating community, which many of the interviewees talked about, whereas the outer circle represents the individuality of each person and household.

A diversity of motivations and ways of co-creating were thus present in the four co-housing projects: Freely citing one of the interviewees, co-housing can be seen as a group collaborating from different perspectives and interests:

'We are painting a picture in many colours but still we are painting on the same picture'.

Togetherness when being part of a co-housing project was found as a central motivation for this housing form. The act of co-creating and co-organizing and even the feeling of being front-creators entailed a social-relational dimension, developing a culture of doing this together. Future co-housing inhabitants put attention on the new possibility of being a member of a co-housing group and being 'first movers' or 'front creators' (paper 2). In addition, co-housing is about knowing your neighbours and living closer together than in other residential areas. Therefore, in relation to a move from the city to a countryside co-housing, the motive was about living in another way, especially living in a more social and sustainable way, with a wish for making, either continuous of the same lifestyle or a deep change in life.

4.8.8 Waiting and waiting... and waiting

The most critical moments observed in the fieldwork was related to delays in timelines of the projects, especially this was the case for the new-built developments. Delays in the timeline of planning and building projects are in general not unusual. These are typically caused by obstacles and unforeseen situations, which can affect the price of the building project that become higher than expected or the whole building project must be revised and therefore it gets delayed. Such obstacles and delays in timeline of building projects are also true for co-housing projects, but in the case of co-housing there is a large group of future residents who are already involved in the project. This causes uncertainty for the future co-housers and they easily come to suffer under these circumstances. The group will of course have expectations of a certain date for moving in, but as seen in the fieldwork studies this date can be postponed several times.

Delays of timelines are very problematic for future residents because they might have already sold or given up renting their house or apartment they move from and often they must find alternative dwelling possibilities, while waiting for the building project to be finished. In many cases, people in this study were only able to obtain loans under the condition that they had already sold their dwellings before buying a unit in co-housing. In general, this is quite normal for average income households in private owned housing, when wanting to move from one house to another, especially when moving into a project sale. However, if the timeline of a co-housing project is delayed, it is a whole group of people who must deal with this situation. In both building projects,

Frikøbing and Karise Permatopia, several future residents had to find new temporary housing, for example a family with four children had to live in four different secondary homes before they could move into their co-housing dwelling unit. Others had to live for long periods in other types of temporary housing, too. For example, some were staying in their relative's home, while others rented an apartment or some rooms in an apartment or lived in their own secondary home. Waiting can be very frustrating and if the timeline is delayed several times, which was the case for both building projects in this study, it can be even more frustrating. A feeling of being in an emotion of a vacuum or a limbo can occur, for example this was the case for a young woman who also gave birth during the period of waiting for the co-housing to be finished. This is further described in paper 2. Another woman, Ulla stated that the future inhabitants of the renting clusters she was going to live in had been sure of the date for moving in, but it was again postponed:

'Cluster one had moved in, so we thought that it was for sure that the date would be in April, but now it will be in June, and we do not have a contract with KAB [the non-profit housing provider] yet...'

And she continued, while talking about that this community had pushed the limits for sustainable and permaculture design solutions as far as it was possible and that it had been exiting to be part this inspiring process:

'It has been a very hard process not knowing how the project would develop further and sometimes I have had the experience that nothing has gone by the plan. However, it has also been a process through which I have developed myself, too. It can be anxiety-provoking and sometimes there has been desperate moments, but I have dared to go on new routes in life and learned to accept the situations of this development'.

At the same time, talking with the others from the group about the situation was sometimes the only way out:

'Sometimes when we have been in despair, we have phoned each other and talked about the situation, or we have met and talked and that helped us.'

Ulla was member of several delegated working groups, who met regularly and the whole group had met every month throughout this long process. The collective process thus showed very import for the individual co-houser, although the route could be long, hard, and stony, as also Blomberg & Kärnekull (2019) puts it. However, it was the group and the feeling of doing this idealistic project together that kept the co-housers going.

4.9 THE GROUP AND THE PROCESS OF CO-CREATING A COMMONS

Co-housing is as shown created through a collective praxis (paper 3), also in the initial phases, which means that the ‘traditional’ method of creating co-housing is a certain way of designing and constructing housing, where a core group of future residents are involved from the very beginning. The aim of being part of a group and building a community together is an organisation, created like a commons. This starts long before relocating together and continues when living in the co-housing. In this section, the collective processes of co-creating as a commons is presented and discussed. The organization of co-housing as both a commons and ‘commoning practice’, which is about building, sharing, and doing things together, is from a theoretical perspective addressed in *paper 3: Co-Housing Commons as Horizontal Organizational Entities*. In the following, the aspects of the creation of co-housing as a commons, including the practice of ‘commoning’, is elaborated in relation to the empirical work of the study. This includes evidence of how the followed projects were initiated and co-created with help from professionals. The four followed projects and their initiation process of creation were studied in relation to their creative and organisational processes, whereas the existing co-housing communities were primarily analysed and compared in relation to the organisation of a regular social activity in co-housing, namely common dining systems.

4.9.1 Building from a bricolage approach

In the fieldwork, it was observed that the three different but complementing approaches for co-housing motivations created group dynamics, where the co-housers took different roles and used their individual abilities and interests to take care of different tasks in the process of creating the projects. This was related to the group’s visions, shared values, how to finance, organise decision-making processes, self-government, and self-regulation of the group. Relationships developed between members, while they designed the layout and the architecture of the community. A high degree of collective self-organization is closely linked to how co-housing projects are constructed, typically from bottom-up. Even in the combination of top-down and bottom-up construction, as in Karise Permatopia, a small group of future inhabitants was involved from the beginning and created a collective organisation for the involvement of more future inhabitants.

To get co-housing projects financed and built, it is essential to collaborate internally in the group and externally with professional housing actors, and progress in developing the co-housing. The groups and their consultants often combine aspects and processes in new ways from a bricolage approach (Laine et al., 2020). Members of co-housing groups have different professional profiles and personal competences, which are often used in the projects. Their individual competences are used in the group, professionalized, and combined in different ways, used for going along, collaborating, constructing, and getting the co-housing created and built (Laine et al., 2020). This was also

found in the empirical fieldwork, I conducted. For example, a member of the group of Frikøbing, Gregers, who was economist by profession was involved in the process of how to structure the financial situation. Another member of the group who was a landscape architect, planned in collaboration with a member, who was an architect by profession a design manual and different layouts, including the design in use. Others in this group facilitated social- and decision-making processes. Regarding becoming part of a co-housing group, Gregers indicated that:

‘There was quite a lot of people coming through before we became a close-knit group, but throughout this process, there was a good composition of the group with different complementing competences.’

When the projects were under development, the creation of a large and solid co-housing group could take long but in all four followed projects the establishment of a core group showed necessary to get the project started and to get more people to join. The experience of people, who were interested in being part of a co-housing group but ended up leaving the project again, was a recurring motif of the projects under development, whereas the existing communities, when the group is settled, had typically not difficulty in getting new inhabitants, when a dwelling unit was available.

Regarding the professional actors involved in the followed projects, they also showed willing to collaborate with the groups about their ideas. For example, the architect of Karise Permatopia had listened carefully to the group and experimented with creating ‘breathable’ houses, which meant new materials and technologies combined with old materials and technologies. A model for the possibility to choose different sizes of houses was also developed, where a room could be either part of one or another dwelling unit in accordance with what the future inhabitants chose. Moreover, to get the whole construction of mixed tenure forms built, the non-profit housing association became delegated developer of the project. Therefore, they had the responsibility for the development of the whole project, including the last word, but as they said to me, when I interviewed them, they did not want to use this right. Instead, they wanted collaboration with the owner-occupied and the cooperative groups.

Collaboration, whether inside the group or with external housing and building actors, is the key in these co-housing under development constellations. When the on-site willow trees cleaning facility for wastewater was constructed, a working group of Karise Permatopia were planting the willow trees. The professional constructor of the facility had thus made a cooperate agreement with the community that some members carried out this type of work, whereas the constructor built the foundation for the facility. Another member of this community combined well-known technologies of getting electricity from wind power with geothermal heating systems and oversaw the installation of the wind turbine. This approach indicates that co-housing projects can be more affordable due to that future residents themselves carry out some of the work and in this way lower the prices of the projects in comparison to other alike projects

(Brysch & Czischke, 2021).

The method of bricolage, the participation of co-housing members working with different matters in the projects to keep costs down, and this combined with a circle of collaborative partners, who wants to involve and listen to a group of future inhabitants, which can be notified as a co-production culture, is a method of creating co-housing (Brysch & Czischke, 2021; Laine et al., 2020). Co-housers and their consultants find the best possible tenure (or a mix of tenure forms) to construct their project. In relation to the choice of tenure form the point of bricolage is therefore relevant here, too. Different kinds of tenure forms are used to create co-housing to match what the group wants and needs. From a bricolage thinking, they find ways and methods of how to fit their project into the frames of society in relation to the circumstances of the group and the materiality of the site (or building), where they want to create their co-housing.

4.9.2 Community-feeling long before becoming a real co-housing

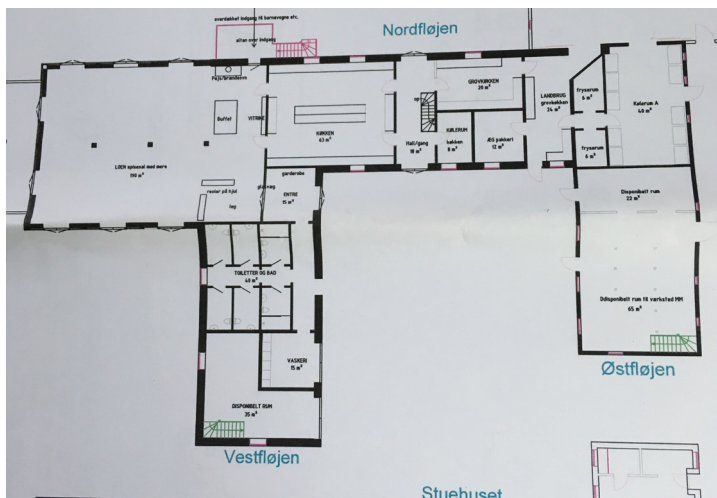
The experience of the feeling of community can come when the groups gather and thus long before being a real built co-housing community. The community Karise Permatopia held what they called ‘development days’, which was monthly common meetings or workshops, held on a weekend day in different places. I attended such meetings twice. Around 75-95 people participated, including 10-15 children. Not everybody attended all these meetings, and the number of children was not accurate for the whole community, because some parents with small children choose to stay at home or had other obligations. An example of such a meeting is described in the following through ‘thick writing’:

We are in the hall of KAB, which is a beautiful old gathering place in the centre of Copenhagen. The atmosphere is high of expectations and there are small dialogues going on between people, who have already known each other for some time. For a welcome, everybody gathers in a large circle in the room. The program of the day is presented. Then we sing a song. Newcomers are invited to take a step forward into the circle and turn around to walk in an inner circle. When the music stops, we must stop in front of our ‘body of the day’, who we can talk with about the project and ask questions. This feels like a nice welcome. The children are taken care of separately by one or two of the parents. Everybody else sit down for presentations in plenum, which typically includes a status of the project succeeded by presentations of different issues, for example the building of the common house and common yard.

The community have chosen a new architect, who presents a proposition of a new version of the common house. It will be a reconstruction of the old barn, located in one of the wings of the farm building, which will be extended so that there is enough space for all the functions the community needs, for example for everybody to attend meetings and common dining. Different delegated groups (the common house group, the wing group, the farming group, the kitchen group, the executive committee, and the professional consultancy group) then present their views on the proposition, including

a financial overview of the project. Then it is time for questions from the community, but only questions for supplementary information, followed by ten minutes of dialogues with people sitting close by about giving the architect and the working group mandate to continue the process of going further with this proposition. Many have comments and suggestions for alterations are discussed before the assembly can give indications of how the proposition is received and mandate to continue. The procedure of giving this mandate from the assembly is conducted through show of hands on three specific questions: 1. Can we give mandate for the architect to continue? 2. Can we give economic mandate to continue? 3. Can we give the working group mandate to continue? All three questions are carried by an overwhelming majority. The atmosphere is energetic and over lunch people talk further about the proposition and other things related to themselves or the community. Being participant observer, I feel how this gathering supports the feeling of community. I even think of becoming part of the community.

In the afternoon, the community works further with the issues of values and ideas for the common house and the common yard. This is carried out in six different working groups with different themes. The group I attend is about how to build up the social atmosphere. All inputs and ideas are written down and given to the meeting leaders, who will collect and present this information at the next meeting. The meeting ends in plenum with a presentation of the values and principles of self-building parts of the common house together with the contractor. This is followed by information from some of the other delegated working groups (e.g., greenery house group, newsletter group, farming group, the dining-working-living group, etc.). Everyone in the community is obliged to take part in at least one working group. In this way, everyone is involved in the creation of the community. Some are deeply involved whereas others are on the periphery.



Plan for the rebuilding of the barn converted into a common house

4.9.3 A horizontal way of organising

The concern of paper 3 was about the organisation of co-housing as a horizontal entity from a theoretical point of view, namely through the theory of the commons. As indicated in the abstract of paper 3:

'Because commons theory includes both a pooled resource aspect of organizing a materiality (a housing commons) and a social horizontal action (a commoning practice), these two notions are used in combination as a third method' (paper 3).

This method combines two lines of thoughts in commons theory (also noted in paper 3):

1. The theory about common pool resource systems (CPRs) as a form of collective institutional organization for a fair distribution for the members of a natural or built resource system (e.g., Ostrom, 1990).
2. The theory about the action of commoning which is about the collective action of doing things together, developing social relationships, and thus much more than simple bounded territories or localised spaces (e.g, Bresnihan, 2016; Pusey & Chatterton, 2017)

Citing what I wrote in paper 3, I want to present how these two lines of thought have developed:

'In commons theory, these two lines of thought, which have operated quite separately, were by Bresnihan (2016), De Angelis (2017) and Huron (2018) suggested in combination as a third method of conceiving the commons. In relation to this new trend in commons theory, the paper built on both the notion of a commons, understood as CPR systems (Ostrom 1990) and on the notion of commoning, understood as horizontal social actions and practices of doing things together, including creating housing collectively to resist enclosure and share activities in everyday life (Huron 2018). The two lines of thought have overlaps and frictions but when used in combination as a third method, the analysis better covers co-housing organization. The analysis was thus conducted conceiving co-housing creation and organization as both a housing commons and a commoning practice'.

The paper thus analysed both the creation of the organisational structures related to the material resources and the social processes of co-housing. This was achieved by applying the theory of the commons to co-housing studies. The paper used the design principles of Common Pool Resource systems (CPRs) by Ostrom (1990) analysing the organisation of how co-housing is a horizontal entity, related to the physical and organisational systems. In addition, it was essential to bring forward the notion of 'commoning', which is related to the social activity of being, doing things, and organising together (Bresnihan, 2016; De Angelis, 2017; Huron 2018). The practice of collective self-organizing, caring out things and working together for a shared goal can thus be

denoted as ‘commoning’, which is the active word of a commons. The paper used both the notion of CPRs and the notion of ‘commoning’ and combined them through this third method to understand how co-housing is concurrently a commons and a ‘commoning’ practice (paper 3). The most important design principles of how co-housing functions as a CPR in relation to organisational systems and the social practice of ‘commoning’ was identified, elaborated through these five themes: 1) The evolution of Danish intergenerational co-housing; 2) Construction of co-housing as a pooled housing resource; 3) Tenure forms and shared ownership; 4) Social systems, decision-making and relationships; 5) Collective housework and common dining (paper 3).

With ‘organisation’ is meant the structures and principles of the communities in relation to both the formal and the more informal social structures. Regarding the choice of tenure forms, which include the creation of an association, and how rules and regulations are in relation to each community, these things are typically quite formal but there are also a lot of informal activities going on in co-housing, for example the creation of a culture for how to attain systems and procedures for common meetings and common dining and therefore how the social horizontal structure is. This organising, doing, and creating the social structures of co-housing was perceived through the notion of ‘commoning’.

The collaboration, sharing, and collective self-organization indicate that co-housing can be conceived as a commons, even though co-housing is a housing form, which can be created from all given tenure forms of society, including owner-occupied, which is normally not perceived as aligned with the notion of a housing commons (paper 3). Citing myself in paper 3 underscore the point that co-housing is a like a commons, even though it can be created from all types of tenure forms:

‘Co-housing is not entirely constituted from how tenure forms are in society; rather co-housing constitutes through a commoning practice and reproduction’ (paper 3).

4.9.4 Studying co-housing as commons and ‘commoning’ practice

By studying co-housing as both a commons and a ‘commoning practice’, new perspectives on co-housing came through in relation to the empirical material. The ‘commoning’ constitutes the informal institution in co-housing, as a common activity and, form together with the formal institution, a commons. In co-housing, the threshold of private homes are extended, relating the individual and the household into a commons. Physically and socially, co-housing are such kinds of relational home places, with private home areas linked to common and semi-private areas, and with an organisation in formal as well as informal institutions, which support the link between privacy and communality (table 4). A delicate balance between privacy and communality has therefore to be found, when living in co-housing. Moreover, the organisation of co-housing as a commons entails that co-housing residents play themselves part of the resources of this collective housing system (paper 3). By investigating the creation of co-housing projects and the groups’ self-organisation through the notion of a commons, it is also

possible to explore how the organisational structures in relation to the social dimensions are designed, arranged, and managed. What co-housing members, with each their resources, conduct in their co-housing was for example in Karise Permatopia considered part of a social sustainable process with 26 delegated working groups, who took responsibility of different tasks. In Frikøbing the social capacity of doing things together, for example gathering the members for social activities was important because each family were building each their house on each their lot, whereas at Nielstrup it was carrying out work together, while refurbishing the manor that was needed. This is a ‘commoning’ taking place while building up a co-housing commons. When such social processes are carried out in co-housing, it empowers the residents as a community, for example to live in a more sustainable way, where belonging, leanings, and reflectivity about how to do things and live together is on the agenda. A fair and horizontal process is crucial, as in the example of the distribution of lots in Frikøbing, which was as follows (thick writing):

Peter, one of the initiators of Frikøbing, shows me the beautiful fields and river valley on the edge of the small town called Hvalsø in the municipality of Lejre. On the site the building development is in full swing. The land is hilly, and a lake is to be constructed. The houses are going to be located around this small lake. In the noise of the big machines, Peter tells me that he is so pleased to see the project getting activated through this transformation of the landscape. The co-housing group have used several years of developing the project and getting this to happen, to start for building. Before it was farmland he tells me, pointing at the farm named Hyllegården, from where the land is sold off. Now the part where the houses are going to be is city zone and the rest down the hill is rural zone.

Peter is a landscape architect and walking around on the site together with him is very inspiring, although there is not even a house yet. We only see big machines working with the soil this cold autumn day. He shows me where the houses are going to be built and explain that the group decided to have the terrain next to the parking space lifted to give everybody good conditions, not leaving anyone to live in the same level as the parking lot. By lifting the terrain, the parking lot and the houses of the future community are separated, and all the lots are located so everybody will have a view to the small lake in the middle of the community or to the landscape down the hill. He also tells me that the group has a democratic decision-making process, partly inspired by sociocratic values, where all voices in the group are heard. Before making decisions, they try to make dialog meetings, where different concerns about a subject are stated and solutions are proposed. The method used for distributing the different lots was agreed by the group to be a process where everybody went to the site and walked around to find what they thought would be the best place for them to live in accordance with their needs and economic capacity. The lots very shaped in different sizes and priced with help from a real estate agent. The future co-housers placed a flag at the lot they liked the most. Only a few had placed flags on the same lot. They sought this out through dialogue, so in the end everybody was satisfied and had placed a flag at different lots.

4.9.5 Horizontal decision-making culture

It is necessary to have a fair and transparent organisation of how to make decisions, as in the case of Frikøbing with the process of distribution lots. In addition, the location of the common house on top of the hill with the best view over the landscape enabled everyone in the community (and their guests) equal access to the best spot, which was perceived as a fair approach of distribution of land (see also pictures and texts of Frikøbing). Moreover, the decisions-making of the group in this collectively organised housing form is a horizontal process, which is carried out in common meetings. Normally, an association for the community is set up. The association agreements are made from different methods depending on tenure form and social formation. The common meeting is typically held once a month, where different issues regarding the co-housing can be raised. In the common meeting, everybody has a say and can influence the decisions. Rules can be modified if the group members agree. Rules and bylaws are typically made from visions and values about how to live together, which have been discussed by the group participants before building the community. These rules are thereafter enforced, monitored, and modified by the community while living in and maintaining the co-housing (paper 3).

Co-housing members oblige each other to participate in these activities. As indicated above, co-housing members run common and assembly meetings, an executive committee, and other committees, working groups, common dining arrangements, and common working days throughout the year from what could be called 'a collective organised housing system' (paper 3). The common meetings and the yearly general assembly are the highest authority of co-housing communities. Horizontal organisational structures are used for organising co-housing in a fair way. Decision-making can be from consensus, voting, or sociocracy (paper 3). To some extent a horizontal organisational structure is dialectical because we as humans are inclined towards putting our own individual needs higher than the community and thus being anti-social although we also see the benefits of the social dimension of community building and practice (Hansen 2003:287). Therefore, it is always a balancing of individually needs of each household and community needs. Sometimes it is an advantage and sometimes a disadvantage for the individual, but this kind of social balancing and common negotiating is an important component in co-housing organisation (Hansen 2003:287). This creates a collective decision-making culture.

Working groups with delegated tasks

As before mentioned, a balance between private and common spaces and between individuality and communality is sought out in co-housing (Meltzer 2005:5, Lietaert 2010:576). Some of the tasks normally carried out in a household are shared with other households, for example preparation of common meals, gardening, cleaning, and maintenance of common spaces, administration, showing visitors around, board services, and meeting facilitating (paper 3). The workload is shared between the residents whether one or the other sex (Skifter Andersen 1985:58). Sometimes children

Different ways of organising common dining:

Co-housing cases:

Name	Year of establishing	Units	Club arrangement	Taking turns of cooking on certain days or whole weeks	Plotting into a calendar when members will cook	Combining with a take away option	Employed staff in the weeks and members cooking on weekends	Common dining only occasionally or in smaller groups
Skråplanet	1973-74	33						
Svanholm Storkollektiv	1978	50-54	x	x			x	
Stavnsbåndet	1979	26		x		x		
Æblevangen	1980	36	x					
Jernstøberiet	1981	20	x		x			
Jystrup Savværk	1983	21		x				
Drejerbanken	1983	20			x			
Gl. Grevegården	1990	24			x			
Lysningen	1990	18		x		x		
Dyssekilde	1990	82						
Fælleshave	1991	16	x	x		x		
Munksgård	2000	100		x		x		
Bauneholm	2002	14						
Fri&Fro	2004	17		x				x
Hallingelille	2005	27			x	x		
Græsmarken	2007	25		x		x		
Lange Eng	2008	54		x		x		
Nygården	2010	3			x			
Cases followed while establishing:								
Nielstrup Manor	2016	4		x				
Frikøbing	2016-17	23	not yet	a common house	but in first steps of		building	x
Karise Permatopia	2018	90	not yet	a common house	will soon be	finished		x

Table 5. Common dining arrangements in co-housing:

form part of taking this responsibility too (Illeris et al., 1997). Whether it is through practical or social engagement the social organisation is a horizontally designed interaction of doing things together.

Common tasks are delegated to small working groups, who take responsibility of certain areas or tasks of the community (paper 3). There are different types of working groups. Some working groups are connected to specific areas of the co-housing, for example looking after bees or overseeing the association's economy, whereas others are more on a rolling schedule of for example cooking, dishwashing, or cleaning. In this sense, co-housing built on common systems. Domestic work tasks related to the community are shared, such as planning and making food or doing the dishwashing and cleaning, as well as maintaining the buildings. In this way co-housing extends over the boundaries of a normal home. This is a fundamentally different way of arranging home than in mainstream housing. Both physically and socially, co-housing is an active and relational home place where private dwellings are linked to common areas through semi-private zones. As co-housing is formed as a group of private dwelling units combined with substantial common areas and facilities due to desires for more social and sustainable living, co-housing forms a balance between communality and individual living.

4.9.6 Common dining

Common dining is an example of a 'commoning practice' (paper 3). When dining together, relations are built, and social informality grows when co-housers talk over dinner. The common dining system is a reciprocal labour activity. The activity of dining together must get arranged, albeit it can be organized from different methods. By comparing different arrangements of how co-housing groups had self-organized common dining practices, it became evident that this organization is different in each co-housing. However, in general, a clear system existed to run this ongoing 'commoning practice' (see table 5 on the left).

Three different ways of arranging systems of common dining were observed from the fieldwork. These systems had quite different operational rules, which were A. Rolling schedule, B. Club arrangement, C. Plotting on a calendar. The rolling schedule was structured so that the participants (2-3 persons) who took care of shopping, cooking and dish washing had for example 2-3 consecutive days or a whole week a time, which meant that they should not cook for long periods of time. The club arrangement was organized in a rather different way being a member of a group, who on a fixed weekday cooked for each other. The system of plotting on a calendar was in comparison a more flexible system, where the cooks plotted on to a calendar on days when they would cook. Here, everybody were obliged to cook at least once a month.

In addition, it was often possible to use a takeaway option, which was combined with the common dining system in use (system A., B., or C). This meant that it sometimes was possible to takeaway meals for dining privately. Only one community did not have

regular common dining and one community had paid staff on weekdays, whereas they were committed to self-work on the weekends. In many cases, the common dining system was kept stable and continued as the same arrangement as from the very start of the community, like in Jystrup Savværk from 1983, where future residents used long time before moving in to discuss how to arrange the system. In other cases, the common dining arrangements had changed, for example in Drejerbanken where the inhabitants changed the system from system A to system C to make the system more flexible, whereas for example in Hallingelille, the system had been changed several times to find the best possible method.



From Græsmarken: Example of accessories for the organisation of different everyday activities in co-housing:

1. A blackboard announcing the today's menu for common dining.
2. A bell used for announcing when time to dine or for common meetings.
3. Annual cycle of work, which identify that there will be a party.

Conflict resolution mechanism in relation to shirking from the obligation to cook

In the study of the existing co-housing communities, it was observed that committing to preparing common dining was motivated by the members themselves because they were monitors of their own organizational systems (Ostrom, 1990:59). Through a ‘commoning practice’, these systems built on relationships and binding commitment between members, which is in accordance with CPR design principles of Ostrom (1990:90). In some instances, there was even incentives to compete to prepare a nice common dinner. This was caused by a member’s strong engagement and trust, but also because the systems were designed in such a way that it was easy for others to see if a member did not participate in for example the obligation to preparing common dinner, dishwashing, etc., which is obvious for everyone if it is not performed.

If someone was disappointed about such things, it could be brought up at the common meeting, which was a place for conflict resolution mechanisms. This meant that it was possible to discuss problems in common meetings and to change or regulate rules, as in the case where it had changed from system A to C and thus became more flexible. In this way, the communities had sanctions possibilities alike the CPR design principles of graduated sanctions and internal enforcement of the community (Ostrom 1990:94). In

one case, a member of one of the communities had announced on the intranet that she was not able to do the cooking, but she had placed some ingredients for the meal that she wanted to prepare on the kitchen table in the common house. Normally, members of the community could switch days, but this member had not done that. The board member telling the story stated that it was the first time he had experienced such behaviour in all the years he had lived in the co-housing. It was also met with chagrin by the other members and although everybody knew that this shirking member currently had some personal problems, the board member telling the story was going to discuss this in the next common meeting, stating that this behaviour was not acceptable and to exemplify to other members not to follow this behaviour, because that would break down the system and the trust between the members of the community.

4.10 LIKE VILLAGES OR ENCLAVES?

In co-housing studies, it is discussed whether co-housing is like enclaves and even exclusive/segregated enclaves (Jakobsen & Larsen, 2019; Larsen, 2020; Ærø, 2002) and gated communities (Chiodelli & Baglione, 2014) or whether they are village-like mini communities experimenting with other ways of living together (Jensen et. al, 2022:18; McCamant & Durrett, 2011; Skifter Andersen, 1985). Furthermore, co-housing has been misinterpreted of being sectarian. Ærø (2002) related co-housing to a lifestyle in enclaves, informed by Douglas model of group and grid lifestyles, where the inhabitants in an enclave culture are oriented towards a community that has a strong social control and a sectarian or religious aspect (2002:43). To categorize co-housing in such type of community might be somewhat behind the target because individual living and manifold motivations are as shown part of co-housing. Moreover, as Sargisson (2012:21) pointed out, what makes co-housing popular, is that it makes residents live 'better alternatives' without being in direct opposition to society, but rather as members of society and comfortable with mainstream culture as free individuals. Visions and values, and formal and informal organization for the shared spaces are shaped in common and from horizontal grounds. In this respect co-housing projects are intentional communities, but the inhabitants have at the same time an individual life and reasons for choosing co-housing, including a critical reflection on how to dwell. In this perspective Ærø might be right that co-housing is 'a reflected critical lifestyle choice' but not necessarily 'taking a distance to authoritarian institutions' (Ærø 2002:53).

In relation to the homogeneity of inhabitants in intergenerational co-housing, their high educational level, and the use of the private ownership tenure form, as for example in Frikøbing, intergenerational co-housing seems like enclaves. However, looking at the intensions and organizations behind this housing form, what could be called the method of co-housing as a commons, it seems more like a modern village building on communality as a unifying factor and as a way to build up again a village feeling and sharing culture. This is a crucial critique and starting point for the creation of many co-housing communities, which was reflected by Skifter Andersen (1985) in this way :

'Together with the expansion of the market, the social organization of the village

community vanished and the nuclear family became the social base of society. Dwellings today are designed to meet the needs of the nuclear family only, and housing areas are separated from other functions in society. It is very difficult to organize common functions and activities across nuclear families, and it is rare in housing areas to find a social organization, which is able to organize such things' (1985:50).

The division of life into nuclear families had been a method in the Age of Enlightenment and later in housing policies of the 20th century to educate the population in terms of moral, good manners, and the creation of civilised living circumstances (Bech-Danielsen et al., 2018). This might well be why the nuclear family was in the 1970s and 1980s debated as the social base of society and considered too small a unit for people to organize their needs for being part of social networks and local everyday communities (Skifter Andersen, 1985). The aim of co-housing was thus to 'create better social conditions for the increasingly isolated family of modern industrial society' (Skifter Andersen, 1985:57). From this perspective, co-housing relates to a critique of society aiming at another way of living, which are reflected in different parts of this study according to different historical challenges (paper 1 and chapter 5). Knowing the neighbours, sharing things, and creating regular common meals, which create a base for a community, is difficult in ordinary housing areas, which are divided by high fences and hedges and where the culture of today is foremost based on individual living. This is the sad side of individuality, which is today combined with a more fragmented family ideal due to divorces and new living constellations (Marckmann, 2009:169). Many of the interviewees talked about taking a distance to traditional housing areas because they felt these areas had no shared amenities and were too private oriented. Co-housing can thus be seen as a method to resist enclosure behind hedges and fences in such housing areas.

Intergenerational living was another concern for the interviewed co-housers. It was also evident that co-housing has naturally become more and more intergenerational, which is alike a traditional village with people in all ages. In the three succeeded communities which was followed, families living across-three-generations formed part of the choice of co-housing, even though it was part of larger co-housing communities. Some of the families wanted to take care of their children at home due to a critique of the low standards of childcare institutions. Others wanted to look after their parents when they would grow older due to a critique of who senior care institutions has not been taking properly care of old people. The co-housers also referred to a wish for a better life-work balance and wanted to get out of the so called 'hamster wheel' (paper 2), where the workload is too high due to high living costs and thus with too little room for children, families, friends, and oneself. Instead, they wanted to get out of the city, live collectively, and have more time and less living costs. Cecilie, a young single woman, gave the following picture of her motivation:

'Being in this co-housing project, I needed not to work full-time. I could get a better work-life-balance. I think that one of the strengths in this project is that it is also a

cultivating-community [producing vegetables]. Therefore, I don't have to work hard all day long and thereafter go to the supermarket and buy a lot of expensive food products just to go home to cook and eat them and then go to bed. Here, I can get a life and I can go and pick these products in the fields and on shift there are somebody who has cooked, and you can just sit down and dine and use time being together and doing things, for example go for a walk or work in the fields together'.

Being part of a community doing things and working together is thus a driving force. At the same time, the statement above is about being close to nature and using the soil for cultivating vegetables. The cultivating group of Karise Permatopia was so engaged in this process that they started to cultivate the soil and produced loads of vegetables long before moving in. They had planned to be ready with a harvest in time for the community to settle. However, due to delays in the timeline of the project, the vegetables were ready, but the community was not yet settled. Therefore, the group had to sell most of the vegetables to the local supermarket.

4.10.1 A closed-access commons?

On the one side countryside co-housing communities are close to nature and the local environment they form part of. On the other side they mime a village, where everybody knows each other and have the same visions about how to live together. Boundaries of the community and membership of the co-housing association is necessary for living in co-housing. This is much alike what Ostrom (1990) characterise as 'Common Pool Resource' systems (CPRs). Because private homes are part of co-housing, co-housing is a commons that can be designated as a closed-access CPR, where households must be members of the co-housing community (Ostrom, 1990). Furthermore, sustainability and climate friendly living is often an ideal that is supported by a collective everyday praxis and the individual co-houser. Co-housers agree upon this type of lifestyle as a unifying factor. From these perspectives co-housing communities are enclave-like communities, but still as a commons and in this way also a new type of village-like community. At the same time, some co-housers seem to be part of an outreaching local network. Typically, visitors are welcome on certain days get on a guided tour in the communities and the co-housers are typically also part of a wider network through their daily life, friends, and family relations, who will naturally be guests in the co-housing. Sometimes the communities also become part of the local culture, where co-housers and local villagers create things together. An example of this is the history of eco-community Dyssekilde, which is described below through 'thick writing':

The site was bought in 1988, and the first dwellers moved into the old farmhouse, living there while building their own houses. In the beginning the eco-community only consisted of ten adults and five children. Martinus' spiritual thoughts on cosmology were from the beginning the visions of the group. By time these visions changed to focus more on ecology as a broader concept of values that could embrace more people. Sustainability and ecology became thus a key concept for the community. Most of the houses were self-built and the settlement has been going on and built further

until recently. The last plot was sold in 2016. In the beginning, the eco-community was not that popular in the local community of Torup. With domes, meditation, vegetarian, and ecological living it seemed a little too alternative for some of the locals. They were worried that it should end up like the 'free town' of Christiania, located in Copenhagen, where squatters in the 1970s took over an old military barrack area and built small houses in all kinds of forms and colours, but eventually had a lot of problems with drugs, crimes etc. The local villagers thus arranged public meetings against the community. A woman who has been a member of the eco-community since the beginning said:

"We went out in the local neighborhood and rang the doorbells to invite people for coffee in the farmhouse so that, we could start talking together and they could see that we were ordinary people".

From the beginning there was therefore a wish in the eco-community to create something for the whole village, which in 1992 led to the establishment of the kindergarten, and in 1999 the creation of the community center, and in 2000 the school. Because the village needed a space for a community center, the space of the gatehouse in the old farm building of Dyssekilde was given the village for free and through economic founding, hard work and by everybody helping each other the community center became a reality and is today used by the school and the villagers.

In 2018, a research study of Torup, including a survey and personal interviews, showed that the inhabitants of eco-community Dyssekilde and the inhabitants of Torup interconnected through a range of activities in the village, linking the eco-community to the wider society (Busck and Jepsen 2018, 7–10). In Torup there are several meeting points such as the local community centre, the summer food market, the railway station, the church, the school, the kindergarten, the cafe, the gallery, the grocery, and the health food store. Besides that, there are many entrepreneurs in different fields. All these things have been created by the villagers of Torup and Dyssekilde attracting visitors and new inhabitants to Torup. Today, as before mentioned, a new self-organised sustainable community called Hvidekilde is developing. Behind Hvidekilde is Torup foundation, which was established through the local community council, Torup Ting, when the municipality of Halsnæs planned to extend the village of Torup further with a new development. The villagers agreed that this new development should be created at the nearby farm Hvidekilde, which was for sale. Furthermore, the cooperative co-housing Vænget with 18 units and a common house located centrally in Torup is now going to be built. This community is a new development, which is getting built on the plot of Torup Overdrev and which my company Falkenstjerne Fælles has been involved in (long after I stopped conducting fieldwork studies). Torup is thus a thriving village with many activities and gatherings in the co-housing/eco-communities and in the village, for example singing at the summer food market, book town recitations, jazz evenings, yoga retreats, and Christmas market at the school.

Some co-housing has public spaces and invite people from outside to join activities such as music festivals, talks, yoga, and so on. All this creates a framework for the community with different circuits of sharing cultures. Furthermore, co-housing commons comprises boundaries and circuits, which in more complex nested communities link between other boundaries and circuits of co-housing clusters having another tenure composition. Some co-housing communities have mixed two or three of the above tenure forms leading to quite complex housing systems, for example as in Karise Permatopia, that are entangled with society in both public and private spheres. These types of links are sometimes used to produce other types of commons in both public and private spheres, for example a shared car association for a wider community or a community centre shared with the surrounding local neighbourhoods. Political issues can also bring different co-housing communities together. Links like these are used to establish co-housing knowledge commons affecting society more broadly, for example through the association LØS and Bofællesskab.dk. Co-housing forms a social community and is at the same time part of the local community and larger society.

4.10.2 Homogeneity or diversity?

Homogeneity of communities, in terms of residents being social-economic and educational affluent, sharing core values, having 'alike' backgrounds and employment status, is typical for many intergenerational co-housing communities (Jensen et al., 2022; Jakobsen & Larsen, 2019; Manzanti, 2007:62; Williams, 2005:212; Margolis & Sanguinetti, 2015:9-17). This was also the case in this study. However, when the non-profit housing sector is involved in creating intergenerational co-housing, it opens for lower income groups with other professions and thus more diversity (Jensen et al., 2022:15). In this study, non-profit units formed part in five out of 22 communities, either as mixed tenures or as clear non-profit co-housing, meaning that these communities are affordable for different income groups (Drejerbanken, Gl. Grevegården, Fælleshave, Munksøgård, Karise Permatopia). Moreover, four out of 22 communities had different kinds of rentals forms, which also provided more affordable housing, for example as communes inside the larger co-housing community (e.g., Hallinglille, Dyssekilde), or retrofit rentals in rural areas with lower housing prices (e.g., Nielstrup, Svanholm). This meant that people on lower income and students could be part of the communities. An ongoing discussion in co-housing studies is how homogenic or diverse the communities are, how affordable they are, and whether they are open or not open to the local surroundings (Chiodelli & Baglione, 2014; Jakobsen & Larsen, 2019; Jensen et al., 2022:15 and 18).

Although the overall picture is homogeneity, these factors can vary quite a lot in different communities and therefore there are not clear answers to these questions. What is clear, is that a formulated intention in co-housing is to know the neighbours and to take part in community. The social factor is built into the system of co-housing, which cannot be taken for granted in more traditional residential areas (McCamant & Durrett, 2011:40). This is in accordance with Williams (2005:12), who in a comparative qualitative study showed that due to personal factors, the residents in two



Google Earth photo of Ecocommunity Dyssekilde

American co-housing communities had a social focus for living in co-housing and were therefore predisposed to social interaction. Moreover, Williams (2005:212) also found that some diversity in affluence and types of households, including socioeconomic differences within the co-housing community was important to encourage social interaction. Especially if resident's attitudes were the same, for example towards pro-community principles wanting to engage and take part in the community. When sharing such core values about the engagement in community, the social interaction was increased with the diversity of the residents' different expertise, abilities, and interests (Williams, 2005:212).

These aspects come into account when providing opportunities to share resources and do things together, by establishing supportive networks, a safe and mutual binding community, and by creating a commons and carry out things together through a 'commoning practice' (see paper 3). In accordance with Williams, it was found in this study too, that co-housers use the different abilities and interests of the members to establish a fair organisation where everyone takes part and create an efficient and inspiring community. Co-housing is a place for building social and practical relationships. In this way, life in co-housing mimes a traditional village life, albeit in a new way. Openness towards the local society is for many communities important. An

example is eco-community Dyssekilde, which is described below through ‘thick writing’ and pictures:

From being a potato field in the early nineties, Dyssekilde has become a community where around 190 people live and some also work here. The physical layout of the eco-community consists of 13 hectares distributed in three areas (see google earth photo of Ecocommunity Dyssekilde):

- 1. Housing area**, which is urban zone and can be seen in the middle of the area photo.
- 2. Farmland area**, which is rural zone and can be seen in the right corner of the area photo.
- 3. Local area**, which is urban zone, in the triangle on the other side of the road showed down in the left side of the area photo.

1. The housing area is shaped in between the road leading through the village of Torup and the train tracks running through the landscape. The housing area is quite dense organized in six housing groups, each with their own names and style, for example a uniquely built row of houses, named ‘The Rainbow’, where each house is in different materials and sizes, or as other experimental detached houses such as domes/round-angled houses. The common house, *Fælleshuset*, which inside is as a large octagonal space, is center for communal vegetarian dining every Tuesday, meetings, laundry, and an office space. Experimenting with architectural forms and local materials, for example a cub house made of local clay, gravel, and straw as well as recycling, energy-saving systems, and self-building, have been key to develop sustainable housing solutions. Many of the houses have attached south-facing hothouses, which heats the buildings for a little longer in the autumn and spring. Solar panels and solar cells are used on many houses as well as geothermal heat, masonry stoves and collecting of rainwater for washing machines and toilets.



The common house built by the community



The Rainbow

A few houses are built as standard houses. The housing area is a car-free zone, and it has common playgrounds and outdoor fireplaces. There is also a café and eco shop open to the public, an eco-bakery factory, and a house for waste sorting and exchange of things. There are independent entrepreneurs in different fields (e.g., yoga, massage, artwork, bakery, food supply, craftsmanship in building and design). One of the dwelling groups is rented apartments, built by the community themselves as it was not

possible to get a non-profit housing association to build it. Some share houses through cooperative ownership. Otherwise, most of the dwellings are privately owned. Due to the ownership model of Dyssekilde it is not possible to exclude inhabitants if they do not behave as expected, for example there has been problems with an inhabitant who was violent speaking and acting and the community had to call the police.

The residents only own the lot under the base of the houses. All other land is shared, including gardens and these are therefore also common space. Yet, the site seems like many small botanic pockets. There are no hedges or fences, but some disconnected bushes mark private zones around the houses. I get the feeling of small private zones in the front and back of the houses, which are surrounded by semi-private green areas. A circular design structure of the site was the original concept of Dyssekilde. However, this was not carried out as reality and economic considerations led to a much more autonomous planning as well as individual solutions and creativity in many respects.

The voices of children playing at a small playground come to me. A man is about to cut down a tree and another man is hammering on the selling of his house. When walking in the area the structure of the community seems organic developed. This notion can be traced at the area photo when comparing the striated fields to the area of the smooth patchwork-like community with the main paths taking form like a tree. There is no way of getting a quick overview because the area is formed by winding paths which runs in different directions and because trees and plants have grown in front and back of the organic formed houses. Visitors are welcome to walk on the paths between the houses. Thus, the eco-community receives a lot of tourists and people interested in ecology and the creative architecture.



The Moon 11

It is the representation of a growing patchwork structure that has been created little by

little over the years since, I as a young woman, was here the first time. Then it was an open field with new experimental dome structures coming up, easy to see and hear the train running behind and the feeling of something alternative growing. Some houses have round windows and circular doors like little hobbit houses. The paths and housing groups have extraordinary names such as 'The Rainbow', 'The sun', 'The Stars', 'Yggdrasil', 'Bifrost' or 'The Moon' bringing connotations of holism, the universe and Nordic mythology. I think of how it is to live 'on The Moon' number 11 in a dome?

2. The farmland area, which was before the eco-community bought it, a potato field, is now designed for a large willow purification works with 30,000 willows. These willows were all planted by the inhabitants. The purification works cleanses the grey and the black water from the 82 households and caused to its experimental character it is described in a document, Rensekilden. In the area there is also a wind turbine, bees, hens, some cows, kitchen gardens and a little scene located between the rows of willows. The scene has until recently been used for Himmelstorm Festival, a summer music festival running over three days, which attracted 700-800 people from both the neighbourhood and from further away.



I walk on a path that runs in a curve through the landscape. It's a calm sunny autumn day. I walk and feel the ground beneath me. It is a little muddy as there has been heavy rain the days before. I have the feeling of connecting to the landscape when walking, and as the path winds not knowing what will appear next. I come to a spot where some cows are laying down, still eating grass. It is quiet and the leaves are still on the trees. The wind turbine stands still today. In the kitchen gardens there are flowers and vegetables. Suddenly, the train rushes by leaving the sensation of the train being like a nerve in the landscape not that far away from the towns Frederiksværk and Hillerød with connecting trains to the city of Copenhagen.

3. In The local area on the other side of the street from Dyssekilde the kindergarten, Torup Børnehave, the progressive free school, Halsnæs Lilleskole and the community

center, Torup Landsbycenter are. When walking here the impression is that this is where life is going on with children in the playgrounds and garden, and people using the community center. Originally the old farmhouse and villa was owned by the eco-community. I remember, as a visitor 22 years ago, I participated in a common dining in the kitchen of the old farm, where the school now has its place. The food was a delicious vegetarian meal. However, a discussion had been going on whether to use meat sometimes and even if the community were going to grow animals to eat, which would be very difficult for some of the vegans to agree on. The vegetarian lifestyle was connected to Martinus thoughts and a principal of the people living there, which I later found out had continued when I attended a common vegetarian dining in the new common house.

Because the buildings in 'the local area' were sold to the associations of the kindergarten and the school, the area is now shared with the village of Torup and surroundings. The community center is owned by local community organizations, the eco-community, and the parish church council. 'The local area' with its facilities and services is a meeting place for the villagers in Torup and in many respects an alternative to other institutions in Halsnæs.

The kindergarten, oriented towards ecological values, is in a villa next to the old farmhouse and has existed since 1992. It started in 1990 as a private initiative from within the eco-community where the parents were looking after each's other children. Today, it has grown to an institution of 25 children between 2 and 6 years old and 5 employees, still with some people from the eco-community employed. It is driven by a combination of private payments and financial support from the municipality, and has a very active parent group, who puts in a lot of voluntary work (e.g. sometimes looking after the children on Friday afternoons and participating in working days twice a year).

The school and the community center are in the building of the old farm, which in the beginning of the eco-community days was also used as a common house, but since the eco-community wanted to share more and socialize with the Torup locals, it was changed into these facilities. The school is, in contrast to ordinary Danish schools, a small alternative school with only 140 pupils. The pupils come from the eco-community as well as the whole area of Halsnæs. Project-oriented teaching, creativity, and movement of the body are basic principles for learning. The parents are, as in the kindergarten, expected to participate on working days where the buildings are maintained.

The community center has a large multifunctional room, where there are yoga classes in the morning, sports and activities for the school and the kindergarten throughout the daytime, meetings, classes and events in the evening and weekends. It is used for general assemblies, festivals, talks, concerts, Christmas markets, common dining, and meeting arrangements, and it can also be rented for private arrangements. Normally fully booked, the community center is an important meeting point for the villagers of the whole of Torup.

5. THE HISTORY OF FIVE DECADES CO-HOUSING

5.1. DIFFERENT HISTORICAL PHASES OF DANISH CO-HOUSING: IDEOLOGICAL RATIONALES

In a paper, Larsen (2019) divided the historical development of Danish intergenerational co-housing into three phases based on how co-housing has evolved through different tenure forms. Although Larsen (2019:1349) stated that co-housing should not be reduced to issues on tenures and that the paper emphasized broader trends and societal contexts, the phase division upon tenures came to underscore exactly the issues of tenures. Stating that co-housing should be more affordable and social inclusive from a social sustainable conception, Larsen concluded that tenure forms should be given greater attention for co-housing to become a more accessible alternative and that this could well be through the non-profit housing sector (2019:1365). This is of course sympathetic, and the concern of tenure is highly relevant for co-housing to spread and become more affordable for more people. However, as shown in both paper 1 and paper 3, co-housing does not entirely rely on or constitutes as a specific tenure form or ownership model. Rather, it is a social construction, which is merged with physical structures and with the organisation of a social community, which include tenures but where visions of living together are based on shared core values of a group and a practice of doing things together. Co-housing is thus arranged as a multifaceted entity which future residents create together and come to live in as a collectively self-organised/self-managed commons (paper 1,2, and 3).

From the perspectives of a both a visual and a social approach to architecture and the built environment, I therefore suggest another division of intergenerational co-housing in three overarching historical phases of the last five decades, which built upon the involvement of different types of co-housing and ideological rationales developments of co-housing history. By using the notion of 'ideological rationales', which has some resemblance and parallels with Gram-Hanssen's and Jensen's (2005) 'green rationales', I want to provide the opportunity to incorporate more contextual dimensions into each historical phase. Thinking and working from this kind of perspective, spring from my background in history of art and architecture as described in chapter one. The complexity and the logics of the phenomenon of intergenerational co-housing correspond with three ideological rationales development phases, which relate to broader societal contextualization and trends: On the one hand, co-housing can be perceived as ideological reactions responding to Danish societal contexts and challenges throughout the past five decades; on the other hand, as pragmatic collective self-organised housing solutions. These two sides of the same coin of co-housing history have been feeding back on the development of larger society, because they were pioneering.

The ideological rationales and the creation of co-housing therefore connect to different historical phases of society, but because most co-housing communities still exist, the communities build today both on the rationales from when they were constructed

and, on the evolution, and changes of society, including how life is lived in current society. Furthermore, because this historical evolution is forerunning, there can be some overlaps of themes in the ideological rationales, and in addition a few co-housing communities were built from other time's ideological rationale.

The method for this chapter built on both analysis of Danish co-housing literature, including historical documents, and on empirical findings from the PhD study. Especially the last phase ideological rationale includes current empirical findings.

The ideological rationales fall into these three historical phases:

• First phase co-housing ideological rationale (1960s, 1970s, and start 1980s):

The creation of the co-housing movement in Denmark dates to the 1960s and early 1970s, where the nuclear family ideal was contested as too small. Political awareness about capitalisation, power, equality, participation, self-realization, feminism, relations, spontaneity, decentralisation, freedom of children as well as adults, and living together formed part of a new social perception and experimenting practice with focus on communality. This type of thinking was related to the ideal of 'the extended family' living in a community with other families. Therefore, building local scale communities and collective housing based on horizontal decision-making systems and structures for equality and social relations became the ideology of the first phase co-housing rationale. This was achieved through architecture which emphasized designs for social contact and interaction, or by retrofitting/rebuilding old structures in a self-organised manner, but also through taking decisions together about the project being part of a bottom-up group of future co-housing residents, who in the case of building from scratch typically cooperated with professional building actors.

• Second phase co-housing ideological rationale (1980s, 1990s, and 2000s):

Ecological living became with the Brundtland report (1987) a new societal orientation with focus on environmental awareness. Sustainability, experimenting with alternative building methods, spirituality, interaction between humans and nature, and between humans and humans became the ideology of the second phase co-housing rationale. Building on the first co-housing rationale, sustainable village-like communities were created through self-building, social – and green practices and do-it-yourself culture to take responsibility for a better balance between nature and humans and to avoid pollutants in the natural environment. Here individuality in relation to community and horizontal decision-making were like in the first phase essential but self-development, experiences, and learnings from living in a community with focus on sustainability were stressed. Each household built each their individually designed house in different styles on each their lot, but they do also share land and common houses and facilities. They form part of an alternative community, which can be perceived as experimenting green laboratories for sustainable living.

• **Third phase co-housing ideological rationale (2000s until today):**

‘Challenged by climate change’ is the new headline. Sharing and social practices are created and supported by the era of digital layers. Building on learnings from past co-housing rationales, comprehensive or hybrid housing designs which built on the model of co-housing, and new combinations of technologies and sustainable building components are created today. Several new co-housing, built on a mix of different types of co-housing designs and/or mixed tenure compositions. Social relations, including relations between humans and non-humans, resources, biodiversity, reduction of CO₂ emissions with the aim of restoration of nature and climate, new technical and digital solutions, horizontal decision-making, and political ecological awareness are all ideological buzzwords of the third co-housing rationale. A new tendency where families living across-three-generations now form part of co-housing. More traditional co-housing communities are still created by collectively self-organised groups whereas others have been built through collaboration processes between professionals and future residents. Together with developers, who profit from creating and building co-housing, professionalization, top-down control, and larger scale communities have emerged. Collective self-organisation and bottom-up management of communities are in this sense threatened. Therefore, developments with participatory involvement of future residents, co-organisation and co-designs must become a renewed focus for developers.

5.2 FIRST PHASE RATIONALE

5.2.1 The 1960s and 1970s collective housing experiments

As mentioned above, co-housing in Denmark emerged by the end of 1960s/beginning of 1970s, which as a bottom-up initiative was partly inspired by the communes that were created throughout the 1960s and 1970s. For example, the group of Sættedammen (est. 1972) started out with ideas about a commune-like settlement which was then created into a co-housing, because the idea developed to connect family dwellings into a community (Illeris et al., 1997). This idea was described in a newspaper article by the architect Jan Gudmand-Høyer in 1968, who had taken the initiative to gather a group in 1964, who wanted to live in another more social way than was possible in ordinary housing of the 1960s. A long and at times difficult building- and community commoning succeeded and became the co-housing Skråplanet (est. 1973). Ordinary family dwellings were linked to common facilities and became examples of how new small-scale local communities could be designed, where neighbors know and help each other in everyday matters organising and doing things together (Gudmand-Høyer 1968, Skifter Andersen 1985). Freedom of children and families living together formed part of this new social perception and experimenting practice with focus on communality and extension of the family unit (Graae 1967;1969).

In the newspaper article from 1968, the same year as the youth rebellion, Gudmand-Høyer pointed at ‘the missing link’ between utopia and what he considered as ‘the outdated single-family house’ (Gudmand-Høyer, 1968; Larsen, 2019:7). According to Gudmand-Høyer (1968), the group’s vision was to connect communal spaces and activities to private dwellings and in this way make a new living form, which combined private and common spaces through semi-private spaces in a community. He suggested to achieve this new collective housing form by building terraced houses. To meet the real requirements of future residents, participation in decisions throughout the design process should be evident, and there should be a new form of organization, where residents together constructed a corporation or association to design and build together. Cooperation between the families was a key factor in this vision. Furthermore, Gudmand-Høyer (1968) envisioned quite concisely that:

‘The electronic development shows that a large part of the contact between people in the future will be independent on distances’ and through ‘audio visual spaces’ it would become possible “to have the illusion of sitting in a friend’s room in San Francisco’ (Gudmand-Høyer 1968 [my translation]).

This is exactly what we do today through our digital infrastructure and – meetings. However, the negative side of this ‘global village’ could, according to Gudmand-Høyer, well be that:

‘Mass media will be used as poor compensations for intimate human contact, without which nobody is fully able to self-realize, as when an American transistor radio firm states: ‘You are newer alone with this transistor’’ (Gudmand-Høyer, 1968 [my translation]).

In contrary, humans should, in the vision of Gudmand-Høyer and his group, be able to have close and real contact with family, neighbours, and friends. This should certainly be valid for children, too. Building on Bodil Graae’s plea for better environments for children in a newspaper article called ‘*Children must have hundred parents*’ [my translation] in 1967, the display for children was by the Gudmand-Høyer group considered essential. In Graae’s (1967) vision, children should let their voice be heard and they should be given positive attention from all adults in the child’s life. Children should not be restricted to interact primarily in a nuclear family. Furthermore, there should be good conditions such as playgrounds, nearby playmates, and a kindergarten. Shared parking on the periphery would make it possible for children freely to run and play.

Built-in-common facilities, common green areas, shared workshops, guestrooms, and sports facilities formed part of the vision of this collective setting (Gudmand-Høyer, 1968). In this way, the group could create the missing link between utopia and the more pragmatic need for a dwelling unit, resulting in a community with both private and common spheres. All this can be conceived as a reaction to 1950-1960s society, where women were housewives in a patriarchal system, and where many children stayed

and played at home until school age, which in Denmark was at the age of six or seven, and where children should not be heard or interrupt a conversation between adults.

5.2.2 The association A-70 and Thylejren

Concurrently, the co-housing movement was inspired by the Danish cooperative movement (*andelsbevægelsen*). For example, was The Association A-70 inspired by and wanted to build further on the cooperative movement. The A stood for 'Andelsforening' and 70 was the year of the creation of the association. The idea of A-70 sprang from Thylejren, which was a so called 'free camp' with experimental living held in summertime in Thy. A-70 laid the ground for the visions of the community Toustrup Mark (est.1971) as a village commune organised as a traditional cooperative (not a private housing cooperative). The historical instalment of A-70 is a vivid collective of documents from different member's writings about their thoughts and visions of the community. Politic awareness about capitalisation, power, equality, Marxism, and anarchistic ideas (e.g., A-70, 1971:16) including progressive ideas about family and child rearing in a living community (e.g., A-70, 1971:5-7) were presented together with drawings, and bylaws of the association. The notions of relations, participation, spontaneity, self-realization, and decentralisation formed part of this mindset (Nygaard, 1984:207). At the same time, feminism and demands for equality between genders developed (Dahlerup, 1998). Partly due to that more women became part of the workforce outside the home, the nuclear family ideal was in 1970s contested and the family was in many respects considered too small a unity (Bech-Danielsen et al., 2018:135; Jarvis 2011:561; Skifter Andersen, 1985:50-51). These types of thinking were related to an ideal of 'the extended family' living in a community with other families (A-70, 1971:20; Navne 1987:5 and 11). Likewise, the authors of the first edition of the manifesto *Langelandsmanifestet* from 1972 suggested to build village communes as self-organised and self-sufficient communities all over Denmark having revolution ideas of designing a whole new society as a federal system of decentralised collectively organised communities (Prins & Reich, 1977, 1.edt. 1972).

5.2.3 Social rationale: Nuclear family considered too small

While the ideal of the nuclear family had throughout the Enlightenment transformation become the social base of society which should function as a room for good and cultured manners – with women's role as housekeepers, the ideal of the 1960s and 1970s had a reversed and critical view on the conventional nuclear family (A-70, 1971:16; Bech-Danielsen et al., 2018:8). Along with the industrialization and expansion of the market economy of 20th century societies, the social organization of small local communities had over some generations faded out, in villages as well as in cities (Jensen 1985:13, Navne 1987:5-6, Skifter Andersen 1985:50). Responding to the rigid norms of 1960's society, young people from the left engaged in society from a social and political standpoint. Instead of modern large-scale high-rise developments and redevelopments without involving residents, the rebellions of the anti-authorial movements of 1968, which included young architects, wanted local democracy and small-scale community-building (Nygaard 1984:204). The visions of the young generations were

about having a more open society, free of classical family patterns and traditional authorial structures, leading to that many young people, especially the ones who had been engaged in the youth rebellion, settled in communes. Togetherness and the establishment of small-scale local communities based on horizontal decision-making was the new trend. The residents' visions of collective living revealed thoughts about being like 'one large family' in the around 10.000 communes that emerged throughout the 1960s and beginning of the 1970s (Navne, 1987:5; Nygaard, 1984:248).

The family should not be a closed unit, but be open to live with others, such as like-minded friends and neighbours. Equality between genders, and between parents and children was in focus. On many points this trend connected to the vision, which Prins and Reich (1977, 1.edt. 1972) proclaimed in *The Langeland Manifesto*, although this manifest was far more radical in its content than the living and practices of co-housing. The vision of the manifest was that thousands of intergenerational communities and communes should be settled all over the country overcoming the functional divide of work and home and become foundations of a more loosely arranged federal society structure, where each community should also have juridical power (Prins & Reich, 1977:8, 1.edt. 1972). These thoughts also caught the field of attention when Henning Prins talked at Thy-lejren, which was one of the 1970s experimental places for anarchistic speeches, provisional building structures, reuse of materials, and experiments with new ways of living, started in the summer 1970 (A-70, 1971:3; Jensen, 1985:53; Nygaard, 1984: 227 and 250) and leading to the creation of the association A-70.

5.2.4 Utopia as 'social dreaming' linked with pragmatic needs

Referring to Sargent's (1994) notion of utopia as 'social dreaming', in an article on American co-housing, Sarigsson (2012) conceive utopia in the following citation:

'This [utopia] is a collective impulse towards a better place, a human tendency to want something better that stem from dissatisfaction with the present. Sargent describes it as 'the dreams and nightmares that concern the ways in which groups of people arrange their lives. 'Utopias' are expressions of this process. They articulate what Ruth Levitas calls a desire for a better way of being. Utopias are all about dissatisfaction and desire: dissatisfaction with the now and desire for something better. Historically, they have articulated radical criticism and envisaged very different ways of organizing social and/or political life' (2012:28).

The co-housing movement had from the very beginning both elements of dissatisfaction with the current living forms and desires for better ways of living together. Co-housing as a housing alternative could be said to be both utopia of built form and utopia of social processes (Delgado, 2012:438). Utopia is in this context something that, as an experiment, is realizable (Sarigsson, 2012). Linking these two kinds of utopia (of built and social forms) to a pragmatic element in the form of single-family houses recognized the needs of families for both a private space and a space in between the private and the public (Gudmand-Høyer, 1968). This is like a housing commons (paper

3) and it shows a radical frontrunner-pioneer approach combined with a pragmatic attitude, which as we shall see, became two sides of the same coin in the evolution of the co-housing movement (Skifter Andersen, 1990:3). Gudmand-Høyer's link between utopia as a collective frontrunner approach and the outdated single-family house as a pragmatic need for families became thus the first step towards the concept of co-housing, as we still know it today. This was not a commune, but it was supported by a participatory process of gathering a group of future residents, who took responsibility as developers and owners of the project, who self-managed their housing situation by creating a social organisation, which were in line with the physical outline of the buildings. They were, with other words, a collective building community. Skifter Andersen (1985), who himself formed part of initiating and for many years lived in a co-housing, compared the Swedish kollektivhus with the Danish bofællesskaber:

'The "kollektivhus" were – and still are – created by landlords or by local authorities, while "bofællesskaber" were mostly planned and built by groups of people, who wanted to live there. This has both positive and negative implications. On the one hand, the groups had a hard and costly job in acting as a builder, and in realizing their building project. On the other hand, experience have shown that it is of fundamental importance that members of a co-operative [co-housing] themselves have the power to decide on the social organization and on the physical design and shape of the co-operative [co-housing]. Even more important is the power to decide on everyday matters and work in the co-operative [co-housing]. Where housing associations, private landlords or public authorities have responsibilities as owners or administrators, the influence of the residents and their possibilities for trying new ideas will be limited' (1985:57-58).

The Danish research group Vedel-Petersen et al. (1988), bore out an alike emphasis on an active participatory process of residents in creating co-housing from the very first planning stages through the building process, as well as when living in co-housing (1988:8-12). Nevertheless, they also indicated that it can be a very long and exhausting process to create a co-housing project (1988:8). The further development of the Swedish kollektivhus (from after the time of the above quotation in 1985) were, as a self-work-model, more frequently built on the initiative of future residents in collaboration with landlords and with a strong interest in self-organisation and equality between genders (Vestbro, 1997, p. 338).

5.2.5 Two parallel designing types of co-housing

Throughout the 1970s architect-designed co-housing were built from methods which combined industrial building methods from the 1960s with more traditional building styles in semi-rural locations (Nygaard, 1984:254). The architect-designed co-housing communities had much in common in their style as either terraced houses or low-dense clusters around or in connection to a common house (Nygaard, 1984:253-54). Running parallel with the evolution of architect designed co-housing, the retro-fitted or rebuilt designing type developed as another significant model, which together with the architect-designed type designated the first phase of the co-housing movement. The

great difference between the two designing types is that the architect-designed type typically is built from scratch and designed for social interaction (social-contact design) with a large common house, semi-private transition zones, shared parking on the periphery, and possibilities for circulation, whereas the rebuild or retrofitted type has due to existing building structures a history of a specific place to build on but the residents have to struggle with rebuilding the structures over time, or cleaning up old structures as part of the project, and re-design the buildings in a more social oriented way so that the community can meet in common spaces (see also paper 1).

The first two architect-designed communities: Sættedammen and Skråplanet

It was not easy to realise communities in the way the group of Gudmand-Høyer wanted it during the 1960s. The local neighbours to the site in Hareskov By that Gudmand-Høyer and the group had spotted for their experiment, did not want them to build there because they thought that they would build a socialist settlement and there would be too much noise from the children playing (<https://skraaplanet.com/>; McCamant & Durrett 2011:40; Sarigsson, 2012:22). Therefore, the group found another location in Jonstrup. For a period, another group joined forces with the Gudmand-Høyer group in the process of creating this experimental community, yet the two groups split up to design each their own community, which became Skråplanet in Jonstrup built in 1973 and Sættedammen in Ny Hammersholt built in 1972 (Illeris et al., 1997:6).



Gudmand-Høyer was the architect of Skråplanet (1973), which was built as terraced houses with common facilities and many semi-private transition zones. He also lived in Skråplanet himself.



Architect co-housing designed with built-in flexibility

The Sættedammen group first designated themselves and their project ‘the commune’ to emphasize the sharing aspects of their new experimental living form but when realised, the project took form as a co-housing. They too, were inspired by Graae (1967) to create good conditions for children and they discussed systems for collective childcare. Like the Gudmand-Høyer group, they wanted to supply a space in between the traditional private family sphere and the public sphere by linking private dwellings and common spaces and activities (Illeris et al., 1997:56). This would give new possibilities for each member of the group, including the children to interact with others, not in the family. The group found two architects, Theo Bjerg and Palle Dyreborg, who had developed a flexible module building system in concrete, which made it possible to extend the 27 houses over time, including a multi-functional common house (Nygaard, 1984:251-52).

Common dining and collective childcare

In Sættedammen, collective childcare was on the programme long before moving in (Elm & Dilling-Hansen, 2003). The idea was that the common house should provide the children with a notion of an extended home. Looking after school children in the afternoon was collectively organised in the common house and in the long run it became a solution with participation of waged teenagers of Sættedammen, whereas a kindergarten and nursery for the smaller children was separated from these activities and institutionalised through the municipality daycare system (Illeris et al., 1997:41). However before moving in, the members of Sættedammen had not foreseen that common dining would be a way to share so much on an everyday basis. The Sættedammen residents developed a common dining system while living there and it became very popular (Illeris et al., 1997:43). They organised a system of common dining five days a week for everybody, whereas in Skråplanet the residents developed the organisation of common dining in groups as a club system on certain days, which the residents became members of (table 5).

Co-housing members and horizontal decision-making

The Sættedammen group could, due to a huge interest in the project in 1969, to some extent become more intergenerational because they could choose between different ages of prospective residents (Illeris et al., 1997:7-11). This became more distinct throughout the first decade, when some households had to rent out rooms for students to overcome the cost of living. Over the first decade, several residents got divorced and 10 of the houses were extended and converted into rental communes, due to the flexible module system. This invited single parents and young people to be part of the community (Illeris et al., 1997:54). From the very start shared values, horizontal decision-making from consensus with the common meeting as highest authority, and delegation of tasks in small groups was an essential part of living in the community. Children became able to vote in the common meetings too and common travelling holidays were arranged: Some for children and some for families (Illeris et al., 1997:28-35). In contrast to the full shared economy like they had in the 1970s communes, every

household had each their economy in co-housing. However, there were also sharing in co-housing. For example, in Sættedammen clothes were exchanged and sometimes a fashion show with the old clothes was performed to inspire a new owner to spot the possibility of the clothes (Illeris et al. 1997:49).

From these methods of social organisation, building social-contact design and creating community, the first two Danish architect-designed co-housing saw the light of the day in the beginning of 1970s (Illeris et al., 1997; McCamant & Durrett, 2011:5). They became prototypes for new co-housing to be built as self-organised communities with horizontal decision-making systems and resulted in empowerment of groups of future residents. They had momentum to decide themselves how to co-design, co-organise and co-live, which is a way of living that can be described as ‘social living’ (Stender 2015).

Toustrup Mark: The first retrofitted/rebuild co-housing project

Concurrently with the development of Sættedammen and Skråplanet, a fraction from Thy-lejren created the association called A-70 who bought some old industrial building structures in 1971. Here, they settled and created the first ‘village commune’ called Toustrup Mark by retrofitting and rebuilding the structures over time. The ‘A’ stood for Andelsforening, which is a cooperative association and the number ‘70’ was the year of the association’s foundation. A-70 included a Zealand group from East of Denmark with connections to artist students at the Art Academy in Copenhagen and a Jutland group from West of Denmark, who were primarily teachers in Aarhus. It was mainly the Jutland group with a few of the art students from the Zealand group, who bought and developed Toustrup Mark (Jensen, 1985:49-60).

Toustrup Mark was introduced as a place with members of different ages, and where living, working, and leisure time should be in balance. It should be a place the members themselves could create (El-Tanany & Christensen, 2011). As earlier mentioned, the group was inspired by the Danish cooperative movement (Andelsbevægelsen), which dates to the middle of 19th century. The ideology of the cooperative movement played a central role in Danish society and the cooperative housing movement emerged from the bottom-up as a reaction to housing shortage, speculation, building crisis, and bank failures (Bruun, 2011:67). The members rented their dwellings, and the owner was the association, in which the members paid a share (Träff & Juul-Nyholm, 2011:4). This principle was also used for the foundation of the collective shared ownership of Toustrup Mark with 26 dwelling units. The group constituted a building sub-group, who they employed to rebuild the structures from composite methods. In the first years, the residents organised their daily economy as a commune with shared economy. However, this led to conflicts. After some years the commune converted into a co-housing (El-Tanany & Christensen, 2011; Jensen, 1985:54; Lassen, 2003:33).

Retrofitting and rebuilding

The year 1971 was also the time of the squatting of Christiania, a large area with old military barracks in Copenhagen, where a retrofitting and do-it-yourself builder

culture was developed. Christiania is as ‘a free town’ an intentional community with many small composite houses and small communes. Although these small well-functioning green pocket communes were based on a horizontal self-organised community, Christiania had many drug problems, violent conflicts, and political fights. The struggles compelled them in 2012 to establish as a foundation (Bladt, 2015; Thörn et al., 2011).

Meanwhile, rebuilding and retrofitting old structures became another possible designing method of constructing co-housing, which was in several cases organised in conjunction with collective agriculture and food production. For example, Svanholm Gods which is a retrofitted manor, was established as a large self-sufficient commune with ecological agriculture production in 1978. Shared economy, working together, childcare, reuse and sharing of equipment (such as machinery, tools, and clothes) formed part of the 1970s communes (Navne, 1987:27-30). Svanholm has become more co-housing like over the years because most of the dwelling units are now for individual households and the shared economy (which include allocation for everyday personal uses such as transport to work and tax-paying) has been reduced to 80 % of the resident’s income. They are self-sufficient with vegetables for common dining six days per week. The milk from their cows is used to produce ecological ice cream in a well-known nearby dairy, who sells ice cream all over the country. Svanholm also sell some of their products in a small on-site shop and café.

The co-housing Jerngården in Århus is also an example of rebuilding/retrofitting city houses into a co-housing community and in addition the transformation of a local junk dealer place, which was bought in 1976 by the group, who rebuilt it while they converted the city houses. Another example of a rebuilt co-housing project is Jernstøberiet from 1981 in Roskilde. As before mentioned, it was formerly an iron foundry hall redesigned by the architect Gudmand-Høyer (see pictures of Jernstøberiet page 81-84). another example of retrofit/rebuilt co-housing is Bauneholm, which is a cooperative co-housing from 2002 (see picture below).



5.2.7 Demands for small local communities and citizen's participation

A new paradigm of citizen's involvement and demands for small local communities, including participation in developments and municipal planning came from bottom-up processes throughout the 1970s and 1980s (Nygaard, 1984:243). The arrangement of local communities was also the consideration for Navne (1987), when stating that:

'Generations and families, villages, and some residential areas, and for many people now also their working communities, have lost the content and meaning of the past. It is from this development that a need for new forms of communities, where the individual can take part, has occurred. It is from this perspective that the current year's interest in collective housing forms should be seen' (1987:7) [my translation]

While self-organisations of small traditional local villages were disintegrated due to mergers and centralisation, along with the pressure from the movements of 1968 and onward, these thoughts and the construction of co-housing and other local communities effected the planning processes of society (Jensen, 1985:13). The above statement also shows a coherence between the individual needs for taking part in small scale communities and a structural transformation of society in the 1970s and 1980s, which can be described as a loss of social cohesion and therefore an interest in new collective living forms. Furthermore, Jensen (1985) analysed four different methods of creating local communities and self-management with Toustrup Mark as one example. Municipality planners began, even though challenged by their normal working methods, turning around the process of planning by involving citizens in local participatory community processes (Jensen, 1985:79). From the same vein, Skifter Andersen (1985) identified co-housing as examples of the development process of small local communities. Skifter Andersen connected the need for being part of a small local community and the creation of co-housing. This was based on that the social structure of earlier village communities was broken down and that life in general had been split up in a divide of work and leisure time. The family unity was considered too small to recover this gap (1985:50-51). The ideological rationale of the first co-housing phase had thus an emphasis on building social communities and on the formation of participatory design processes, local democracy, and horizontal decision-making as a social practice. Local development plans were formed together with members of co-housing communities, often from a method where the members were writing a substantial draft for the planning (Petersen, 2003:344). Whenever a co-housing community was to be created, the local municipality planning offices and the financial institutes were (and to some extent still are) challenged, because the co-housing method contest the normative housing methods and standards, which for decades continuously has been and still is designed primarily for the nuclear family (Bech-Danielsen et al. 2018:142; 257; Skifter Andersen, 1985:51).

The co-housing movement was established and had also international impact. With the interest from two American architects, McCamant and Durrett, who travelled to

Denmark to study co-housing, bringing the model to US, a new wave of co-housing flourished in US and Canada (McCamant & Durrett 2011; Margolis & Entin 2011; Sanguinetti 2014). Furthermore, due to the oil crisis in 1973 and 1979 new environmental experiments were attached to the Danish co-housing movement, for example the two communities Overdrevet (est. 1980) and Sol og Vind (est. 1981), who experimented with renewable energy and environmental sustainability by getting electricity from wind power and hot water from solar panels (Vedel-Petersen et al., 1987:65;73).

With the before mentioned SBi competition and the development of Tinggården 1+2, a new institutionalized focus on co-housing was achieved throughout the 1980s. Several architect firms optimized to work professionally with co-housing involving future resident's groups, who wanted to build co-housing as private housing cooperatives (Nygaard, 1984:259). The co-housing architect Jan Gudmand-Høyer formed together with a group of other architects, lawyers, building technicians, and social scientists the co-housing association called SAMBO in 1978. The association provided consultancy in the process of building, organising, and facilitating the social community-building of co-housing. However, after a couple of projects had been realized the group diminished, which led to the association's dissolution in 1982 (McCamant & Durrett, 2011:43-44). Another solution, which was a network of co-housing communities, was created. They held a yearly meeting, and an article about different communities and their challenges was each year produced. This led to that the association, Landsforeningen for bofællesskaber [The national co-housing association] was created in 1989. They wrote the magazine Klokken, but the dissolution of this association came as early as in 1993.

Moreover, during the 1980s, the creating of architect-designed co-housing became even more significant as integrated structures, because the dwelling units and the common house were connected to glass-covered streets, like in Jystup Savværk built in 1983 designed by the architect firm Vandkunsten, which seem to be inspired by the redesigned glass covered foundry hall of Jernstøberiet (Nygaard, 1984:256). Architect firms like Vandkunsten, Gudmand-Høyer, Frank Vestergaard, Tegnestuen Århus, Kant Arkitekter, and Tegnestuen Grønningen developed designs and advised co-housing communities on the cooperative housing model. An example was the co-housing Lysningen, which was developed over only three years advised by Tegnestuen Grønningen and finished in 1990.



In the early 1990s, another version of the architect-designed type was two stories row houses formed around an inner yard or garden and with a double high open gateway under the buildings leading to an inner garden yard, like in for example Fælleshave (1991), which was a design taken up again in Lange Eng (2008) by Dorte Mandrup:



Fælleshave, built in 1991



Lange Eng, built in 2008



5.3 SECOND PHASE RATIONALE

Environmental activism of the 1970s became over time a political movement through manifestations of group's demonstrations, visual protests, lobbying, and organisations trying to influence political and public authorities to change legislation in favour of a better impact on the natural environment. During the late 1970s and 1980s economic crisis came, acid rain was falling, and many people became aware of the greenhouse effect. Therefore, the Brundtland commission was set up by the UN in 1983. Due to their report 'Our Common Future' in 1987 the notion of sustainability was born (Bech-Danielsen et al., 2018:140; Hoff et al., 2020:3; Brundtland report, 1987). Reduction of energy resources used in the built environment was needed. In Denmark, due to the oil crisis there had already been focus on more green buildings, like energy saving devices, building regulations for reducing energy in buildings, and new building methods such as more insulation, smaller windows, etc (Gram-Hanssen & Jensen, 2005). In commitment to the Brundtland report and Agenda 21, subsidized large-scale urban projects under the Urban Renewal Act were developed. In certain circles of society, the incessant economic growth of the twentieth century was discussed and related to the excessive consumption of natural resources, such as the use of oil, oil peak, and the following exploitation of nature (Gram-Hanssen & Jensen, 2005; Jackson, 2012). Still, with the fall of the Berlin wall in 1989, a new era of freedom and arisen individuality prompted a strengthened belief in liberalism, market economy, and more consumption (Bech-Danielsen et al., 2018:146).

5.3.1 The first Danish eco-communities

Meanwhile a global sub-trend, namely the developments of eco-communities, also called eco-villages, emerged. In Denmark, the first eco-communities were Dyssekilde in Torup near Hundested, and Andelssamfundet in Hjortshøj near Århus. These eco-communities were designed from a self-builder method developed from a lot model (a large site divided and sold as lots) and by forming housing groups, where each family build each their house. In eco-communities, land is shared, parking is on the periphery, playgrounds, kitchen gardens and animals are on common land, waste is sorted, and wastewater is filtered through a willow tree cleaning facility. Gardens functions as semi-private areas and a common house either for each housing group or a larger shared common house for the whole community functions as central common spaces for dining together, meetings, and other social activity. The founding group of Dyssekilde was based on the spiritual and holistic philosophy of Martinus, but soon the group found that the aspects of ecology and sustainability were a more unifying vision and therefore it became the leading notion of the community. They purchased land and a farm in 1988 and started building organic self-designed houses in 1990 (see also paper 1 and the 'thick writings' about Dyssekilde/Torup). Because a united solution for heating was too expensive and because experimenting with different technologies of for example solar panels and solar cells were tested individually in Dyssekilde, different energy saving solutions were used on each individual house, whereas wastewater is filtered by willow trees in a collective cleaning facility system. The aim of

Andelssamfundet i Hjortshøj (AiH) was to create a social-ecological local community to experiment with environmental building methods and social forms of community, which should be established in mutual inspiration with society. They started building in 1992 (Marckmann, 2009). Due to that new housing groups extend the communities over time eco-communities has evolved as growing organisms. In this way, they have kept building. For example, the last house in Dyssekilde was built 2016-17, and AiH has currently still new building groups.

5.3.2 The ideological rationale of self-built sustainability

Comprehending eco-communities as a further development of both the Danish village tradition and the co-housing movement, Dilling-Hansen (2003), who was secretary of the national association of eco-communities (Landsforeningen for Økosamfund, LØS), described the history of the Danish eco-communities in the book 'Økosamfund i Danmark' [Eco-communities in Denmark] published by LØS and financed by the ministerial fund for rural districts. He conceived eco-communities as a new phase of co-housing, now emphasizing sustainability in respond to the Brundtland Commission report. This environmental focus was combined with the 'social living' of the 1970s co-housing, and with the spirituality of the 1960s (e.g., Findhorn and Christiania) but without drugs (Dilling-Hansen, 2003:12-13). The purpose in eco-communities is togetherness, sustainability, and ecological living. Examples of co-housing as Sættedammen and Toustrup Mark formed part of the book about eco-communities (Elm & Dilling-Hansen 2003:168; Lassen, 2003:32). The raise of the eco-community movement can therefore be described as a second phase of co-housing and runs parallel to the development of American co-housing communities, which have increasingly become more explicitly oriented towards environmental responsibility (Durrett & McCamant, 2011:273). In this PhD thesis, eco-communities are therefore treated as forming part of the development of co-housing in line with the argument in Marckmann et al. (2012:417). They argued that eco-communities fit into the characteristics of co-housing and can thus be perceived either as a subgroup of co-housing, or due to that eco-communities have a greater focus on sustainable living than other co-housing as a special subset. However, McCamant and Durrett stated that co-housing can form a subgroup of eco-communities, as they conceived large scale eco-communities as a kind of an umbrella community for small co-housing, shops, and land cultivating, etc. (2011:202-212). Whether the one forms subgroup of the other, or it is the other way around, eco-communities and co-housing are connected and developed from many of the same organisational, social, and decision-making features.

The vision of the second phase of Danish co-housing responded to the 1990s society, when engagement in sustainability was still a grass-root movement, and eco-communities became to some extent utopian niches of living experiments or laboratories of self-sufficient sustainability and social communities (Jensen et al., 2014:82). The ideological rationale of self-built eco-communities was to live in relation to nature, avoid pollutants, and reduce the consumption of resources by building individual organic houses formed in creative shapes and using local or biodegradable building materials

(such as blue mussel shells, paper granulate, straw, wood, clay, seaweed, unfired bricks, reused building materials) and by creating recycling and renewable energy resources through own collective circular infrastructures (such as onsite willow cleaning facility of grey water, wind power, growing vegetables, sorting of waste, reuse of things). The vision was to create a local community, where humans and nature were in better balance, and connect functions of society again in a more holistic approach to everyday life, where life was not split between work, family, and home (Gram-Hanssen & Jensen, 2005:171). Creating small local companies, shops, and other entrepreneurial institutions, where the eco-villagers could work, formed part of the eco-community ideology. Building from these methods look like ‘hobbits villages’ but seemed quite radical to the surrounding society of the 1990s.

Forming individual houses in each their own style represent a creative expression, which support individuality and individual meaning while still belonging to the community and to a housing group of a certain style for example domes, round, eight-angled houses, or a row of different houses in different styles and colours (the Rainbow). On the one hand this is a radical new social and green experimental building method and on the other hand a retrospective way of living referring to traditional local villages. Many architects criticized them for not being aesthetic and some architects turned their focus towards post-modern styles as in the development of Blangstedgård (Bech-Danielsen et al., 2018:148). Urban regeneration and urban ecology developments with low-environmental impact was considered another method of green building, for example the Copenhagen non-profit co-housing Bo90, which is also influenced by the architectural post-modern style. Another example of this style is Fælleshave, which has a consistent architectural design (see pictures page 181).

Planning, tenures, financing, and the design of organic building

Finding a municipality, who was willing to cooperate and conduct local development planning, could be difficult for new eco-communities, because local villagers often were rejecting this type of development in their local village giving the reason that they did not want a new Christiania, which is known for its hippies and hashish. Many municipalities had the same viewpoint. However, some municipalities saw the qualities in the communities, as it meant more residents and life to local villages, which were about to depopulate (e.g., Torup), or to areas of new urban developments, where the settlements became part of a strategic planning process (e.g., Munksøgård). Finding financing for the projects was also very difficult, because banks in general are reluctant to self-building groups and organic experiments that are not tested yet. Therefore, it was not possible to build from an overarching organic or comprehensive design. Like the first co-housing in the 1970s, most eco-communities were established from the private ownership model, primarily because this was the only possible solution in the concrete situation of finding financing for building, but as there was a wish for low-key economical and affordable living, mixed tenure compositions were developed in some eco-communities, for example by self-building a rental housing group or making a housing into a small cooperative. To accomplish affordability and

to keep the costs down, the whole of the community Fri & Fro (est. 2005) was created as a housing cooperative and self-built houses on individual lots.



Round selfbuilt house in the community Fri & Fro

As the houses of this rationale were based primarily on individual organic self-built sustainable experiments, the non-profit housing sector was not able to take part, because they want large-scale developments, professionalization, tested building methods, and more comprehensive designs. A common house for the purpose of dining together, having meetings and other activities constitutes, as in co-housing, a central part of eco-communities. In eco-community Hallingelille prospective residents started building in 2004-2005. While living in portable cabins, the community had decided that the first project was to build the common house. Thereafter, the residents could live in the common house, while the individual houses were built. Therefore, the residents came to know each other very well living together as ‘one large family’. The houses are in most eco-communities, due to the lot model, detached and in Hallingelille they are dispersed in the landscape.



Other examples of experimental self-built houses, Hallingelille





Kitchen and living room in a self-built house in Hallingelille.



The conception of co-housing as ‘low-dense’ provided in the first phase rationale of the architectural design type of co-housing cannot be recognized as the structural method of the second phase. Often the structural designs of eco-villages are more organic formed and although they are village-like and in this sense dense, the semi-private areas are primarily elements as shared gardens, land, parking on the periphery, and in between the houses there are winding paths which connect to a common house, whereas the architectural design type from the first phase tends to join building elements and conceive the whole plan in a comprehensive architectural ‘grip’. Furthermore, eco-communities tend to grow as new housing can be added over the years. Therefore, eco-communities can be perceived as growing organisms. Eco-communities are primarily located in the countryside in connection to a village or small town. They are in around one-hour-distance-travel from the larger cities (Marckmann, 2009) but recently, some co-housing and eco-communities have located farther away from the larger cities, for example indicated in some of the cases in this study (Nielstrup in Lolland, Karise Permatopia near Faxe), and in other projects, which are currently under construction in more remote areas (e.g., Soleng in Southern Jutland, Torpegård in Fyn).

A housing form and a 'commoning' practice

Like co-housing of the first ideological rationale, eco-communities are both a housing

form and a lifestyle (Williams, 2008:278). As Høite Hansen (2019) argued, eco-communities are created through the necessity of maintaining a viable community on a micro-activist level of conducting collective sustainable everyday lifestyles and practices together. Or in other words, the engagement in environmental – and climate actions is incorporated in the practice of everyday life on the individual eco-community dweller level (Høite Hansen 2019:104). They conduct an environmental activist role and awareness of ‘doing-it-yourself’ or ‘just-doing-it’, while keeping the focus on oneself and how to improve a sustainable lifestyle. This is a form of ‘practivism’, which Hoff et al. (2020:6) described as activism of sustainable embedded practice of lived life, which rely on changing one’s own lifestyle and practice rather than changing those of others. Concurrently it is in eco-communities a collective practice designed as a ‘micro-activism’, where each dweller contributes to the social and the environmental life of the community doing their best to follow community lifestyle guidelines (decided in common) and accepted social and sustainable norms and behaviors of the eco-community. Sustainable lifestyle is in this way supported and determined by collective practices (Høite Hansen 2019:110). While environmental movements of the 1970s and 1980s were fighting external enemies, eco-communities focused on a practice of changing their own behavior and consumption patterns internally and locally (Hoff et al 2020:6). Activism was in this way modulated into an everyday practice of ideological doing instead of political ideological talking or arguing.

5.3.3 Global network and learning potential

The Danish organisation for eco-communities Landsforeningen for Økosamfund (LØS) was the first national network of eco-communities in the world. In the first ten years it was funded by Gaia Trust, which was founded in 1987 by Ross and Hildur Jackson in Denmark with the intention of supporting the transition to a sustainable and more spiritual society and inspire to live from more sustainable methods. Combined with the traditional design of the Danish villages and the continuous trend of co-housing, the eco-community movement was born and developed globally throughout the 1990s and 2000s. On another initiative from Ross and Hildur Jackson, the Global Ecovillage Network (GEN) was established in 1995 (Jackson, 2003:421). This is a global eco-network with partners all over the world: GEN has today five regional offices in different parts of the world with the aim to catalyze communities for a regenerative and sustainable future. Looking at the map of GEN, it becomes clear that the idea of living together in sustainable communities appears in many different parts of the world. Some of these communities have been created as intentional communities of the 1960s-1970s, such as Findhorn in Scotland and Damanhur in Italy, whereas others are built in the 1990s like many Danish examples. Others again are continuations of traditional local villages that have changed to sustainable living, especially in the Global South. With these activist national and global network organisations, which are a ‘makro-activist’ level of eco-communities, there is focus on political environmental activism trying to influence mainstream society and policy for a sustainable change, building on the existence of the ‘micro-activism’ of all the eco-communities in the networks (Høite Hansen, 2019:111). While environmental activism is a political movement building

on demonstrations, lobbying, and visual protests, the activism of these organisations builds on realities and the lived life of eco-communities. The network activity is backed up by Gaia Education and EU Erasmus programme (e.g., CLIPS). Learnings from older to new communities are considered essential for the movement (Jackson, 2003:431). Such learning can come from inspiration and visits to eco-communities or through courses, where invitation to living and learning inside the communities are provided as part of the educational programme by Gaia Education. Together with the first eco-communities from different places in the world, GEN and Gaia Education has throughout the years provided inspiration for many new eco-communities and local community building all over the world. According to LØS, Denmark has the highest number of eco-communities per citizens in the world (Høite Hansen, 2019:101).

5.3.4 Holistic perspective on sustainability

The wish of the second ideological rationale has been to incorporate all aspects of sustainability. Environmentally, this is achieved by focusing on the above-mentioned approach to energy, water, waste, healthy materials, and green accounting. On the social side the residents are in this way of living assured mutual social engagement through common activities, sharing, participation, duties in their housing group activities, and through the development of different dwelling types and mix of tenures (Jensen et al., 2014:81). Meltzer (2005) pointed at the ecological interconnectivity between the social and the environmental dimensions of sustainability and found that pro-environmental behavior was connected to the social dimension of creating a sustainable co-housing community through living with less, sharing goods and exchanging knowledge between neighbours. The relationships depend on mutual trust, engagement, interaction and the empowerment of the residents and the community by living together with focus on environmental praxis (2005:155). The community building is in the papers of this dissertation coupled to the notion of commons and communing (see paper 3) and to the motivations and the group element of creating co-housing (see paper 2). The notion of ‘Learning while we walk’ is a strong statement of eco-communities, because experimenting and evaluation go hand in hand but also because it empowers the residents as a group with a certain aim, namely a culture of environmental and social sustainable responsibility, for example through competing for the best results in green accountings as they do in Hallinglille. Social reflexive processes form thus part of developing environmental praxis and sustainable social norms (Marckmann, 2014:229).

Sustainable visions and pragmatic solutions coupled

The societal regime of industrial building methods with prefabricated building elements, chemicals, pollutants, and anonymous disconnected neighbourhoods was in the second ideological rationale resisted and instead a more sustainable path for the future was developed through self-building with sustainable materials. However, when walking in the housing areas of eco-communities, prefabricated standard houses and some architect-designed houses are now and then seen between all the other self-built houses. Some of these houses are designed from sustainable building methods, whereas others are not. This can be interpreted as a more pragmatic approach to living in an

eco-community. It can be difficult to get alternative solutions financed and self-building can for some simply be too exhausting. Dealing with what is possible, solutions as a pragmatic element of life forms thus part of the communities. Sarrigson characterizes co-housing as ‘representing living models of a better alternative’ (2012:20, see also paper 1). However, residents do not drop out but stay as members of society even though they live in another way than in mainstream society in their communities. For many residents commuting to work is part of everyday life. Only for some it has been possible to make a living in the eco-communities (for example through eco-shops, eco-bakery, eco-building solutions, teaching, health and yoga-courses, and social projects integrating refugees). Furthermore, the element of ‘practivism’ (Hoff et. al.,2020:6) indeed refers to a pragmatic solution derived from the failure of national and international governments to tackle environmental change in a satisfactory way. A pragmatic answer to this situation is to collectively take responsibility and do-it-yourself by building and living sustainably together. Again, like in the first phase of co-housing, the visions, which were perceived quite radical by society, have been coupled to pragmatic solutions and needs (Høite Hansen, 2020:35). However, the idea of this kind of ‘lived sustainability’ has had substantial effects on Danish society in general, including the building industry. Today, everyone in the building sector proclaims – at least as part of their market strategy – that they build from sustainable methods.

5.4 THIRD PHASE RATIONALE

The third ideological rationale is a combination of some basic extracts from the two previous ideological co-housing rationales, which are supported by digital solutions and collaboration between different types of actors. The initiatives to co-housing projects can come from both bottom-up groups and top-down professional actors, but mostly the different actors, which include future residents, need to collaborate, and develop co-housing projects together. Moreover, the family ideal has changed and living across generations of same family forms a new orientation in the co-housing movement.

5.4.1 Bricolage: Combinations of designs, mix of tenures and

groups Communities with dwelling units which are linked with shared common facilities are built from the ideas of social contact design which support social collective activities and communality. It can be as consistent architectural design or as composite designs with retrofitted buildings and new-built architecture. This can be combined with self-building and experimental sustainability, which support sustainable practice embedded in everyday life community. The third ideological rationale build on both the sense of ‘social living’ of the first phase co-housing rationale and the sense of ‘sustainable living’ of the second phase rationale. In response to climate change, experimentation and political ecological ideology have gained focus. Holistic sustainability, in all its aspects, including the social aspects of sustainability is combined with new experimental building and energy technology, digital layers, and sometimes also a mix of tenures, and reuse of existing buildings, resources, and materials. This is a mix (or remix), which assemble many things,

components, and features, which I perceive as a method of bricolage. Overarching comprehensive, circular, permaculture, and architectural designs are used to unite the communities.

Tenures of today's intergenerational co-housing

Since the subsidized cooperative financing model was phased out many new intergenerational co-housing schemes have again been based on the owner-occupied model and less cooperative co-housing has been built in the first phase of the third rationale. Rental co-housing schemes, which can be either private renting or non-profit housing have, although smaller in numbers of communities but still with many dwelling units due to the size of each community, steadily developed throughout the five decades of intergenerational co-housing (Jakobsen & Larsen, 2019; Jensen et al., 2022a). To get more people with different economic profiles into co-housing, another way of creating co-housing is through mixed tenure compositions. Today, mixing tenures is often done in collaboration with the non-profit housing sector, especially in larger co-housing schemes. This has been carried out, for example in the cases of Munksøgård and Karise Permatopia. Mixing tenures emphasize a blend of ownership models, which can be an effective method of achieving more affordability into the co-housing model. However, it also makes the co-housing projects more complex to build because so many actors must collaborate, and the organisation must be nested to get along with different association structures and regulations of each tenure composition (see also paper 3). Recently, some new intergenerational co-housing projects have been built by developers either as projects for sale or as private rentals. Then, the inhabitants are not involved in the construction and building phases. Therefore, they do not have influence on the design.

Designing types and mixing methods

Self-building projects in eco-communities can be backbreaking work, take long, and challenge a family, who must live in a portable cabin or other temporary places for years. Individual energy-reducing solutions for each house may not be an effective or affordable method for a collective organisation. Therefore, a comprehensive design built by professionals can turn out to be a solution, especially for the larger co-housing communities. Meanwhile several Danish architect firms have specialized in building from more sustainable methods, or they have together with contractors, been challenged by the requirements of new political trends, co-housing groups, and consultants to develop more sustainable and community-oriented buildings (Foldager & Dyck-Madsen, 2002; Pedersen, 2002:5). Some new co-housing experiments are based on a mix of the designing types and for some also a mix of tenure forms (paper 1).

From this mixing method, another building form with a comprehensive design for both houses and land has been employed. Sometimes retrofitted farms or other existing stock, or parts of the community organised as self-building groups are incorporated in the design and in some cases, permaculture has been the lead of the design, as in Karise Permatopia. Collaboration with professionals forms together with a self-designed collective organisation and management a central part of the development of the

third phase ideological rationale. Groups of future residents are involved throughout the process. They co-create, coordinate subgroups, and take part in different useful doings such as community development days, collective working days, planning and finding financing for the project, communicate the project, building their own houses, organise social events, planting trees and willows together, growing vegetables, looking after each other's children on working days, etc. All these activities are created and organised through a bricolage approach of the different members' expertise and knowhow (Laine et al, 2020). This is again combined with new learning, which often comes from experience of older co-housing communities and from the history of Danish co-housing.

Social-contact design from the first phase rationale of co-housing conduct the architectural link between dwelling units and the community with common spaces and activities as a comprehensive design forming integrated solutions, whereas the ability of creating composite designs from reusing old structures lays in the retrofitting/rebuilding designing type. Holistic sustainability in all its aspects, including self-building and self-designing, came from eco-communities of the second rationale, which composed the background for new experiments. A collaborative professionalization of building sustainable co-housing communities began with Munksøgård (finished in 2000).



In Munksøgård three designing types are combined: Architect designed houses, a self-built common house for the owner occupied cluster, and common re-used farm yard in the middle of the community. Moreover, there are also three different tenure forms.

Mix of the three designing types into a comprehensive design (paper 1):

- architect-designed
- retrofitted or rebuilt designs
- self-built designs

First case experiment of third rationale: Munksøgård

The case of Munksøgård was the first co-housing of the third rationale. Munksøgård is a large-scale co-housing community consisting of 100 dwelling units and is built as a comprehensive co-housing development with five architect-designed horseshoe formed housing groups, which each comprise 20 dwelling units and a common house. They are placed around an old farm, which is re-used for common purposes including a small eco-shop. According to Pedersen, it was a new experimental building project where 'the ecological' was combined with 'the architect-designed co-housing' (Pedersen, 2002:7). The five housing groups are dedicated for different ages and income groups. A mixed tenure composition of three non-profit housing groups, one cooperative, and one private ownership housing group means that people with different incomes can afford to live in the co-housing. A collectively self-built straw bale house forms part of the private ownership housing group. All other houses are built in wood, most of the insulation is paper granulate, unfired clay bricks are used in some walls, and rainwater is collected for washing machines. Large kitchen gardens provide the residents with vegetables for common dining, etc. A urine dividing system and cleaning plant facility was constructed. The heating comes from a central wood pellet boiler. Due to the economic situation, it was not possible to install waste heat ventilation recovery, which would have better reduced the energy used for the buildings (Pedersen, 2002:5).

A bunch of professional actors were replaced, because it became clear in the middle of the process that the non-profit part of the project had to follow the EU procurement directive for consultants and the project was put out to tender for building with a turn-key contractor. This meant loss of communication, collaboration, and loss of money. The Munksøgård co-housing group were developers for the first time. They were a group who discussed the solutions in sub-groups, which was unusual for the professional actors. Furthermore, the involved municipality and non-profit housing organisation were challenged by the new sustainable experiments. Therefore, the collaboration took long time to establish and was sometimes difficult (Pedersen, 2002:5-11; 40). Although these difficulties, Munksøgård has inspired many new co-housing projects to come.

Some co-housing projects work as generator for city development planning and generate new co-housing projects in the nearby surroundings. In the local area of Trekroner, Munksøgård is now surrounded by nine neighbouring co-housing projects. Some of these projects, like Svalin 1+2, were inspired by environmental sustainability and climate friendly living including reduction of CO₂ imprint, which was combined with social living. However, a reaction against ecological lifestyle, whether self-built or architect-designed, also formed part of the new developments in Trekroner. The neighbour co-housing Trekroner Bo was developed from the notion of good architecture in proximity to nature and was not about environmental sustainability but with the wish to live socially together on a voluntary basis. The group hired a contractor, who took over the whole responsibility for the building process. This was a more comprehensive and pragmatic method of building co-housing than the self-building methods of

eco-communities developed as growing organisms of the second ideological rationale. *Example of a method of financing and building a climate-friendly co-housing of the third rationale*

In the book ‘Vigør – Fortællinger fra den grønne frontlinje’ [We do – narratives from the green frontline], which formed part of the research project COMPASS, Jakob Skøidt-Nielsen (2019) wrote about an effective process of creating the co-housing project, Svalin 1, which he and his wife were initiators of. They had been part of the Munksøgaard group creating the community and living there. Therefore, they had firsthand experience of bottom-up group processes in collaboration with professional actors.

Skøidt-Nielsen described a well-planned process, which began with the vision to create an active climate-friendly, intergenerational co-housing, which should cost no more than 2.5 mill kroner per row house (which approximately would be the average of acquiring a new built row house in the area at the time of construction in 2010-2013). The project used the ownership model to get 20 row houses established as efficient as possible. The project attracted primarily young families with two incomes wanting a sustainable climate-friendly lifestyle. This might be due to that the initiator group was based on such a constellation, but it also conceives as an example of new-built owner-occupied co-housing that had to be based on two incomes, like in the 1970s. To become an intergenerational co-housing, three units were however, reserved for seniors, which the group had luck to attract. First step was to create a project description and conceptual drawings showing the vision of the project, which was put on a homepage for the project (Skøidt-Nielsen, 2019:41-46). From a group meeting the vision was created and a building association was constituted. The group established a board for the association and constructed rules and bylaws from the visions of the project description including maximal price and a time schedule. The association recruited members, which had to invest a sum of money to engage in the association, so the group could start the process of finding an architect and other consultants.

The group’s self-organisation was based on sub-groups collaborating in different fields of creating the co-housing. They were distributed on a recruiting group, a building group, a common house group, and a communication group. Soon the members had to get a bank guarantee, so that the building association could contact an architect, who designed the first project drawing and site plan draft. From this point it was possible to negotiate with the municipality about local district plans tender documents were conducted and a contractor was found, who would be able to take the full responsibility and the role as building project owner and deliver houses on a turnkey basis, which the members then bought. The dialogue between the contractor and the municipality happened on the background of tender documents delivered by the architect. The process of building the project was organised by the contractor in coordination and collaboration with a team consisting of the co-housing building association, who had acquired a building expert, the architect, and an energy consultant. In this way the group had

lowered its risks and the project could be more effectively built as it was the contractor, who obtained building loans (Skøidt-Nielsen, 2019:47-51).

This can be perceived as a hybrid between a bottom-up and top-down solution, which on some points is alike the project of Karise Permatopia although Karise Permatopia had a much more complex organization comprising three different tenure forms.

Larger co-housing projects

Munksøgård had not only an impact locally. The method of large-scale development based on mixing designing types and tenures unfolded also in Karise Permatopia, which took inspiration in both Munksøgård and Svanholm. In the small town of Karise, the large permaculture co-housing scheme and farming site, Karise Permatopia, was developed from a farm and farmland to attract residents who wanted to live in sustainable and social ways. The creation of Karise Permatopia was followed as part of PhD study. The residents came primarily from Copenhagen Region, and a few came from elsewhere. In the first place a bank had required the farm because it went through bankruptcy but later it was sold off to the membership association of the project of Karise Permatopia. A project leader, who was not going to live in the co-housing but had a professional social-economic profile and a focus on sustainability from a former job, was employed to develop the project and involve prospective residents in the process of creating the project. This type of engagement is a bit different from the bottom-up processes, because the initiating process is not as horizontal-democratic as with a bottom-up group process.

The tendency is that projects are professionalized. The top-down approach is a new trend in co-housing, which has evolved further in Danish society during the period of the PhD project. For bottom-up groups there is a discussion on from which visions, where to settle, and how to do it, whereas when this process is professionalized, it can be due to that a professional actor has seen the possibility to develop co-housing from a specific site and can profit from it. Professional actors are when involving in creating co-housing challenged to begin to act like or imitate an initiating group of a bottom-up co-housing. They must involve future residents earlier than in traditional building projects, where future residents are normally only end-users. From the beginning, it is then not the future resident's own visions that initiate the project as it is with bottom-up groups, who start the process by themselves. However, it can as earlier mentioned be exhausting for bottom-up groups to get through with co-housing projects and during the process some people chose to leave the group, which means that the group must attract new people. In this state, the project is somehow in a fragile situation for a while until new future residents engage.

5.4.2 The digital era and the group process

Already during the construction phase of Karise Permatopia, the internet collaboration platform Podio was added to the project and prospective residents could post their interests, suggestions, etc. here. It was also on this platform that new information on the project, and invitations for meetings and workshops was shared. Since around 2000,

new ubiquitous digital layers as websites, social media, and collaboration software intranets (e.g., Podio, Borigo) have been applied to housing complexes. With the digital now woven into the social space and design, it makes sense to describe and recognize the digital era as part of housing projects and – complexes, as Stender pointed at (Stender, 2015). Especially large scale new-built residential complexes use digital platforms and services to communicate both internally and externally to achieve social living and solve organisational and practical matters (Stender, 2015:54-57). These residential communities are not necessarily co-housing, but the digital layer is useful for co-housing too when communities have a certain size. For example, middle size communities (20-30 dwelling units) would often have a website and use social media, whereas larger scale co-housing communities would in addition also use an intranet platform. Very small co-housing with only two or some more dwelling units, like families living across generations, might not have a website nor intranet platforms but would use social media now for example when searching for new members of the co-housing. Websites and social media are thus used to promote new co-housing projects and collaboration software intranets for facilitating and posting updates internally, while building the project. Because digital tools and social media are another and often an easier way to create and advertise co-housing projects and -groups than before, the digital era has had a huge impact on the creation and management of co-housing. The vision for a project is shown on the projects' homepage, which is employed to sell the project and post updates through building phases, whereas social media are typically used for promoting, updating, expressing ideas, and connecting group members. Platforms like collaboration intranets for facilitating communities connect teams and group members through digital communication, team meetings, and fora. Moreover, meeting minutes, and other import documents and references can be uploaded to the intranet collaboration platform.

Present-day co-housing from a qualitative approach: Some digital observations

In the process of conducting fieldwork, I had access to the intranet platform of Karise Permatopia for a while, when the project was under construction. The other cases were also followed digitally over social media and their homepages. Due to the small size of Nielstrup, they did not have a homepage or a social media page but announced their project on the website bofællesskab.dk seeking another family, who would like to live with them. The way the future residents of Karise Permatopia used the intranet platform was primarily as a practical information tool giving notices to each other on meetings, events, and about organisational and practical matters for the whole community. The events could be about development days, where the group met for a whole day to get to know each other, work together, and engage in the community. It could also be an announcement about having soup together, planting trees, or what should be done in the barn building team. Different co-housing sub-groups were created and supported by digital teams, which were used for statements in the relation to the theme of the group and for keeping documents. Furthermore, minutes, documents, and updates about the building process were shared on the intranet platform. Practical things such as asking for a lift from or to Copenhagen or sharing of things was normal. Questions

was posed to each other on things and different solutions for situations that had to be solved was proposed. Inspiration from other websites of sustainable solutions was shared. Sometimes the platform was also used to express feelings, for example the feeling of powerlessness in situations, where the non-profit administration was not clear in their communication or because the building of the houses went through several delays and physical challenges, such as rainwater inside a building causing mould damage, which had to be fixed. A few posted statements which included angry feelings but that was rare. It was of course very difficult for the members when the project was delayed, and the consequences of that situation were shared by several members. Other statements were very positive showing situations and pictures from what was going on in the community, and in the future resident's personal lives.

The other followed co-housing projects used digital layers to communicate about their project, too. Sometimes decisions for the next step in the process of building was made through digital internal correspondence services or email groups, whereas social media, homepages and local newspapers were used to promote the projects and post updates. Over social media, ideas about sustainable living, inspiration, and building could be announced and sometimes discussed but mostly events and updates were posted.

The digital tools became in this way part of the structure for co-housing supporting the group process as ubiquitous layers of being, living, and creating housing together. Though the digital, groups could investigate, share, and create together. In this way, the practical process of establishing a group is interwoven with digital layers. Knowledge and learnings from older to new communities through digital inspiration has meant that new communities can more easily use existing experience and combine the knowledge from previous decades. These findings of using digital platforms, which connect to the social process and engagement from the followed projects are directly related to the third co-housing ideological rationale. The digital has become part of our living and for the third rationale the digital is a natural part of creating a community. Online information meetings through Teams or Zoom has in the last years also added to the process of creating co-housing from a digital device. Still, I want to underscore that creating a group is concurrently a process of physical meetings, collaboration, social activity of doing things together, identifying with the project, and community materialization but digital tools can strengthen the practical and social process of creating a co-housing group.

Creating identity of the projects and the group process

In the cases of this study all four followed projects had a group process, while the project was under construction. Besides making a set of values, planning and decision-making, the groups went through a process of socializing and getting to know each other while becoming part of the community, even though they had not yet built the houses. This is an identity process. During this process, the empirical data shows that some people may well leave, and the group will have to find new members. Constructing co-housing is a collaborative process. Engagement in a common purpose to live and

create the community together reflects in all four projects shared values and identity about social – and sustainable living, including democratic ideals. Agreeing with each other on the visions and values, negotiating with the local authorities, organising, financing the project, finding consultancy, buying a piece of land or some old structures, and finding an architect, self-building, or retrofitting takes time and resources for bottom-up initiated groups. The engagement in the group takes persistence, energy, and resources of the members, but group members help each other and together get along because they feel connected to the project and insist on creating and constructing their co-housing project: They keep on going although they meet resistance on the way.

Strategic planning is an important tool as well as knowledge about building processes, which due to the experimental character and method of organisation in each case will be unique because co-housing projects have different groups, contexts, and conditions. The cases in this study were diverse in size, tenure, and process. Two of the cases were initiated from bottom-up processes by a self-organised group of people wanting to create and live-in co-housing together, which is the traditional method of creating co-housing. It started with a small bunch of people, who initiated the projects, and they got more people involved. Two projects were initiated from top-down. These two cases were initiated through a specific site that different actors, who was not going to live in the projects themselves, wanted to develop from a more top-down initiated approach. Throughout this type of process there was also a need to involve prospective residents. For Karise Permatopia interacting with a non-profit housing organisation, a project leader and constructors formed part of the process.

All four projects followed in the PhD had to engage in attracting members making a group, who could run the projects together but in the case of the top-down initiated projects the first challenge was to attract people to the specific project gathering a group of interested people, who wanted to live in this specific place, and who would agree with the vision and take part in the project, including taking risks.

Some projects are not realized, as with the case of Torup Overdrev. This project was as before mentioned, a process where the local community council of Torup, called Torup Ting, and the municipality of Halsnæs together tried to gather and facilitate a group of interested people. The municipality had the interest of attracting resourceful people to the area and Torup Ting wanted to gain control over the development of the village to assure that it would be as sustainable as possible. In the case of Torup Overdrev, after a while a small group was engaged in the project. Initiating and attracting these groups of people is a long process for municipalities and local community councils in terms of matching what people in the groups essentially need and want. The initiating process conducted by the municipality and Torup Ting lasted about nine months before this small group of people were assembled and took over leading the process themselves. They wanted to build by themselves from a lot-model. They could finally make a bid for the plot, but unfortunately failing. The group dissolved due to difficult negotiations with the seller of the site, who never involved in this process although he

had contacted Torup Ting with the aim to sell the site. Moreover, some group members chose other solutions for their housing situation. However, the municipality found that Torup could well be further expanded by developing a new co-housing community. At first the municipality wanted to develop a larger area as a prolongation of Dyssekilde, but the eco-community dwellers preferred another site. The villagers found out that the owner of a farm called Hvideland wanted to sell his farm. Therefore, the local villagers in Torup and Dyssekilde took via Torup Ting initiative to form another co-housing development in the village. This was encouraged by the municipality. Torup Ting created a fund who bought the land, and the site status was changed to an urban zone for a new co-housing/eco-community development, called Hvidkilde, which in the future will extend the village with about 150 inhabitants.

5.4.3 Co-housing as a social place

Family ideal has changed

The motives for choosing to live in co-housing in relation to family life have since 1970s changed along with family ideals of society. As I also touched up-on in paper 1 (Beck, 2020), a high divorce rate and demographic changes challenge family patterns in Western countries. In Denmark, 37 different family types or ways of being a family have been reported (Statistics Denmark, 2012). Today, the nuclear family is in general considered an ideal for a family although only 18 % of all households live in exactly this constellation (Bech-Danielsen et al., 2018:121). Apparently, nuclear family life is still an ideal and forms part of the context of today. In co-housing and eco-communities too, families are protecting this family ideal, which is somewhat perceived as fragile (Marckmann, 2009:169; Beck, 2020, paper 1).

Although one of the purposes is to live together with other families, the social boundaries of the family as a unit are protected. Rather than dissociating from social norms that supported patriarchal family patterns followed by considering the nuclear family as too small a unity with the aim to live as an extended family like in the 1970s communes and co-housing, the motivations of current co-housing residents are about becoming part of a social community because the residents long for communality. The investigation of the motivations for moving to a countryside co-housing also showed that there is a need for keeping and respecting family boundaries. Because these boundaries are very import for the families, the family ideal of today contrasts with the 1970s family ideal. However, being a household who connects to the other households by building a co-housing community together is, as well as it was in the 1970s, about taking part in a community and thus more social engagement than is normally possible in other residential areas. Moreover, today single living and loneliness are challenges, too, and some want to move to co-housing instead of living alone. Getting to know each other, being part of a group process, sharing a vision for the community, having same values, and share meals some days a week, or other practical matters is what motivates future co-housers. Often this is with the aim of sustainable living, sharing, and living in relative proximity to each other in everyday life, while still having room for privacy and family life. In other words, seeking a balance between being a family (whether

it is a nuclear family or not) or a single household and being part of a social place is extremely important for current co-housers (paper 2).

Responsibility and good conditions for children

The findings also reveal that families wanted to create good conditions for their children to have a social place, where they could freely run and play with other children in the co-housing (paper 2). Parents had often based these intentions from the memories of their own childhoods. This finding is in accordance with Manzanti (2007:63) who in a qualitative study of a new co-housing found that parents built on lifestyle and experience from their childhood's living places and project intentionality into the future looking for good living conditions for their children and therefore they chose to create and move into a co-housing. These motivations form part of a life-cycle change: When having children a new life starts, which can motivate to change living place and circumstances.

Creating better conditions for children is still an explicit driver for some co-housers (paper 2). This is much alike the motivations of the 1970s co-housing. However, in most of the cases from the study there were no indications of systematic childcare solutions like in the 1970s Sættedammen. Children in all ages is part of the communities and sometimes they help in day-to-day working teams, but it is the parents, who have the full responsibility for the upbringing. In Karise Permatopia, some children were part of a home daycare solution, where parents are employed by the municipality to take nursery care at home of a couple of small children, but this is an arrangement that is common for many Danish municipalities. In addition, for the parents the social life in co-housing is about creating and deepening relationships with other co-housers, which can well include friends and family across generations.

Living across three generations of same family

Living across three generations in a family is another and new way of creating co-housing. Especially small-scale co-housing communities with members from same family across generations have over the last decades formed part of the evolvement of co-housing. The initiative to live with family members across generations is not new and not only something unfolding in Denmark. It is known in many other countries, and formerly, living with the elder generation was in the countryside of Denmark quite normal. However, today this is a conscious choice when creating a co-housing with the purpose of living together with family members. The advantages of this type of arrangement, is that family members can easily help each other and gain from continuous contact between generations. The empirical data from the PhD study showed that it can be done either as a small co-housing with two households, which are sometimes extended with people that are not relatives but friends or otherwise related to the family, or as part of a larger co-housing community on equal terms with all other residents. Some co-housers might have close bonds and relationships to each other from before creating the co-housing, but this is somewhat part of co-housing because it is a bottom-up commons designed from various methods and conditions as self-organisation

of community groups.

Challenges

Like everyone else, co-housers meet different kinds of challenges in life and circumstances related to their dwellings. However, being part of a community helps and keeps co-housers going. An example is as follows ('thick writing'):

A storm broke the top glasses in the brand-new greenhouse. The chickens were taken by the fox. The hard work of maintaining the manor and improving the stony soil for the large kitchen garden did not immediately give the expected results. The darkness of winter and the daily life as families with small kids, commuting for jobs and the routines connected to this, makes the impression of the co-housing group feeling exhausted.

It is January and everyday life hits back. A couple of years has past, since I first met the family, when they were about to move in. There are now three small children in the co-housing and while I interview the group of residents, two children play on the floor. During the interview some of the residents come and go, because they must take care of the children. Again, they have made a delicious lunch with homemade rye bread. This homemade bread is something they always make. I think that it is a sign of surplus of energy. However, lack of time is an issue, we talk about. They want to do so many things, but the group agree that a manor is an 'eternity' project, for example the men had to build a long fence around the kitchen garden to protect the garden from deer animals. It is a long process of establishing, building, and doing things, but it is not always evident that they reach, what they want to do.

"To face this fact, be happy with the place, and the situation of life, is an important step of a personal development", Anne reminds us.

Josephine thinks that becoming a mother for the first time has been a large change in her life.

Another issue in the group interview is the winter darkness. The inhabitants have very different lives and routines, as some of them leave the house, while it is still dark and come home, when it has gone dark again. They do not see so much of each other in during daytime as they originally planned to.

Mette is a bit disappointed that they are not more together, and she longs for the summer nights, where they were sitting outside in the yard and in the garden. Mette, Inge, and Anne long for more sharing and doing things together, for example a trip to the beach together.

"We are isolated out here", Martin states, "therefore it is good to live together".

The four days of common dining arrangement is also working well, which is by all inhabitants perceived as benefitting both to the communality and to the pragmatic side of life. They are busy with jobs and children. To come home to a warm meal together

or to have time to be with the kids are some of the benefits of cooking for each other. Cooking is more inspiring, when doing it occasionally, than doing it on an everyday basis.

“Then you can make more of it”, Jens-Peter states.

It automatically gives a surplus of energy in the daily life, he thinks. He is fan of living together the way they are in the co-housing, in a balanced matter with both privacy and communality, not as a commune. Shared values about how to live, for example making ecological food is what makes it work, Mette thinks:

“We like each other, agree on the things we do, and have mutual respect”.

Arranging working systems is required in co-housing. While Inge takes care of moving the lawn from the garden tractor, the others like to contribute with other tasks, and they are getting more engaged watching Inge taking this big task with the lawn. There is a fine balance of the tasks. Paradoxically, Jens-Peter observed that he has gone less fishing than before yet being closer to nature and fishing opportunities than ever before. But then again, he has become a father, which he feels as a big change in life. He thinks that by time, when the children grow up, things will be a little more settled and they will get more time and resources for developing things with each other as well as to be more in nature.

They all agree that what keep them going is that they are a community.

5.4.4 Challenged by climate change

All four followed co-housing projects in this study were built or retrofitted from sustainable and climate-friendly ideals. The small group from Torup Overdrev was inspired by eco-community Dyssekilde to form a lot-model where each owner could build their own sustainable house, but because the group dissolved, these visions were never tested against reality.

Developing sustainable choices and social living facilities

For the group who retrofitted Nielstrup, ecological living, self-sufficiency, vegetarian food, reuse of the buildings, and use of second-hand materials and clothes formed a natural part of their choices in life. Frikøbing was initiated by a group of friends with the vision of sustainable and social living. After the economic crisis in 2008, they started discussing issues of the consuming and commodifying culture of society. They were thinking about how to reduce the use of energy, CO₂ emissions, and consumption of natural resources by creating a sharing culture through a sustainable community, like co-housing. Because the municipality of Lejre had proclaimed themselves as ‘the ecological municipality’, the group of Frikøbing quite quickly agreed that Lejre was the place for them to settle. The choice was a hilly landscape at the edge of the small town Hvalsø. They bought the land from a farmer who wanted to sell his land for development. The group decided to establish an on-site cleaning facility, where

wastewater is filtered by willow trees and to use renewable energy consumption and sustainable materials for their houses. Their vision was to become free of debt over time. They wanted to create low-economic-effect developments by building low-cost houses. However, at the same time, they wanted low-environmental-effect houses, which can be more expensive due to the choice of experimental materials and components. Because Frikøbing was developed from a lot model, this was solved individually, for example using geothermal energy or heat pumps.

Furthermore, a small lake between the houses functions as a reservoir for rainwater, designed especially for cloudburst and large amounts of immediate rain fall. The community has many small gardens, self-sufficient kitchen gardens, bees, and wild based plants and flowers are grown on the fields. This creates a much more biodiverse culture than before when there was monoculture farming. Although Frikøbing is a mix of different methods of designing individual houses, the co-housing has a comprehensive landscape design and a design manual, which proclaims that the houses should be in natural or soil colours and building materials should be either wood, straw, clay, etc. Furthermore, the local district plan predicts that there should be no high hedges, rather small fences of plants and flowers growing on wires. However, it is not only the environmental sustainability that has the focus in Frikøbing. The social organisation and interactions, which include the resident's resources and choices for living in a more sustainable way and with more communality, enhances the individual to take responsibility being part of the community.

Karise Permatopia: Comprehensive and permaculture designs

Combining all three designing types with three tenure forms, permaculture agriculture, production of vegetables, a forest reserve, a large area with new planted trees, and experimentation with new combinations of sustainable technical energy solutions for the whole community, Karise Permatopia can be recognized as a project which combines architect-designed row houses, a retrofitted farm, a partly self-built barn, and a farming site from a comprehensive design.

The houses are slightly offset row houses built in five different sizes. They are 'breathable' and built of renewable materials to rigorous energy efficiency standards. The heating system uses geothermal energy from a pump powered by a wind turbine and is connected to a tank that stores heat for times when there is no wind. Like in Frikøbing, wastewater is circulated to an on-site cleaning facility, where it is filtered by willow trees. All houses have urine-diverting toilets, which provide sanitation, allowing urine to be stored and used as fertilizer on the farm. An additional system for collection and reuse of rainwater is part of the recirculation design. The farmhouse is, as before mentioned, used for common purposes and the barn is rebuilt using sustainable materials, as a project, where a small group guided by a professional organic contractor and by one of the future residents, who was employed in the project because he had professional and technical building skills, took turns in workgroups rebuilding the barn and converting it into a common house for the whole community. By using circular building

designs, and creating permaculture, self-sufficiency, more biodiversity, earth-care (restoring soil microorganisms), and on-site renewable energy, the co-housing group of Karise Permatopia was very ambitious about sustainability and climate restoration. All aspects of sustainability have been essential, including social and cultural dimensions. Awareness of living in harmony with natural cycles and resources, including human resources, was achieved through a social structure centred on a cohesive community, where everybody is engaged in different working groups. The goal was thus to create renewable energy and resources and to grow a permaculture garden, which the residents cultivate. All residents obliged to undertake work two to three hours per week in the fields or in the community. This is supported by the experimentation with a new decision-making system inspired by sociocratic principles. Sociocratic principles are based on non-hierarchical decision-making within an organisation by groups and sub-groups, who take responsibility of different tasks of the community, for example had some members professional, creative, and communicative skills, which was used for the dissemination of the project. To enhance the proposal or evaluate actions, everyone is heard in a group and, through this process, gives consent to continue. To gain full support for a proposal, the proposal can be changed in a meeting in accordance with the group members (Christian, 2013-14).

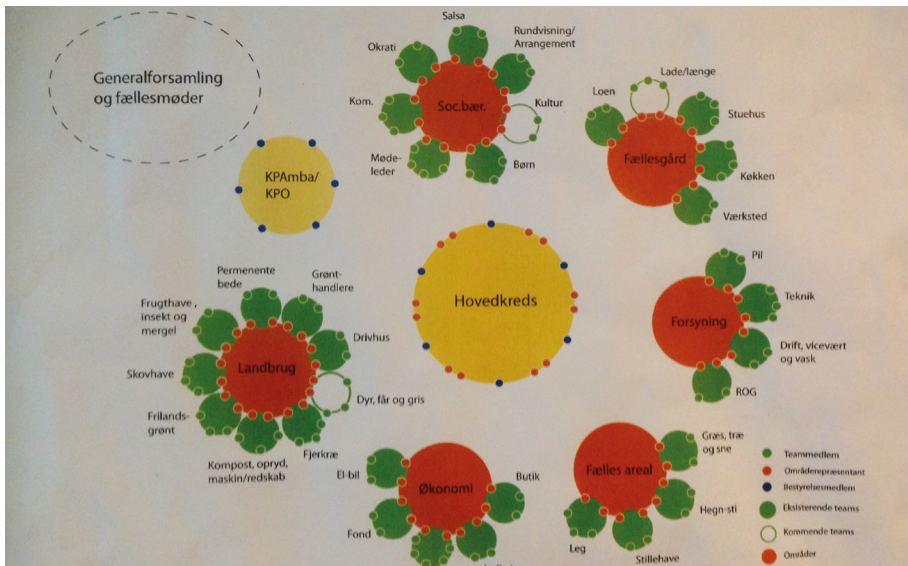


Diagram of how the groups of Karise Permatopia are organised in links, meaning that some co-housers are in connected groups, for example in both the yellow main circle (who have the overview of the large economy) and in one of the orange groups (e.g., the agriculture group), which have green subgroups (e.g., forrest garden group), where there are one or two co-housers in both the orange and green groups. Each group has its own economy, although also connected to the main circle.

5.4.5 ‘Top-up process’

Karise Permatopia is an example of a today’s crossover, or mix of designing types, which is joint through a comprehensive design, and developed from a top-down process together with a structured bottom-up process. In this way the project can be perceived a ‘top-up-process’ as described by architect Bormann Jensen (2020:100) in an essay called ‘Co-creative architecture’. This is about reconfiguring industrialized society from bottom-up architectural processes and creating frameworks for co-creation, inviting users, decision-makers, and experts to participate in the development of projects. The framework must be based on well-defined values, as Bormann Jensen (2020:101) stated:

‘The architects test and qualify the projects in a collective forum but retain ownership of the design’.

Karise Permatopia was initiated from top-down, while the project leader formed a small group of future residents, who engaged in the project from different kinds of expertise. They took contact to an architect, who designed and altered the houses in coordination with the group. It was a comprehensive design, which the architect retained ownership of although the group had significant sustainable impact on the solutions for the houses and the energy of the houses. Concurrently, some features were decided by the future residents. Each household could choose different house sizes and build new walls inside the dwellings, design the kitchen on individual terms, and there was also a possibility for different materials for floors. The project was announced on the project’s homepage, through prospectus, and on social media. Quickly more members joined the process. An association for starting the project, which included quite a long waiting list of members was conducted. The group agreed that they did not want the colour of the houses to be black as the architect had proposed, but because the group could not agree on any other colours, they decided that the architect should decide the colours.

Karise Permatopia built on a complex organisation, due to the different methods of structuring associations in accordance with tenure regulations, mixing designing types, organic farming from permaculture principles, involvement of prospective residents with expertise (both professional and amateur), and with the wish for more efficient horizontal decision-making through Socratic principles.

The project was altered several times throughout the process due to difficulties with getting the project financed. Because the financial sector in general conceives the responsibility of a building group dispersed on many shoulders and due to the experimental character, co-housing developments are often categorized as high-risk building projects. Therefore, the described model of Svalin (Skøidt-Nielsen 2019), where the risk is taken by a contractor, is more manageable for the banks, but collaboration and trust between the contractor and the group and all other stakeholders must be evident to accomplish a co-housing project together. The non-profit umbrella housing organisation, who formed part of Karise Permatopia, took the role as delegated developer of the

whole project. Still, it was very hard to find bridge financing. On top of that, the management of the building project was deficient. Therefore, the project was delayed, and, in the end, it costed more than expected to build, which meant that the co-housers had to pay more for the project. This forced several reviews of the timeframe, which meant that many of the prospective households had to find new provisional accommodation and for some of the families it had to be in the nearby area because their children had already started at the local school or kindergarten. A few also left the group. It follows that the communication between professional stakeholders, the boards of the associations, and future residents was sometimes difficult and information on the project's timeframe was experienced as insufficient by future residents. Moreover, the monthly payment for each household was elevated. Even though the project was run from a top-down approach, there was due to these circumstances still a risk for the future residents.

Bottom-up versus top-down

When co-housing projects are built from top-down approaches with much less involvement of future residents and less active participation throughout the design process, which characterizes co-housing, the concepts of civic engagement and self-organization in co-housing are in danger of fading away and might result in less communality and 'commoning'. The task is then how professional actors meet future residents, supporting them to construct groups, being on par with each other, self-organize, and design their commons and co-living. This challenges the concept of the group's self-organization and bottom-up processes.

For the project of Frikøbing there was a traditional bottom-up process, where some fiery souls constituted the project and led the process of becoming a group. For the group of Nielstrup it was also a bottom-up process based on a family's knowledge of each other and because they had same values about how they should live together, and they could quite easily agree on different matters in an informal way. However, because they extended the community with a household that was not part of the family, they had to be aware of their values and approaches.

In the top-down/or top-up case of Karise Permatopia decisions on the building process, financing, and construction framework was taken foremost from a small top-down group of professional actors and a few representative of future residents, whereas decisions made in smaller practical or communicative working groups with delegated tasks were taken by group members. Updates and proposals for larger changes in the building and construction framework were presented for the whole group on development days. They could then indicate how they thought about this. Furthermore, to get the whole group's feeling about a statement, often statements were endorsed positively with raised hands or disapproved by negatively lowered thumbs.

5.4.6 Approaching know-how and using one's skills

In the process of creating co-housing, it was found in all the followed projects under development, that exchanging experience and knowledge by being part of a group,

carrying out tasks in a subgroup, and doing things individually and together, helped the participants to develop their project and created a feeling of togetherness of being a group. By engaging in activities of the project, where different types of skills were needed and through the approach to life situation thinking about how to live life in another more sustainable and social way, members were enhanced to either use their professional skills or learn new skills. Interactions and experimentations with well-known technologies in new combinations, connected to sustainable knowledge and practice inspired from permaculture courses or member's own skills leaves the impression of a creative mix and bricolage, which is in line with the observations by Laine et al. (2020).

The feeling of creating the project together had an overall positive impact on the members although it could certainly be exhausting discussing things and coming to terms with each other about which direction the project should move in or overcoming unforeseen obstacles. Through creativity and experimenting, co-housers produce know-how of practices in respect to both social and sustainable living.

The choice to create a co-housing project, enhanced the self-engagement and feeling of belonging to a community. This created for many a new approach to life or a shift in lifestyle, which made a base for collective social and sustainable everyday practice, when moving in. Because group members had a common goal for the project, which they were going to live in individually and together, they committed to take responsibility for different tasks. Through an everyday embedded sustainable practice as a micro-activist engagement of changing lifestyle, the use of natural resources and greenhouse gas emissions are kept down in eco-communities (Høite Hansen, 2019). This has recently received more awareness in academic disciplines (Hoff et al. 2020; Høite Hansen; 2020; Gausset, 2020 b). In an issue of the magazine *Økosamfund i Danmark*, an article about the research project COMPASS informed that the preliminary results of a CO₂ emissions analysis of two co-housing communities (AiH and Svalin) indicated CO₂ emissions 30-40 % under the average of general Danish housing (Aagaard, 2019:26). This was followed up with more details and a comparison between the Danish average and different eco-communities through academic presentations at the early meeting at LØS in 2020. The results confirm these indications and underscore that being part of a community enhances reducing CO₂ emissions (Møller-Christensen, 2020; Gausset, 2020 b).

Through identifying with sustainable community building, the feeling of communality activates sustainable behaviours of living and of being stronger together (Gausset, 2020a). Høite Hansen (2020) found that each dweller, when living in eco-communities, contribute in each their pragmatic way to the goal of sustainability (in all its aspects) by engaging in their community through useful doings, both individually and together. Eco-community dwellers consciously think about and act on their individually everyday practice and often they think that they could do more to live more sustainable (Høite Hansen, 2019). On top of that, a conscious ideological approach with the aim

of affecting macro-scale environmentalism on a societal and political level comes through organisations of eco-communities like LØS and GEN and through eco-community fiery souls involving in local society and – policy (Gausset, 2020a; Høite Hansen, 2019). On the one hand this is a practice conducted in everyday life as pragmatic sustainable solutions of what is possible and on the other hand it is an ideological change of perceiving humans as part of nature aiming at reducing the use of natural resources and concurrently having attention on human resources, which then influence back on political ecology and inspire to a cultural transition (Henfrey & Ford, 2018).

5.4.7 Culture/nature divide: It is in our minds that we must start

The development of permaculture community settlements is by Henfrey and Ford (2018) perceived as sites of cultural innovation. The lifestyle changes in permaculture communities and other forms of sustainable commons are directly coupled with treating resources of the earth with more respect and care (Henfrey & Ford, 2018:107-108). How interactions between humans, society, and nature are perceived and take place is on the agenda as an embedded culture of today's environmental co-housing commons and eco-communities. The challenge of climate changes and thus the need for more environmental action is conceived in relation to creating a cultural mindset of transformation, including the creation of networks between eco-communities and the wider society (Dawson, 2010 and 2013; Henfrey & Ford, 2018:113-115). This observation can well be applied to a new way of thinking and living, like in co-housing communities as Karise Permatopia and the other followed projects of this study, which serves as examples of different methods of transition to live sustainable and in better balance with nature.

Humans are part of nature

The traditional divide between nature and culture came through because we as humans were seeking shelter, comfort, and roof over our heads as protection against nature. This was elaborated when we started perceiving nature as cultural landscapes, which was followed up by the separation of natural science and social science/humanities (Ritter, 1963; Latour, 2018). With our current lifestyle focus on individuality, consumption, and commodification, which contributes to more exploitation and trashing of nature, and heavy greenhouse gas emissions, this divide has grown even wider. When that is coupled to the number of natural resources used for living in our cultures, for example over-use of oil, shale gas, coal, non-recyclable building materials, raw materials for electronic, and groundwater used for much more than drinking, we do not respect planetary boundaries. We create so much turmoil that the eco-system of planet Earth feed-back on us with enormous damages (Latour, 2018).

Bruno Latour has pointed out, that nature is in our own interest because nature is the bedrock of our existence and our very basis: We are ourselves part of nature (Latour 2018:123). How we perceive nature and ourselves as humans is thus crucial for our perception of the world and how we can act in this world. We can keep to the idea that we as humans are divided from nature and think that we have power and control

over nature because we succeed in taming wild nature through the creation of culture landscapes, modern mega-cities, and a countryside with huge farming sites (Adorno, 1972). This include large scale animal food production factories, and lesser and lesser biodiversity, while our perception of nature is still a beautiful landscape like a 18th century painting (Adorno, 1970:54; Latour, 2018:71 and 121). However, when in our minds we keep framing nature as cultural landscapes, we step further away from looking at how we are involved with and form part of nature. This is a dividing culture/nature conception, which comes from a cultural and spiritual perception that is rooted in traditional aesthetic theory (Ritter, 1963:26; Latour, 2018:123). We do not see what is going on, but as Latour reminds us, we can change our minds to perceive ourselves as part of planet Earth, which we are influenced by, gain from, and which powers we must start cooperating with instead of trying to tame nature and over-exploit natural resources. Rather, it is more likely that the ecosystem of Earth, who as feed-back actor, and thus as well a political actor, will be taming us and get us to act with more care (Latour, 2018:63-67).

Latour suggested that instead of the traditional conception of local versus global (or traditional versus modern) as two oppositional poles and political viewpoints, we can start choosing a third way by perceiving the concept of Earth as a terrestrial third pole. This terrestrial third pole is a more balanced way of living on Earth, where we as humans start respecting nature forces and act responsible towards nature. Starting to think and live in this way is in direct contrast to people who deny climate change and therefore believe in an extraterrestrial plane (Latour, 2018:63). The terrain of life has both a local and a global side but according to Latour, our focus should be on this third terrestrial pole, which is also a highly political issue, because it is often though the political that we think and act. It can also be achieved by starting to describe our reality or the reality of existence and by finding a place to land on Earth in a new humbler manner (2018:131-143). Living in present-day sustainable co-housing and eco-communities is such a social place to land and as such a path to a holistic perception that include nature and culture as being incorporated and connected to each other in a life terrain, and which lead to practices of sharing, earth-care, sustainable know-how, and collective participatory learnings. From this method of living, co-housing and eco-communities show us a more climate-friendly way, which the whole of society can learn from.

6. CONCLUSION AND PERSPECTIVES

6.1. THE CO-HOUSING CONCEPT AS A KIND OF 'VILLAGE'

Because co-housing projects can be developed in so many creative combinations and unique ways, the co-housing concept is somehow flexible. Through a multi-dimensional spatial framework, it was found in paper 1, that the co-housing concept build on common denominators (dimension of visions and values, organisational dimension, relational dimension, and physical dimension) and different designing types (architect-designed, re-built or retrofit, self-built), which in some communities are mixed and used through a comprehensive design principle, and as the concept is still rather flexible, it includes a potentially transformative aspect (paper 1). However, the first conceptual idea of the 1960s by Gudmand-Høyer has survived. Gudmand-Høyer called for linking private dwelling units to common spaces by creating an architectural design, which bridged private and shared spaces through outdoor or indoor semi-private transition zones, and which could support co-housing as a social living place. By building a community from a bottom-up process as a self-organised commons (paper 3), the co-housing groups had influence on both the physical design and the social community organisation. This was in the 1960s contemporary society difficult due to the utopian conditions of these ideas, but through creating a balanced design for both individuality and community, the first two architect-designed co-housing projects were created. This was achieved through the creation of groups of passionate souls. The discussions and ideas developed in the fraction from Thy-lejren, A-70, had like these groups focus on collective self-organisation, too, but they developed their community as a commune village with shared economy and self-building work gangs.

The idea from these first co-housing projects of linking individual dwelling units to common spaces as a community is still an essential point of departure in the concept of co-housing (paper 1). In this way, the overarching concept of co-housing connect the individual to becoming part of a community. This is a much more social situation than what is normally possible in mainstream housing, which is so thoroughly oriented towards the individual and single-family life (paper 2). Co-housing is thus a balance and an interplay between individuality and communality (Lietaert, 2010; Illeris et al., 1997). Moreover, co-housing is an experimental home making, which extends over the threshold of the private dwelling, as well as a sustainable and social choice. Being part of a co-housing community, is another way of living, which is perceived as an alternative to other housing options (chapter 4, paper 2).

6.1.1 Link between individuality and social community: Like a village

Behind the driving force for seeking co-housing is a desire for a closer link between individuality and a social community, for being part of, and taking part in a community just outside the doorstep of one's house (chapter 4, paper 2). In this sense co-housing and eco-communities mime a traditional Danish village. Both co-housing and traditional villages are built and organised as commons although the scale of co-housing and



Græsmarken from 2007 was in the beginning called Kyoto, because the co-housers wanted a high degree of sustainability for the community. The group chose to build the houses designed as Swedish standard houses with solar panels and organised from a self-builder method.

eco-communities are usually a bit smaller than traditional villages (paper 3). However, the essential difference between traditional villages and co-housing commons is that the individual in a traditional village was normally born in the village and therefore related to the place and its materiality through family, work, duties, routines, and social control. Village inhabitants were historically rooted with the people, the place, and the evolution of the village, whereas in co-housing it is an active choice to take part in a specific community based on a conscious approach to lifestyle and choices in relation to the situation of the individual's life or life as a family (chapter 4, paper 2). The individual household chose to be a member of a co-housing, and this includes a move from where they stayed before, which in many cases would be a city (at least this was the case for most of the interviewees in this study, paper 2, chapter 4). Many were urbanities and had a city identity when moving to a countryside co-housing. When this said, there are today many new co-housing developments in Danish larger cities, making it possible to live in urban co-housing, too.

Co-housing members, consciously create and build a commons together with others like-minded people (paper 2 and 3). In this sense co-housing is a social construct organised as a horizontal infrastructure from shared visions and core values of a group. It is a type of commons that is organised and maintained by the co-housing members themselves (paper 3). The sociality is combined with the materiality of developing physical building structures. The link between individuality and social community is reflected in the combination of private dwellings and common spaces, which are connected by transition zones of semi-private areas. Semi-private, common, and public zones form part of co-housing, like in a village, where community and spaces support social life. Co-housing is thus a social construct created for people choosing to move and, in this sense, not like a traditional village, but rather like a new kind of village.

6.1.2 Attracting co-housing groups to rural and semi-rural villages?

Many small Danish rural and semi-rural villages have long suffered from shrinkage and population decline. Until the 1960s there were several community functions, meeting places, and services in each local town or village. Small towns and villages were functioning as small societies with facilities such as school, kindergarten, church, community centre, post office, bank, library, grocery, dairy, petrol station, and other shops, and sometimes also a railway station. Most of these functions have since then been closed. Schools and other public services have often been, or are in danger of being, merged or centralized. In many smaller communities, the only service left can for example be the church, or the grocery, or a petrol station, and due to that taxpayers have also left, there is economically decline (Svendsen, 2008:11-15; Svendsen, 2013; Svendsen & Sørensen, 2018). As shown in this PhD, co-housing communities are in many cases parts of villages or small towns, where they connect with and retain infrastructures such as schools, kindergartens, grocery stores, marketplaces, small shops and business, community centres, and other vital institutions. To revitalise depopulated semi-rural and rural districts and villages, municipalities, local communities, and private developers have become aware of the potential strategy of attracting people living

in urban environments and elsewhere, by initiating co-housing groups to specific plots (e.g., Municipality of Halsnæs and Torup Ting in relation to Torup Overdrev, Faxø Municipality in relation to Karise Permatopia). However, creating co-housing is a long process of gathering a group, discussing visions and values on how to build the community, financing and organising the project, conducting a local district plan, getting more people involved in the project, selling future dwellings, and finally getting the project built, rebuilt, or retrofitted through adaptive reuse of existing buildings (paper 1 and 2). During this process there might well be people leaving the group and then the group must find new people (chapter 4, paper 2). Fiery souls, who can keep going on are needed in these processes. For municipalities and private developers initiating and attracting groups of people in terms of matching what people in the groups essentially needs and wants might even be a longer process, and the projects can be in danger of collapsing because there might not be fiery souls, who will keep on going when something is difficult in the project. For example, this was the case of Torup Overdrev. From this perspective, the challenge is to get a group gathered who can take over the process of initiating the co-housing project. It takes time and energy to create a group of people who will create a co-housing project together. Initiating co-housing groups from this method is like a bottom-up process, but for developers and municipalities it is hard to gather people from such methods.

Moreover, for many projects, one of the most challenging factors is getting the project financed, because co-housing is perceived as high-risk investments, especially this is true for co-housing projects in the countryside, because financial institutes in general are reluctant to give loans to building projects in semi-rural and rural areas (chapter 4, paper 2). Therefore, for large projects to find bridge financing can be extremely difficult, which was also the case for Karise Permatopia. However, they successfully came through and got Karise Permatopia built, and they attracted people to move to Karise. This was also the case of Frikøbing in the small semi-rural town of Hvalsø, but due to the selling of lots and because the co-housers themselves stood for the building of each their house, they did not as a group have to find bridge financing for building, except for the site development and the common house. Against this, the co-housers at Nielstrup were renters and by retrofitting a manor, they did not have this sort of problems, but they moved to a rural district with no village in connection with the manor and they had a long commuting time for the city of Copenhagen, whereas the co-housers of Frikøbing had a shorter commuting time because there is a train for Copenhagen and other cities, which stops in Hvalsø.

It was also found, that the co-houser's urban identities, including the fact that some kept their jobs in the city and therefore the infrastructures to and from the city influenced the choice of where to settle (paper 2, evt thick writing of Dysseskilde). These findings match with the broader counter-urbanization picture of Halfacree (2012) and De Neergaard (2014) where urban and rural space is connected by mobility and identity (paper 2). These factors must therefore be considered, when municipalities and other actors want to attract people to create co-housing and move to a semi-rural or

rural village.

6.2 CONCLUSION FROM THE HISTORICAL REVIEW

Through a historical review of five decades Danish co-housing, which included historical – and research texts that was combined with empirical findings from the four followed current co-housing projects and the study of 18 existing communities, three different ideological co-housing rationales were found. They were rooted in both ideological and pragmatic responses to societal contexts and challenges.

6.2.1 Ideological frontrunners and pragmatics

The co-housing movement had from the very beginning both an utopian ideological side and a pragmatic side. These two sides were combined when creating co-housing projects: Fiery souls in the co-housing movement created visions of a new way of living responding to societal contexts and challenges of their time and formed together with group members, ideological rationales of co-housing groups. Through the historical review, it became evident that the ideological and pragmatic sides throughout the co-housing movement have been cohesive. Together, future co-housers were ready to take risks and together they created and built co-housing projects from what was pragmatically possible at the time. In reaction to social and environmental challenges, they arranged on small scale practical levels new living and housing forms by collectively self-organising their housing situation. This was not an easy task, and it could take many years to develop co-housing and eco-communities from the visions these groups had. Moreover, as also seen in the fieldwork of this study, it was typically the frontrunners with a vision of another way of housing who were the leading proponents and initiators of co-housing projects, whereas the more pragmatics had practical reasons and day-to-day life circumstances for choosing to be part of creating, building, and moving to co-housing (paper 2; chapter 4; Hansen, 1991:10; Nygaard, 1984:253). This indicates that for a co-housing to be created and get running both the frontrunner and the pragmatic attitude must be present (fig. 5).

In the beginning of the 1970s, many compromises had to be made, and it was primarily possible for people with two incomes and through private ownership to be part of a co-housing project and by hard work get through with financing and organising the communities (Nielsen & Skifter Andersen, 1981). Another method was by own hard work rebuilding, for example old factory structures, which could take many years (Jensen, 1985). However, through the cooperative subsidized tenure form it became possible to build more affordable co-housing from 1981 (Vedel-Petersen et al., 1988). This meant a row of new cooperative co-housing developments throughout the 1980s and 1990s (Jakobsen and Larsen, 2019). In the 1990s, several eco-communities were created through self-building. A transition to more sustainable living forms was essential for the eco-community movement, where learning by doing as a practical activism, which was notified by Hoff et al. (2020) as ‘practivism’, was a driving force. This was done through sharing and reducing resources used for living in everyday life.

By engaging in such practical everyday activism instead of political activism or lobbying, the eco-community movement experimented with what was possible and tried in this way things out, as a form of ‘laboratories’ for living. This approach constitutes both an ideological-ecological vision and a pragmatic approach as two sides of the same coin. From an ideological point of view, it can always be possible to do more in terms of improving one’s life regarding sustainable imprints, mitigating greenhouse gas emissions, and so on. However, when dealing with the materiality of life there are compromises, economy, and negotiations with the co-houser him- or herself and within the community. Here, a pragmatic approach doing what was possible at the time was appropriate (Høite Hansen, 2020). From the studies of following four future co-housing groups, it was evident that some of the members were fiery souls deeply involved in initiating and creating the projects, whereas others supported the process by engaging in small subgroups, who undertook delegated tasks. Others again, joined later in the process and got involved from a stage where the project had already been created. The impact of experiments by co-housing and eco-community groups, sustainable self-building, and self-managing in co-housing has been quite high in Denmark (Jensen et al, 2022a; Jensen et al, 2022b). Experimentation and ideological visions about changing lifestyles, for example becoming part of a social community or together reducing the environmental footprint, is today forming the co-housing movement as frontrunners (or ‘front-creators’) and concurrently it built on pragmatic solutions to the life situation of each household. Co-housing and eco-communities have thus in many respects been at the forefront of the development in Danish society.

6.2.2 Societal learnings from the co-housing history

In the 1970s the creation of co-housing was about building small scale and local communities for young families with the ideals of direct democracy. They created a social horizontal circuit with more equality between children and parents and between genders as self-organised communities. Today, the situation is different. This study showed that today, co-housing communities are still created as different types and styles of designs and like commons with horizontal decision-making, but the methods of creating new co-housing were through combining these different types from comprehensive principles, with a mix of designing types and tenures, or through using the lot-model or by retrofitting. An emerging new way of designing co-housing is the from the developer-led method, which is typically from a classical top-down or from a ‘top-up’ approach (paper 1, chapter 5). Concurrently, there are still groups creating co-housing from bottom-up.

Moreover, a new orientation came through with the focus on ecology and sustainability. By the end of 1980s and in the 1990s it was sustainability in all its aspects that was the driving force for the creation of eco-communities. This has had an impact on the further evolution of the co-housing movement as for example the new projects of this PhD study. The aim has changed to more climate-friendly living or through other ways of living together, for example as small intergenerational co-housing with family members across-three-generations or larger intergenerational co-housing comprising

a diversity of households with members in all ages. Co-housing has in this way become more intergenerational. The choice to live in co-housing included in three of the followed projects living across generations of the same family. Some families across-three-generations became members of a larger co-housing group or created their own community (paper 2). Living across-three-generations of same family is new in co-housing (paper 1). Furthermore, the digital is used as a component in creating these new projects, which means that a new digital layer forms part of co-housing, like almost everything else in Danish society has a digital layer.

Continuously, new co-housing communities have been built and green and sustainable transition to new building methods has in general been ongoing for the last decades. Jensen et al. (2012:99) summarized the development of sustainable building transition which started in the co-housing and eco-community movement and turned into the market of individual family housing, asking the question what happened to the social sustainability and holistic environmental approach of the eco-community grassroots, when 'the new wave of sustainable buildings' was put on market conditions, which mainly addressed energy performance in individual family housing. Their point was that establishments of common arrangements for supportive and sustainable infrastructures, common meeting places, social mix (combining different tenures, and ages across generations), collective self-management of facilities, involving users in participatory design and decision making, and users learning operational processes was overlooked in new mainstreamed more individual-based sustainable building schemes (Jensen et al, 2012:99-103). Thus, the social organisation and social space was forgotten, which is so important in co-housing and eco-communities.

This social factor of co-housing communities, society can still learn from. It can enable us to rethink the general dwelling situation of society not just as private homes alongside each other, but as private homes extended with a social space organised as shared spaces, where residents can help each other and do things together. Meeting places and the adaptive reuse of centrally located buildings could be used for sharing purposes. The models of co-housing can thus inspire how to organise and do self-managed collaboration as a new method of engaging people in the housing sector, which developers can also learn from when creating co-housing projects. For example, the non-profit housing sector, which is open for everybody in need of housing in Denmark, has recently become more open towards creating intergenerational co-housing, including involvement of future inhabitants in the process of creating and living in new co-housing.

6.2.3 Co-housing has become popular

Today, the co-housing concept has received positive attention because more people have become interested in this living form. A need for new types of collaborative housing, with focus on participatory, shared, and self-organised methods has emerged. As indicated above, how Danish co-housing projects are initiated vary significantly. New co-housing developer companies and architects designing co-housing have emerged, and architect students learn about how to design co-housing as part of their education.

The non-profit housing sector use the co-housing model to develop new projects, for example in the concept of ‘Venligbolig Plus’, which integrates young refugees and Danish students through a ‘magic mix’ (fifty –fifty mix of Danes and refugees) in a housing project with shared apartments. Living across generations in the so called ‘Generationernes byhus’ is another example of co-housing in the non-profit sector, which is a concept where high rise buildings are built in the cities making room for communality and people of all age groups. Concurrently, groups of young people, families, and seniors are getting involved in self-organised groups building up shared living spaces, re-locating into existing stock, choosing generational living, building, and designing co-housing projects from bottom-up. All in all, this is evidence of a renewed need for jointly related dwellings, which both form part of a community and have at the same time private space. One of the reasons for the growing interest in co-housing reflects a longing for communality, that at the time is in balance with the possibility for privacy.

This new focus on co-housing has been matched with more public and media attention to co-housing through the development of digital sites such as Bofællesskab.dk and several social media pages. Because the subject of co-housing has in general been well-covered in media, it has become easier to spread knowledge of existing as well as new co-housing projects. Co-housing has entranced into the housing market and has over the last years been introduced to Danish mainstream societal culture as a new possibility among other housing options. According to the results of a survey based on 5135 responses, conducted in 2017 by Exometric, about 8 % of the Danish population would certainly like to live with more communality in a co-housing like arrangement sharing a common house and doing things together in everyday life such as attending common dining some days in the week and about 42 % would be interested in this living form of having more communality in relation to their housing situation (Beck, 2019). This interest was followed up when a co-housing working committee was set by the ministry of housing and internal affairs, with the aim to find out more about the challenges and obstacles of creating affordable co-housing projects in the non-profit housing sector and as self-organised building groups. Due to a social, sustainable, and sharing co-housing culture through over fifty years of history the notion of co-housing has evolved into a trendy, popular, and conscious living form, which public authorities are now aware of and want to help (maybe be changes of regulations..?).

It was quite clear from the beginning of the study that co-housing is created and organised as an alternative to other housing options. This can, however, be done in many ways ranging from the traditional grassroots or bottom-up co-housing group processes to the more recent marketization and professionalized top-down approaches, but of course it can and is often done through hybrid forms of collaborations between future resident groups and different professional housing actors. Another option is to buy or rent a unit in an investor’s co-housing development, which is a new form, created from a top-down method that has recently generated in Denmark. Over the last few years, professional housing actors such as developers, building companies, financial actors,

pension funds, philanthropic business, and non-profit housing associations have initiated co-housing projects. This has happened parallel with the fact that co-housing has arrived in the mainstream consciousness of the Danish population as another possible way of living. New co-housing schemes are built all over the country and top-down approaches, which can be in collaboration with or without future residents, have recently become more distinct (Jensen et al., 2022b).

However, when professionals develop co-housing, it does not necessarily mean that it will become a co-housing community. The interest in this collective living form has gained a new focus, meaning that some co-housing projects have recently been delivered on a turnkey basis. Future residents are not necessarily involved before moving in, nor do the initiators want to live in the project or be part of the co-housing group. When co-housing projects are built from top-down approaches it often implies less involvement of future residents and less or nonactive participation throughout the design process, but what characterizes co-housing is civic engagement and self-organization throughout the design and creating processes (McCamant & Durrett, 2011:26). Facilitation of a group process might not even be apparent: Then inhabitants do not know each other and are left building community by themselves, after they have moved in. This is the logic of a traditional housing market, where professional housing actors, developers, and contractors build and sell or rent out dwellings. They sell the idea of a living community, but dwellers have no or little influence on the creation or the organisation. Some of these co-housing projects are serviced, somehow alike the early kollektivhuse (Jensen et al., 2022b). In this sense, co-housing has been mainstreamed and is focused more on the individual perspective of achieving good living conditions, which include the wish for being part of a community, rather than a critique of the family ideal as it was in the 1970s or through self-governed struggle and risk conducting social organisational experiments or building and living in another more sustainable way. Other projects have, even if they are initiated as top-down, an elaborative participatory process of prospective residents, who have a strong influence on the design or are involved in the creation and organisation of the community (e.g., Karise Permatopia).

Marketization and institutionalization, means that Danish developers, pension funds, and non-profit housing organisations come to act as ‘the co-housing initiator group’ or ‘founders’ (which previously had been bottom-up), building the projects and coordinating a group of interested people. However, collaboration between members of a co-housing group is different from collaboration with professional actors. The concept of the group’s self-organization and bottom-up processes as co-actors is thus challenged, when the approach is top-down. From the perspectives of these challenges, for both the professional sector and prospective co-housing residents, it is important to learn how co-housing groups collaborate, engage in self-organization, and create co-housing to better co-create and facilitate this process (Andersen & Lyhne, 2022). The challenge here is to produce a horizontal social circuit (paper 3).

6.3 COMMONS AND THE EMPOWERMENT OF SELF-ORGANISATION

Creating and constructing co-housing projects have traditionally been conducted through self-organised groups who match visions, share core values, find financing, and organising and building methods for the projects, in many cases with help from pro-fessional housing actors (paper 1 and 2, Vedel-Petersen et al., 1988). In several cases, future residents have relevant competences, which the group can draw on, too (paper 2, Laine et al., 2018; McCamant and Durrett, 2011). Co-housing is thus created through a collective praxis, where a core group of future residents are typically involved from the very beginning (paper 2). This means that co-housing is a certain way of designing and constructing new houses, where groups of future residents are often also the de-velopers. They create the co-housing with the aim of living in a community together. Because co-housing constitutes as a group of households, who forms a community, participatory engagement in the group is vital for creating and living in co-housing projects: It empowers the individual, who wants another way of housing.

The study of the four followed projects revealed that initiating and constructing these projects involved active participation of future residents, who became groups long before moving in. For bottom-up groups financing the project, organising, agreeing with each other and the local authorities, interacting with developers or non-profit housing organisations, consultants, and architects, or building own houses take time and resources. Besides making a set of values, planning and decision-making, the group goes through a process of socialising, getting to know each other long before relo-cating together. In Frikøbing and Nielstrup, it was friends and families, who as a group took the first steps in the process of finding a location for the project, whereas in Karise Permatopia, it was the project leader with a vision of a co-housing project combined with permaculture design principles, who gathered more people who wanted to be part of forming the project. Here the site was the underlying basis and starting point of the project, like it was in the case of Torup Overdrev. In both bottom-up and ‘top-up’ initi-ated projects of this study, professional housing actors and group members collaborated to create and get the co-housing built. Internally group members collaborated through organising how to structure the community as builders/owners/renters of the project and by taking decisions together in smaller groups with different delegated tasks.

An important component in co-housing projects is the social construct of the group and thus participatory involvement which run throughout both the process of creating and living in co-housing, where residents establish organisational systems, rules, and customs for governing their housing commons and housing acquisition. Pooled resources, formation of groups, and the making of systems for collective housework and common dining is part of co-housing. Horizontal collaboration between community members create autonomy to the commons circuit. When living in co-housing, the group creates systems, self-organises, and self-manages their everyday praxis. Transparency was important in the decision processes. Common meetings and decisions are normally organised so that every member of the community either has been part of designing collective systems, decided on, or has possibilities to act on to change

decisions about how to do things together. Building social relations on reciprocal housework using different types of common dining systems revealed that co-housing is a reproduction commoning system, where labour conducted together, meetings – and dining practices, parties, and other common activities are shared, self-regulated, and unwaged. Co-housing is in this way arranged as an alternative to other housing options, supporting a social reproduction of communality, which contrasts with market profit and its accumulation that ultimately imply the exploitation of labour governed through hierarchical order (paper 3, De Angelis, 2017; Skifter Andersen 1985).

In response to the passive consumerist model and the ever-increasing accumulation capitalism produces, De Angelis (2017) proposed larger networks of common systems with active citizenship to overcome the crises, including climate change that capitalism has left us. This was proposed through a reproduction of our communities through commons movements to transform our societies into post-capitalistic systems to live more sustainably together (De Angelis 2017:385). The way co-housing is organised as a commons and as a commoning practice can have a potentially inspiring impact on a new way of living and on society as a whole. Co-housing commons can together with other commons and organisations be part of such transformations (Skifter Andersen, 1985). The relation between capital and commons as co-dependent and as environments for each other is constituted by politics and housing laws, regulated by the state (De Angelis, 2017:339). Collaboration and networking between co-housing actors, housing providers, and the capacity of politicians to regulate, has the potential for a social movement of sustainable commons, in line with the thoughts of De Angelis (2017:385).

6.3.1 New social and sustainable life terrain

In paper 1, I mentioned that co-housers and co-housing groups learn from each other by stating:

‘Co-housing groups consider experience from existing co-housing. Therefore, learning from older communities to new communities is usual’ (Beck 2020).

Such learning can come from digital inspiration or physical visits or through the co-housing and eco-community movement (Bofællesskab.dk, LØS). Co-housing today build thus on former decades and is oriented towards social and sustainable developments. Sustainability in all its aspects, sharing things, circular economy, and conscious use of resources are attached to many of these new co-housing concepts and trends. The projects in this study are examples of a transformation rooted in ecology, permaculture, earth care, and collective ideological power of everyday sustainability. From the empirical research of this study, the reasons for choosing to create, move to, and live in co-housing were about the need for another approach to life situation, which typically also meant changing or continuing a lifestyle to a more social and sustainable attitude with the aim of creating a better balance between nature and humans (chapter 4). How we conceive our culture and live in

connection to nature and biodiversity has a direct impact on the way we are thinking, perceiving, acting, and using resources. When we start understanding that our lives are part of nature and that the old divide of nature and culture is a constructed divide, we might be able to change our mindset and act on the environmental situation of the state of our globe. When it comes to the feed-back mechanisms of nature we are as humans not any longer in control. We are the small ones. As Latour stated: 'We belong to Earth and Earth belongs to nobody' (2018:131).

Co-housing and eco-communities are a social and sustainable way of living with a do-it-yourself culture and a commoning practice, where the members' own human resources are considered. They are pioneers reducing the ecological imprint and form, according to Gausset, an example of a transition to sustainable living, incorporated into an everyday practice as 'a silent green revolution' (2020a; 2020b). Moreover, Høite Hansen (2019) pointed at a significant recent change of the relationship between eco-communities and mainstream society. Inspired by the eco-community movement, mainstream Danish society has developed new models of sustainable building methods, energy-savings, waste sorting, and ecological farming.

In this sense societal environmental sustainability has recently grown even faster than eco-communities (2019:102). For example, has the conference and website 'Building Green' reached out to the whole building industry who has reacted overwhelmingly positive. Still on the societal level, the question about transition from such low-impact environmental ecological niches to mainstream society and how to reduce global warming remains a challenge (Hoff et al, 2020:11; Jensen et al., 2014:98). Furthermore, social sustainability has not yet had the same impact on the building industry as environmental sustainability has recently had (Jensen et al., 2012). Eco-communities' dwellers think that their way of living together having a collective social mindset has another impact on them, which is not yet part of mainstream society (Høite Hansen, 2019:102) and in general, Denmark has one of the highest environmental footprints on earth (Gausset, 2020a:52). The co-housing movement has been in the forefront, while the mainstream building sector follow in their direction to deal with climate change and social challenges. However, still society, including the building industry, has a lot to catch upon in relation to environmentally living regarding the planetarian boundaries (Latour, 2018).

6.3.2 Co-housing as 'a social place to land'

In accordance with the life situation of each household, including lifestyles, it was found that future residents had different reasons and life situations for becoming part of a co-housing project in the countryside. Some were fiery soul initiators or frontrunners of creating the projects with an experimenting life approach. Others were involved in the projects as they had a continuousness of same life approach as before, however, often adding something, for example wanting a more social life. A third group were involved in the project because they had a life situation with a new approach due to pivotal changes in life (chapter 4). Taking the choice of living in countryside co-housing was perceived as another way of living, opposing to more traditional residential

areas with houses surrounded by high hedges and fences and with no common visions or denominators of living. Thereby not said that residents in countryside co-housing should be perceived as marginalised: they have jobs as before, form part of society, and often they get involved with their new local community after they have settled in the co-housing (paper 2; Busck & Jepsen, 2018).

It was also found that the group process of creating co-housing and moving out the city, had an essential impact on each individual household for taking the choice to move. Because the future inhabitants had many of the same core values and lifestyles, several of the future co-housers living in the city stated that they only dared to move out of the city to a more rural location, because they could be sure that they shared some of the same values and could therefore create relations to the other co-housers. The group process of building a community was an important motivation for creating and moving to co-housing. Future residents got to know each other long before relocating. Drivers for creating intergenerational co-housing today are thus to live socially and sustainably together across generations. Child-friendly environments and a habitus grounded in the experiences of the parent's own childhoods formed part of the motivation for choosing co-housing in the countryside, too (paper 2). The location of the co-housing in a green or rural landscape and at the same time in a reachable distance to the city had also importance. By moving out the city and sharing land in a co-housing, new possibilities came through, for example creating a kitchen garden, a common house for dining together, a playground, sharing things, or other collective activities.

When living in the co-housing, it was found that co-housers developed their relations as neighbours over many years and therefore had close relationships. By sharing in communal spaces and doing activities together, such as dining with other residents some days in the week or carrying out tasks in small groups, the daily life of a household is extended in co-housing becoming a community where co-housers built organizational entities and sharing cultures (chapter 4). Co-housing is thus a 'commoning' practice and a social living with social processes of sharing, togetherness, communality, and horizontal decision-making, or in short: it is 'a social place to land' and together with other co-housers it thus becomes possible to take everyday environmentally action (Latour, 2018).

6.2.5 Sustainability must include affordability and reduction of the use of resources

Research by Jensen et al. (2022a) and Jakobsen & Larsen's (2019) indicated that intergenerational co-housing inhabitants are educationally over the average of the Danish population, and over the average in job situation as well. Furthermore, there is high social capital in eco-communities (Marckmann, 2009) and in co-housing (Ruiu, 2016). From a qualitative approach this PhD study can verify these findings. However, it was also found that the co-housers profiles are a mix of different professions and that artists, performers, musicians, technicians, nurses, social workers, nursery teachers, and caretakers formed part of the non-profit division of the mixed co-housing project and

the private rentals in the retrofit project. Affordability and equal access to co-housing has still to be questioned in relation to private ownership co-housing. It is therefore still necessary to work for more affordability, accessibility, and social inclusion in intergenerational co-housing. Affordable intergenerational co-housing for example as housing cooperatives, or as self-organised communities like building groups as 'Baugruppen', and non-profit divisions should thus be given more attention.

This might of course be easy to say and difficult to perform: It needs political will to change housing regulations, and for example, again subsidise housing cooperatives. It also takes courage from the financial institutes, and an understanding of the co-housing concept for the building sector to develop more affordable intergenerational co-housing. We see a notable difference between non-profit senior co-housing (62 %) and intergenerational co-housing (20 %) in terms of how many inhabitants in co-housing, who live in non-profit co-housing (Jensen et al., 2022 a). If the seniors can manage creating co-housing together with non-profit housing organizations, it should also be possible for intergenerational co-housing to collaborate more with the non-profit sector. Adaptive reuse and retrofitting existing buildings should also be considered for co-housing projects, as a more climate friendly, environmentally, and economically solution (De Jorge-Huertas, 2018; Sangunetti 2012). From this method, affordability could be achieved, like in the case of Nielstrup.

6.2.6 Co-housing as inspiration for society

Intergenerational co-housing has been created in reaction to Danish societal contexts and problems, but they are not necessarily solutions to structural societal problems on the large scale. Rather they are small-scale commons as social circuits of horizontal commoning practices and living experiments, created in the midst of tenure forms and institutional regulations, and can as such inspire to other housing forms than mainstream housing. Single co-housing projects are created as collective housing solutions and designed as self-organised housing and systems of shared resources. They are social, sustainable alternative constructions and value projects and in this way, they inspire as 'frontrunners' but housing policy and market is per definition slow and conservative.

The solutions to large-scale structural challenges of society (e.g., demographic change, climate-, housing-, and economic crisis) must be structural solutions based on political will and economical decisions. These problems should be recovered by changing societal structures through new policy and by the transformation of cultures to a more sustainable way of living, where perceiving, living, and using less resources is on the general agenda (Latour, 2018). This agenda might well be about how to share in a more sustainable and climate friendly way of living together. We could restart a process of how to recover our local communities in both urban, suburban, semi-rural, and rural settings and build up new social communities of sharing with focus on environmental sustainability and renewable energy. We could ask ourselves how to regenerate resources from the Earth, including how we use our own human resources in a less stressful way by taking a new focus on more togetherness, because it is when we do meaningful

things and live this transformation together that it really matters (De Angelis, 2017).

We need to transform our culture of individualism and its consumerist values into what could be called a communal idea of living, which is in line with a commoning practice, where we are aware of sharing resources, helping each other across generations, and building community life (Meltzer, 2013). We could start this transforming process by creating communities in connection to where we live.

Co-housing and eco-communities can in this process inspire to new ways of thinking on and behaving in relation to social and sustainable matters for example through political ecology and permaculture practices (Henfrey & Ford, 2018). In relation to reducing the use of natural resources, we must use the building stock we already have. It might be possible for some of the 'tæt-lav' residential areas, which often have common houses and are of good architectural quality but do not naturally have a community-culture, to reactivate and create a new sharing culture, which would reduce the use of resources and thus create more affordability. Co-housing can in this process also be a solution for choosing another way of living while adapting to the reuse of buildings for the purpose of collective living (e.g., the rebuilding or adaptation of old school buildings, former commercial buildings, factories, or other public buildings, such as former hospitals).

The design of co-housing can help combining people in new ways to be more inclusive across generations or achieve more affordability through mixing tenures, but it cannot necessarily be upscaled or directly copied through building large scale co-housing projects. Rather it is a method of thinking, learning, acting, and creating the social and its organisation. Co-housing pinpoint, like 'an acupuncture needle in the body of society', our problems and can in this sense inspire to change our culture, perceptions, and lifestyles.

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PAPER 1.

WHAT IS CO-HOUSING? DEVELOPING A CONCEPTUAL SPATIAL FRAMEWORK FROM THE STUDIES OF DANISH INTERGENERATIONAL CO-HOUSING

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ABSTRACT

Co-housing forms part of a collaborative housing trend receiving increased interest. The physical layout of co-housing (bofællesskab in Danish) comprises several independent homes in combination with shared spaces and facilities, which support living together, balancing privacy and communality. In Denmark, self-organised groups have established co-housing ever since the early 1970s in different forms and types. Due to the complexity of how these communities have been arranged over time, co-housing includes great variety, which can be challenging when exploring the concept. The paper proposes an empirical and conceptual approach to the emerging literature on intergenerational co-housing, by developing a multi-dimensional spatial framework combined with an investigation of the different designing types of co-housing. By presenting an analysis of Danish intergenerational co-housing, the paper fills an empirical and conceptual gap in the existing co-housing literature, which usually makes references to Danish experiences or analyses some single cases, but rarely explore these more systematically.

Keywords: Concept of co-housing, visions, organisation, communality, design.

INTRODUCTION

Springing from the collective movement of the late 1960s, the development of co-housing as low-rise dense clustered housing originated in Denmark in the early 1970s (Nygaard, 1984; Andersen, 1985; Vedel-Petersen, Jantzen, and Ranten, 1988). Danish co-housing has since then been built both like this and developed further as various types, and as experiments in small and large scales (Vedel-Petersen, Jantzen, and Ranten, 1988; McCamant & Durrett, 2011; Marckmann, 2009; Jakobsen & Larsen 2018). In the 1980s, two American architects, McCamant and Durrett, came to Denmark to study co-housing with Danish researchers. The American architects brought the Danish model of co-housing from that time back to the US, where it has developed and spread (McCamant & Durrett, 2011; Meltzer, 2005). Later, they came back to Denmark to

elaborate on co-housing in the third edition of their influential book (2011), stating that ‘Danish cohousing remains the golden standard for cohousing worldwide’ (2011:37). In other European countries like Sweden, Germany and the Netherlands, co-housing projects are also rooted in historical developments, although they are slightly different in typology, form, and organisation than the Danish co-housing movement (Vestbro & Horelli, 2012; Vestbro, 2000; Marcus, 2000; Fromm, 1991). Today, the (re-)emergence and spread of co-housing is a phenomenon taking place in many countries (Tummers, 2017; Jarvis, 2015; Krokfors, 2012; McCamant & Durrett, 2011; Lang et al., 2018). Demographic changes in societies, resources, and lifestyles play a central part of this phenomenon (Bresson & Denèfle, 2015; Tummers, 2015b; Droste, 2015). As an alternative to other housing options, however, co-housing takes up only a minor part of the total building stock in the respective countries (Vestbro & Horelli, 2012).

Ever since the 1970s, the creation of co-housing has primarily been a bottom-up process (McCamant & Durrett, 2011; Vedel-Petersen, Jantzen, and Ranten, 1988; Nygaard, 1984). However, top-down professionalisation of co-housing is gaining acceptance in Denmark, in new enterprises where developers take the initiative involving the whole process or municipalities and local communities either take the first steps or welcome establishments of co-housing projects as a strategic element in planning (e.g. Roskilde, Lejre, Halsnæs, Furesø, Høje-Tåstrup and Faxe municipalities). Alternative developers currently build co-housing, attracting people to join the projects, where the framework is designed more, or less beforehand (Ecovillage.dk, Almennr.dk, Bærebo.dk).

In recent years, a body of international research on intergenerational co-housing has been carried out (Lang, Carriou, and Czischke, 2020; Czischke, 2018; Tummers, 2017; Sanguinetti, 2014 and 2015; Ruiu, 2016; Chatterton, 2015; Williams, 2005 and 2008; Vestbro, 2010; special issues: Fromm, 2000; Krokfors, 2012; Tummers, 2015a). However, more conceptual research is still needed. Lessons in this paper are learned from a focus on Danish cases. Paradoxically, little systematic research has been conducted since the late 1980s about Danish intergenerational co-housing, although projects have continuously been built. Exceptions are Marckmann’s dissertation about eco-communities (2009), McCamant and Durrett’s book (2011), two master thesis’ (Martinussen 2010, Madsen 2012), two ministerial reports (Ganer, 2016; Pagh and Viemose, 2016), and recently, an article based on a quantitative survey by Jakobsen & Larsen (2018), and an article about the Danish history of co-housing related to tenure forms (Larsen, 2019).

In literature, the co-housing concept tends to be focused on the physical layout and the social aspects of this living form. An important feature of co-housing is the combination of single unit dwellings with shared facilities, balancing privacy and communality (Lietaert 2010, Marcus 2000). A common house, where residents dine together some days during the week or do other activities together is another essential part of co-housing. McCamant and Durrett (2011:25) operates with six common characteristics of co-housing, which have affected the co-housing literature: (1) participatory processes, (2) designs that facilitate community, (3) extensive common facilities, (4) complete

residential management, (5) non-hierarchical structure, (6) separate income sources. Designing for social interaction (social contact-design) is emphasised by academics and recommended by architects (Fromm, 1991; Torres-Antonini, 2001; Williams, 2005; McCamant and Durrett, 2011; Jarvis, 2015).

As there is broad variation in types, sizes, and tenure forms, when exploring intergenerational co-housing from a first view, the projects look quite different from each other. Each co-housing is uniquely designed, build, and managed in terms of location, methods of formation, group dynamic, visions and values. However, as the Danish tradition for establishing intergenerational co-housing has developed through five decades, some types of how to design co-housing communities emerged through this period. In this article, these designs are grouped and termed designing types. They are historical rooted, but are at the same time contemporary, as they have become models for building co-housing. Further, the combination or crossovers of designing types, mix of tenure forms, and the new developer approach, makes the concept of co-housing complex, and it raises the question: What are the common denominators and what are the differentiators of Danish co-housing from a spatial perspective?

The aim of the paper is to develop a conceptual framework of co-housing to help to better understand this many-facetted phenomenon. More specifically, the concept of co-housing is first theorised as a framework through the lens of spatial dimensions, developing a way to understand the concept that characterises the common denominators of co-housing. Spatiality is perceived in an extended manner involving more dimensions than just the physical. As a way to distinguish what separates co-housing types from each other, three different co-housing designing types are presented. The designing types are identified in the empirical work and in the co-housing literature, underlined by historical ideas and designs, exemplified through representations of selected cases. A matrix of spatial dimensions and designing types is developed as an analytical tool to explore what co-housing is. Finally, a cross-over of types and tenures is shown in a current co-housing project developed today.

Research Methods

A combination of literature synthesis, searching co-housing webpages, and empirical research is used for the paper. The fieldwork had a visual ethnographic perspective, which is an explorative approach studying visual and spatial qualities obtaining photography, comparing the different co-housing types, and combining that with ethnographic methods (Pink, 2013; Rose, 2007). The research is based on analysing 22 visited co-housing projects in Denmark (Table.1). Four emerging co-housing projects were followed over a period of two years while being established. One case did not succeed. In all, 53 persons were interviewed: 25 residents, 20 future residents of emerging co-housing projects, and seven related professionals. Three of the central cases presented in the paper have been revisited three to four times sometimes staying overnight, while the case for Jystrup Savværk was a 24-hour visit. The fieldwork entailed interviews, participatory observations taking field notes involving in common

activities, such as meetings, dinners, parties, development days, and courses. Talking with residents while walking in and around the co-housing and taking photos of the spatial structures formed part of the fieldwork activities. The analysis is a combination of framing the spatial dimensions of co-housing and a synthesis of the different co-housing types and models found in the literature, which are observed in the empirical work.

What Does the Term ‘Co-housing’ mean?

As many other concepts starting with co-, connoting collective and collaborative practices, co-housing (bofællesskab) forms part of the wider umbrella concept of ‘collaborative housing’, which is used by Fromm (1991), Vestbro (2010), and Czischke (2018) to describe a tendency of self-managed housing models in different countries. Collaborative housing can involve a group of people building and/or living together, or it can be professional actors involving future residents for participating in planning and self-managing housing. Such collaboration practices are present in community land trusts, collective private commissioning, self-build initiatives like the German Bau-gruppen, co-housing, resident-led housing cooperatives, and other forms of collective self-managed housing (Czischke, 2018:3).

The Danish term bofællesskab was translated by McCamant and Durrett to ‘cohousing’ (1989:95) and by Vedel-Petersen, Jantzen, and Ranten (1988:101) to ‘co-housing community’. According to Vedel-Petersen, Jantzen, and Ranten, this denotes ‘a housing group which involves a number of independent homes with the addition of common facilities, such as common rooms and open spaces’ (1988:101)¹. The word ‘community’ is meant as a group of people living in independent homes near one another, who interacts socially and share norms and values about the way of living together. In line with McCamant and Durrett’s characteristics, the ‘co’- in co-housing refers to sharing common areas, making decisions in non-hierarchical processes, living, and interacting socially, and doing things together. Due to the private dwelling units co-housing communities are, according to McCamant and Durrett (2011), not communes. The meaning of kollektiv (commune) and bofællesskab (co-housing) are however, a little blurred in Danish, as the words are sometimes used as synonyms. In cities, many young people share an apartment, and this may well be called kollektiv or bofællesskab. In technical terms, co-housing refers to that, private dwelling units are equipped with their own kitchen and bathroom, whereas these facilities are often shared in communes. As we shall see, some communes have developed into co-housing. Senior co-housing is another way of designing co-housing, exclusively for members aged over 50 without children living at home. This is well described by Max Pedersen (2015, 2013), Durrett (2009), and Choi (2005). The paper does not address senior co-housing specifically, although there are some general similarities with intergenerational co-housing. Another connotation of the word bofællesskab in Danish is an institutional home for disabled or vulnerable people living together. These institutions are not covered in the paper.

1 ‘Open spaces’ implies opening up spaces to share between residents (Vedel-Petersen et al. 1988).

Inspired by the German mehrgenerationswohnen (Droste, 2015), where different generations live, help, and join each other across ages, multigenerational houses have developed (e.g. Generationernes Hus, Århus). These housing projects are often located in cities (e.g. in Berlin) and, besides the common spaces for the residents, they also have spaces open to the public and people from the local community (e.g. cafés, workshops, nursing homes, etc.) Openness to the public and the local community that existed before the co-housing group settled is an awareness in many co-housing projects (Ruiu 2016). Other co-housing communities do not have open public spaces and are designed to be more closed to the local community (Stender, 2014; Chiodelli and Baglione, 2014; Marcus, 2000). The term ‘multigenerational’ implies different generations living together in larger scale intergenerational co-housing, or families living across-three-generations, which is a relatively new orientation in Denmark. The size of co-housing can thus vary from two to hundreds or more households.

CO-HOUSING CASES VISITED:				DESIGNING TYPES:			TENURE FORMS:		
Name	Year of establishing	Units	Architect design	Retrofit/rebuilt	Selfbuilt	Private ownership	Cooperative	Rented	
Skråplanet	1973-74	33	x			x			
Svanholm Storkollektiv	1978	50-54		x			x		
Stavnsbåndet	1979	26	x			x			
Æblevången	1980	36	x			x			
Jernstøberiet	1981	20	x	x		x			
Jystrup Savværk	1983	21	x						
Drejerbanken	1983	20	x			x		x	
Gl. Grevegården	1990	24	x	x				x	
Lysningen	1990	18	x				x		
Dysekilde	1990	82		x	x	x	x	x	
Fælleshave	1991	16	x				x	x	
Munksøgård	2000	100	x	x	x	x	x	x	
Bauneholm	2002	14		x	x		x		
Fri&Fro	2004	17			x		x		
Hallingelille	2005	27		x	x	x		x	
Gresmarken	2007	25							
Lange Eng	2008	54	x			x			
Nygården	2010	3		x		x			
Cases followed while establishing:									
Nielstrup Manor	2016	4	x	x	x	x		x	
Frikøbing	2016-17	23	x		x	x			
Karise Permatopia	2018	90		x			x	x	
Torup Overdrev	Failed to establish								

Table 1. Co-housing cases:

Explanation (table 1)

The table shows the co-housing cases in the study. Each co-housing case is uniquely designed. The year of establishment is the year, when moving in. The units are how many dwellings there are in each case, showing different sizes of the communities running from 3-100 units.

The three next columns show the different designing types of co-housing, which were observed in the field studies: 14 have architect-designed houses, nine have retrofit or rebuilt houses, while six cases are designed as self-built types. Two or three of the designing types are used concurrently in some of the above listed cases. Six of the cases are designed with two or more different designing types. By combining these different designing principles co-housing is achieved and designed from many creative methods. Furthermore, a mix of tenure forms are evident in six of the cases. The reason for combining tenures is typically due to a wish for different economic situations of the inhabitants in order to encompass both students and seniors with small pension savings. In Munksøgård and in Karise Permatopia all three designing types are combined and at the same all three tenure forms are evident. These two cases are quite large with 90 and 100 dwelling units.

The homepage www.bofaellesskab.dk, which is a self-registering site for co-housing that has considerably developed over a time span, was also visited regularly throughout a period of three years.

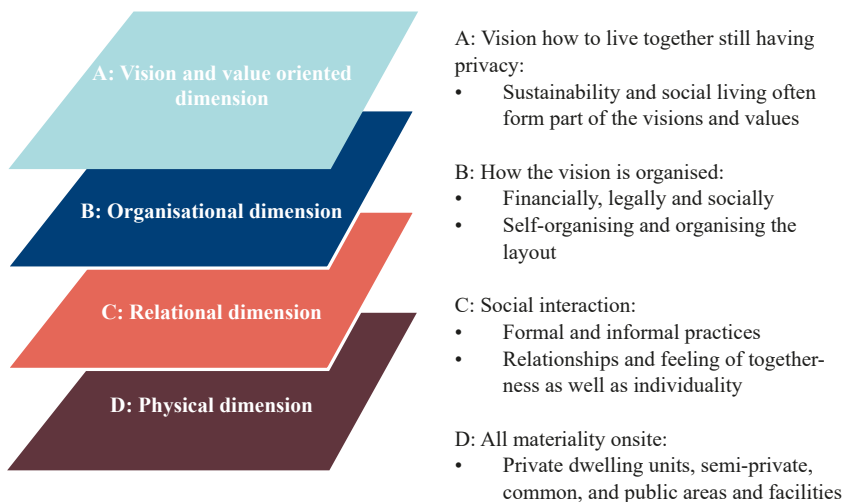


Fig 1: Conceptualising co-housing in four interconnecting spatial dimensions. The concept of co-housing comprises four spatial dimensions: a vision/value-oriented dimension, an organisational dimension, a relational dimension and a physical dimension, which play together and are interconnected.

CO-HOUSING: A SPATIAL DIMENSIONAL FRAMEWORK

Co-housing is designed and organised in so many different ways: however, there are some similar characteristics. Following Jarvis (2015), Sanguinetti (2014), and Williams (2005) who argue for understanding co-housing as both a social and physical space, I propose an extended spatial framework for how to understand this experimental home-making, suggesting *four spatial dimensions* in co-housing. Besides the physical and social space, co-housing comprises shared visions and values (Sargisson 2012) as well as organising, financing, and decision-making processes (McCament & Durrett 2011). In such a multi-dimensional approach, space is not only a natural given geometry but is relative and continuously (re-)produced through socio-spatial relations, connecting to the physical spatial dimension. Using space in this way, space is perceived as relationally constituted through social, economic, and cultural meanings of how to produce, practice, and structure the world (Harvey 2009:133-165; Hubbard et al., 2002 (2005):13-14). Space is therefore not just physical but also has relational, organisational, and vision- and value-oriented dimensions (Figure 1). These spatial dimensions form part of the whole experience of co-housing, but to clarify the complex concept of co-housing, this analysis ‘layers’ the spatiality in the following four dimensions:

- **The dimension of visions and values** is about making an alternative to other housing options, balancing privacy and communality, and sharing visions and values in how to live together with a focus on social aspects, sustainable living or, spiritual living, and in some cases political values.
- **The organisational dimension** is how co-housing is organised and planned legally (in tenures, associations, etc.), including collaboration with professionals, and social collaboration in formal and informal agreements within the community (association membership, decision-making, common meetings, and working groups). The group’s self-management and designing the layout forms part of organising co-housing.
- **The relational dimension** includes the relations between inhabitants, group dynamic and - identity, interaction and practice in formal and informal collaboration (common dining, working groups, celebrations etc.) relating to design processes, and the feeling of belonging and togetherness, as well as individuality.
- **The physical dimension** is the materiality and physical design/layout that is formed as a combination of several private dwelling units, semi-private and common (and sometimes public) areas, shared land, and facilities.

The Dimension of Visions and Values

Co-housing projects tend to originate from a vision. The vision that the group agrees on influences the set of values that are discussed throughout the process of becoming a co-housing project. Each co-housing group collectively arrives at a core set of

values, engaging in a common purpose to live and create the community together (Jarvis, 2015:94). The most essential vision of a co-housing group is to bridge privacy and communality, and to share and to live together while still having their own dwellings. Other visions can be to ensure good conditions for children (Manzanti, 2007; Marckmann, 2009) or to live sustainably by (self-) building organic houses with self-sufficiency regarding vegetables and renewable energy supply (Marckmann, 2009; Tummers, 2017). To live and help each other across generations and to establish self-governance are visions that are also found in the empirical work. Ideals of freedom and direct democracy, either as consensus models with non-hierarchical structures (McCamant & Durrett 2011) or as sociocracy (Christian 2013-14), are important values for the groups. A few co-housing groups have also built on spiritual, religious or political values. The intentions to form another lifestyle focusing on social aspects of living makes room for new possibilities. By building houses, infrastructure, and systems in alternative ways, co-housing groups experiment with what is possible with today's sustainable practices regarding energy consumption and recycling (Tummers, 2017). According to Sargisson (2012), with such inherent visions and values, though also focused on individual freedom, co-housing can be understood as 'intentional communities' or as 'living modern utopias' (2012:19-21). Discussing co-housing as modern utopias, Sargisson operates with utopia as practical utopian experiments that 'create distance by establishing bounded spaces *in which* to try something better and *from which* critically to regard life in the mainstream' (2012:2-3). She argues that the critique of society and trying out new visions and alternative ways of living is inherent in co-housing but is not necessarily in direct opposition to society, but is rather done as members of society. According to Sargisson, co-housing is not so radical that it challenges society: however, co-housing communities are modern utopias in the sense that 'they represent living models of a better alternative' (2012:20). She concludes that, although comfortable with mainstream culture, co-housing allows members to live another life without dropping out of society, suggesting that this might well be what makes co-housing popular (2012:21). The spatial dimension of visions and values is at the core in co-housing, connecting to the intentions of the community and typically providing the basis for a written document for start-up groups.

The Organisational Dimension

The organisational dimension is how visions and layouts are financially, legally and socially planned. Self-organisation, done with more or less help from professionals, forms an important part of co-housing (Czischke 2018:11). Creating an association for initiating co-housing, which is quite easy in Denmark, is necessary to become a membership group, to obtain loans and to collaborate as stakeholders with professionals. In Denmark, there are different models of organising co-housing connected to tenure forms (Jakobsen & Larsen, 2018). A project can be organised through private ownership (*privat ejerskab*), or housing cooperatives with shared ownership (*andelsboligforening*), or a rental model: either private renting (*privat udlejning*) or public housing owned by non-profit housing associations (*almen boligorganisation*), which describes over half of the senior-cohousing (Pedersen 2015). Much of intergenerational co-housing is

private ownership or cooperative (Jakobsen & Larsen, 2018:9). The cooperative model was commodified in 2005 and termination of state support for newly-built housing cooperatives has made this model more difficult for new co-housing (Larsen & Hansen, 2015:266). The Danish non-profit housing sector is open to everybody, although low-income socially vulnerable people are overrepresented. A co-housing can be arranged as an autonomous division of a non-profit housing association with resident democracy (Madsen 2012). The municipality must subsidise it with 14% of the building sum. Mixing tenures is done in some intergenerational co-housing to attract residents with differentiated financial positions (e.g. students, singles, etc.). However, as each tenure model has different regulations, mixed tenure compositions can be complex models to develop, especially as the non-profit housing sector in Denmark is subject to a vast number of rules, which cannot be negotiated (e.g. the taxable value per square metre). On the other hand, financing communities with up to 100 dwelling units is hard for a group of people using bottom-up processes. The non-profit housing sector has experience in building, although, when working with these enthusiastic groups of people who want to build as sustainably as possible, it can be challenging for everybody involved (Foldager & Dyck-Madsen 2002).

Usually, the initiative to build a co-housing project has been taken by a small group of people, who gather a bigger group by promoting ideas about another or better way of living (Martinussen, 2010; Sargisson, 2012). Developing co-housing can be a very long process, from gathering a group together, to discuss visions, organisation, etc., to deciding on what, how, and where to build the community (Fromm 1991). The empirical data for this paper shows that creating co-housing from scratch can take between 3 and 10 years from the formation of a group of like-minded individuals to actually moving into the new homes in the co-housing community. Creating co-housing groups today is often done through social media, advertising the project and encouraging people to join. Besides planning, deciding on value- and decision making, the group must self-organise and adopt by-laws and rules. The highest authority is the common meeting with decision making in non-hierarchical processes (Vedel-Petsern et al., 1988; McCamant & Durrett, 2011). Here the social organisation is discussed, decided, and maintained. Experimenting with new kinds of decision making has emerged recently (e.g., sociocracy, Christian, 2013-14). Normally, a number of working groups take responsibility for different tasks. The establishment of social and democratic organisation and tenures becomes a structure, creating the first step of, how the community will be formally and informally managed. The organisational dimension forms an important, though sometimes underestimated, part of the spatial concept of co-housing.

The Relational Dimension

Characteristic for the motivation to live in co-housing is the notion of wanting to know the neighbours, and to be part of a community. Throughout the participatory design process, there is socialising, and learning to know each other long before relocating together (Marckmann, 2009:206). Jarvis (2015:94) operates with the term

‘social architecture’, which functions through invisible, affective dimensions, such as motivations, feelings of well-being, thinking, and learning as well as inter-relationships with people in the group and place. According to Jarvis, the social architecture or ‘soft infrastructure’ corresponds with the ‘hard infrastructure’ that is visible and fixed in the material qualities of home and neighbourhood settings (2015:94). The social connects to the physical structures; for example Ganer (2016), Williams (2005) and Torres-Antonini (2001) point at the importance of a centrally located common house, where everybody in the co-housing naturally arrives and often walks to, making it possible to meet informally and spontaneously. The relational dimension is all the social interaction, dialogues, and collaboration taking place between the occupants in daily life, when dining together, taking turns in cooking, working in groups, and participating in meetings or other activities. The empirical data show that co-housing communities have common dining as a principle for communality, dining between one and seven days per week, although in some co-housing a take-away option has been arranged. The socio-economic profiles of residents, who engage in co-housing initiatives are resourceful in terms of having social and financial capacity, have medium to high levels of educations, and seek sustainability in everyday life (Ruii, 2016; Boyer & Leland, 2018; Margolis & Entin, 2011; Marckmann, 2009; Margolis & Sanguinetti, 2015; Jakobsen & Larsen, 2018). Sanguinetti (2014:88), in a survey with 477 respondents from 127 American co-housing communities, argues that co-housing practices promote close relationships, regular social contact, and perspective-taking among neighbours. Such social practices lead to a feeling of belonging and connectedness to the community (Sanguinetti, 2014:94). Jarvis (2015:97-98) identifies three types of sharing: co-presence, affiliation, and endeavour. In this sense *"co-housing is a living arrangement, which represents more than simply an alternative system of housing: the social dimensions reveals a setting and system that cultivates an intentional negotiated ethos of sharing"* to cite Jarvis (2015:102). Maintaining and improving the relational dimension is done through formalised practices (common dining, meetings, working groups, and celebrations) taking responsibility for specific areas and tasks in co-housing (Pagh & Viemose, 2016). Such formal practices underpin more informal contact, for example, meeting in the parking area or talking over dinner (Marckmann, 2009:198-201). The relational spatial dimension, as formal and informal social practices, forms a central part of co-housing.

The Physical Dimension

Co-housing is materialised in the physical spatial dimension, where private dwelling units are combined with common areas and facilities, differentiated into private, semi-private, and common (and sometimes public) areas. Fromm (1991), Williams (2005), McCamant and Durrett (2011) stress the importance of ‘social contact design’, meaning that the physical layout is designed for social interaction. Usually, a common house with dining area and kitchen is centrally located and, in many cases, there is laundry facilities, playrooms, guest rooms, office workspaces, workshops, etc. The private dwelling units are provided as normal dwellings, although there is sometimes less floor area, as some goes to the common facilities. The outdoor areas are shared, except for

perhaps a terrace or, a garden in connection to the private dwelling. The outdoor shared facilities can consist of green areas with playgrounds, kitchen gardens, fireplaces, green-houses, animal sheds, waste recycling areas, and land that can be cultivated or used for willow purification works (recycling and purification of sewage). Parking spaces on the periphery are typically shared. Some have carpooling, and most co-housing communities are car-free zones. Children can therefore run freely between the houses and playgrounds (Ganer, 2016; McCamant & Durrett, 2011; Vedel-Petersen et al., 1988). The physical dimension consists of all materiality onsite, including private and shared areas and areas that are not yet planned but forms part of the co-housing for opportunities coming up, as some structures are formed over time. Co-housing can be built from scratch, either designed by architects or as experimental self-built eco-communities. Another option is to retrofit/refurbish existing building stock not in use (e.g. abandoned school buildings, town halls, manor houses, etc.). In a number of co-housing projects, existing building stock is part of the co-housing project (e.g. an old farmyard as the common facility and heart of the community). The physical dimension interconnects with the other dimensions and constitutes the spatial base of the concept of co-housing.

The Four Dimensions Interconnect Through Belonging and Engagement

The four dimensions are (re-)produced through the everyday life in co-housing with the physical dimension as the material base. All four spatial dimensions in this concept are interwoven parts of each other and grounded in the holistic approach to living that many of the co-housing communities have. According to Jarvis (2015:100) and Sanguinetti (2015:88), engagement is rooted in a sense of belonging to the co-housing. The practices of self-managing (or self-building) engage people to connect to each other and their surroundings. It can seem easier to get things to move forward, such as optimising energy consumption, building projects, growing plants, and making good conditions for children (e.g., car-free zones, and playgrounds) when doing it together. The social practice and engagement with each other in working groups, meetings, dining together, and other formal or informal situations create social bonds and relationships (Ruiu, 2016; Marckmann, 2009). Through this a sense of belonging forms. When an old man in one of the analysed cases, lost his wife, he could lean on the social structures, relationships, and support he received from other dwellers in the community through his grief. Co-housing also provides new possibilities to do things together, for example, invite a philosopher for a meeting in the community, as done in one of the cases, which is something one would normally not do alone. A practical need for families with small children is to share more and help each other in daily life (Marckmann, 2009; Madsen, 2012). This can be combined with a critical or vision/value-oriented choice on how to live daily life, in wanting new forms of living together, in trying out other ways of democracy, or in taking a sustainable approach to life (Marckmann, 2009; Foldager & Dyck-Madsen 2002). Therefore, co-housing is "*both a housing form and a lifestyle*" (Williams 2008:).

DIFFERENTIATING CO-HOUSING IN DESIGNING TYPES

The above analysis of the spatial dimensions points towards that there are common denominators for co-housing. However, how can the diversity of co-housing be understood and synthesised? For this, I propose grouping different models or traditions into three designing types of co-housing. The use of types, in architectural debate are often oriented towards the physical layout of specific design elements and ideas (e.g. Unwin 2017), whereas the method of using the terminology designing types here is oriented towards what Unwin (2017, 201) terms ‘the vernacular idea’, which is how the whole of a community is designed. Types in this paper are connected to historical outlines and constructed from how co-housing is created as different methods of designing. Differentiating co-housing in types, takes the risk of being slightly simplifying, not showing all the aspects of uniquely built co-housing. The designing types are found in the co-housing literature and further motivated and constructed, based on, how the Danish cases in the empirical study are materially designed and lived in:

1. Architect-designed (found in Fromm,1991; McCamant & Durrett, 2011; Vedel-Petersen et al., 1988,;Williams, 2005; Fromm, 2000).

2. Retrofit/rebuilt (found in Sanguinetti, 2015; Ganer, 2016; McCamant & Durrett, 2011; Fromm, 1991; De Jorge Huertas, 2018).

3. Self-built eco-communities developed as lot models (found in Fromm, 2000; Marckmann, 2009; Gram-Hansen & Jensen, 2005; Jensen, 2001; Martinussen, 2010; Elm & Dilling-Hanssen, 2003; McCamant & Durrett, 2011; Meltzer, 2005; Sanguinetti, 2014).

The Danish literature tends to engage with either eco-communities or architect-designed co-housing, which are sometimes combined with retrofit co-housing (e.g. Marckmann 2009; Vedel-Petersen, Jantzen, and Ranten, 1988; Gram-Hanssen & Jensen, 2005), whereas Anglo-Saxon literature tends to deal with architect-designed, eco-communities, and retrofit co-housing in the same texts (e.g. McCamant and Durrett, 2011; Meltzer, 2005; Fromm, 1991; Fromm, 2000). In accordance with this and with Marckmann et al. (2012: 417 building on McCamant & Durrett, 2011) suggesting that eco-communities are a subgroup or a subset of co-housing, eco-communities are here treated as a type of co-housing. Some cases are, in reality, crossovers of two or even three types, which can be combined in different possible variables ways (Table 1). Each spatial dimension will next form the basis for analysing the different designing types of co-housing. Through viewing co-housing from the perspectives of spatial dimensions and designing types, a matrix is created as an analytic tool to explore the concept of co-housing.

1. Architect-designed Co-housing

One designing type is the case in which a co-housing group in the beginning of the design phase contacts an architect who designs the project from scratch, with the group, after having helped the group prioritise their needs. With the trend in architecture of

building low-rise clusters, combined with the wish for more togetherness, the Danish concept of co-housing was born in the late 1960s - early 1970s. This way of designing had a huge influence on the further development of co-housing (Nygaard, 1984; McCamant & Durrett, 2011). Architect-designed co-housing can, however also, be high-rise blocks with common facilities on the ground and/or top floor, which is typical in cities, such as the development of *kollektivhus* in Sweden and Finland, and a feature of the Danish *kollektivhuse* developed in the first half of the 20th century (Vestbro & Horelli, 2012; Korpela, 2012). Today, new city-co-housing in larger Danish cities has emerged, such as Thomas B. Thrige and several others are to come (e.g. Urbania, Den 3. Revle, Generationernes Byhus).

1.a. Vision- and value-oriented dimension

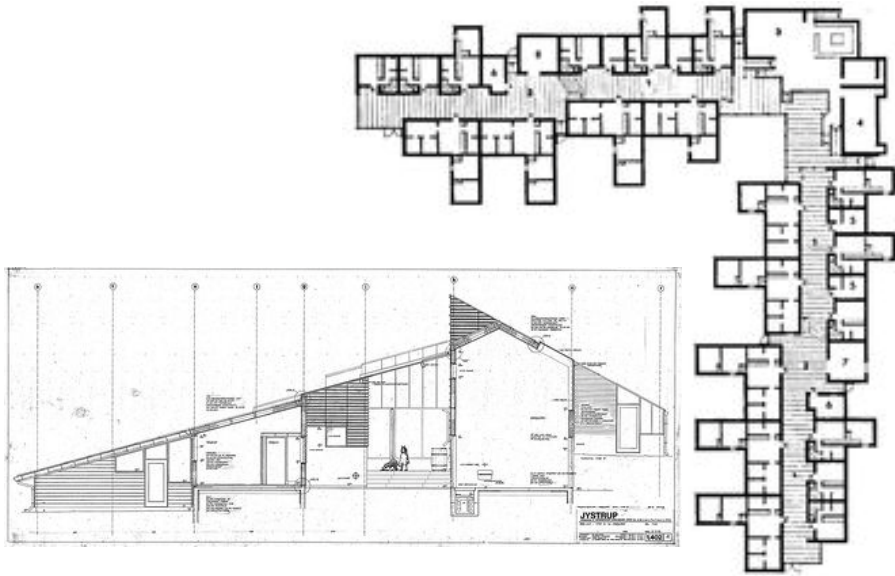
From the collective movement of the 1960s, the first architect designed co-housing communities, Sættedammen (built in 1972), and Skråplanet (built 1973-74), had ideas and utopian visions about changing the family ideal from a patriarchal one to a non-hierarchical one. In this vision, children had a voice, the living conditions should be for children, and all adult members should be like parents to the children (Illeris et al., 1997; Marckmann, 2009 both citing Bodil Graa, Politikken April 1967). Men and women should have equal rights and share workloads in the households (Vestbro & Horelli, 2012; Vestbro, 2000). The Sættedammen group, naming themselves 'the commune group' in 1968, were linked in the process of establishing to the group of Skråplanet formed in 1964 by the architect Jan Gudmand-Høyer (Illeris et al., 1997). In the architect-designed type, the visions and values of how to live together are discussed and planned in coordination with, how the physical structures are designed for social contact. A representation of the architect-designed type, Jystrup Savværk from 1983, was designed by Vandkunsten Architects, and is an integrated structure in split-levels, where the 21 dwellings are connected to the common house by a glass-roofed street (Figure 2). The visions were from the initiating group on the social aspect of living; the families wanted to live together, yet have room for privacy.

1.b. Organisational dimension

Jystrup Savværk is based on the cooperative (andelsbolig) financing model and is located in the village of Jystrup on a former sawmill plot. A member of the community, who has been living there since 1983, indicates that, while the scheme was under construction, the initiating group discussed how to manage the social organisation of their coming everyday life in weekly meetings for one year, before moving into the co-housing. They decided to have consensus democracy and organised detailed systems of common dining six days a week and working groups with different tasks. Remarkably, this organisation still functions in the community, due to active residents taking care of managing the community. Jystrup Savværk is, in this sense, a well-organised community. The architectural design and organisation systems provide the settings that residents must accept, as there is not that much room left, for residents in the architect-designed type to reorganise, rebuild, extend, etc.



Figure 2. Representation of architect-designed type, Jystrup Savværk: 21 dwellings, integrated structure in split levels, with glass-covered street.



1.c. Relational dimension

When visiting Jystrup Savværk, they had a salsa-party. The kitchen group was hard at work cooking a tasty meal and doing the dishwashing afterwards. Early the next morning, there was the sounds of somebody cleaning the common house. Three very efficient people in a working group were responsible that morning. Committing to communality, engaging in common activities and duties, and building relations, seems to be at the core in Jystrup Savværk. Different dwellers spoke spontaneously, during the party, about the challenge of keeping the balance between communality and privacy. One family moved out, first back to Copenhagen, then back to stay in the village, to get more privacy, yet still be close by the co-housing. As part of the social contact design, from the street, a glimpse through the windows into the kitchens of the dwellings is possible. Therefore, people use curtains or blinds to signal, whether they want privacy or social contact. Jystrup Savværk seems a large generator of communality, where the dwellers are aware of keeping the balance between social and private life.

1.d. Physical dimension

The physical dimension is designed for social interaction. Low-rise clusters or one and a half to two storey rows that are placed around or in connection with a common house, are typical in Denmark (Andersen, 1985). Glass-covered streets are another option, like Jystrup Savværk, to connect the dwellings with the common house, so that the connection is more direct and residents do not have to take on footwear and jackets in the wintertime. Private units are coupled to semi-private and common areas within the housing project.

2. Rebuilding or Retrofitting Existing Stock

Reuse of existing building structures is another possible designing type (Sanguinetti, 2015; Ganer, 2016; McCamant & Durrett, 2011), created in different ways, for example, by retrofitting (i.e. just moving into the houses and making them fit), refurbishing or completely rebuilding, sometimes in combination with building new structures.

2.a. Vision- and value-oriented dimension

Retrofitting has a history dating back to the late 1960s anti-authoritarian critique, giving rise to the Thy-lejren camp, and the 'free town' of Christiania², as well as young people and families settling in communes (Thörn et al. 2011). The communes developed quickly as young people and families moved into old villas or other building types, and in 1979, there were approximately 10,000 communes in Denmark (Nygaard 1984). Thy-lejren (1970) started out as a so-called 'free camp': a place for anarchistic speeches, provisional building structures, and experiments with new ways of living. The effect of Thy-lejren continued with a group of people, who bought some old industrial buildings and land in 1971. By re-using these old structures, they built up a new community called Toustrup Mark, which initially was characterised as a commune with the vision of changing from a patriarchal family structure to a

² Christiania is not co-housing, but rather a free town community, referred to for historical reasons.

collective non-hierarchical structure. The settlers moved into the houses and made a constructing group, who established a common house and, over time, rebuilt the industrial structures, creating a builder culture and traditions together, but at the same time struggling with the social structures in initial phases (El-Tanany & Christensen, 2011; Jensen, 1985; Nygaard, 1984). Today, on their homepage, Toustrup Mark is characterised as co-housing (26 units). By squatting in an old military site, Christiania also emerged in Copenhagen, in 1971. Christiania is a free town with a do-it-yourself builder culture. Although drug problems and political resistance have threatened the community (Thörn et al., 2011:7-11), in 2012, Christiania was bought by the Fristaden Christiania Foundation (Bladt, 2015). These communities lived utopian visions and responded to the struggles in the nuclear family in society of the 1960s-1970s, but as society changed, visions changed as well. The pragmatic side became more evident, and many communes became more co-housing-like over the years (Nygaard, 1984). A representation of a retrofit designing type of today is the co-housing Nielstrup manor in rural Lolland (Figure 3). In an interview, a young woman says that they made the choice to live together with the older generation, because they do not want to be part of the ever larger childcare institutions for their children, which have emerged in recent years, or the nursing homes for the older generation with insufficient staff. She thinks that people in these institutions are not treated on individual terms, due to the overwhelming pressure on caretakers, cutbacks, and mergers. She was a nursery teacher before and she has felt the pressure herself. She wants to look after her children fulltime, as her mother looked after her, when she was a child, and she wants to look after her mother, when she becomes older. This is a critical choice taken to live from visions and values about caring for each other across generations.

2.b. Organisational dimension

Nielstrup comprises four households. The buildings are owned by the estate nearby and rented to the co-housing group. By renting, the organisational dimension is uncomplicated, as they can try out this way of living, without investing much money. However, they invest substantial energy in renovating, and caring for each other. The four households have arranged to have four days of dining together by taking turns of cooking in a more informal way than in Jystrup Savværk, as they often switch days. Like the other designing types, retrofitting can be based on different tenure forms. However, residents often share the same address in small retrofitted co-housing and if ownership is shared, problems with how to pay taxes can be an issue that is difficult to tackle for the tax authorities (Degnbol, 2018).

2.c. Relational dimension

The relational dimension at Nielstrup is about being together, helping and taking care of each other, and respecting privacy. The motivations for living in communality as well as the family ideals, have changed since the 1970s. Living across-three-generations in a family is a new orientation. As retrofit co-housing often comprises few households, retrofitting can be a solution, although there are examples of living across-three-generations of the same family in the other designing types. Some dwellers become



Figure.3. Representation of retrofit designing type: The manor of Nielstrup with four households having each a private dwelling unit combined with common areas, living across-three-generations.



aware of the balance between communality and privacy. For example, in Nygården, which is also a small extended family co-housing, the residents are changing from a commune to co-housing, where each household will have private dwelling units, to keep this balance.

2.d. Physical dimension

Because Nielstrup was previously a group home institution for youngsters, each household has own kitchen and bathroom; thus with a few alterations, the existing structures are retrofitted. When reusing existing structures the physical dimension is tangible and visual in the formative stages of designing co-housing. It can seem easy to move into the buildings, as it takes less time than building from scratch. A history of the place is present to build on when creating the identity of the place. In another retrofit/rebuilt co-housing, Bauneholm, a woman remarks that, she would not like to live in architect-designed co-housing, as it would feel too streamlined. However, the building is not made for co-housing; therefore, struggles with rebuilding/fitting the structures and organising for social interaction are part of this type (Sanguinetti, 2015). There are examples in Denmark of old school buildings, gyms, manors, former industrial structures, etc., used for co-housing.

3. Self-built Eco-communities Developed as Lot Models

Optimising energy and resources from wind turbines or solar panels became a concept in some co-housing projects from the early 1980s (e.g., Sol & Vind established in 1981; Overdrevet, established in 1980). Over time, this idea grew and with the self-builder concepts from Christiania and Thy-lejren and, inspiration from communities like Findhorn in Scotland, the eco-community movement was born in Denmark during the 1980- and 1990s. Eco-communities combined the traditional village and the co-housing movement from the 1970s- and 1980s (Elm & Dilling-Hansen, 2003; Meltzer 2005). Eco-communities are oriented towards sustainable, holistic, and, in some cases spiritual living. However, they also have an important social focus of, sharing common facilities and, doing things together.

3.a. Vision- and value-oriented dimension

The visions of the 1990s eco-communities were concepts of building organic houses and infrastructures, experimenting with low-impact living, recycling, and reduction of pollutants in the environment. Revitalising local life, so that work, family, and home could be closely related was combined with a wish for a better balance between nature and humans (Gram-Hanssen & Jensen, 2005:171). Eco-communities developed a self-builder culture with dwellings dispersed in the landscape as detached houses and a centrally located common house. By constructing the communities own resource systems, an alternative is made to the large-scale energy- and infrastructure systems provided by society, which did not focus much on sustainability in the early 1990s (Jensen, 2001:130). Experimenting by designing unique houses on individualistic terms, using local materials, can be perceived as distancing from the use of prefabricated industrial components and streamlined building processes from the

1960s. A representation of this designing type is the first eco-community in Denmark, Eco-community Dyssekilde from 1990, located in Torup. The visions and values are oriented towards sustainability, as the binding key factor that keeps the community together, and keeps it developing (Figur 4).

3.b. Organisational dimension

Developed from what Fromm calls the ‘lot model’, which is a large site divided and sold as lots (2000:97), these communities extend over time, due to the self-builder culture. Dyssekilde is organised as mixed tenures: private ownership, cooperative, and renting. Most of the dwellings are privately owned. There are six housing groups, organised as associations nested in a large association for the whole community, using voting democracy. One housing group is rented apartments, built by the people of the community. A few houses have shared cooperative ownership. All land is shared, except for the lot under the base of the houses, which is privately owned. A small group of interviewed residents indicates that there are working groups for every task in the community, which are organised by the residents themselves. Dyssekilde is run by associations and working groups, and through free individual initiatives, also by engaging with people living outside the community. The community has rebuilt their old farm, which is now used for a kindergarten, a progressive free school, and a community centre shared with the local villagers. A common house are used for meetings, and common vegetarian dining held once a week are primarily for the residents. However, only a third of the community attends the common dining regularly.

3.c. Relational dimension

In a survey of eco-communities in Denmark, Marckmann measures the social capital of eco-communities, getting a very high score (2009:220). Dyssekilde forms an essential part of Torup, not only physically but also socially. Jepsen & Busck (2018:6) found an active facilitating culture, where new initiatives are developed and implemented by villagers across Dyssekilde and Torup. Some people have their working space in the community as independent entrepreneurs in different fields. In the housing groups, the residents have informal communality, socialising and helping neighbours. Maintaining the common gardens between the houses is a task of the housing groups. As houses are sold, the newcomers have not had the same struggles with building their own houses, as the older generation. They live here because it is a nice place for families and children, but do not engage that much in common meetings, etc., because they involve instead in activities in the kindergarten and school, or other activities in Torup.

3.d. Physical dimension

Dyssekilde consists of 82 households in six housing groups in different styles: domes/round-angled houses, straw bale houses, houses with solar panels etc. A large willow purification works, with 30,000 willows were planted by the residents. As Dyssekilde is self-built, the physical dimension has developed over time as a budding growing organism. Eco-style creative houses, experiments, and grassroots ideals dominate, although a few architect-designed and standard houses are built with organic materials.



Figure 4. Representation of self-built designing type: Eco-community Dyssekilde, 82 households in six housing groups of different styles



Table 2. Matrix of spatial dimensions and designing types of co-housing:

<i>Spatial dimensions</i>	Architect-designed
Visions & values	<ul style="list-style-type: none"> • Bridging privacy and communality • 1970s: non-patriarchal family ideal Now: modern nuclear family ideal • Intergenerational living • Equality in decision making • Sustainable living (for many, not all projects)
Organisational	<ul style="list-style-type: none"> • Building from scratch, designed and planned with an architect • Private ownership, cooperatives, rental or mix of tenures • Self-organisation: associations, working groups • Non-hierarchical: common meetings for highest level of decision making
Relational	<ul style="list-style-type: none"> • Social capital and relations • Common dining on regular basis • Working groups, social structures, care for each other • Balance social life and privacy • Participatory design process
Physical	<ul style="list-style-type: none"> • Architect designs: Low-rise, clusters, glass-covered streets or high-rise structures with a common house centrally located • Social contact design: design for social interaction; private, semi-private and common areas, sometimes public areas • Sustainable building (for some projects), recycling and energy saving

Retrofit/rebuilt	Self-built Eco-communities
<ul style="list-style-type: none"> • Bridging privacy and communality • 1970s: non-patriarchal family ideal • Now: modern nuclear family ideal • Intergenerational living (across same family) • Equality in decision making • Sustainable living (for many, not all projects) 	<ul style="list-style-type: none"> • Bridging privacy and communality • Balance nature-humans, ecology • Modern nuclear family ideal • Intergenerational living, communities open to local interaction with surrounding society • Equality in decision making • Sustainability in all aspects
<ul style="list-style-type: none"> • Retrofitting/rebuilding/extending • Renting, private ownership, or cooperatives, but small communities often same address • Self-organisation: working groups • Communes converted into co-housing • Non-hierarchical: common meetings for highest level of decision making 	<ul style="list-style-type: none"> • Developed from lot model, self-building • Private ownership, cooperatives, some rental, mix of tenures • Self-organisation: associations, working groups • Often shared land in rural zones, recirculation infrastructures • Non-hierarchical: common meetings for highest level of decision making
<ul style="list-style-type: none"> • Social capital and relations • Common dining on regular basis • Working groups, social structures more loose in initial phase, care for each other • Balance social life and privacy • Process of restructuring building design 	<ul style="list-style-type: none"> • Social capital and relations • Common dining on regular basis • Working groups, social with locals, care for each other • Balance social life and privacy • Entrepreneurs working in different arenas of ecology or self-development, individuality
<ul style="list-style-type: none"> • Retrofit of existing structures: a history of place: own creative designs and experiments • Reusing/optimising buildings/energy saving • A common house/rooms centrally located, private, (semi-private) and common areas • Rebuilding the structures for social interaction and privacy over time 	<ul style="list-style-type: none"> • Sustainable building, outlined as a lot model: Individual creative eco-designs and experiments • Detached self-built houses or unit built prefab houses in sustainable materials or architect-designs • Common house centrally located, private, semi-private, common and public areas • Community extending over time, growing organism • Energy saving- and recycling systems

Substantial energy is used in building, and different inhabitants state that, it can be exhausting living in a site hut or portable cabin, when doing it for years. For some, it even turns into a lifestyle. Being the first eco-community in Denmark, Dyssekilde has, along with Andelssamfundet i Hjortshøj, formed a model for many eco-communities.

DISCUSSION: MATRIX OF SPATIAL DIMENSIONS AND DESIGNING TYPES

On the background of combining literature synthesis and empirical work from Danish cases, an understanding of co-housing as a multi-dimensional concept was introduced. The spatial dimensions as common denominators and the designing types as differentiators is shown in the matrix (Table 2). The architect-designed type is from the very beginning created for social interaction, and organised for the purpose of bridging privacy and communality as physical and social structures, whereas the retrofitted/rebuilt type is not designed for this purpose to begin with. The structures have to be changed and this happens over time, struggling with rebuilding. The social organisation and design is therefore not always as clear, as is the case for the architect-designed type. In the architect-design, every household has each their private unit and address, whereas in the retrofit that is not necessarily the case, as the same address and the ownership are often shared. A few retrofitted co-housing is large scale, like Svanholm, but most are smaller scales, and some convert from commune to co-housing over time to balance privacy and communality better. In the self-built type the structure is based on a lot model, which means that the community can grow over time as an organism. Individual building units with manifold visual manifestations and designs every which way, are part of this method of designing a community. This sometimes means building for many years. Individuality and freedom are important issues, and what keeps the community together is the visions and values of sustainability and social living.

On one hand, the three designing types are quite different from each other: the design and the organisation activates different ways of living in co-housing. On the other hand, there are intersections and similarities in the spatial dimensions, indicating that all three types belong to the co-housing concept. Co-housing groups consider experience from existing co-housing. Therefore, learning from older communities for new communities is usual. By blending and designing from the experience across the different designing types, a recently built example; Karise Permatopia has a *comprehensive permaculture design principle*. Karise Permatopia encompasses 90 architect-designed dwellings, a retrofitted farm and rebuilt barn, which becomes a common house as a self-builder project designed together with professionals. The project is designed from permaculture principles in order to become self-sufficient with vegetables and creating recirculate systems for water, energy and waste (Figure 5). It is designed for a sustainable sharing culture, togetherness, and by mixing three tenure forms including more people with lower income (e.g. singles, students, and artists).

CONCLUSION: TRANSFORMATIVE ASPECTS

Although variety and complexity challenges, the concept of co-housing, the concept comprises common denominators theorised through four spatial dimensions, whereas the differentiators were synthesised in three designing types. Co-housing is materialised visions and complex housing systems. Bridging private dwellings with common facilities so that the dwellers have space for both privacy and communality is at the core in the co-housing vision. This is done by establishing vision - and value- oriented, organisational, relational, and physical dimensions. Co-housing function through the maintenance of everyday formal and informal practices. Being part of a co-housing community enhances the sense of belonging through all four interconnected spatial dimensions.

Because the models of co-housing and reasons of living together change, the concept seems to comprise transformative aspects. As seen through the historical change in co-housing, presented here as designing types, the reasons for engaging in and methods of designing co-housing have transformed. Making visions and values together and trying out new ways of living, are evident in all three types. In the architect-designed type, from the 1970s, it was about changing the family ideal from a patriarchal one to a non-hierarchical one and living together having privacy and communality in a structural manner. In the retrofit type, it was also a vision of chancing from a patriarchal family structure to a more commune like non-hierarchical structure, where building and social structures were more loosely developed over time. In the 1970s, people in communes and co-housing dissociated themselves from social norms that supported patriarchal family patterns, whereas today social norms and boundaries have changed, as there is more equality between genders and family members.

The nuclear family is today considered an ideal, where the children belong to the parents followed by full responsibility, protecting this family ideal that is somewhat perceived as fragile (Marckmann, 2009:169). A high divorce rate and demographic changes challenges family patterns in many countries. In Denmark, 37 different ways of being a family have been reported (Statistics Denmark 2012). Single living and loneliness are another challenge. Due to centralisation and cutbacks in Danish kindergartens and childcare, as well as nursing homes for elderly, institutions have grown ever larger in size, which challenges individual care. Living across-three-generations is a new possibility for young families and seniors.

In the self-built type, it was sustainable design and living that was the glue of the alternative vision, balancing humans and nature, while self-building on individualistic terms. As agriculture has become increasingly industrialised, food supply has become a hot issue, and self-sufficiency is an ideal for many new co-housing initiatives. Today, new ways of designing co-housing emerge from what could be termed comprehensive design principles, mixing the designing types. Designing and organising from comprehensive principles is a way to overcome the problems with self-building, heading towards self-sufficiency, while developing ways of handling nature through

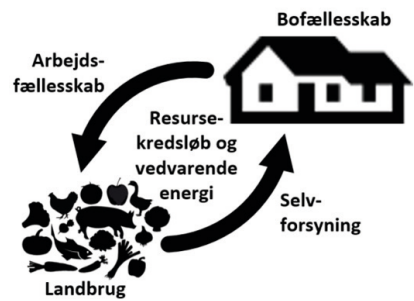


Figure 5. Representation of comprehensive design principle: Karise Permatopia under construction with 90 architect-designed dwelling units, retrofit, and self-built common house.



permaculture designs.

The fieldwork was undertaken in Danish cases. However, the findings are applicable to other co-housing. In the US, there has been a parallel development with important effects from Danish co-housing (Fromm, 2000; McCamant and Durrett, 2011). Due to this inspiration, Danish co-housing ideas are used in a number of countries. For example, co-housing projects in Spain are currently using parts of the Danish cooperative model (Larsen, 2018; Brysch, 2018). Co-housing is normally designed in a creative, participatory, and self-organised process although, it can be and often has been in collaboration with different institutional actors in hybrid forms of bottom-up and top-down approaches. Today, new enterprises emerge from a top-down approach. Co-housing can therefore be expected to develop further in this direction. Building up a group is essential in these projects, including the dimensions of shared vision and values, self-organisation, and social relations.

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PAPER 2.

CONTEMPORARY TRENDS AND MOTIVATIONS FOR CREATING INTERGENERATIONAL CO-HOUSING IN THE DANISH COUNTRYSIDE

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ABSTRACT

Intergenerational co-housing has a potential for semi-rural and rural areas, because the construction of these settlements contributes to an increased number of inhabitants of all ages in small towns and villages. However, the linkage between the creation of co-housing projects and urban-to-rural migration studies has gone under the radar for research. Therefore, we do not know much about why future residents chose to create co-housing in the countryside and move out the city. How co-housing projects are created is closely related to collective self-organisation and participatory involvement of prospective residents. Based on studies of four Danish intergenerational co-housing projects and their future residents in different stages of constructing their communities, the paper addresses the motivations for choosing to create and move to a countryside co-housing on the personal levels. The study was conducted from a multi-sited ethnographic approach. An analytic framework combining counter-urbanization theory with co-housing studies is provided. When the choices for prospective residents to take part in an intergenerational co-housing project is combined with a counter-urban migration decision, several factors come together: Life phase changes, desires for a more sustainable living, being part of a community, good childhood conditions, and new possibilities in a rural or semi-rural place.

Keywords: Motivations for creating co-housing, urban-to-rural migration, counter-urbanisation.

INTRODUCTION

Due to ongoing urbanization and rural abandonment, many small rural towns and villages have in recent decades suffered from shrinkage and population decline (Dax and Fischer 2017; Shucksmith and Brown 2016). In Denmark too, semi-rural and rural space has been under pressure for long but over the past 15-20 years this development has been deepened due to centralization reforms of municipalities and education systems, which has resulted in mergers, school closures, and cutbacks in day-care institutions and other services (Svendson and Sørensen 2018). A migration flow from villages and smaller towns to more regional towns has meant that the small towns have lost their function as the centre of an area, in favour of larger

towns becoming new centres in a region (Andersen and Nørgaard 2018, 16; KL 2015, 30; ULL 2018, 21). Although it seems that migration to some rural regions has slowly returned to the level from around 2006, when rural in-migration began to decline fast in Denmark, many small towns and villages without services are in general still declining (ULL 2018, 21, 32). Reduction in childbirth, an ageing population, and migration of young people to urban areas who do not return to their original home region constitute parts of this decline.

Contrary to the general trend of urbanization, and as part of a continuous although narrower trend of counter-urbanization where urbanities decide to move out the city (Andersen, Egsgaard-Pedersen, Hansen, Lange, and Nørgaard, 2022; Aner 2009; 2016, Neergaard 2014), an under-researched field is the creation of intergenerational co-housing and eco-communities in rural and semi-rural spaces, which forms part of the Danish counter-urbanization story. Building on the broader notion of counter-urbanization (Halfacree 2008), the paper couples co-housing studies and urban-to-rural migration research. Although some Danish urban-to-rural migration researchers (Aner 2009, Neergaard 2014) have studied a few residents, who had moved to a countryside co-housing, the motivation factor of being part of a co-housing group was not considered. Since the early 1970s intergenerational co-housing communities, which in many cases focuses on a sustainable housing production and - lifestyle, have been created in the countryside of Denmark, either in rural, semi-rural or in suburban, which was on time of settlement semi-rural areas (Beck 2020; Høite Hansen 2020; Marckmann 2009).

Studies of counter-urban migration and co-housing

Even though intergenerational co-housing projects, when they are established, seem to contribute to both increasing the population and on a local level to liveliness in rural and semi-rural settings, this kind of urban-to-rural migration is rarely researched. An exception is a paper of Wankiewicz (2015), who emphasize the potential of co-housing in rural Austria from a planning perspective. Otherwise, it has been called ‘green radical rural’ (Halfacree, 2007, 132), and co-housing has historically been identified as ‘enclaves’ (Ærø, 2002, 43) or ‘segregated enclaves’ (Jakobsen and Larsen 2019, 427), signifying that these groups have been radical in desiring green lifestyles, being small of projects, having the same socioeconomic profiles and backgrounds, and somewhat keep to themselves. However, Halfacree (2007, 137) emphasized that there are hopeful signs for low-impact developments (both economically and environmentally), permaculture, and sustainable co-living in rural sites. This was followed up by Henfry and Ford (2018, 115), who points out that permacultures such as the eco-community movement, albeit a niche phenomenon, have had a huge impact on the ideological battle for sustainability and are vital components for creating transformative sustainable cultures, which there is still a critical need for. Eco-communities form part of the co-housing movement because they have many overlaps with co-housing (Beck, 2020; Marckmann, Gram-Hanssen, and Christensen, 2012). A mapping and register study of Danish co-housing (including eco-communities) clarify where the communities are located showing that most are in suburban, semi-rural and rural areas, that is rural districts in reachable

distances (1-1,5 hours car drive) to the larger cities (Jensen, Stender, Beck, Skifter Andersen, Madsen and Englyst 2022, 62). Many of these semi-rural and rural areas experience decline.

What is co-housing?

Co-housing (in Danish *bofællesskab*) is not only a Danish, Swedish (*kollektivhus*), or Dutch (*centraal wonen*) phenomenon, but it has also spread to many other countries all over the world (Tummers 2017; McCamant & Durrett 2011; Vestbro 2010). Like other variants of collective housing forms, co-housing is part of the umbrella concept termed 'collaborative housing' (Chizscke 2017; Vestbro 2010). Self-organization of a group of prospective residents and co-organization with professional housing actors and consultants characterize collaborative housing practices (Chizscke, Carriou and Lang 2020; Tummers 2017; Wankiewicz 2015).

Co-housing is organized as both a private and common living arrangement. Every household has a separate private dwelling unit, which is connected to the community through semi-private and common areas. Sharing a common house for the purpose of dining together on a regular basis and having other common activities, is part of co-housing (Vedel-Petersen, Jantzen, and Ranten 1988). Co-housing can be either intergenerational, which was the first type to develop in the early 1970s, or only for seniors over 55 years without children at home, which was a type developed in the late 1980s. However, today 82 % of residents in senior co-housing are over 68 years old (Jensen, Stender, Beck, Skifter Andersen, Madsen and Englyst 2022, 80). Because the demography of semi-rural and rural sites calls for younger people and families, the focus for this paper is exclusively on intergenerational co-housing.

Co-housing projects have been built in Denmark ever since the beginning of the 1970s. This kind of housing has thus developed into a variety of designs and types using different tenures forms (Beck 2020; Fromm 1991; Larsen 2019; Nygaard 1984). Composite variation is therefore evident in the historical evolvement of co-housing: The projects can be small or large communities. They can be architect-designed, retrofit, or self-built (like many eco-communities), or a mix of these designs (Beck 2020). Although this variety, there are nevertheless common denominators of co-housing space and infrastructure, which comprise: a) Shared visions and values: Communitarity and sustainability are typical issues; b) Organization: How the co-housing is organized, including tenure forms and financial terms; c) Social relations: Community and creation of a group; d) The physical design: Linking private and common spaces. These four dimensions, which play together and form part of the whole experience and construction of co-housing, constitute a conceptual spatial framework for co-housing projects (Beck 2020, 45). Co-housing is thus created through a collective praxis, which means that co-housing is a certain way of designing and constructing houses, where a core group of future residents are often involved from the very beginning.

Residents in co-housing

Intergenerational co-housing (including eco-communities) typically consists of households with people in all ages, that is families, couples, and singles with or without children. Inhabitants in intergenerational co-housing are generally resourceful in terms of educational, socioeconomic, and social capital (Jakobsen and Larsen 2019, 11; Marckmann 2009, 214). The socioeconomic profiles of intergenerational co-housing inhabitants, based on work-life, are typically overrepresented in the middle and upper levels of employee categories with a high degree of leaders. Their level of education sets them further apart from both senior co-housing and the wider Danish society, as there is a significant overrepresentation of inhabitants with a medium-to-high level educational background (Jakobsen and Larsen 2019, 425; Jensen, Stender, Skifter Andersen, Beck, Madsen and Englyst 2022, 43), whereas the level of unemployment is in accordance with the national level (Jensen, Stender, Skifter Andersen, Beck, Madsen and Englyst 2022, 92).

Moreover, these are people desire to have a social life. They form groups that aim to create co-housing and move out the city together. A few people from other places than urban spaces can also join these groups. They possess social capital and like to create solutions, solve conflicts, and work together (Ruiu 2016, 405). This indicates that people creating and moving to co-housing in the countryside have resources and capacities that they probably will use in local society as well. Especially over the long run, after they have settled, they can bring forward local initiatives to rural villages, as in Torup, which is an example of a successful rural village in Halsnæs offering a wide range of local activities that attract people to visit, and even to move to Torup (Busck and Jepsen 2018, 15).

Counter-urban migration

In Denmark, the trend from 1960s and 1970s of moving out the city, especially for young couples who wanted to settle to have a family (Andersen, Egsgaard-Pedersen, Hansen, Lange, and Nørgaard, 2022), coincided with the trend of creating co-housing, initiated by self-organised groups of young families, who wanted to live in another way than traditional nuclear families (Nygaard 1984, 251). The method from the early 1970s of locating co-housing in suburbs, semi-rural, and rural sites was combined with the ‘tæt-lav’ (‘low-dense’) model, which is low-rise structures and dense developments for the purpose to be close to nature, due to the low-rise design, and due to the dense character to achieve social contact (Nygaard 1984, 230). Although the general trend of moving out the city has since had its up- and downturns, there is still a continuum of families moving out. Today, the level of out-migration from Copenhagen has reached the same as it was in 2005 (Andersen, Egsgaard-Pedersen, Hansen, Lange, and Nørgaard, 2022, 9).

The initiative to establish intergenerational co-housing is typically taken by people with middle-to-high education levels living in the city but wanting to move out (Jakobsen and Larsen 2019, Manzanti 2007). In a study of the choice of 23 families who had moved

from the city of Copenhagen to a co-housing in Trekroner, a suburban development area, Manzanti (2007) emphasised that their primary reasons were a longing for an everyday life with other families with young children, so that the children could have playmates and a safe, child-friendly environment. In line with Aner's findings regarding habitus (2016, p. 4–8), families wanted a childhood for their children that had elements like their own experience of their childhood residential areas with many children and the freedom to run and play. The families wanted same type of lifestyles and values. When Manzanti's informants had been students, some had shared apartments with their friends or lived at a hall of residence. Therefore, they had become used to a sharing culture and social life, which they wanted to continue (Manzanti 2007, 63). This was in accordance with Marckmann (2009, 175), who observed that the reasons for choosing to build a new community in addition to an existing eco-community, were that the future residents, besides the motivations for a more sustainably living, desired a social life for their children and themselves. This was reflected in their own memories of childhood residential areas where they played together with other children. Attention in these two studies were on family life, children, childhood memories, and the social aspect of co-housing, but it was not combined with urban-to-rural migration studies, but solely to migration research and social studies, because the two co-housing cases that were researched are in sub-urban sites (white areas on the map below).

Clarification of 'countryside'

The word 'countryside' is associated with idyllic rural surroundings. Whether the location is remote or in proximity to urban environments, the word has generally an idyllic connotation associated with nature and mental peace (Andersen, Egsgaard-Pedersen, Hansen, Lange, and Nørgaard, 2022; Neergaard, 6). The rural context is often conceived in opposition to an urban context, although there are many semi-rural places, which are spaces that are in between urban and rural, for example countryside areas and villages close to larger cities. The definition of countryside is therefore not always clear or easy. The European programme for Local Action Groups (LAG) set a framework for what can be perceived as countryside municipalities with many small towns and villages, where it is possible for local action groups to get subsidy for local activities, which support innovation and development of a rural area. For the paper, this framework has been followed. For a categorisation of 'countryside' in a Danish context see the map (Figure 1).

In contrast to the study by Andersen, Egsgaard-Pedersen, Hansen, Lange, and Nørgaard, who defines the whole of Zealand as 'a functional urban region' (2022, 2), the paper operates with the coloured areas as they include large areas of agriculture land and villages, although they are in commuting distances to the capital and other larger cities. The concept of 'countryside' comprises thus rural and semi-rural settings both close to and farther away from larger cities.

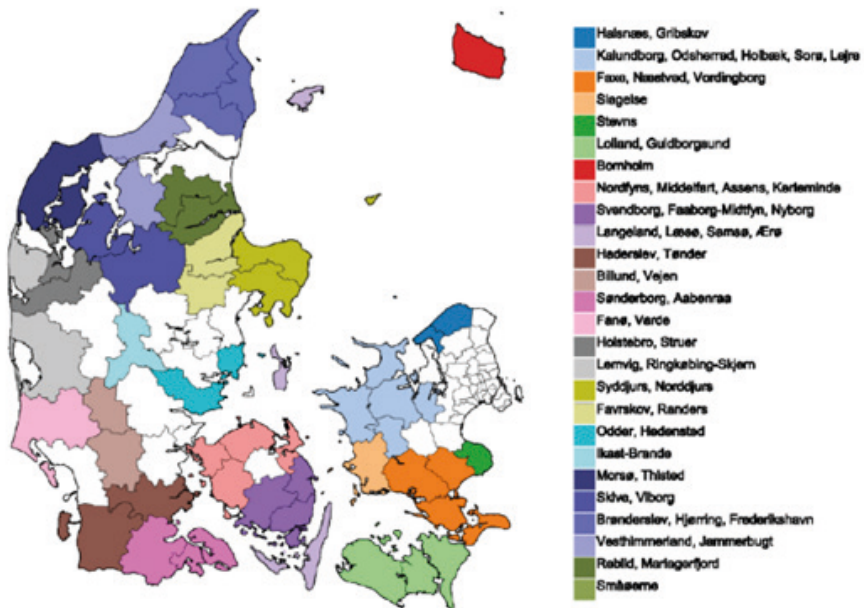


Figure 1: All coloured areas are rural or semi-rural LAG communities, whereas white areas are urban or sub-urban areas. Figure is from LAG homepage: Livogland.dk.

Aim: Motivations for creating and becoming part of a countryside co-housing

We do not know what motivates prospective residents to create intergenerational co-housing and settle in the countryside together, albeit, over the last five decades many co-housing projects have been built in Danish semi-rural and rural sites. The question is therefore: What make future residents, primarily moving out the city, to create and move to a countryside co-housing?

RESEARCH METHODS

To answer this question, four Danish co-housing projects under construction were chosen and the respective groups were followed, while they were creating intergenerational co-housing projects in the countryside. Future residents develop their co-housing projects and settle when their houses are ready for moving in. It can take long to create co-housing because it takes time to establish and organize a group, find land or a property, finance and build/rebuild/retrofit the project. Therefore, the process from initiating the idea of creating co-housing to moving in generates a timespan for the groups. This timespan has been advanced in the research to examine the motivations for creating countryside co-housing by following the projects and the residents while they established their future homes and communities. Using a multi-sited method of following projects and people

while they develop their projects, the study combines co-housing and urban-to-rural migration studies with ethnography (Marcus, 1995). From this approach, the research was based on qualitative studies following the four co-housing projects and the residents in different stages of building their communities (Marcus, 1995; Pink, 2013, 2009). In relation to counter-urban migration studies, this method is new because most migration studies take a starting point when people have moved and lived in their new destination for some time.

The projects were followed over a period of approximately two years, while they were created. The chosen projects were different in design, tenure forms, size, and location. The locations of the chosen projects are, when looking at Figure 1, in rural or semi-rural sites: Halsnæs (Blue); Lejre (Light Blue); Faxe (Orange) and Lolland (Light green). Two projects were small projects (4-8 units), whereas one was a middle size project (22 units), and one was a large project (90 units). One was retrofit, one was self-built, one was professional built, and one failed to be built. The diverse choice of projects is sought to be representative of the variety of current Danish co-housing schemes (Beck, 2020).

The co-housing participants were studied through qualitative interviews, participating observations, such as attending meetings, events, informal discussion, staying overnight (if that was possible), writing field notes, and reading digital updates on websites or social media. Because the different sites of the projects were under construction, the approach was multi-sited: Interviews were obtained in different places, such as cafes, workspaces, temporary dwellings, private homes, and so on. In all, 23 prospective residents were interviewed. Most interviews were individual; some were with couples, and a few were group interviews. The future residents were asked about their personal motivations for participating in and creating a co-housing project in the countryside. The interviews lasted for between two and three hours. Three of the interviewees lapsed from taking further part in a project. Only two individual interviews were conducted in the case that failed. However, the group had been followed at several meetings and events, where they talked about their motivations for being part of the group and create a countryside co-housing together.

All names are pseudonyms for anonymity. As personal motivations can comprise sensitive information, the analysis was undertaken as a study across the four projects. This helped to achieve a better overall understanding of people taking part in creating co-housing projects. Despite the diversity and the site-specificity of each project, the motivations for being involved in and creating co-housing projects have several common denominators. This made it possible to conduct the analysis as a complete study and to discuss the motivations across the four co-housing groups, even though one case failed.

THE FOUR PROJECTS AND THEIR FUTURE RESIDENTS

The four projects represent different methods of designing co-housing. Torup Overdrev was in the initial phases, whereas the three others were in the process of financing, site-preparing, or constructing phases.

Project 1.

Torup Overdrev was a group of prospective residents who wanted to create a co-housing in the village of Torup in Halsnæs, Northwest Zealand, but it was never built, and the group dissolved. However, people in this group talked about their motivations for being part of the project and why they wanted to move to Torup, which has attracted many newcomers with ecological preferences because the first eco-community of Denmark, Dyssekilde, was developed there in the late 1980s. Torup Overdrev should have been on a plot located apart from Dyssekilde, with eight or ten houses and a common garden and orangery for the purpose of cultivating vegetables and dining together in summertime. People interested in the project primarily came from Copenhagen and surrounding suburbs of Copenhagen.

Project 2.

In Lolland, a rural iceland in Southern Denmark, a family across three generations had found a manor, Herregården Nielstrup, to retrofit for their co-housing project. They had reached an agreement with the owner of the manor to rent the whole property from a relatively low rent. Nielstrup accommodates four dwellings. It was a retrofit project and, therefore, not a building project, although a work with recondition, decoration, and building of some walls and a kitchen was conducted to extend the community with another family, a young couple, and their new-born child. They were not part of the family but were originally from the region. The young generation formerly lived in the city of Copenhagen, whereas the senior generation lived in Lolland, originally.

Project 3.

In Lejre municipality, West Zealand, the co-housing Frikøbing was initiated as a sustainable building programme designed by a self-organised group of friends and families across generations. Over time, their vision was to become free of debt. The group had decided that the location of the co-housing should be no more than 50 minutes travel from the city of Copenhagen. The choice was a hilly landscape at the edge of the small town Hvalsø, which is in the most remote part of Lejre. It was developed from private ownership as a lot model, where members of the group made an association and built their own houses on each lot, while larger areas were kept for shared purposes, such as a common house and land. The 22 houses were built as either self-built or architect-designed or as customized houses with a distribution of rooms and materials decided on by the residents themselves. The common house was decided on and built collectively. The residents of Frikøbing were mostly young families. Some were seniors or singles, and some were family members across three generations. The residents were highly educated and primarily from Copenhagen and surrounding suburbs, although, in their early lives, many had been living in smaller

towns or villages in the countryside. A few moved from other places in Denmark.

Project 4.

In the small town of Karise in Faxe Municipality, Southeast Zealand, Karise Permatopia is located. Karise Permatopia comprises 90 row houses designed by House Arkitekter and a farm, farming land, on-site cleaning facility, wind turbine, and forest reserve. The project was initiated by a bank with alternative visions. They employed a project leader to develop the farm that went through bank rupture in the small town of Karise. The project leader gathered a small group of people interested in developing the site for experimental and environmental sustainability, and they created the first visions of the project together. With specialized engineers, architects, and other professionals, they developed the project from permaculture design principles to create both a co-housing and co-farming site. Before building, the project was separated from the bank and sold off to the formation association of Karise Permatopia, which was formed by the project leader, the group, and a non-profit social housing association. The non-profit part was Sydkystens Boligselskab, which is an association under the umbrella of the non-profit housing organisation KAB (Københavns Almindelige Boligselskab). The project is based on mixed tenure forms: 23 units are private ownership, 23 are cooperative, and 44 units are rental non-profit. The residents are a mix of people in all ages, in different kinds of families. Some are young families, whereas others are seniors, or singles, and some are family members across three generations. The residents are foremost from Copenhagen and surrounding suburbs, although, in their early lives, some had been living in the countryside. A few residents are from other places in Denmark or abroad.

COMBINING URBAN-TO-RURAL MIGRATION AND CO-HOUSING STUDIES

From migration research, it appears that a bundle of complex motivation factors is in play, when deciding on urban-to-rural migration. This is perceived through a biographical perspective (Bijker and Haartsen 2012; Halfacree and Boyle 1993), counter-urbanization (Champion 1989; Halfacree 2008;2012) and combined with motivations for co-housing (Beck 2020; Manzanti 2007; Marchman 2009).

Biographical perspective

Halfacree and Boyle (1993, 343) addressed the individual biographical perspective as an in-depth-approach to understand the motivations and intentions implicated in migration decisions. An individual biographical perspective was comprehended via a qualitatively oriented focus on an everyday life approach, where identity, employment, economic situations, life phase changes, lifestyles, values, family relations, previous life places, projections of intentionality into the future are all part of a biographical history and the individual as a decision-maker (Halfacree and Boyle 1993, 339–344). Further qualitative in-depth research showed that the complexity of factors involved combinations of intersecting reasons, which affected

the choice to move and formed the basis for where to settle including in which kind of region, local area, neighbourhood, and housing (Aner 2014; Aner and Hansen 2014; Bijker and Haartsen 2012; Neergaard 2014; Stockdale 2014). The new place and its possibilities are thus important factors (Nørgaard Jensen, Simon, and Skifter Andersen, 2010). This includes the dream of 'rural idyll' but also low housing - and land prices (Aner 2016; Neergaard 2014; Nørgaard and Andersen 2012). Lifestyle and the situation of the whole household was by Ærø, Suenson, Skifter Andersen (2005) and Ærø (2002) also found to have an important influence on the choice of housing. As before mentioned, Manzanti (2007) and Marckman (2009) studied young urban families, who had settled in suburban co-housing. The motivations for these families were connected to the social dimension of co-housing and to a lifestyle with other families with children.

Counter-urbanization and countryside co-housing

Counter-urbanization and a revival of rural population growth encompassed most Western countries in the 1960s and 1970s (Champion 1989). This counter-urbanization experience was primarily associated with the white middleclass moving out the city (Halfacree, 2004, 479; Grimsrud 2011, 642). In Denmark, this resulted in a boom of owner-occupied new-built residential areas, where each family built/had a house built on each their parcel outside the city (Court 1989, 136). However, people were also moving out the city to live in other ways, for example by retrofitting former farmhouses, or building other types of houses such as co-housing. From the 1970s, a counter-cultural, anarchistic, pioneering, and anti-urban motive was attached to Danish self-organized intergenerational co-housing (Nygaard 1984, 193;254), which continued as an ecological-nostalgic theme with a desire to return to the organic, the local and the authentic of self-build eco-communities, which were established as small 'villages' throughout the 1990s (Dilling-Hansen 2003, 12, Jarvis and Bonnett 2011, 2352).

The motivations for creating and moving to co-housing in rural and semi-rural sites were thus associated with the concept of counter-urbanization, for example, wanting to be closer to nature, desiring sustainable self-sufficiency, and developing permaculture solutions (Halfacree 2001, 403). However, counter-urbanization categorizations like ex-urbanization (well-to-do ex-urbanists living outside the city but maintaining ties to the urban through commuting), or displaced urbanization (need for lower cost houses), or anti-urbanization (escaping from the urban congestion, pollution, crime, etc.) advocated by Mitchell (2004, 24), only partly fit for contemporary co-housing settlements, because a bit from all categories is present in each household story. For example, lower costs on land and cheaper properties in rural sites (displaced urbanization) give more space and possibilities for green, less stressful, more sustainable living creating a community together (anti-urbanization), whereas links to the city through well-paid work, urban-rural identities, and commuting maintain urban-rural relations (ex-urbanisation).

The perception of counter-urbanization was by Halfacree (2008; 2012), broadened to become a more flexible concept encompassing everyone, who moves from an urban

to a rural context. This broader perception connected urban-rural life, mobility, leisure activities, and identities of people migrating from urban to rural areas (see model of Halfacree, 2008, 488; 2012, 219). Halfacree (2001, 404; 2006, 313; 2007; 2008) also incorporated 'back-to-the-land settlements', including small household scale farming (food self-sufficiency), connected to counter-culture critique and 'marginal settlement' (contrasting to mainstream society in radical ways) into the broader notion of counter-urbanization. The paper uses this broader concept of counter-urbanization.

The 'back-to-the-land' notion is to some extent useful, due to the intensions and practices of self-sufficiency in co-housing, but because most co-housing members have waged work, many they still depend on their income outside the community. This is related to that co-housing 'allows members to live another life without dropping out of society' (Sargisson in Beck 2020, 46), and because Danish co-housing has gained acceptance over the last years through media coverage and through a large amount of new co-housing developments (Jensen, Stender, Beck, Skifter Andersen, Madsen and Englyst, 2022), the notion of 'radical' is not any longer the dominant category for current co-housing settlements.

New place and possibilities

As pointed out by Grimsrud (2011), the above categorizations of Mitchell primarily focused on preferences for moving from the city and less on possibilities of the new rural location or ties to a place. However, moving to a rural place gives new possibilities. In a Danish context, Nørgaard, Jensen, Simon, and Skifter Andersen's study (2010) revealed that decisions for moving to rural areas are motivated by a complex of factors, which influenced the choice of moving and area of settlement and were factors such as wish for living in green and safe areas, lower housing prices, being closer to family and friends, get more space, due to retirement, or live close to workplace. Finally, return migration formed for some part of urban-to-rural migration (Nørgaard Jensen, Simon, and, Skifter Andersen, 2010, 44). The study by Andersen, Egsgaard-Pedersen, Hansen, Lange, and Nørgaard (2022, 15) supported the above findings and added that a frequent reason for moving was associated with family formation.

Furthermore, De Neergaard (2014), and Aner (2009; 2016) conducted qualitative studies of people who had moved from the city to rural spaces both near and far from the city. For example, Aner (2016) found for one group of young families a strong connection between habitus, including former lifestyle, and living place, and the choice of area of settlement, while for another group there was a strong connection of urban housing prices and the choice of moving out the city to rural places with lower housing prices and therefore less workload and stress. De Neergaard's research was informed by practice theory and phenomenology, and showed how the participants created an urban/rural mix and fulfilled their dream of rural idyll in the new place (2014). In prolongation of the above perception of counter-urbanization and De Neergaard's conception of urban/rural mix, the notions of 'rural' and 'urban' are in this paper not treated from dichotomy, rather these notions are dependent on each other and linked through a mix of urban and rural as intermediate spaces and interactions.

FRAMEWORK FOR CO-HOUSING URBAN-TO-RURAL MIGRATION MOTIVATIONS

In the framework of Figure 2, I combine counter-urban migration with co-housing studies formed by the above presentation of research. In figure 2, there are three key-point's bubbles with several sub-points each (factors for moving). In urban-to-rural migration research, a biographical perspective (bubble A) is often linked with a wish for a new place and possibilities (bubble C). Here another key-point is in play, namely the motivations for co-housing, which is interposed as bubble B:

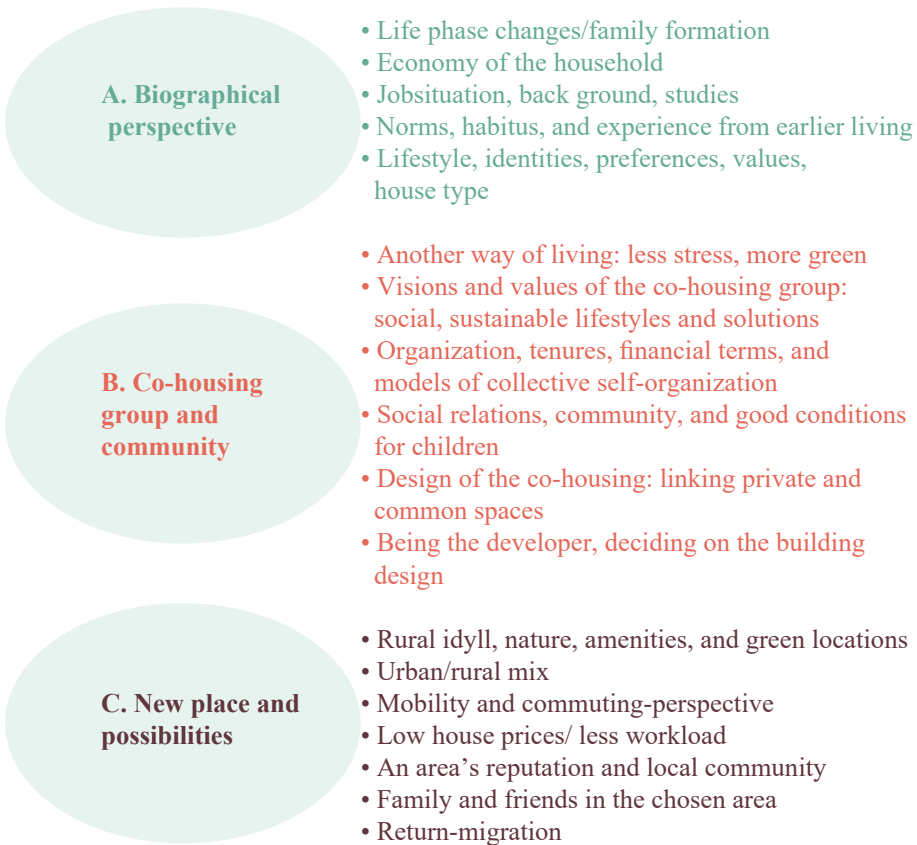


Figure 2. Analytic framework: Combining reasons for urban-to-rural migration and motivations for creating and moving to co-housing. Bubble A is placed first because these factors form a basis for taken the choice for moving, whereas the factors coupled to B is what motivates for choosing a co-housing community and bubble C factors are coupled to the new location and its possibilities.

EMPIRICAL FINDINGS

The empirical findings of motivations for creating and moving to countryside co-housing projects were in the empirical analysis, related to the analytic framework by connecting findings and interview statements with bubble A, B or C.

Socio-economic profiles of co-housers

From the four cases, it was evident that the profiles of future co-housers to some extent matched Jakobsen and Larsen's (2019) and Jensen, Stender, Beck, Skifter Andersen, Madsen and Englyst (2022) findings with the degree of high and medium educational backgrounds. The co-housing participants were for example, architects, landscape architects, engineers, economics, consultants, researchers, technicians, physicists, interactive digital designers, biologists, sociologists, social anthropologists, social workers, cultural workers, and teachers. However, due to the rental non-profit part of Karise Permatopia and the possibility for renting the manor of Nielstrup, there were also people with lower incomes. This included kindergarten and nursery teachers, kitchen managers, nurses, artists, performers, musicians, filmmakers, students, part-time working, unemployed, and people on small pension savings.

A link to the city: urban-rural identities

Most of the research participants had been living in the cities for quite a few years and were influenced by city life and identities. Many still had their networks and friends there, which connected them to the city. At the same time, they wanted to live closer to nature; therefore, they combined the urban and rural settings for their lives, for example by commuting. Jesper, a young family father, commuted to the city for work. On the weekends, he dug in the garden and played with the children. He said, *'I feel much more tranquillity out here. I do not get annoyed about all the bicycles in the city as I did before; the nature gives me peace. I feel more in balance than ever before'*. He continued, *'But I don't think I would be able to stay in the countryside all the time'*. His identity is connected to both urban and rural space at the same time (bubble C).

The distance to the city, where most of the residents moved from but many still work in, is another important factor when choosing where to settle in co-housing. The distance was measured not in metric distance but in travel time. The ideal time was perceived as a little less than or around one hour to travel to Copenhagen. This indicates that connections and relations between urban and rural locations are important to the members of co-housing groups (bubble C). Some of the participants, especially academics with specialized jobs, still worked in the cities after moving to the countryside. Of the 23 interviewed, 10 commuted to a city (e.g., Copenhagen, Roskilde), whereas five took jobs nearby, two had retired, one was on maternity leave, one took care of her children at home, one was a disability pensioner, and three did not take further part in the project. From Nielstrup, it takes around one hour and 45 minutes to commute to Copenhagen. From Karise and Torup, it takes around one hour, and from Frikøbing, it takes around 50 minutes. People can commute to work or for leisure time.

In other words, they are at reachable distances from the larger cities (bubble C). These findings fit into the broader counter-urbanization picture of mobility between urban and rural spaces and a connection of urban and rural life (Halfacree 2012, Neergaard 2014).

Developing sustainable and green living facilities

All co-housing projects in the study were built on or retrofitted from sustainable and climate-friendly ideals and most of the participants expressed a longing for being closer to nature. The small group from Torup Overdrev was inspired by the eco-community Dyssekilde, to develop a lot model where each owner could build their own sustainable house, but because the group dissolved, these visions were never tested against reality.

The sustainable intentions were reflected in the materials of the three succeeded projects. Because the houses were foremost in wood, or reuse of existing structures, they were built with low co2 emissions (Hansen, Rasmussen, Ryberg and Birgisdottir 2022). For the group who retrofitted Nielstrup, retrofit and reuse of the buildings, ecological living, self-sufficiency, and use of second-hand materials and clothes formed a natural part of their choices in life. Frikøbing was initiated by a group of friends with the vision of sustainable and social living. The municipality had proclaimed Lejre as ‘the ecological municipality’, which was one of the reasons why the group quickly agreed that Lejre was the place for them to settle. They bought the land from a farmer who wanted to sell his land for housing developments. The group decided to establish an on-site cleaning facility, where wastewater is filtered by willow trees and to use renewable energy consumption and sustainable materials for their houses as well as their common house. They wanted to create low-economic-effect developments by building low-cost houses, but at the same time, they wanted low-environmental-effect houses. This was solved individually as Frikøbing was developed from a lot model.

All aspects of sustainability were also essential points for the group from Karise Permatopia. This project was a comprehensive design that combines architect-designed houses and retrofitted structures with farming from permaculture design principles. The houses were built of renewable ‘breathable’ materials to rigorous energy efficiency standards. A retrofitted farmhouse was used for common purposes and a barn was rebuilt with sustainable materials to convert into a common house, partly as a self-built project, where the group took turns in workgroups. The heating system uses geothermal energy from a pump powered by a wind turbine and is connected to a water tank that stores heat for times when there is no wind. Like in Frikøbing, wastewater is circulated to an on-site cleaning facility, where it is filtered by willow trees. All houses have urine-separating toilets, which provide sanitation, allowing urine to be stored and used as fertilizer on the farm. An additional system for collection and reuse of rainwater form part of the circulation design. The awareness of living in harmony with natural cycles and resources, including human resources, was achieved through a social structure centred on a cohesive community, where everybody is engaged in different workgroups. All residents were obliged to undertake work two to three hours per week in the fields or in other places of the community.

An important motivation for choosing to create a countryside co-housing is environmentally sustainable living and experimenting with ecology, renewable energy, etc., which reflects a desire for a sustainable choice and lifestyle. This included a desire for being closer to nature and living in a better balance with nature (bubble B and C). For example, one of the initiators of a project, Thomas, who worked professionally with wind turbines, when asked about his personal motivation stated that:

'I am dedicated to the question of sustainability, from a personal and professional perspective. We will be bidding the dust in short time. Therefore, we need sustainable solutions, and they must be in community.'

A social community life

Another dominant motivation for the participants was to have a more social life, performed by doing things together with close neighbours, helping each other, and being part of a community (bubble B). Living intergenerationally and across families internally was part of this social focus, where different generations come to live closer together. Relationships between group members were built while the decision-making was organised, and the building process was structured. Discussing visions and sharing values of how to live and on how to design the project and divide the labour was a process of creating together and, through this, of getting to know each other long before relocating together. Many of the interviewees would not move out of the city if there was not a group or a community that they could see themselves as joining. Here, Birgitta indicated this as follows:

'I couldn't imagine moving out of the city to live in a small provincial town and live there alone. My network is in the city, with the people I know, so there should be more to it to move out the city. A kind of community feeling, thus, not to settle in the countryside somewhere out there in a small town with people you might not relate to or have values in common with.'

The group and the values of the community has therefore high importance for the decision to move out of the city (bubble A and B). Hanne and her husband had been influenced by the social life of being scout leaders and doing outdoor activities. Hanne formerly worked as a teacher in a continuation school, and now, she teaches pedagogical anthropology. For her, it was the social life and the social activities that brought them to co-housing. She stated, *'I have chosen co-housing because I like to have a close network around me, a community where I know the neighbours and where we contribute to a mutual binding communality and dare to hold each other to account'*.

She thought that doing things together and commitment to the co-housing group was essential not to get free riders. Social life and construction of the group, which enhances engagement of both the group and the individual, are therefore important factors for future co-housing residents.

Group decisions were negotiated with the motivations and reasons for the individual household. For example, when the inhabitants in Frikøbing had to decide on how much the common house should cost extra to build, it was a balancing of benefits and drawbacks, of the economy of each household, and of the need for sharing and common dining. This discussion went on when the inhabitants were already living in the community. To have a fair and well-thought-through process, they decided to have a series of dialogue meetings where they listened to each other's contentions and different plans for solutions before having a decision meeting where the agreement was to vote for different solutions (bubble B).

Community, habitus, and childhood

The biographical perspective often changes when children are born. Many of the interviewees were young families who wanted another way of living with their children than in the city (bubble A). An example was Peter and his wife Frida, who was pregnant with their second child. Peter and Frida lived in a rented second home while their house was built. Before that, they had been living in Copenhagen. Peter stated:

'We thought of how to have a family in the best way in terms of which kind of experience our children should have and what the good things were from our own childhoods. We wished to have space for action to let the children use their energy and initiatives together with other children as well as having social interaction with other families.'

This is in accordance with the already mentioned studies where parents wanted to give their children the same values and good experiences as they had when they were children, being free to run and play, and that the family can be part of a community life (bubble B) (Marckmann 2009; Manzanti 2007). Johanne and her husband, Tue, with their two young children, who came into a project quite late, stated:

'We chose the project because it is located near our relatives and because we wanted our children to have the same opportunities, as we had, to run and play in nature... Moreover, I am extrovert, and my husband is introvert, I needed to be in a social context, to chat and drink coffee with friends.'

While some of the other participants in their childhoods or when they were young, had lived in co-housing or other collective housing forms, Johanne, and Tue, did not know the concept of co-housing before they found the project, they became part of. Before living in Copenhagen, Johanne and Tue had lived in the far countryside of Sweden where they were self-sufficient. Being connected to nature and growing vegetables were therefore important reasons for them to move out the city. Several factors play together in this counter-urban story: The biographical perspective, children's upbringing (bubble A), being part of a social and sustainable community (bubble B), the location, living close to family and being connected to nature (bubble C).

Another way of living

Co-housing is considered by most of the interviewees to be ‘another way of living’, which is critically distanced from the more traditional residential areas with villas on parcels enclosed by high hedges and fences (bubble B). In traditional residential villa areas, people might not have anything to do with their closest neighbours. Gregers, a man in his thirties living with his wife in Copenhagen, became part of the initiating group one year into a project. They were searching for a co-housing because they thought they would find it difficult to live in a traditional residential villa area, where they thought there would be no ideas or visionary approaches. In his childhood, Gregers lived in such an area, and he did not want to repeat it. Gregers and his wife wanted another more sustainable and social vision for their life (bubble B).

A formulated vision of co-housing is an intentional way of living with the aim to know your neighbours and to take part in a community (bubble B). The social factor is ‘built into’ the system of co-housing, which cannot be taken for granted in more traditional residential areas. One of the initiators of a project, Jørgen, who was at the time of the interview living in a large housing block, stated:

'Individualisation is an illusion. Solutions for sustainability must lay in making community. When I stand in front of the block a winter night and look up, I see the lights in the windows and that everyone apartment has a balcony. I can sit and wonder about who is living next door, on the other side of the wall. I have lived there for eight years, but I really don't know who lives downstairs. We spend two thirds of our life in the distance of 10 metres of each other, but I have no clue who the people living there really are. We have got used to that this is the order of the day. I can't help imagining that the house is one large dovecot where the residents then in the morning go to their balcony and fly to their work in their suit and after work they land again – but we are dam not doves!'

This is a critical response and longing for a better social life. It is a picture of a housing situation, which many have got so used to that we don't think about it anymore, or only begin to think about it, when we are lonely (bubble B). Another co-housing initiator had critical thoughts about personal freedom and how society is organised as democracy. Peter, a young family father, said the following:

'For me, it was the ideal of personal freedom and the matter of downscaling the large democracy... I don't believe much in the thought about representative democracy...the individual vote does not count much in relation to having an impact on one's personal situation or in relation to pushing the society in a direction one ideologically believes in. Therefore, I was together with a friend absorbed with the ideas of participatory democracy. We were thinking about how a society could work better on another scale, and we found these places [co-housing and eco-communities] around in society, where it is possible to organize together with other people and to create the physical layout due to the smaller scale...but not as a group on an island of itself isolated from the

wider society.'

Frida, his wife, continued the discussion about gaining more freedom in terms of economy through the community:

'Moreover, it was the thought that it should be possible to do this from less economy... we wanted latitude and freedom in our economic situation to decide whether to work between 40 and 60 hours a week or more like between 30 and 40 hours a week.'

The statement about working too many hours being like in a 'hamster wheel' was a recurring theme throughout the interviews (bubble C). Using time on being with the children, when they are small and being able to let the children run and play in a natural environment without traffic and with other children formed part of this wish (bubble B and C). Desiring another way of living with less stress, was also coupled to the fact that our society is institutionalised, and citizens are divided in age groups in for example ever larger nursing homes and kindergartens. Some of the prospective residents therefore wanted to live together with their family across generations, which can be considered both as an alternative way of living (bubble B) and a need for being closer to family members (bubble C).

Return migration and families living across three generations

All three projects that were established have examples of return migration (bubble C). In the case of Nielstrup, however, all the residents had either returned to their original region or were already living there. The manor of Nielstrup is owned by a larger manor who rents out Nielstrup to the group. In Lolland, a vast depopulation has occurred, especially because young people have been moving away to attain an education and a job. Often, these young people stay in the cities or suburbs, even when they start a family. However, for this co-housing, return migration occurred. The young generation returned from the city of Copenhagen, where they lived for a period of their lives while they were educated and obtained jobs before they moved back and settled down with the senior generation and then married and had children. The senior generation already lived in Lolland originally. The residents at Nielstrup were concerned with helping each other in daily life and looking after each other across generations. The men commuted by train to their jobs in Copenhagen, although sometimes they also worked from home, whereas the women had jobs nearby or were retired. One woman decided to stay at home to take care of her children. Moving to the countryside where homes are cheaper made this possible.

In all three project that succeed, there are also examples of families with young children living across three generations and therefore succeed in becoming close to their family (bubble A and C). Due to the size of Nielstrup, the constitution is dominated by this way of living, while in the larger co-housing the families across three generations form part of the community. This is a new tendency for co-housing indicating that family members want to live closer, have similar values, and want to help each other in daily

life (bubble A and B).

Being the developer and deciding on the building design

Another important reason for some of the future residents were that they could either design and build their own house or co-develop the project. However, being the developer also meant taking risks. Financial obstacles occurred when creating the projects. The projects were modified throughout the process of planning, designing, financing, and building. Some people left the groups, while new people joined. Some could yet not afford to be part of the project (bubble A) or did not feel that they connected to the values of the project anymore, which meant that some of the discussions and agreements had to be renegotiated in the group again (bubble B). Delays in the timeline of building were caused by obstacles; for example, it was extremely difficult to find bridge financing for Karise Permatopia, because financial institutes consider co-housing an experiment. The economy was revised several times followed by the downsizing of the project. This meant that the whole process was delayed for one-and-a-half years. For Frikøbing, the site preparation was more expensive than expected, and therefore building took longer. Furthermore, the budget had to be revised to build the common house.

These types of delays meant that most future residents had to find new temporary solutions to their housing situation, for example, staying in second homes, renting on provisional terms, and so on. Therefore, some of the future residents felt like in a limbo. While walking around to obtain photography in one of the sites, I met a woman I had formerly interviewed. The house she, her husband and their little baby had moved into had just been built. She stated that it was a relief finally to have a place of their own. They had stayed with her parents in law, while waiting for the house to be finished and she had been pregnant and given birth during this time (bubble A). That had not been part of the plan, as they had scheduled with being settled long before: They had been in a limbo. Under the interview she stated that she did not know exactly how much they had to pay for the house in the end. They had to operate within a margin of several hundred thousand kroner, which not everyone would be able to financially. These obstacles are part of the risk of being the developer (or co-developer) when building co-housing, but it certainly pushes the limits for how to live in between leaving a city apartment and finally 'landing' in a newbuilt co-housing home in the countryside.

CONCLUSION

From an ethnographic approach of following intergenerational co-housing projects under construction, the study brought a new method for researching the choice of creating and moving to countryside co-housing projects. Rather than following categorizations, for example, noted by Mitchell (2004) or by Halfacree (2001;2006), the paper related to Halfacree's expanded notion of counter-urbanization (Halfacree 2008;2012). The prospective resident's motivations were analysed across four projects. A nuanced picture of the variable motivations for urban-to-rural co-housing migration therefore contributed to an understanding of the relation between

co-housing motivations and counter-urban migration.

The study showed that creating and moving to a countryside co-housing is different than, other urban-to-rural migration stories because the social community, including sustainable choices and lifestyles, is the very reason many choose to create and move to co-housing. Co-housing in the countryside was by most interviewees perceived as another way of living than in mainstream residential areas. The vision of the projects and the values, the groups have in common is essential for building the communities. Many of the participants would not move to the countryside, if not for the group. In this way, the group ensured the change from an urban to a rural setting. The social-relational dimension, which link to sharing visions and values and how co-housing is organized and built, must thus be included in the factors of motivations for choosing this type of counter-urban migration. This includes the development of a social organization and a mutual binding communality of the group. These factors were combined with what the participants explained as a change in life and with the issues of bubble B in the developed framework for co-housing urban-rural migration (fig 1). For this type of migration, the issue of counter-urbanization can, therefore, be comprehended as both performing an urban-rural mix related to the inhabitant's identities with the connections to the city and to the group.

From the study, it was also evident that the motivations are manifold. As Halfacree and Boyle (1993) suggested, by focusing on a biographical approach, the decision is informed by a complex set of personal situations, values, and motivations. For many, family formation was integrated in the migration story. Child-friendly environments and a habitus grounded in the experiences of the parent's own childhoods formed part of their motivation. There were also several couples and singles with grown-up children and grandchildren, who wanted to make a change in life or wanted to be part of a project across three generations. All three successful projects included families across three generations. Some were couples or singles without children. Many wanted a better work-life balance with less stress and a more sustainable living with their neighbours. Some left the project, either because they could yet not afford it or because the values changed or due to delay in timelines. However, one project was based on a mix of tenures, which made it accessible for people on low incomes. Another project was not realised, because the group did not get the opportunity to buy the plot for the price they could afford. Creating a social community from environmental and economical sustainability and being able to live in proximity to and in balance with nature were important motivations. Return migration and living close to family and friends were other issues.

When choosing to invent, create, or take part in and move to a co-housing project in a semi-rural or rural setting, the residents have in general made a significant shift in their lives. They changed their lives from an urban to a rural setting to live in a greener, more climate-friendly, and much more social way. Society and academia might thus have something to learn from these intergenerational groups involving in community and sustainable living. The co-housing potential for urban-to-rural migration, which

contributes with new inhabitants in small rural towns and villages, should be paid more attention by local authorities and communities, because they can increase the population in locally and create new developments. Currently, co-housing projects and community-oriented dwellings are built as ever before in Denmark. Co-housing has thus gained attention in the mainstream for the first time as another possible way of living and has begun to be perceived as part of Danish mainstream culture. As co-housing can be considered an interesting match for rural villages and small towns, the findings in the paper hopefully help developers, municipalities, housing providers, and financial institutes gain more knowledge of the why's and how's of co-housing participants and their projects, not only in Denmark but in other countries, too.

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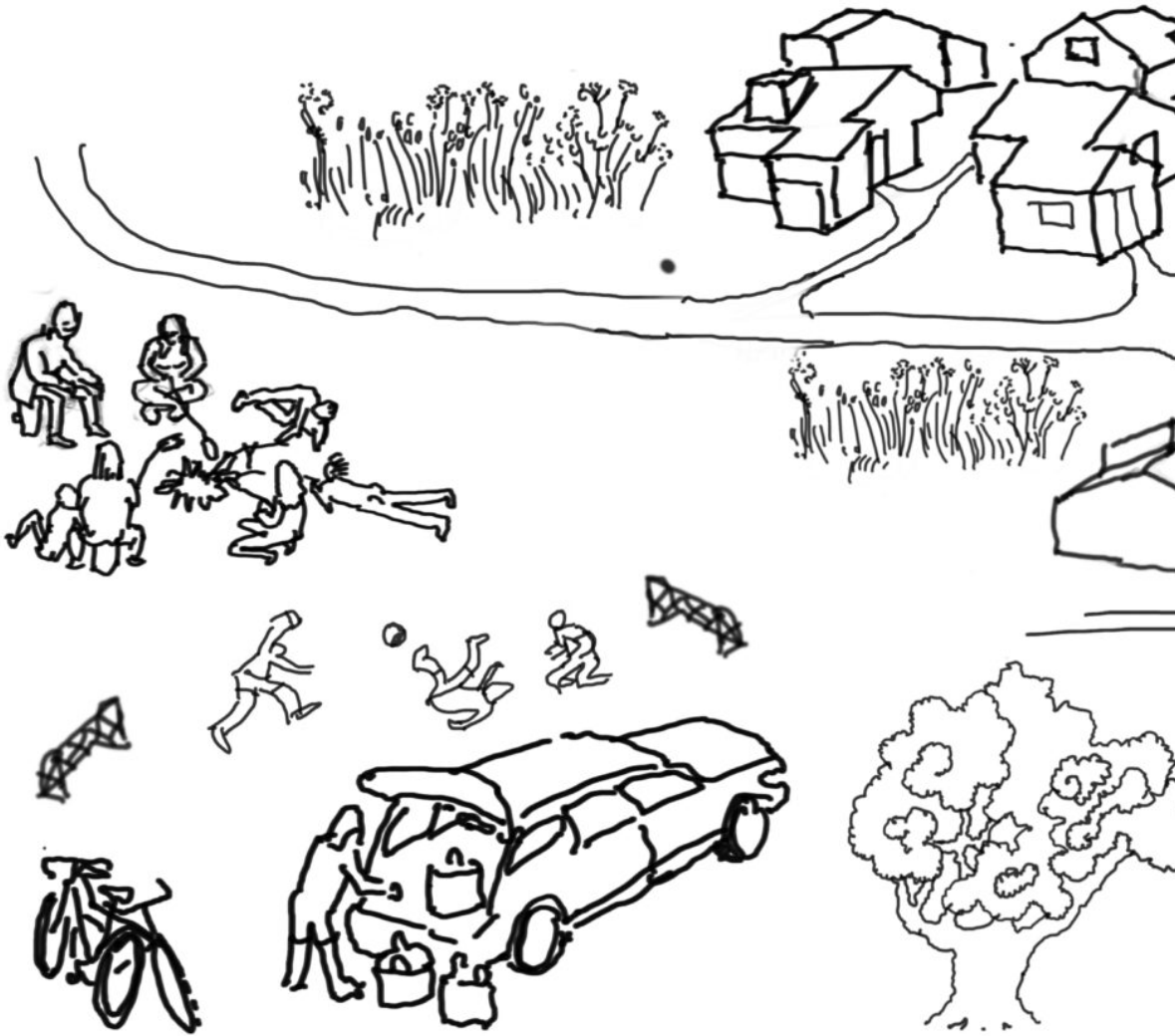
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PAPER 3.

**CO-HOUSING COMMONS AS HORIZONTAL
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