JONATHAN GRANBERG & HAMLET MIRJAMSDOTTER

SEARCHING FOR LIVING PLACE

SOCIO-SPATIAL EXPLORATIONS FOR SUSTAINABILITY THROUGH COLLABORATIVE RESIDING

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CHALMERS

ABSTRACT

Accelerating urbanisation and demographical transitions are currently overturning the capacity of the planet and urban societies to provide **sustainable living conditions** for its inhabitants. The metabolism of our built environment and urban lifestyles fail to reassure individual and societal needs, while resulting in detrimental externalities. Humanity must **transcend the current ways of residing** into a more **sustainable living place** if we are to succeed through our time's closing **window of sustainability**.

This study argues that there might be leverage within the **unsustainable living space** of the urban residence. Based upon a theoretical development of interdisciplinary research, qualitative interviews and socio-spatial explorations, this study has conceptualized models and socio-spatial frameworks to advice for an alternative and more progressive design approach. A promising potential is found in the capacity of a **meso-domestic living place,** an application of **collaborative residing** that might **afford quality of life** through a more sustainable use of residential space based on accessibility rather than ownership.

Keywords: sustainable development, residential space, living conditions, urban residing, home, socio-spatial affordances, meso-domestic living place

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THE AUTHORS

The authors of this thesis have a common background in the bachelor programme Architecture and Engineering and the master programme Design for Sustainable Development, both at Chalmers University of Technology in Gothenburg. They have previously collaborated in projects in the courses Building and Climate and Sustainable Building: Competition. They are currently residing in Gothenburg.

Hamlet has during his master studies delved into the issue of social sustainability in the studio Design and Planning for Social Inclusion. He's also studied heritage and conservation in the studio Architectural Heritage and Urban Transformation and at Uppsala University in Visby. His take on the field of architecture and sustainability is founded on the questioning of prevailing lifestyles and views on success and consumption. He is born in Sundsvall, Sweden.

Jonathan has attended the studios Sustainable Building and Sustainable Building: Competition. He has a bachelor degree in Human geography from Gothenburg University. He strives towards an interdisciplinary understanding of architecture and planning where humanities, natural and social sciences interact. With earlier studies and interest in the field of design systems he aims at a holistic approach towards sustainability and the complexity it holds. His previous projects and research has an emphasis on the social aspects of urban sustainability. He is born in Umeå, Sweden.

SEARCHING FOR A LIVING PLACE

Living place is the entitling word for this thesis, and the description in the oxford dictionaries reveals a strong connection to the notion of a habitat: "The living place of an organism or community, characterised by its physical or biotic properties." Notable is that "living place" is only present in the dictionaries of zoology, ecology and plant science, it's not included in any anthropocentric discipline, not within the dictionaries of humanities, social studies or even architecture. A specific habitat upholds prosperous living conditions for a certain species that thrive within, and many habitats have been resiliently sustained since long before humanity arose. The delicate systems are interlinked with surrounding ecosystems and withhold a stability that's been balanced through the vast time of evolution, creating the biodiversity that differ our planet from other that we know. **The living space** on the other hand is a strictly anthropocentric concept. The word is concluded in the oxford English dictionary as: "land needed by a group or people to live in" or specifically: "space within a building in which a person or people may live". Or even more delimited as: "the place in which a person lives, in particular the part of a house or flat excluding the kitchen, bathroom, or bedroom." Now we might ask ourselves; have the place in which a person lives been reduced to specific rooms within specific buildings, i.e. the living room? And even if we may reside within comfortable living rooms in acquirable dwellings, even if we may achieve the ideal home as promoted in lifestyles magazines, even if we may afford those square meters equally valued as an average lifetime salary; does the possession of such a living space hold the capacity for us to thrive? Does our current notion of residing really provide settings that assure prosperous living conditions, and are they resilient enough to supply a long term quality of life for oneself, others and the planet as a whole? Could we imagine a living place that is something more than our present living space, something else that could afford more value in our lives?

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INTRODUCTION

This initial chapter presents the academic framework of the thesis. The study's purpose and research questions are stated and delimited, drawn from a brief background upon the topic. A description of the methodological approaches is finally followed by a disposition of the thesis.

BACKGROUND

Concurrent research repetitively points out the danger of our present development where unequal accessibility to resources prevents the eradication of human deprivation, while also causing excessive tension on our planetary bounds. Population growth and accelerating urbanisation are creating critical challenges for our cities to accommodate sustainable living conditions for their dwellers. The price of living space rockets and segregation disturbingly polarizes the quality of life in urban settlements across the globe. Many concepts regarding sustainable building and urban land use focus on mitigating the impact of our built environment and the lifestyles it sustains. With more efficient building envelopes, use of healthy materials, passive energy systems or life time assessments we can strive to lower the negative externalities of the space we occupy, usually measured per square meter. However, these numbers seldom imply the qualitative benefits of that same occupancy, and there is a risk that "sustainable" solutions might maintain systems that are inherently unsustainable. One might hence wonder if the present use of residential space is beneficial? Is it really sustainable?

A primary aspect to secure urban living conditions is the materialisation of residing, the access to a home, a spatial anchorage for the household to dwell within. A notion of sanctity that is delicate to question but yet an ever so important key to sustainable development. Within a Swedish context, urban residing reveals several problems; the impact of our western urban lifestyle, the scarcity of favourable spaces to reside within and a disturbing polarization fuelled by residential segregation. Dwellings are becoming bigger and less crowded, but at the same time, we witness a decline in social capital and increasing solitude. The western ideal of individual possessions implies a consumption where each apartment should accommodate any comfort one might need. Yet, excessive control of residential space and clutter of materialized amenities doesn't hold any self-evident affordance to quality of life. All this sums up to a salient challenge; how could we make the urban residential space and residing more sustainable? How should it be designed to house an accessible living place to thrive within

for the future?

Emerging discussions about collaborative consumption, communal housing and sustainable behaviour are starting to open up new paths towards a sustainable society. However, much work is still there to be done, and we've so far only started to uncover the capacity these strategies might reveal.

ACADEMIC FRAMING

Four assumptions giving a purpose

This study derives from four assumptions. First; conventional ways of urban residing have large environmental, societal and individual impacts that must, and could radically be made more sustainable and afford a higher quality of life. Our ways of residing are salient aspects in the endeavour to find sustainable living conditions.

Second; a promising development is believed to be found in the concept of collaborative consumption. The accessibility to beneficial settings and amenities are regarded as crucial for our living conditions, and could improve if we progress from the restrictions of exclusive possession. The predominate ways of residing could be more beneficial through collaboration.

Third; the spatial and social aspects of residing are deeply interrelated. Residential architecture could hence give agency to change the notion of residing through the provision of a more progressive living space. The ways of residing could transcend through a progressive design approach.
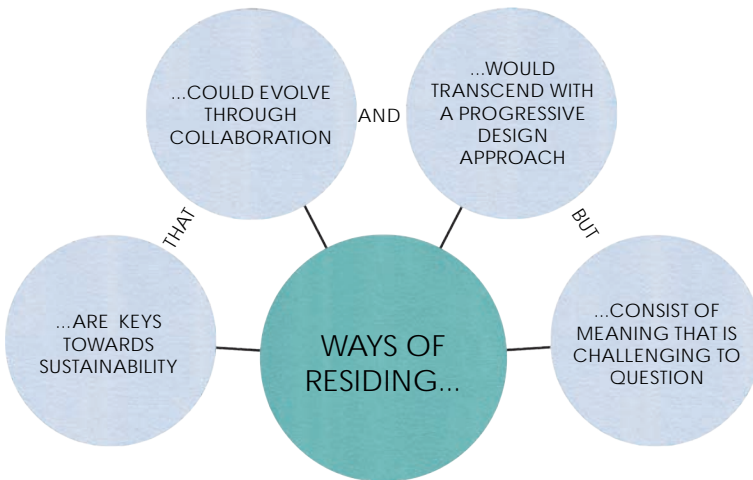
Figure 1. Four assumptions.

Fourth; the very notion of residing is strongly related to certain socio-spatial connotations, sanctities such as home, household and lifestyle. In order to find a real leverage for the progression of residential design, these concepts must be scrutinized, questioned and developed. A transcendence hence needs to confront many accustomed practises and ideals within western urban residing. Our ways of residing consist of customs and meanings that are challenging to question. From the statement of these four assumptions the very purpose of this thesis is framed as:

> To afford sustainable living conditions through a progressive collaborative design approach, that dares to transcend the predominate ways of urban residing.

The search for this design approach is the very endeavour within this study. The purpose might as such be referred to as the entitling search for living place.

Three research questions

The purpose is operationalized by three main research questions. First, there is a need to delimit the object of study, i.e. frame and investigate contemporary urban residing. What strengths and limitations does it bring about? As well as there is a need for this norm to transcend, there are certainly qualities that should be preserved. The capacity of current residing thus need to be explored within this thesis, both the conventional practise and collaborative alternatives. A first research question is therefore:

> What are the individual, societal and environmental implications of contemporary urban residing?

In this thesis it is predominantly the socio-spatial dimension of residing that is investigated, as the purpose is to find a living place that could afford more sustainable living conditions. This implies that the architectural design needs to attain prerequisites for the dweller to achieve quality of life within a sustainable use of residential space. In order to evaluate whether this is done, there is a requisite to formulate salient aspects that need to be addressed.

> What are the salient socio-spatial aspects affecting quality of life within urban residing?

These questions merge as one asks whether sustainable living conditions could be achieved by transcending the notion of contemporary urban residing? From this a binary, third research question emerges;

> What could be a more progressive approach for urban residential design and what might be a pragmatic model to reveal it?

These resultant questions don't hold a silver bullet, but rather the humble aspiration of finding a living place that might reveal new values of residing, beyond the conventional residential architecture and collaborative alternatives today.

Aims

The normative claim that we need to rethink our current ways of residing, and the call for a new approach towards residential design, is a contribution in its own right. The very argumentation that urges for rethinking, for a transcendence of the prevailing notions of residing, is a primary aim within itself.

This work further aims to constitute a stepping stone towards a progressive development of residential architecture through further discussion, research and design. As such, this study does not present any finished design solutions, but rather develops a theoretical framework that strives to consolidate related theories within sustainability research, psychology, sociology, human geography and architecture towards a comprehensive theory, which can act as a basis for an architectural reshaping of the way we reside. The ultimate aim of this is to provide tools that may support architecture that can facilitate sustainable living conditions; a socially just and environmentally safe future where people can enjoy a high quality of life.

Results

As a main conclusion of our conceptual development, the concept of **socio-spatial affordances** is presented as an element for the program and configuration of our living places, with an aspiration that this may remedy the limitations of current notions within the discourse of residential design. These affordances are composed of

concepts such as personal-public identity, stimulation and amenities. The predominant spaces in which we reside will be deconstructed using these tools to investigate what beneficial affordances there are, what is lacking and how a more beneficial composition could reframe our domestic living place. This is investigated through interviews, workshops and design explorations, which are presented as illustrative examples of the result, wherein a promising finding is the capacity of a meso-domestic living place.

...FOR A TRANSCENDENCE OF OUR WAYS OF RESIDING TO ENSURE SUSTAINABLE LIVING CONDITIONS.

...A THEORETICAL FRAMEWORK FOR TRANSCENDENCE WITHIN THE CONCEPT OF COLLABORATIVE RESIDING.

...ARGUE...

...SUGGEST...

THE CONTRIBUTION OF THIS THESIS IS TO...

...DEVELOP...

...WORK OUT...

...A PROGRESSIVE DESIGN APPROACH FOR RESIDENTIAL ARCHITECTURE BASED ON THE ACCES TO FAVOURABLE PLACES AND OCCASIONS.

...A METHODOLOGY THAT MIGHT REVEAL THE CAPACITY OF A COLLABORATIVE LIVING PLACE.

FIGURE 2. RESULTS OF THE THESIS.
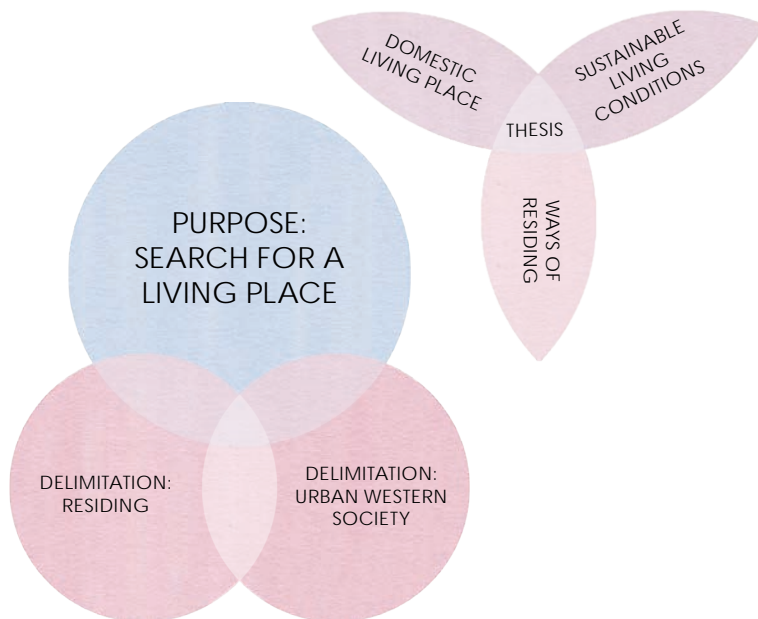
Delimitation

The thesis' research is situated within a context of urbanization in western society, and more specifically in Gothenburg, Sweden. While some parts may be generalized to a wider scope, and the issues at hand are global in their nature, local norms, practices and other conditions constitute the point of departure and focus for the study. The search for a living place will encompass multiple aspects of everyday life. The more general framework will however be focusing on the notion of residing as this is regarded as a crucial aspect within this thesis. More specifically, residing is studied in urban multi-family buildings. The orientation of this study will hence be delimited to: study the urban living conditions of western residing within the domestic living place.

The target audience are stakeholders within the field of residential building development; architects, planners, clients and developers, as well as researchers within relevant fields.

METHODOLOGY

Interdisciplinary field of research

The subject of this thesis is revealed by the cross section of several disciplines. The prominent concepts of living place, sustainability and residing are complex notions with different interpretations depending on perspective and ontological approach. There is hence a need for this study to encompass an interdisciplinary field of research. The framing of this thesis generally depends upon five principal orientations; architecture, sustainability research, human geography, sociology and psychology. Accordingly, the study combines terminology and theories from these varied disciplines.

Three principal research methods are used. First, comprehensive literature reviews are conducted to build up the theoretical framework and normative context of this study. A conceptual development is also designed by the authors in order to apprehend and investigate the meaning of living place. The third method is an empirical
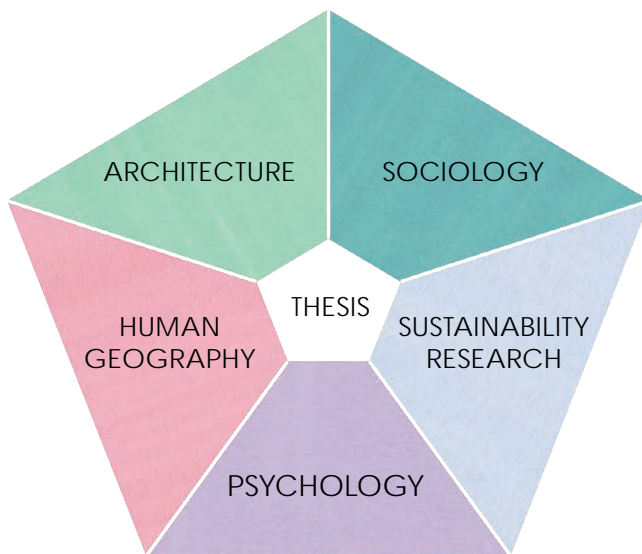
FIGURE 4. THE FIELD OF RESEARCH.

contribution of qualitative interviews. These three methods have been used iteratively throughout the process as they have informed one another rather than being performed in subsequent steps.
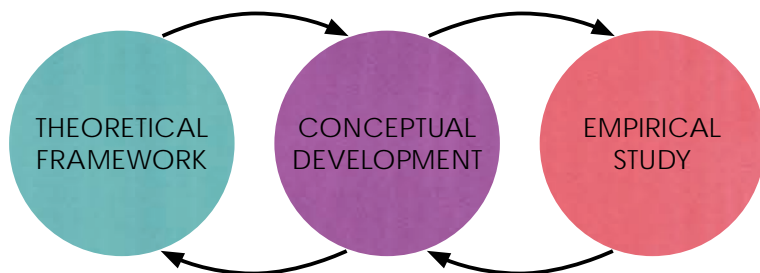
Figure 5. Iterative research method.

Theoretical framework and conceptual development

This thesis is supported by a broad theoretical framework and one of the main efforts of this study is the comprehensive revision of research literature. A critical analysis of residing is made in correlation to theories of wellbeing, socio-spatial interaction and environmental research, in order to expose and present the hypothesis of the study; a new approach to residing could hold more capacity for sustainable living conditions.

The literature is primarily found in reference databases and publications from the authors' research environment at the Department of Architecture of Chalmers University of Technology. In addition to these sources several books within the various fields have been used. Statistics is mainly received from Swedish authorities such as the National board of housing, building and planning (Boverket) and Statistics Sweden (SCB). Some news articles and popular science publications are also included to highlight concurrent discourses in addition to the academic literature.

The review of the subject of this thesis and the theoretical depiction of it is mainly presented in theoretical abstractions; models, suggestions and tools to encourage and support a new approach in residential design. The range of theories presented are consolidated into a set of concepts that reflects the authors' understanding of the field of research, and are subsequently employed in the conceptual

development. The analysis is done through the authors' experience of architectural design from their practice and education in the topic.

Empirical methodology

A total of nine qualitative interviews were carried out throughout the research process, some combined with study visits to observe the respondents' residence. The interviews were conducted in four parts and generally lasted about one and a half to two hours. The first part explored the everyday living place of the respondent from a time-geographical perspective, while the second part moved into the domestic living place and residential design. The continued interview was more explorative to find what socio-spatial affordances the respondents would prefer to have more accessible in connection to their domestic living place. The third part used various scenarios to reveal beneficial settings and amenities, while the last part introduced a model for residential design developed within this thesis.

The empirical contribution withholds multiple benefits for this study. First, it provides phenomenological knowledge about the notion of residing that may validate and complement the literature review and findings within the conceptual development. Secondly, it might also guide the continued development as it broadens the authors' ethnographic vision and gives new insights into residing. The situated knowledge and self-experienced perception of residing that the respondents communicate is a valuable and essential knowledge to widen the perspective and question the presumptions that the authors have about the notion of residing.

DISPOSITION

This thesis is divided into four consecutive parts. The first part, called theoretical framework, presents the point of departure of the thesis in the issues of sustainability and the opportunities of collaboration, finally presenting relevant theories of space, place and wellbeing, all based on literature review of research from the different relevant fields of research.

The second part is called conceptual development. This introduces concepts developed in this study, based on the theories previously presented, the most prominent being socio-spatial affordances and the meso-domestic approach.

In the third part, called socio-spatial explorations, results from the empirical study and analysis are presented, which constitutes applications of the concepts developed. An illustrative example of a meso-domestic living place is also included.

A discussion constitutes the fourth part, reasoning about the findings of the socio-spatial explorations and the potential of the concepts developed in relation to the issues presented in the first part. This part is ended with a final reflection of the collected findings with regards to the purpose and research questions.
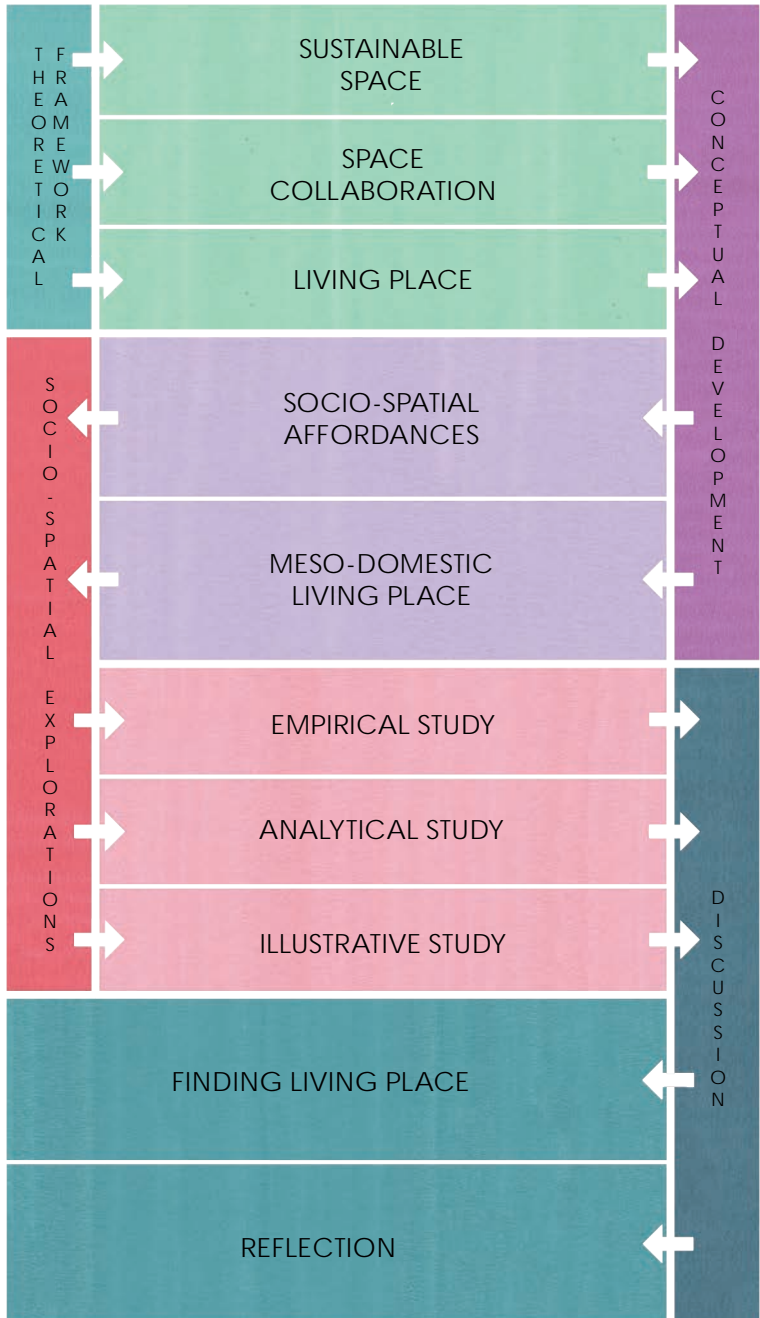
THEORETICAL
FRAMEWORK

TOWARDS SUSTAINABLE SPACE

If we are ever to find a living place to thrive within we need to search for living conditions that are sustainable; environmentally secured, socially justified and which can afford for our quality of life. The built environment has failed to reassure these conditions and thereto face huge demographic challenges ahead. A remedy is suggested in a progressive use of the urban space in which we reside. This first chapter starts off by introducing the window of sustainability as a guiding model for this thesis, followed by a report on the urban conditions and salient aspects of its residential space.

THE NEED FOR A NEW COURSE

Safe and just

Within the vast and varied field of sustainability research, there is a strong concordance among scientists that we need to change the devastating effect we inflict on the biophysical preconditions of the planet. The term sustainable development has gradually been acknowledged as a common and normative direction for humanity. With the definition generally referring back to the world commission on environment and development from 1987 (Elliott, 2009; Gray, 2010; Tanguay, Rajaonson, Lefebvre, & Lanoie, 2010) as a "[…] development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development, 1987, p. 40). This recognition is criticized to be vague and hence inoperative, though the ambiguity of sustainability has also managed to gather stakeholders in dissension towards some unity (Mebratu, 1998; Tanguay et al., 2010; Vallance, Perkins, & Dixon, 2011) and vitalise an ongoing debate about the subject (Kates, Parris, & Leiserowitz, 2005).

In this debate there is a concern, and resent research affirm, that the growing impact of human activity is now overturning the planet into a new and detrimental state if we don't drastically change our ways of living. The resilience of vital ecosystems is currently stretched towards several critical thresholds where substantial actions must be made to balance the course of our development (Rockström et al., 2009). Meanwhile, social deprivation is widespread (Raworth, 2012) and experienced as far direr than the environmental crises for a huge part of the world's population (Marcuse, 1998). The possibility for us to live off the resources that earth and society provide will require us to drastically rethink the course of our development, or we'll need to face a future state with less opportunities to uphold favourable human **living conditions**. Our planetary impacts are even gathering scholars to acknowledge a new geological era, the Anthropocene (Rockström et al., 2009), a name that reminds us of who was responsible and who didn't act for a change.

A recent and influential approach to turn this course has been developed by Johan Rockström and colleagues at the Stockholm Resilience Centre. Their research provides a quantification of what planetary bounds humanity must stay within, in order to retain the planetary stability upon which we depend. They raise a warning that we're already surpassing some of these delicate and interlinked boundaries, such as the rate of climate change and the important balance of the planet's nitrogen cycle. Rockström et al. hereby claim that we need to operate within a **safe space**, where the negative externalities of our actions don't breach the **environmental ceiling** and conjure an irreversible environmental calamity.

Another complementary perspective is the socio-conditional notion of **just space**, introduced by Kate Raworth (2012) as
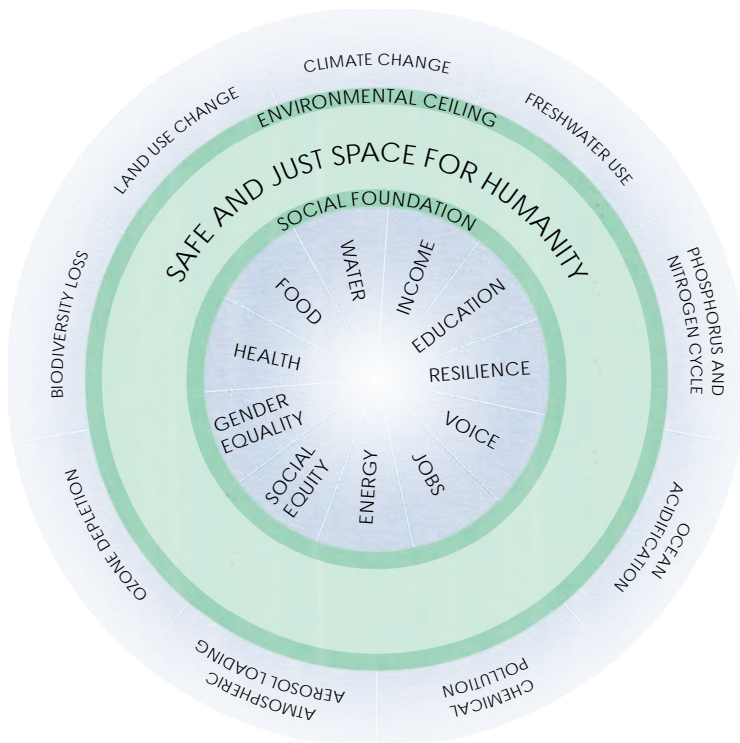
Figure 6. Doughnut of planetary and social boundariers. After Raworth (2012).

the humanitarian obligation to secure a **social foundation** and eradicate social deprivation. In resemblance with Rockström's quantificational approach, the just space is based upon several thresholds, which generally regard entitlement to human rights and accessibility to substantial resources.

A window of Sustainability

Even as obvious the notion of sustainability might seem, there is an ever so crucial concern to position the perception of reality from which this thesis interprets our social and environmental state and call for action. The notions of **safe** and **just** space are regarded as valuable prerequisites for a foresighted and progressive development within this study. Current living conditions are hence recognized as unsustainable, and the very subject for this study derives from the aim of finding leverage to turn the development in a new direction. What is important to point out is that this is an effort with no inherent call to sacrifice any quality of life, but more likely a chance to improve it. We're not constrained by the demarcation of an environmental ceiling or social foundation; they rather provide an operational framework of agency that may afford us to achieve a prosperous future (Raworth, 2012).

> *"The resulting space [...] It implies no limit to human well-being: indeed, within this space is humanity's best chance to thrive."*
>
> (Raworth, 2012, p. 5)

Influenced by the operating space proposed by Raworth and Rockström et al. this thesis introduces a conceptual framework to guide this study; the **window of sustainability.** It represents the temporal possibility for us to progress towards sustainable living conditions, an indispensable transcendence if we are to assure a long-term accessibility to our quality of life, where societies and the environment have a chance to (a)spire. This framework differs from the preceding notions as it rather than delimiting a space of action points out a normative direction for development. To succeed through the window of sustainability is the collaborative navigation that humanity need to undertake across the delicate eye of a needle, a snare that's unceasingly stressed by our present ways of living. This

is a global endeavor where we all need to rethink our ways of living; we need to arrive in a foresighted future where we have transcended from the unsafe and unjust times of today.
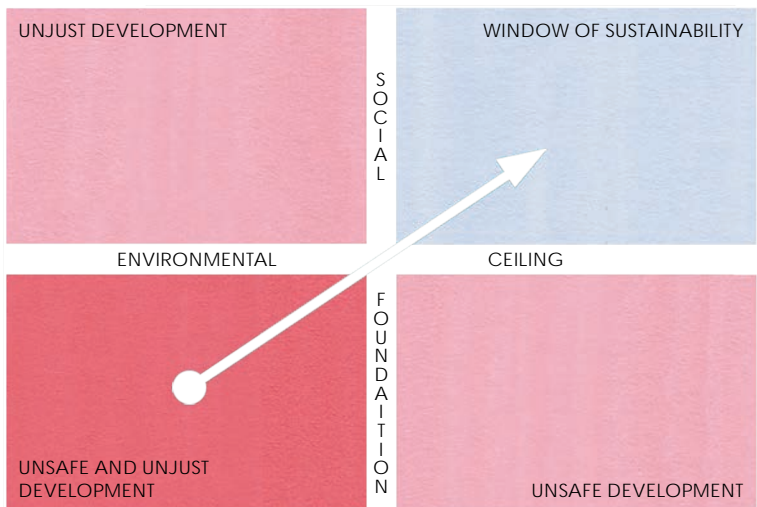
FIGURE 7. THE WINDOW OF SUSTAINABILITY.

HOLDBACKS TO CHANGE

The contradictory development

Sustainable development is commonly referred to as the sum of three sustainable dimensions; ecological, social and economic (Elliott, 2009; Mebratu, 1998). These might be regarded as the three main systems humanity has regarded as crucial to shield and protect. The window of sustainability advice that we need to secure and justify the social and ecological impacts of our ways of life. It is the belief within this study that the sustainability of economy is to be regarded purely as an instrumental incentive for our actions rather than an intrinsic value in itself, an interpretation which is shared by researchers such as Raworth (2012). There is however a present developmental doctrine for continuous economic growth. The sprawl and metabolism of the built environment is what keeps the economy growing, and the consumption of space and stuff has accelerated immensely during the last century. Botsman & Rogers (2011) refer to this as "hyper-consumption" a period and performance in which we let us be defined by what we own. Among the municipalities of Sweden, the strife for growth is also the prevalent strategy among politicians and city planners to promote the attractiveness of their region as a prosperous living place. Even if this development is described as sustainable, the labelling doesn't necessarily ensure that there is a safe or just outcome of urban plans and policies.

The holdback for a more progressive development might be found within the very notion of sustainable development, since long acknowledge as an oxymoron (Lélé, 1991). Forsberg (2007) refers to this conflict as the "trap of growth" (tillväxtfällan), which means that sustainability measures are only regarded as legit if they don't counteract the interest of economic growth. However, this growth has proven itself unsafe, and the wealth concentrations from this development are thereto alarmingly biased. Our economic system have ended up with a distribution where 85 individuals owns just as much as the combined wealth of the poorest half of the world's population together (Fuentes-Nieva & Galasso, 2014).

If there is to be a sustainable development, there must be a shift where logic and agency of our economic systems might transcend from its dogmatic strive for continuous growth towards a subtle act of balance that might maintain and develop sustainable living conditions. This transition must be global as well as local. It is easy to reassure "sustainable" living conditions for some, without accounting for an overexploitation of remote livelihoods and resources. This proposes that the impacts of our residential spaces or present ways of residing within the context of a Swedish city can't be understood without the concept of globalisation or the profiting logic of the global economy (Gren, Hallin, & Lindqvist, 2003). Within this unjust and unsafe possession of assets and the current development which make this biased possession persistent is also the resolution to the problem. We might reallocate this wealth to invest in a more resilient environment and society.

THE UNSUSTAINABLE URBAN LIVING SPACE

Demographical challenges

If we regard the social foundation in the light of our urban built environment, the prevalence of slums might give a suggestion about the challenges we're at. Within the western urban societies, six percent are currently residing in areas regarded as slum. If we look upon the least developed parts of the majority world, almost eighty percent live within these conditions, which constitutes a third of the world's urban population (Davis, 2006). This exposure of our urban situation informs us that there must be a more just development of our built environment. However, if we were to resolve the unjust urban development through a conformation to the excessive lifestyles of the west, a devastatingly unsafe development would be the result. If we are to search for a sustainable living place to thrive within, that might succeed through the window of sustainability, we need to think carefully about our ideals of the urban dweller. Raworth (2012) accentuates that the major factor to succeed is to not accept the present inequity where the lifestyles of the privileged few consumes the planetary resources needed to maintain the social foundation of all.

> "The biggest source of planetary boundary stress today is the excessive consumption levels of roughly the wealthiest 10 per cent of people in the world, and the production patterns of the companies producing the goods and services that they buy."
>
> (Raworth, 2012, p. 19)

The year 2008 constitutes a milestone after which a majority of the world's population now live in cities (Dempsey, Bramley, Power, & Brown, 2011). This rapid urbanisation is hence challenging our cities to accommodate a growing urban population with adequate square meters of urban space (Brinkø et al., 2015) and even more so, sustainable urban living conditions. This development is especially notable in a western context as these levels of urbanisation were reached in Europe already in the 1950s, and it's estimated that the

European cities will accommodate 85 percent of the European population by the year 2050 (Caragliu, Del Bo, & Nijkamp, 2011). In a global perspective the prognosis is that population growth is more or less exclusively going to be within an urban context and reach a global peak at around ten billion in the year 2050 (Lutz, Sanderson, & Scherbov, 1997). 95 percent of this growth is going to be experienced within the cities of the majority world that will hence double its population in just one generation (Yeung, 1997).

These demographical transitions are also prominent in the Swedish context. The country's population consisted of nine million people in 2004, and already in the coming year of 2017 the population is forecast to pass the milestone of ten million people, there is hence a relatively rapid demographical growth. In regards of urbanisation the Swedish cities only accommodated about ten percent of the population in the beginning of the nineteenth century, this relation has now shifted as almost ninety percent are living in urban environments today.
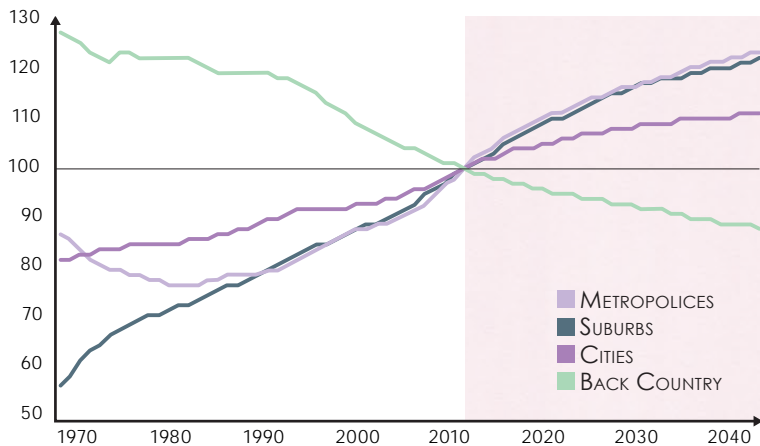
Figure 8. Urbanisation in Sweden. Index 2011=100 (Karlsson, 2012)

The sprawl of our built environment

A tangible outcome of resource exploitation is the present transformation of land. This is according to Rockström et al. the most devastating breach of our planetary bounds as the biodiversity loss is eradicating our planetary species at a pace hundred fold what could be regarded as natural. To this comes the metabolism of our built environment; the consumption of resources and energy into outcomes that far too often have negative impacts on our planetary systems such as waste accumulation or pollution. This development raises two important questions. First, is the extent of this sprawl safe and just. Second, is the space that sprawls safe and just in itself?

The sustainability of our built environment and the lifestyles they accommodate can be illustrated by the concept of an ecological footprint. This is the planetary surface that we need to exploit to provide for our production of resources and take care of our waste. We currently need multiple planets to sustain the western lifestyles, which is obviously exceeding the planetary boundaries (Global Footprint Network, 2012).

This could be developed further into the question whether the physical sprawl of our built environment could be kept within a

USA

SWEDEN

CHINA

Figure 9. Number of earths required to maintain the average person in different countries (Ecological Footprint Network, 2012).

more beneficial use of space, and most importantly, how this space could transcend our living conditions to facilitate more sustainable lifestyles. In Sweden the municipalities have an exclusive right to execute physical plans and should propose general guidelines for the development of our built environment, but the physical outcome is further shaped by construction companies and architects. Even so, the main designer of our present living place is perhaps our shared societal assumptions about how we are supposed to live. The unjust and unsafe condition of our built environment reveals a system that's malfunctioning. The question we should ask if it is best resolved by the persistence of old habits or if there might be other ways to shape the spaces of our built environment.

Sustainable cities

Because of the current situation of our urban environments and the demographical challenges ahead, a strong leverage to create safe and just space for humanity is found in the urban context. Still there is suggestions in the research literature that remarkably little effort has been made to find a definition of urban sustainability (Hopwood, Mellor, & O'Brien, 2005). Even if there were international discussions upon the topic as early as 1976 with the first international conference on urban issues in Vancouver, we're still not in a position were cities can be regarded as sustainable. Twenty years after this conference a follow up was made that gathered about six hundred recommendations on the topic of urban sustainability (Whitehead, 2009). The outcome might be summarized in three general conclusions; first, that the cities' consumption of resources and negative externalities can't exceed the capacity of planetary systems; second, the dimensions of sustainability need to be framed specifically within an urban context; third, the social dimension of sustainability in particular need to be further accentuated to succeed. I.e. the urbanised built environment needs to be both secured and justified.

Among the disciplines that have come to study the notion of urban sustainability are those of architectural design and spatial planning. This has emerged in numerous design concepts to provide more sustainable solutions in cities. A comprehensive review of these concepts was concluded by Jabareen (2006) in seven specific themes,

such as "density", "mixed land use" and "diversity". These are further combined into more aggregated notions like the "eco city" or "compact city", where the later might be regarded as the perhaps strongest incentive within Swedish policies and strategies to achieve urban sustainability. There is herein some indication that scholars, policymakers and practitioners try to find general planning ideals to solve the urban issues of sustainability today.

There is also critical conflict of interests. For what socio-economical groups do we make the cities attractive? How does a humble and affordable development, rich of public commons and preserved nature stand against the revenue of waterfront development with high end dwellings with exclusive rooftop terraces? What clientele are regarded as beneficial for the city and what are the urban lifestyles we promote by our urban development?

SALIENT ASPECTS OF URBAN RESIDENTIAL SPACE

Space consumes resources

Both when they are built and during their entire life span, buildings put considerable strain on the ecological environment. They are one of the major contributors to climate change, producing about one third of global greenhouse gas emissions, and use more than forty per cent of all energy produced worldwide (United Nations Environment Programme, 2009). Environmental considerations within the building sector in Sweden are considerable. However, measures are strongly focused on economically beneficial solutions driven by market forces. This means in practice reducing the need for heating by improving insulation and installing other energy saving systems (Hagbert & Femenías, 2015). Tackling the sustainability issue in this unilateral way appears not to be sufficient to turn our development into a safe direction, as it doesn't take into account the role of the residents' behaviour to reduce the negative externalities that our buildings give rise to (Janda, 2011). In accordance with Jevon's paradox and other complex economic effects, it's not even safe to say that improved energy efficiency reduces the total energy use in absolute terms, and it's in any case very hard to determine (Sorrell, 2009).

In the European union the Energy Performance of Buildings Directive require that all new buildings should be nearly-zero energy buildings at the end of 2020 (Erhorn & Erhorn- Kluttig, 2012), but even if this is achieved, the built environment still need to be evaluated by the impact it has upon society and environment through its embodied energy and the metabolism of its use.

The fact that energy consumption is generally measured per square meter means we need to pay attention to how much space we use and what we fill it with. An increase in residence size and demand for amenities has actually been working contra productively to energy efficiency measures (Vale & Vale, 2010). This highlights that the residential design and our ways of residing could be a lot more progressive if we were to truly evaluate the sustainability of the spatial transformations, management and use. Additionally, even if

we theoretically were to dwell without any negative impacts, each square meter would still consume the value it would have been able to generate if it was left unbuilt or used differently. The residential space will never be sustainable if it doesn't afford for more spatial benefits than the crude values it claims. In this sense the residential space always consumes a supposable living place and hence need to add a surplus value that is both justified and safe.

Space is a resource

Space is a finite resource as we only have one earth, that with growing populations and globalization appear to become smaller before anything else. Space is an increasingly scarce resource. Cities generally have an ecological footprint manifold their own size and their population are hence depending on rural and natural capacity. The sprawl of new and expanding cities hence endanger their own vitality when they become relatively bigger in an absolute environment. It is estimated that we'll see a loss of two percent of the land for food production only due to urban sprawl already in the year 2030 (Raworth, 2012), while the demand of food will only increase. This calls for a new course for how we develop our built environment, a way that can make better use of the resource of space. Residential buildings constitute a great majority of our total building stock (Boverket, 2010), why residential space could provide considerable leverage.

Space in the urban context is becoming more and more expensive. Since 1981, prices for real estate per square meter in Sweden have increased by a factor seven, while consumer goods only have increased by a factor three (SCB, 2015a). Sold co-operative apartments in 2014 had an average price three to ten times higher than in the year 2000, depending on county (SCB, 2014b). There is also a considerable gap in prices between the urban areas and the more rural ones; an apartment in metropolitan Gothenburg averages in price more than double the average in Sweden (SCB, 2014a). This shows that space for residing is a highly sought after resource that becomes harder and harder to acquire. From this, we can also see that even more than space, we value location, and the location we value the highest is the central urban one.
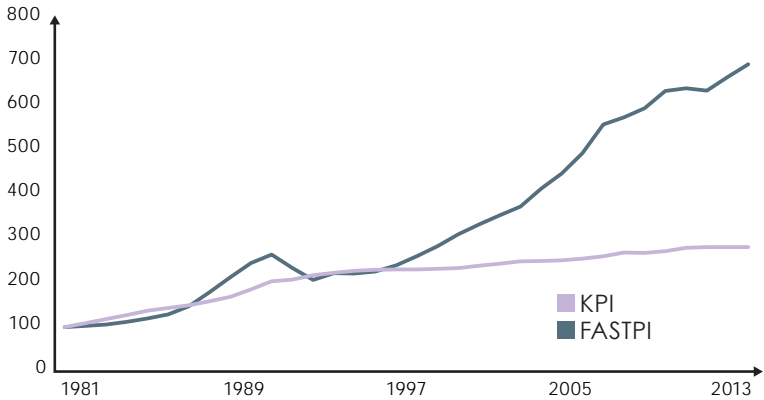
"Location, location, location"

Real Estate Proverb (Safire, 2009)

This is one of the driving factors behind spatial segregation between different groups in society, where economically strong groups have claimed inner cities and weaker ones become bundled off in suburban areas (Lilja & Pemer, 2010). Another critical aspect is the concurrent shortage of residences available. Sweden is facing an extreme situation where 700'000 new dwellings are suggested until 2020.

To complicate this further, we expect urban space to accommodate a wide range of services besides residing. Streets for communication, parks for recreation, offices, stores and cultural venues constitute only a part of what competes for the limited space in our cities. As we perform a majority of our activities in and around limited places (Ellegård & Vilhelmson, 2004), the closeness to these services is perhaps the major contributor to the attractiveness of the central location, as they hence become more accessible.

We can at this point realise the importance of looking at space as a finite resource and act upon this realisation. This thesis argues that this will require a new approach towards residential design that can limit our need of space through just redistribution and efficiency, beyond the capacity of our predominant notions of residing.

Space is a universal necessity

Everything we do, we do in a space. From this simple fact, we can conclude that space is a necessity that is universal, that applies to everyone. If we move on from this trivial conclusion, we can see that our residential space plays a considerable part in the endeavour towards a just development. If we start off by considering the declaration of universal human rights (United Nations, 2016), they state that "Everyone has the right to freedom of movement and residence within the borders of each state," and that "Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care." This is further specified by the special rapporteur on adequate housing, stating that "housing is most importantly a human right. […] It means living somewhere that is in keeping with your culture, and having access to appropriate services, schools, and employment" (Office of the High Commissioner for Human Rights, 2016). In other words, residential space should be supplied to everyone, and this residential space should be offered where people are living.

As we have seen above, people tend to move to the cities, and consequently this is where we need to provide residential space. However, the ongoing population growth and urbanization certainly turns this into a difficult task, as more and more people have to share a finite space. The current housing situations also proves this point, as two thirds of the Swedish population lives in a municipality with lack of housing (Boverket, 2013). People with weaker economies are the ones that are suffering the most from this shortage. The county administrative board of Stockholm state that, "Since financial conditions govern a big part of the housing construction rate, homes are built for those who can afford to demand a dwelling on the market" (Boverket, 2014, p. 36, translated by the authors) and the county administrative board of Scania establish that "The economic development has during later years meant that many people have become better off, at the same time the income gaps in society has increased. The housing market is affected by many economic factors where income, housing cost, the possibility to get loans and gentrification are some of which

affect people searching for a residence" (Boverket, 2014, p. 35, translated by the authors). The unbalanced housing market has led to increasing segregation, and living conditions vary considerably between different areas, including income, health and education. Life expectancy in Gothenburg differs nine years between city districts (Lundquist, 2014). These effects can both be attributed to the segregation of groups in itself, as well as to the geographical areas that certain groups choose to or are forced to live in (Andersson, Bråmå, & Hogdal, 2009). We are in other words on an unjust course which will require us to change our current ways of distributing residential space in order to turn around.

If we once again look at the declaration of universal human rights, it is established that everyone has the right to wellbeing. This has implications that is discussed in detail later on in this thesis. However, we can already at this point say that it puts certain demands on our residential space if we are to wholeheartedly address this issue. We must consistently remember that the rights apply to everyone, and we consequently need a strategy to ensure that everyone can have access to housing that is designed and located beneficially to their wellbeing, as it is a universal necessity. This thesis argues that a more progressive approach towards residing is required to reach this goal and succeed justly through the window of sustainability.

Space is vacant

Our premises do not have any inherit value in themselves. Their value can instead be seen as the benefits they provide to people using them. To determine whether or not our spaces are sustainable, we cannot simply look at the amount of resources they consume; instead we should look at what they are used for, how often and by how many. There are today several patterns of space utilisation that are inefficient in these terms. One issue that has been raised during the last couple of years is the vacancy of spaces during parts of the day or year. This has particularly been discussed in the case of office space (Brinkø et al., 2015; Chiodelli & Moroni, 2013; Park & Gustafsson, 2015) but is also relevant for residential spaces. One issue is the increase of individual living space in our dwellings, and the decrease of efficient use of our premises that this may imply. An

illustration of this is that the amount of people living in apartments with more than one room per inhabitant increased in Sweden from 37,6 to 44,3 percent between 1986 and 2012 (SCB, 2012). As a person only can use one space at a time, this will consequently mean that spaces are left unused even as people are at home. The explanation is not necessarily connected to increased demands on high standards, but rather difficulties to move, even if the apartment is experienced as too big (Boverket, 2014a). In the context of an increasing housing shortage, this can certainly be seen as a problem.

The average person is at home about two thirds of the day (Ellegård & Vilhelmson, 2004), whereof sleeping constitutes about half the time. This means that residential space is completely unused a considerable part of the day, particularly in the case of single-family households, an increasingly large proportion of Swedish society (Boverket, 2014b). The strict separation between individual single-family occupied apartments prevents other people from using the space even if it's vacant. This can be applied also to the artefacts we store inside the apartments, which are often used to an even lesser degree (Botsman & Rogers, 2010).

Vacancy does not necessarily pose a problem in itself, but must be seen in the context of the scarcity of beneficial space and the resources it consumes. The negative impacts caused by our residential space could be motivated to a degree by the quality of life it provides, which implies that it should be considered less sustainable when unused. This thesis argues that the vacancy of residential space is a salient issue in the endeavour towards sustainable living conditions, and that current design practices and notions of residing create an idle capacity and prohibit an increased utility of residential space.

Towards sustainable space

To conclude this spatial view upon sustainability, this thesis argues that urban residential space needs to be more beneficial; i.e. afford more quality of life and reduce its negative impacts on society and environment. In short we can say that our residential space needs to offer sustainable living conditions, which will require a transcendence of our current notions of residing. By considering the four salient aspects presented, considerable leverage is believed to be found.
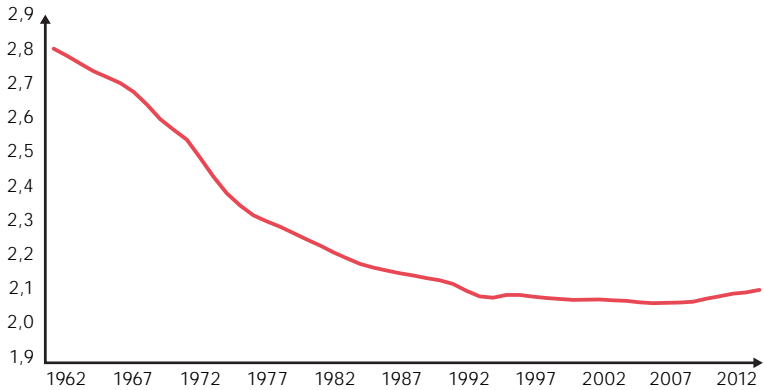
First, negative ecological externalities that our space inflicts needs to be reduced, not only through improved energy efficiency, but also by addressing domestic behaviour and reducing exclusive access to space. Second, urban sprawl needs to be limited to prevent loss of rural ecological capacity and urban accessibility. Third, space provision and accessibility needs to be more equal to offer everyone opportunities for a high quality of life. Fourth, space utilisation needs to be improved and more evenly distributed to reduce the total use of space and improve its benefit.

To illustrate the sustainability of a living place in an easy way, this thesis would like to propose a notion of safe and just residing defined as the benefit that our residential space produces minus the negative externalities it gives rise to. An easy mathematical expression but very complex equation, as it is hard to operationalize and quantify both terms.

SUSTAINABLE LIVING PLACE = BENEFIT − NEGATIVE EXTERNALITIES

Figure 12. The equation of sustainable living place.

However, there is still a logical conclusion to be drawn from this framing, namely that the benefits need to outweigh the externalities if we should even consider to build at all.

The rapid pace of the urban sprawl is very present within the Swedish context as an enormous development of almost one million new dwellings are required in the near future, and a loud discourse draws to the alarming scarcity of living place. However, the debate is more silent with regards to what our total stock of residential space actually provides. Statistics show that every swede has about forty square meters to dwell within and single dwellers have about the double (SCB, 2015b). As such the problem might be reframed; rather than producing dwellings at an increasing rate, the utility of space could be increased. Just as there is a scarcity of dwellings, there is an **idle capacity** in our distribution and use of residential space. Even if the equation is complex to resolve, there is a lot of leverage within this reconceptualization.

SPACE COLLABORATION

This chapter highlights that there is a paradigm shift in the economic development. The shared economy of peer-to-peer transactions is emerging fast on the never before seen platforms that internet and social media provide. Together with an increasing awarness upon sustainablity issues there is a growing movement which starts to question possession and favours accessability.

COLLABORATIVE CONSUMPTION

The shared economy, also called collaborative consumption (CC), reveals potential in the search for a sustainable living place. This is a waking economic development that's been addressed as a new paradigm, where the top-down economy of the global market is starting to lose shares to the bottom-up economy of peer-to-peer transactions among individuals, groups and communities. This development is well attended to, and the multinational professional services network PWC has predicted that the five most common branches of the shared economy will rise from around six percent in 2013 to half of the market in 2025 (Lucas, 2016). The shared economy might accordingly be regarded as a radical shift within the economy, described by economic journalist Joan Voight (2013) as; "a trend that's reshaping our serviced-based society".

The rise of CC has been well discussed within the academic research. In the book "What's Mine is Yours", the writers Botsman & Rogers (2011) interview the co-founder behind a major CC company, and his forecast was already then as follow.

> *"Peer-to-peer is going to become the default way people exchange things, whether it is space, stuff, skills or services"*
>
> (Botsman & Rogers, 2011, p. xiv)

Obviously, the concept of sharing is not really a novelty. According to Adam Werbach, the co-founder of a CC platform for peer-to-peer swapping, the sole ownership and hyper-consumption of today is rather a parenthesis in history. He accentuate that "it's only the last 75 years or so in the United States where the industrial revolution, modern mechanization and access to credit have allowed us to buy things for ourselves instead of checking with our neighbours, friends and family first" (Rosenberg, 2013).

The growing interest and development of the shared economy has been argued to be due to the past rise of information and communication technologies (ICTs). With the internet and social media, stakeholders have been provided with a not before seen

platform, an accessible and unbounded marketplace for peer-to-peer interaction and transactions (Brinkø et al., 2015; Hamari, Sjöklint, & Ukkonen, 2015).

There are several definitions of collaborative consumption and Hamari et al. (2015) points out that the phenomena is difficult to frame due to the variations in terminology and interpretation. To mention a few, Botsman & Rogers (2010) simply define CC as a "system of organized sharing, bartering, lending, trading, renting and swapping" (p. 30). Hamari et al. (2015) stress the agency of ICTs, and rather describe CC as "the peer-to-peer-based activity of obtaining, giving, or sharing the access to goods and services, coordinated through community-based online services" (p. 1). Within this thesis, CC is regarded as a wider concept of shared economy than the recent "economic-technological phenomenon" described by Hamari et al. (2015).

> *"There is now an unbounded marketplace for efficient peer-to-peer exchanges between producer and consumer, seller and buyer, lender and borrower, and neighbour and neighbour. Online exchanges mimic the close ties once formed through face-to-face exchanges in villages, but on a much larger and unconfined scale. In other words, technology is reinventing old forms of trust"*
>
> (Botsman & Rogers, 2011, pp. xi–xiv)

ALTERNATIVE MOTIVATIONS

Access rather than ownership

According to Botsman & Rogers (2011), a new discourse has emerged along with the extending applications of CC, a promotion of **access rather than ownership**. Something that Brinkø et al. (2015) also notice as they claim that the emergence of CC have come to "spark a new sharing mentality" (p. 737). People are shifting to a "usage mind-set", where they want the benefits of certain goods rather than owning them (Botsman & Rogers, 2010). Hamari et al. (2015) show that our attitudes towards consumption and increased ownership are starting to shift as our concern for the developmental, societal and ecological impacts are on the forefront. Rosenberg (2013) also mention the "green zeitgeist" as one of the principal factors why the shared economy has found its momentum. Within these motives lays the promising aspects of this development. Peer-to-peer consumers and producers are empowered to co-create a just and safe marketplace themselves within which they might participate for individual gains as well as societal and environmental benefits.

The very notion of "access rather than ownership" is defined by Hamari et al. (2015) as the most common mode of exchange where "users may offer and share their goods and services to other users for a limited time through peer-to-peer sharing activities" (p. 3). In addition, there is another main category which they call the "transfer of ownership" where posessions shift from one user to another through swapping, donating, and purchasing of primarily second-hand goods" (p. 3). Botsman & Rogers (2010) also discuss the concept of "collaborative lifestyles", in which "people with similar needs or interests band together to share and exchange less-tangible assets such as time, space, skills, and money," and note that "These exchanges happen mostly on a local or neighborhood level."

Longing for belonging

Beside the green zeitgeist that's been described by Rosenberg (2013), she points out another reason for the emerging development of CC, the longing for community. If we remember the words of Botsman & Rogers (2011), that the recent emergence of CC is because a technological reinvention of the villages' old forms of trust, we might ask ourselves, is the collaborative consumption not only a way of sharing stuff or space but also a way of sharing time, sharing interest or sharing social engagement? Are there more incentives than the economic benefits for the individual or the value gained by altruistic practises? Is the sharing economy perhaps a search for other values, for another accessibility than the materialized space or stuff? A living place to thrive within is perhaps even more depending on social values and a relational wealth, the socio-spatial belonging that we experience when we create meaningful settings together, as we interact in space.

A concept that was popularized in the 1990s by Robert Putnam, was that of **social capital**, or rather the decline thereof. This is defined by Putnam (2000) as "connections among individuals, social networks and the norms of reciprocity and trustworthiness that arise from them" (p. 19). Scholars have partly accredited the loss of social capital to the wide distribution of certain mass-media and the extent of consumption of this medium. But research also show that the develoment of ICT actually has potential to restore benefits of community life (Kavanaugh et al., 2005).

Kavanaugh et al. (2005) address the capacity of social capital to afford quality of life and is hence an aspect to take into consideration if we are to achieve more sustainable living conditions. Botsman & Rogers (2011) use of the term "village" also reveals relevance in the light of social capital, as Beaudoin & Thorson (2004) mention that research has indicated that urban communities generally have a lower level of social integration than rural ones, due to lower levels of attachment and social integration. The concepts of social capital have been growing rapidly since Putnam popularized the concept, and more recent literature have shown the need to rather study the constituent parts of this concept; in which the importance of **social trust** have been especially articulated (Bjørnskov, 2008).

These concepts will be further investigated in the coming chapters as the study discusses the subjects of socio-spatial interaction and identity.

> *"Communities with high levels of social capital are likely to have a higher quality of life than communities with low social capital. This is due to the greater ability of such communities to organize and mobilize effectively for collective action because they have high levels of social trust, dense social networks, and well-established norms of mutuality"*
>
> (Kavanaugh et al., 2005, p. 119)

SHARING SPACE

Collaborative urbanism

Collaborative consumption has further progressed as stuff has also started to turn into space. This introduction of shared economy into the built environment is referred to as **collaborative urbanism** and is drawing more attention to the resources and amenities of buildings and how these are used within our cities (Brinkø et al., 2015)**.** As Rosenberg (2013) points out there is not only a collaboration for consumers but also for producers. An example of this is the emerging shared working places within our cities where freelancers can interact in collaborative settings of their liking, where spontaneous schmooze might spark the creativity and innovation.

In the study by Brinkø et al. (2015), they have made a typology of shared facilities and focus on the sharing of buildings between stakeholders who conventionally prefer ownership and exclusive spatial use. They find four characteristic types of sharing among twenty studied examples and described them by five discriminators; "what" is shared "when, "why", between "who" and "how"? The general conclusion is that the concept of sharing space reveals a capacity for both sustainability, efficiency and innovation within their field of facility management, though without further investigation within the residential design. Shared urban spaces are still more or less restricted to the field of urban planning and the design of public meeting places (Gehl, 2010) or the field of facility management within the context of workspaces (Brinkø et al., 2015).

The residential community

During history there have always been various applications of residential communities and household configurations. If we regard the variety within vernacular residential architecture and the diversity in our ways of residing across the globe and over time, one could dare to propose that our recent western development towards private possession of space and hyper-consumption is just a parenthesis in our history. In order to achieve more benefits out of our residential

space there has often been a collaborative approach. As an example our personal use of residential space is decreasing drastically as we form a household and come to share the domestic amenities together, a configuration of our choosing because the sharing gives us quality of life, and it also results in a more sustainable residential space; i.e. more sustainable living conditions. The individual society today with its ideals of residing have reduced this platform, along with a declining social capital due to the loss of neighbourly communities and development towards smaller household sizes. According to Liu, Daily, Ehrlich, & Luck, (2003), these household dynamics are crucial to regard as the per capita resource consumption is growing due to the increasing independency within our ways of residing. Also Klocker, Gibson, & Borger, (2012) makes this conclusion as they state that the "household size is inversely related to per capita resource consumption patterns" (p. 2240).

The demographical challenges described in the previous chapter will hence be further stressed by the duplication of households that each need an individual ownership of the comfort and amenities of favourable residing. This informs us that a progressive way to face the demographical development is to provide better opportunities for varied residential communities and household configurations to (e)merge. Something that is rather difficult within the prevailing residential typology, still based upon the ideal of the nuclear family, even if this household configuration is a relatively brief passage in most people's domestic lives, if ever there at all.

> *"Cultural values of privacy, space and independence – and the sanctity of the nuclear family – have led to duplication (and even multiplication) of household spaces, appliances and resources, under one roof."*
>
> (Klocker et al., 2012, p. 2240)

Alternative collaboration within residing can be observed in countercultural communities (Jarvis, 2013), housing collectives (Jarvis, 2015), extended family living (Klocker et al., 2012) and other pioneer projects (Hagbert, 2014). The approach has been showing potential in the endeavour towards a safe and just development, but has not entered into any extensive practice within conventional
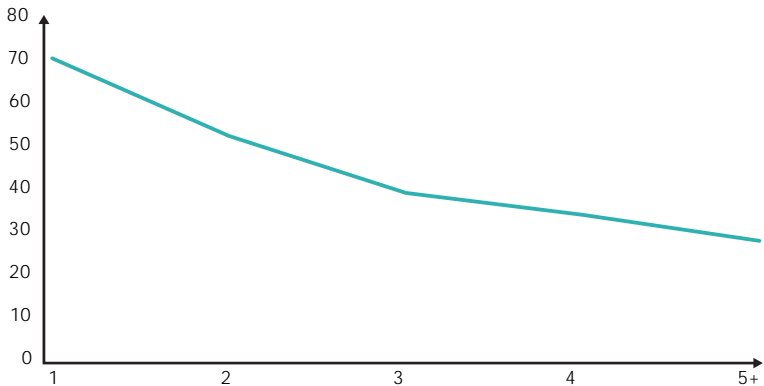
residential production, where single-family apartments are still dominant (Hagbert, 2014) and among which the single household is the most common configuration (Nylander & Braide Eriksson, 2011).

Co-creating space

The benefits of collaborative alternatives in residential design is starting to be acknowledged among more and more people. Already ten years ago, there were more co-housing projects being realized than ever before (Axelsson, 2014), in which varied household configurations and communities can benefit from the shared access to residential spaces and amenities. The growing numbers of Baugemeinschafts, a joint venture where the future dwellers construct their own house, hereto show a possibility for people to question and change the current norms and practise of residing. The possibility to participate in the shaping of the urban landscape and built environment is also to be regarded as a fundamental aspect to the sustainable city and commonly referred to within planning policies and the research literature as a salient aspect of social sustainability (Tanguay et al., 2010). The empowerment among individuals to design their residence from a bottom-up-perspective in a peer-to-peer organisation is prone to be an attractive solution on a competitive and homogenous residential market.

But still, many of these residential alternatives compose a more

or less conventional reproduction of the residential design and a limited progression towards access rather than ownership. It might be argued that this is what we prefer, but it might also be argued that our vision is narrowed by the present conformity within the built environment that's hard not to mimic as building practises, juridical framework, societal norms and attitudes towards residing takes time to question and change (Mallett, 2004).

From sharing to privacy

Humans started becoming domiciled some ten thousand years ago. Since then, our way of residing has developed radically in many senses, both in how we look upon our residence and how it is materialized. Sharing spaces has been the norm during almost all of this time, but privacy has become more prioritised during the last few centuries.

The dwellings of the predominant rural farming population from medieval times and up until the industrial revolution were multipurpose, public spaces where working and residing were not seen as separate activities (Somerville, 1997). The urban residences of the age were similar in use, and most things inside the dwelling usually took place in one room. The household consisted of not only a family, but all sorts of people like servants, friends, apprentices and others (Rybczynski, 1988). This looked pretty much the same all the way up until the sixteenth and seventeenth century, when the bourgeoisie started to separate private and public spaces of their residences spatially (Somerville, 1997), a practise that spread in Sweden mainly during the nineteenth century (Nylander, 1999). In a rural Swedish context, cottages with one or two rooms were the predominant residential buildings during the centuries up until the nineteenth century, after the residential building had been separated from buildings for storage and animals around the eleventh century (Bedoire, 2015).

The turn of the eighteenth century marks the beginning of a new paradigm in residing, both in the rural and urban parts of society. Population growth and shifts in agrarian practices gave rise to a new class of workers, some of which migrated to the cities to work in industries, while others stayed on the countryside to work on farms or in the forest for wagers (Lundh, 1999). This meant

that work and residing became increasingly separated when people became lodged in apartments away from their worksite rather than living on their own farm.

With the rise of modernism, a scientific approach was adopted towards residential architecture, and the state became much more involved. The overcrowded conditions and low standards of existing apartments became a prioritized problem to solve. From the 1930s through the decades that followed, the Swedish residential housing stock was quickly developed with higher standards and more space, driven by a functionalistic approach to the design grounded in standards and state guidelines, developed from quantitative research. Nylander (1999) points out that much care was still put into detailing and floor plans in the first half of this era, while ease of construction was prioritized from the 1960s onwards. This meant that materials and floor plans became simpler, while the floor area increased. The public and private distinction during this time became less defined in the outdoor areas as well as in the apartments.

As we can see from this short review, the spatial manifestations of residing have undergone considerable changes, driven by functionality, economy, production methods, politics and societal norms. If one were to look outside of Sweden, these changes would be even greater, also in how people are living still today. Modern urban residing isn't the result of innate human needs of what should be offered by the residence, but rather from a rollercoaster ride through history. In this, the rise of the single nuclear family occupied, private and work separated apartment is a rather new conception. This realisation opens up to new directions in this development, grounded in increased demands for sustainability and an endeavour towards a higher quality of life.

Co-houses

Collective ways to organise living has long been conceived as ideals for an equal society by different thinkers. While the main stream has developed towards more privacy, co-housing alternatives have also been conceived during later years. Vestbro (2010) distinguish two main ideas behind contemporary communal housing projects, those who're founded on modernist ideas of rationality and those who're focused on community and the ideal home.

During the early modernist era, activities were supposed to be undertaken outside the apartment, so smaller and simpler apartments with shared facilities were seen as a rational solution with less multiplication of amenities. This would also enable women to work for wages instead of staying at home taking care of domestic work. The ideas did not get any wide support, but the architect Sven Markelius managed to get one project in Stockholm built with a central staffed kitchen, laundry and kindergarten. The idea was not to build a community with collaboration, but instead to centralise domestic work. A few projects followed in different cities, funded by private entrepreneurs (Vestbro, 2010).

In the latter half of the twentieth century, co-houses became a sharing typology of which there are a few examples. A co-house is here understood as a multi-family building with separate apartments, but with a considerable amount of communal space, typically some ten percent of the area, excluding staircases, storage and such. The shared spaces in co-houses are seen primarily as an additional quality, rather than an alternative one to those offered by a traditional apartment. The solution is aimed at providing a higher quality of life to the residents, but without any apparent ecological sustainability gains. About forty co-houses of varying kinds are still up and running in Sweden, with a total of about two thousand apartments, constituting less than 1‰ of the total housing stock (Vestbro, 2010).

A well-studied example of this is Stacken in Gothenburg. The building was originally built as a regular multi-family house with fifty-six apartments, but was later rebuilt into a co-house with common areas on one out of eight floors. The stated reasons for collaborating in this case is to enjoy the benefits of community and to share domestic work (Caldenby & Walldén, 1984). As the shared space is added in addition to the apartments, actually increasing the space per household in the building, it's hard to see that any considerable gains have been achieved with regards to ecological sustainability. While the communal kitchen and kindergarten was in use, and a community is reported to have been developed in the building some years after the first installation, the common spaces are now used through a booking system, according to the official website (Stacken, 2016).

Co-housing for people "in the latter half of life" is a more specific type that is relatively prevalent in Sweden. An example of this is Färdknäppen in Stockholm. The "why" in this collaboration is to create community among older people, thus reducing the need for municipal welfare and potential isolation. Another idea is to create qualities that will encourage people to leave the flats they once occupied together with their children, thus giving space to a new generation of families (William-Olsson, 1994). This addresses the vacancy of space. The layout is similar to that of Stacken, with individual, fully equipped apartments and with shared spaces such as kitchen, common room, library and workshops (Färdknäppen, 2016). This on the other hand means that the duplication of space and amenities is still considerable.

Student corridors

One of the most common types of housing with everyday communal spaces in Sweden are student corridors. By sharing kitchen and in some cases living room and bathrooms, the individual space of every tenant, as well as the total, can be reduced, keeping the cost down. The student corridor does in other words typically contain the same amenities as any other apartment, but with some spaces being shared by a number of independent tenants. Two things that stands out in the student corridor is that it is shared by people of similar age and life situation, and that people are living there temporarily. While the prior may be beneficial to facilitate a functional collaboration among the residents, the lack of permanency can have negative effects with regards to the development of social cohesion and willingness to invest effort. As the kitchen contains amenities that are hard to be without, people need to collaborate, and will inevitably have to engage in some form of interaction. This may or may not develop the community into a highly cohesive group. However, it is not unheard of that tenants duplicate some of these amenities in their own rooms to avoid confrontation.

Shared facilities

While co-housing alternatives are rare, some level of sharing is present in all multifamily houses. Bike storages, laundry rooms and recycling stations are commonly provided in or in connection to

these buildings in Sweden. Some buildings or residential areas also offer community spaces for varying activities that might require more space or less privacy than is available in the apartment. For example, Bostadsbolaget, a municipal housing company in Gothenburg, together with the Swedish Union of Tenants, offer premises for the tenants that can be borrowed or rented when "it's time for graduation, confirmation, family party or a meeting" (Bostadsbolaget, 2015). Even though shared between many households, this sharing is usually separated in time. In other words, these spaces do not necessarily constitute meeting places, but do instead provide amenities and spaces in a more rational way, with less need for duplication.

Alternative households

The nuclear family household has been consistently promoted by public policy and residential design for at least a century, but other household configurations exists, and are becoming more prevalent. One that was dominant before the rise of the welfare state, and still is in the majority world, is the **extended family**, studied by Klocker et al. (2012). They define this configuration as a family living together with one or more other relatives, such as a grandmother or a returning adult child. They note that this sharing of space is often done because of economic, social or demographic reasons, but with positive effects on the sustainability of the household due to a reduced need for duplication. The level of sharing in their study ranges from living in a traditional apartment together, sharing more or less everything, to living in separate apartments in the same building. The prior case was not seen as a desirable solution, due to the lack of personal space and differences in view of home related practices. The latter solution was however seen as beneficial, as socialisation was voluntary but readily available. Thus, "allowing them to combine a genuine desire to provide support and care, with other more individualistic priorities" (Klocker et al., 2012, p. 2248). This highlights the importance of clear boundaries between different social units when sharing space configuration.

Having a **lodger** is another mode of sharing space in an alternative household constellation. This is done for economic reasons, but might also be a source of company. Braide Eriksson

(2016) points out the importance of separation between public and private zones in this scenario, as the members of the household do not necessarily share the same amount of social cohesion that is often the case in a nuclear family. However, as apartments are usually not adapted for this kind of household, this may be hard to achieve. The topological connections between different zones, and the boundaries separating them, becomes vital in this case to be able to access and use rooms without intruding on each other's personal spheres. In more recent floor plan layouts, where the living room and kitchen are integrated into one space, and also acts as a communicational node of the apartment (Nylander & Braide Eriksson, 2009), a separation between the different personal and public zones becomes especially difficult to manage.

Housing collectives, here defined as a group of non-family people live together in an apartment, is a constellation with some resemblance to the lodger situation. Little research seems to have been dedicated to this form of residing. However, it appears to be quite prevalent in Europe, not least among younger people in bigger cities, where prices are high and the supply of apartments is low. Statistics about how common this is in Sweden is hard to find due to the informality of the organisation, but it does not appear to be very prevalent (Wennberg & Wikström, 2016). The housing collectives, like the lodger solution, gives opportunities for people who cannot get into the formal housing market, due to economic or other reasons, to have a residence. The difference between these different households may be the balance of power and interpersonal relations, even though this can certainly vary. The members of the collective do in some cases have a more equal relation to the apartment, rather than a landlord-tenant situation. Nylander & Braide Eriksson (2009) point out that the division of master bedroom and smaller ones makes an equal distribution of rooms difficult in this case.

While collaboration in "alternative" household constellations of various types are created informally, with social, economic and sustainability benefits, the design of predominant apartment typologies is poor at handling this. The topology, room sizes and limited zoning possibilities constitutes obstacles to the social and functional usability.

THE LIVING PLACE

In this chapter, the notion of living place is defined in the light of three different aspects of space. Concepts affecting our use and interpretation of this place, like accessibility, home and socialisation, are further discussed to provide a framework for the coming conceptual development. Quality of life is lastly introduced as a guiding concept to increase the benefit of our residential space.

FROM SPACE TO PLACE

Our place for living

Where do you live? A seemingly simple question that most people would be able to answer without hesitation. Depending on the context in which the question was asked, one would probably answer the country, city, district or house where one resides; where one possessed a residence.

If we pause for only a slight moment and think about what we are actually asking, where do you live? we can begin to make out something deeper that hides in those few words. Living is what we do everywhere, every day; it is to be.

> *"When we speak of dwelling we usually think of an activity that man performs alongside many other activities."*
>
> (Heidegger 1974, p. 104)

So why do we say that we live in our residence and what does this imply for everything outside of it? Life happens everywhere, but somehow we have dedicated the word for a very distinct space. Is this simply a peculiarity of semantics, or does it bear a correlation with the way we regard the space in which we reside?

The industrial revolution made people leave the countryside to work for wages in the cities. Before this, when the majority got their livelihood from farming, working and residing was not seen as separate activities. People usually resided in a limited space, from where they would not usually venture away, where what we today consider work was seamlessly integrated with other activities in the same spaces. People were living in their living place (Højrup, 1989). In today's cities, we are much more mobile, both with regards to how we visit different places in the short term and how we move between countries, cities and residences in a longer perspective, both physically and through ICT. This means we might have to think more about what we consider our living place, what should be in it, and what can be left outside. Insight into why we reside

as we do is key to find a direction for a transcendence that aim to improve our conditions for quality of life and break patterns that are detrimental to our ecological and societal sustenance.

Physics of space and matter

Space is a multifaceted word that is used differently within varied fields of research and its meaning has developed over time into a complex notion without a general definition. The word is in addition a key conception within several subjects such as mathematics, architecture and sociology in relation to their own theoretical traditions. If we are to distinguish the interpretation of space among the academic diciplines, we can distinguish three main ontological perspectives. The physical notion of space within the natural and formal sciences, the social notion of space within the social sciences and finally the mental notion of space (Gren, Hallin, & Lindqvist, 2003).

The physical notion is a crude mathematical and quantitative entity. It is bounded by the laws of geometry and we might refer to any spatial **location** with a combination of coordinates. Space is here the outcome of absolute positions, distances and angles. Newton described this space as absolute, unchangeable over time and independent from the presence or absence of matter (French & Ebison, 1986). This interpretation is often referred to as the container room (Gren et al., 2003), and frame the laws for classical mechanics. This three-dimensional space is a fundamental ontological interpretation where spatiality is determined as an empirical reality.

Within the field of architecture and residential design this absolute interpretation of space is present. With drawings and scales there are calculations of square meters and ceiling heights, which can be shared with engineers through a common language of space. Just as an architect needs to understand the building as a load bearing structural system they also need to understand the scale of people and human activity to contain these within the built environment. Insight in anthropometrical dimensions, movements and perception within the physical room are hence crucial to facilitate reach, activities and comfort.

The definition of **matter** might be described as "anything

that takes up space and has a mass" (Park, Chris, Allaby, 2013). The physical extension of our built environment might as such be interpreted as the containment of space or matter. The apprehension of this dichotomy might shift between a reciprocal approach towards negative or positive spaces. Either we regard space as the continuum in with we place matter to create voids of negative space, or we regard matter as the continuum in which we place a positive space.

Socio-physical dialectics

To better understand our relation to the built environment, the physical ontology is further developed from a social perspective. An essential aspect herein is the concept of **socialization**, described by Chandler & Munday (2016) as the "formal and informal processes by which individuals adapt to the behavioural norms and values in a culture and learn to perform established social roles". These norms, values and roles might be connoted to the concepts of space and matter by socio-physical dialectics. Within interdisciplinary fields of research such as human geography, the so called **spatial perspective** is a crucial linchpin and theoretical framework; a viewpoint that spatial settings and social processes are in a constant interplay with each other. This recognition is often referred to as the **socio-spatial dialectic** (Gren et al., 2003)**.** In similarity, Redvall (1987) propose that our built environment might be investigated in terms of how it's very materialization affects us. She refers to the work of Jensen, Vestergaard, Almqvist, & Nilson (1979) and proposed a dialectic between practise and inertia. Within this theory, the word **socio-matter** is used to describe the inherent social expectation within manmade artefacts. As such, all parts of our built environment are shaped by humans and so bear a trace of its initial objective, as the person is said to become objectified within the matter. If this socio-matter is unattended to, it falls into the state of **inertia** and as it once more becomes discovered it might again afford someone's **practise**. This is drawn from the conclusions of Sartre, that humans are the products of their own products. The active agency of socio-matter is further described by Sartre as he states that "the fabricated object turn towards people and force themselves upon them, gives them signs, assign them with their instructions of use" (Jensen et al., 1979, p. 17, translated by the authors).

The built environment and architectural design might be regarded either as a passive physical manifestation or as an active agent that co-create our society, where in this thesis the latter is a central supposition. From our first encounter with our surroundings we're constantly learning a subliminal socio-spatial language. As we spend time in space with others we come to develop an understanding of the affordances within our built environment and the architectural design around us. And just as we shape our cities, neighbourhoods and homes, these setting also come to condition our lives and thereby shape ourselves. The built environment might as such bear witness to the various planning traditions, societal ideas or aesthetical preferences as history is engraved in its matter and echoes in its spaces. But the physical environment does equally leave traces within ourselves. Because of this reciprocity, our cultural beliefs and societal attitudes are also emerging from shifting socio-spatial conditions.

If we regard the basic design of a residence, it's floorplan, it is quite confirmative how people would tend to apprehend it, what the different spaces should be used for and what actions could be conducted within. We could also draw some general assumptions about various conduct depending on the social situation present. The spatial shape of the residence hence affords the way in which we act. As does the social setting within a certain space.

"The evaluation of spatial configurations depends on our modes of thought which shape our behaviour and create different concepts and categories of space."

(Bardeesi, 1992, p. 206)

Different types of socio-spatial settings also have certain behavioural norms connoted to them, something that Lawson (2001) refer to as a **behavioural setting**. These settings help create security if they are understood, so that even when we are visiting a new place, we may enter a familiar setting in which we know how to behave. When entering a library, for example, people would know to speak in a lower voice, even if they had never visited that specific library before. However, if the library were to be empty, the inclination to adapt one's behaviour to the space would probably be considerably
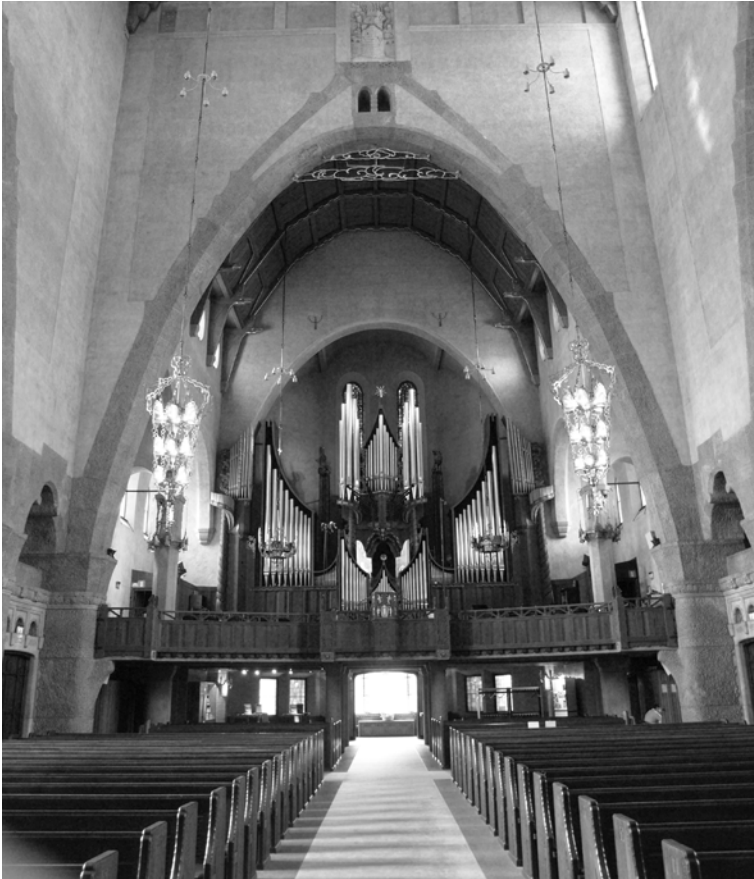
Figure 14. A church dictates certain behaviours, such as speaking with a lower voice. We can interpret and adapt to this even if we haven't been in that specific church before through our understanding of the setting.

reduced, since no one would be there to monitor the conduct. There are more or less distinguishable sets of socio-spatial classifications drawn from our socialization within shifting architectural settings of space and matter.

Since we mainly spend our time by undertaking activities within the built environment the very architecture is shaping our agency within it. Architecture might in this regard be interpreted as phenomenological interpretations of our understanding of places

and what socio-spatial settings they create, and which behavioural settings they include. As we grow up in the urban context we become experts in architectural interpretations since we constantly act within it. We are so familiar with the architectural settings that we might take the millions of constant impressions we interpret for granted. Just imagine a person who never sat foot or had any knowledge of the built environment or urban society, who lacked experience of socialization within the socio-spatial settings of our everyday life. That person would experience multiple difficulties reading the semiology of the urban landscape. That person would probably let us know that we have a language we seldom think about; the socio-spatial **language of architecture**, a concept similar to Lawson's "language of space".

A general description of our built environment might hence be described as the phenomenological apprehension of space and matter derived from the act of socialization; our understanding of the socio-spatial context we're in.
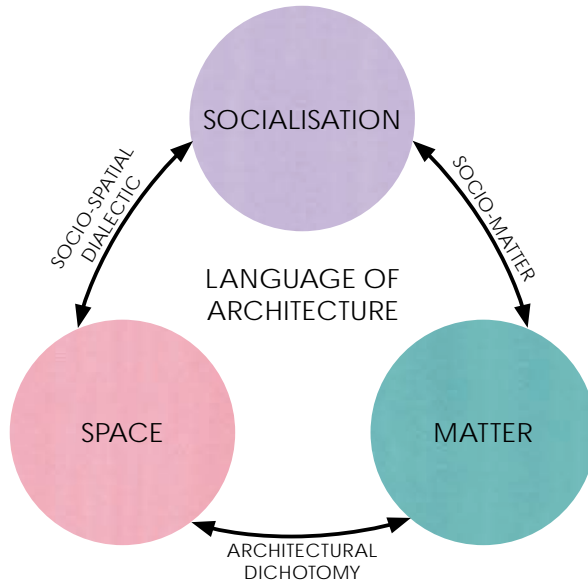

FIGURE 15. THE LANGUAGE OF ARCHITECTURE.

The subjective meaning of place

Just as a location or distance might be fixed within the concept of a container room, these aspects might also be regarded from a **relative perspective.** A fixed location might be better or worse in regards of its relation to its surrounding and connectivity to other locations. A certain distance might vary a lot in regards of the time, cost and effort needed to overcome it. There is the possibility to regard a location or distance from a **cognitive perspective,** where the conception is rather based upon attitudes and emotions. A location might have an affective value, and a distance might be too far as we are tired and comfortable where we're at. Analogously, whenever we spend time in a space, we'll inherently assign a cognitive perspective, and in this evolve a subjective meaning to the notion of time and space, which hereby might be defined as an **occasion** within a **place**.

> "Whatever space and time mean, place and occasion mean more. For space in the image of man is place, and time in the image of man is occasion."
>
> Aldo van Eyck (Lawson, 2001, p. 23)

This is a third ontology that might describe the mental space. This interpretation adds an additional layer to the meaning of a socio-spatial context. To understand and describe the meaning of a living place within this thesis we'll need to consociate these perspectives.

A living place is hence both the encompassing physical extension of the space in which we spend time, the various socio-spatial contexts we're in, and the meanings we assign to these places during the occasions of our life.

Within this context it is fundamental for the understanding of this study that the living place we search for is a subjective recall of an "objective reality". The apprehension of a living place is framed by our senses, mind and culture, and by our information, perception and cognition of the environment around us. In an urban context this environment is essentially architecture, a physical configuration of space and matter that's been given meaning through socialisation.

BETWEEN PLACES

Spatial analysis

If we put ourselves in the spatial ontology of a container room, there will be geographical phenomena to approach, such as the interactions between various locations depending on distance and accessibility. These words are commonly used within the everyday language, but are also central concepts within the field of **spatial analysis.** This field include many theories that investigate how spatial features influence other systems within our societies. The field might hence be regarded as a general inter-disciplinary approach were geographical, geometrical or topological features are used to explore various research issues from a spatial perspective, often with quantitative methods. Even if this field is commonly used within areas such as regional or urban planning, the same principles could be used within smaller geographical scales such as a neighbourhood, a residential building or even a single apartment.

The spatial perspective is regarded as essential for the explorations within this thesis why this subchapter gives a brief presentation to some general concepts. Previously mentioned within this chapter, the absolute, relative and cognitive perspective might be used to describe spatial features from varied viewpoints, a denotation used by Knox & Marston (2010) that will be continuously used in the coming section.

The location of place

While the notion of location describes an absolute position in space, the terms **site** and **situation** are used to describe a relative perspective. While the site denotes the physical features within the proximity of a location, the situation is defined by its location in regards to other places and activities within a given context. The **utility** of a location is a measure to describe how useful it is for a specific group or individual depending on their needs and preferences. The cognitive perspective upon locations are rather sprung from our psychological representations, like those of mental maps, which are more dynamic and changing due to the perception

and imagination of the individual (Knox & Marston, 2010). If you for instance ask two different people that's been living in the same area to describe it, varied locations will be positioned and highlighted differently.

A certain location of interest within this thesis is that of the **domicile**. Defined by Shumaker & Longsdorf (1901) as "the place where a person has their true, fixed, and permanent home and principal establishment, and to which whenever absent has the intention of returning." Even if the notions of "true" can be discussed upon and "home" is a concept to be further explored, it still denotes that there is generally a fixed absolute location within our urban living place that is connected to our acts of residing.

The friction of distance

Another central concept within spatial analysis is that of distance. The absolute distance is the metric separation between two points. From a relative perspective the distance can rather be regarded in terms of the money, effort or time it takes to overcome it. This is often reffered to as the **friction of distance**; the investment to move from one location to another. This is not a linear function as there might be a small extra investment to add additional distance once you're already travelling, while crossing critical thresholds may constitute considerable friction. If you need to leave your home for another location, there might be a critical effort to get dressed for the outdoor conditions and go public, but after you've been moving for some time, a couple of extra meters probably doesn't add as much to the investment as those initial steps out through the door. The cognitive distance regard how we personally interpret a distance (Knox & Marston, 2010). Sometimes the perceived distance might be what keeps us from moving to a more favourable location, while other times the distance is the pleasure itself when we take a recreational walk.

Even if the friction of distance is affected by our cognition, there is a general assumption that shorter distances will constitute less friction to afford our day-to-day actions. From this assumption, the first law of geography by Walter Tobler derives.

"Everything is related to everything else, but near things are more related than distant things."

(Tobler, 1970, p. 236)

Knox & Marston (2010) explains this in the terms that "distance-decay functions reflect people's behavioural response to opportunities and constraints in time and space". With the terminology of the subjective interpretation of space and time, the concept of **distance decay** could be used to describe how we evaluate whether it is worthwhile to leave an occasion in a place for another more beneficial one.

Socio-spatial hybridization

As discussed in the previous chapter, the increasing influence of information and communication technologies (ICTs) have enable the explosion of CC applications and revealed a promising capacity to share spaces. This ground breaking technology has also informed radical changes for our living place by overbridging traditional restrictions associated with time and spatial distances (Gatrell & LaFary, 2009). The impact of this paradigm is even referred to as the ICT-revolution and as a transition into a new societal era (Caragliu et al., 2011). This development is often framed by the concept of **time-space convergence**, a word introduced fifty years ago by Janelle (1968). In the search for a living place we need to understand how this development is overturning our knowledge and interpretation of socio-spatial connotations. Not only does it let us communicate with the entire world at an instant and access information; it also lets us perceive places through a new interface and augment the reality virtually.

> *"A (re)conceptualization of space–time is necessary as technological innovation continues at a tremendous pace and these innovations are transforming how people, firms, and institutions interact in meaningful ways [...] technology reconfigures the geography of everyday life."*

(Gatrell & LaFary, 2009, pp. 280-281).

In previous years, facilities and instruments were more or less stationary and bounded to their physical location, but there is a fast shift towards increasing mobility within the technology, and we can see a more unattached access to the digital realm through mobile ICT (mICT). We are also becoming more and more dependent on this connection as we use it for more and more activities, such as searching for information, listening to music or communicating through social media (Westlund, 2011). We may be reached no matter where we are, might access data directly from the cloud, go online to find answers or enjoy media through our devices; we might say that we are becoming more independent from space as we have the freedom to become more flexible but also more stationary Thulin (2002).

The merge between the physical and digital have introduced a new conceptual arena for action which de Souza e Silva (2006) calls hybrid space. She points out that it's not ICT that creates this space, but rather the combination of mobility and communication within social networks within both the physical and digital world, a hybridization, where we might be present and engaged within several social contexts at once. This hybridization of places reduces the friction of distance for multiple aspects of everyday life (Muhammad, de Jong, & Ottens, 2008), and the experience of our living place is not only physically perceived, our relation to it is filtered by the concurrent information and input we receive from our digital presence (Gordon & Silva, 2011).

Accessibility and interaction

Knox & Marston (2010) state that most geographers assume that accessibility is associated with nearness and proximity, and this is associated to relative locations, i.e. situation. A favourable accessibility is hereby closely related to the utility of a location and a low friction of distance. As with distance, the accessibility isn't necessarily spatial, but can also be relative or cognitive. Let's say you want to go to a restaurant that is close by. The absolute distance isn't the issue but it might happen that eating there is out of you budget, or that you have a feeling that the ambiance and clientele is going to make you uncomfortable. This implies that there are various barriers to accessibility beside the mere physical.

Spatial interactions are used within the field of geography to describe all kinds of transportation or transaction that's connected to our human society, might it be information, stuff or ourselves. One aspect of these interactions is complementarity, which means that there must be a demand and a supply that gives incentive for us to move, make a phone call or in other ways interact with another location. The terms push and pull factor are often used to describe why people move from one location to another. Either it is because the present setting in a place is unfavourable enough to "push" the person away from it, or if the desired place is attractive enough to "pull" the person to it, despite barriers and friction of distance, etc.

There are several definitions available for accessibility, but this study will henceforth define accessibility as "the opportunity for contact or interaction from a given point of location in relation to other locations" (Knox & Marston, 2010, p. 26). To make this interaction possible there is a need to move between locations, or use technology that might overbridge spatial distances. There is often a reason why we would want this interaction between locations and Öberg (2016) gives a condense definition of accessibility as "the possibility to take part of something desirable". If sustainable living conditions is a desirable outcome that we want to achieve, we hence need accessibility to afford it.

Spending time in place

Within the field of time-geography, the perspectives of time and space are studied to analyse how people spend time in space, here presented after Åquist (2002). This is usually illustrated by a three-dimensional graph where the xy-plane connote the space in which a person spends time. The z-axis shows a timescale that covers a certain period, such as a day. This is often regarded in measures of absolute time and distance, i.e. denote our position in a container room. The fixed locations within our built environment such as the residence, the workplace, the town centre etc. are often called **stations**. By investigating in what locations a person spends time, their life can start to be graphed over the studied time period. This depicture of the persons spending of time in regard of spatial location is called a **trajectory**. The socio-spatial hybridization has also made it possible for us to interact with other spaces than the

one we are in. We are perhaps engaged within a conversation on our phone that actually make us more present within a distant physical space with which we're interacting.

The terms project and constraints are also central concepts within time-geography. Projects are **activities** that usually contain several steps. If we for example are to have dinner at home, we need to get food, store it, prepare it, eat it, clean up etc. There is usually some sort of organisation of these everyday activities in our life that need various constellations of people and various accessibility to space and amenities at the various stages. There is often competition in time and space between these projects where some will eventually trump the others, or end up in a more or less unfavourable compromise. This could for example be two people sharing a bedroom where one wants to sleep and the other wants to watch a film. Because of this there are a lot of projects that never become realized in practise.

Constraints describe what limits there are within a certain location in time-space, and these might be divided into three categories. First there are constraints due to capacity. This might denote a lack of certain amenities, our individual capabilities or physical conditions. Second there are constraints due to coupling, which arise due to the limitation of beneficial coordination and co-operation between amenities and people in time and space needed for certain activities to take place. Third there are constraints due to regulations. There might for instance be a hierarchy of power and influence where various people are only allowed to perform a project during specific times or under certain circumstances.

If this time-space is expanded to encompass the various meanings of our living place, the trajectory might be seen as the occasions of our life in the various places we interact with. Each of these have their temporal socio-spatial context that afford us to undertake certain activities depending on the beneficial or constraining aspects of that situation and setting.

THE COMMON CREATION OF PLACE

Sense of place

If we regard the construction of a place as a subjective conception, this also informs us that there will be altering layers of interpretation assigned to a socio-spatial setting as multiple persons will add to its meaning. Might it be a specific building, public space, neighbourhood or an entire city. Or perhaps our home, our chamber or the towering castle under the kitchen table as children are absorbed in their act of playing. As we socialize and share our conceptions of places there will be a certain level of intersubjective understanding in the group of people who share a mutual relation to them. Knox & Marston (2010) accentuate that places exist due to the **social construction** of the people who give them meaning, and that this sensation might grow within us and become an inherent part of ourselves as it shapes our **identity**. A notion that they define as "the sense that you make of yourself through your subjective feelings based on your everyday experiences and social relations" (p. 6) and that this is "drawing on particular images and particular histories of places in order to lend distinctiveness to both their individuality and their sense of community" (p. 188). There is a central endeavour in political policies and spatial planning offices to provide spatial settings, **meeting places**, that may strengthen and promote interaction.

This sense of community implies that the identification with places create a division between **insiders** and **outsiders**, something that connote place and identity with a degree of exclusion. To contrast ourselves as insiders from people and places that are experienced as different from ourselves, i.e. outsiders, the own identity as well as our identification with the place might be reinforced. Continuous recognition by routine encounters and mutual observation makes the insiders familiar with each other's codes of conduct, ways to dress, speech and gesticulation. Knox & Marston (2010) use the word lifeworld to describe these familiarities as the "taken-for-granted pattern and context for everyday living through which people conduct their day-to-day living without conscious attention" (p. 25). In order for outsiders to create a shared identity towards the

place, there needs to be some strong distinctive features connoted to the place that might open up to a common apprehension. The intersubjective meaning of place described within this section is henceforth referred to as **sense of place**.

> *"A sense of place refers to the feelings evoked among people as a result of the experiences and memories they associate with a place and to the symbolism they attach to that place. It can also refer to the character of place as seen by outsiders."*
>
> (Knox & Marston, 2010, p. 25)

A place identified by its insiders and outsiders can be associated with the concept of **domain.** This is typically used in terms of private and public domains, which denotes if its open to the public or exclusive to an individual or group of insiders (Chermayeff & Alexander, 1963; Farah, 2000). The perimeter of a domain is here defined as a **threshold.**

The sense of place is commonly regarded as crucial aspects for the socially sustainable and attractive city and the act of creating it is commonly called **place-making** (Knox & Marston, 2010). The modernist cityscape that sprawled within the first half of the twentieth century was heavily criticized by notable authors such as Jane Jacobs (2005) or William H. Whyte (1968) due to its absence of favourable places where people could meet, interact and hence construct a shared and meaningful place. Succeeding authors like Jan Gehl (2010) also address this issue and argues that we need to build, as his namesake book, cities for people. If people remove themselves from the physical locations where their living places have potential to intersect with others', the sense of place will decline with a loss of shared identity, sense of community as well as the insight and understanding for the living world of others. We will all become outsiders to each other. The act of place-making is hence important if we should have the chance to create a living place to thrive within.

THE CONCEPT OF HOME

A multifaceted concept

"Home is the place where, when you have to go there, They have to take you in."

Robert Frost (Hollander, 1991, p. 31)

A recurrent sense of place is that of the home, a concept that often carries considerable emotional meaning. It is commonly associated with residing, and might even be synonymous to our residence. The notion of home is a complex and multifaceted concept, both within colloquial and academic discourse. In everyday conversation, the word is used without much trouble to convey a variety of meanings. However, as this subchapter move on to scrutinize what home implies, it quickly becomes clear that this is not as easy. The topic is multidisciplinary within present research, and contains many contributions from architecture, human geography and psychology, among others (Mallett, 2004). It's a geographically located place, although temporally experienced and reinterpreted. It's also a cultural, psychological and philosophical construct with various meanings (Moore, 2000).

Originally, home denoted one's place of origin, the native village or country. During the seventeenth and eighteenth century its meaning shifted towards referring to the family dwelling, while still keeping its original meaning (Moore, 2000). This puts forward only one of the difficulties to define the word and work out a comprehensive theory, as the meaning seems to have branched out rather than simply shifting. Below, a summary of some of the notions connected to home will be put forward, based on the research presented, the purpose of which is to form a basis of understanding for a questioning of current residential design. What is a home? Where is it? What are the qualities we expect from a home, and how might our views on it limit us? How does the answers to these questions inform residential design, and vice versa?

Home and house

As mentioned above, the notion of home as one's dwelling is relatively new. Even so, home is often seen as synonymous to a house where a person resides, and the terms are sometimes used interchangeably. Many researchers argue however, that the essence of a home is emotional rather than physical (Moore, 2000). Mallett (2004) argues that the conflation of house and home is promoted by the market as a means to sell real-estate, as well as by western governments to transfer responsibility of welfare from the state to families. She further finds that research aimed at addressing the issue of an ideal or preferred home also tend to prioritize the view of home as house. Smith (1994) investigates what qualities that turn a residence into a home, implicitly assuming that home is not synonymous to house, but rather a subjective feeling towards it if certain conditions are met. However, when performing her interviews, the respondents are asked to describe their home, now implicitly understood as their current place of residence.

The home as residence is a prevailing understanding of the concept, even though it is widely acknowledged to have deeper meaning than the mere physical manifestation. As such, home is understood as the residence as a place rather than the residence as a space. Still, to "feel at home" is not a feeling reserved for this place, and neither is this feeling present in all residences. Smith (1994) finds that poor physical environments are often described in connection to residences not considered homes, but lack of freedom and privacy, and bad social relations are more prevalent.

Even though residences are sometimes considered synonymous with homes, intangible qualities of the home are rarely considered in residential building development (Hagbert, 2014). Instead, physical properties connected to quantitative qualities such as climate protection, functional dimensions and ease of production are consistently prioritised.

Privacy

The idea of home as a place for privacy has emerged over the centuries since the sixteenth century, but has become a reality for the majority of Swedish population during the last century. This originally meant a physical separation of household and the public, both outside and

inside the apartment. Privacy within the household has come to shift towards greater emphasis on togetherness within the family. As the privacy and isolation of the residence increased during the twentieth century, the internal privacy has become less defined, both between members of the household and between household and outside visitors. The negotiation of privacy can be seen as an ongoing process between insiders and outsiders simultaneous to one within the household (Somerville, 1997). Dowling & Power (2012) notes that "Privacy, independence and 'time alone' were spatially facilitated through the provision of excessive space" (p. 616), pointing to the desire for internal privacy. This highlights the fact that it is often a question of economic capacity to be able to achieve this within the residence. Smith (1994) claims that, "Optimally, the home provides such a place of privacy for its users, and this ability to achieve optimum levels of interaction with others is an important characteristic of the home environment, permitting feelings of ease and relaxation" (p. 32).

Mallett (2004) discusses the idea of **home as haven**, i.e. a place of retreat and relaxation, safe from the outside world. This is closely connected to privacy and the ability of the household to be free of outside surveillance and have freedom and control. This is criticised as being an idealised image of the home, blind to the fact that not least women have always conducted unpaid work in the home. The real case for many women and children is also one where the home is a place of violence, fear and isolation. The hybridization of space has led to an increase in paid work being undertaken in the home, further dissolving the image of home as a place of relaxation free of work.

Permanence

> *"Knowledge of the home and the important events people have experienced there are strong ties between that environment and the person. These can become integral parts of the person's history and sense of identity and continuity."*

<div align="right">(Sixsmith, 1986, p. 290)</div>

The home as a fixed and permanent place in life is a recurring conception. Somerville (1997) emphasize the change of meaning one's home goes through as a consequence of personal investment into the home environment over time. Home as a place that is always there to return to whenever one is away is a recurrent theme (Mallett, 2004), as well as a connection between future and past, a place for memories. The process of making home is associated with performing recurring tasks over time. Routine, every day and cyclical events contribute to the experience of home (Després, 1991).

> *"Home is also a temporal process that can only be experienced along time. Along weeks, months, or years, the home becomes a familiar environment, a place that provides its occupants with a sense of belonging somewhere, of having roots"*
>
> (Després, 1991, p. 98)

Moore & Rivlin (2001) characterise homelessness as an inability to remain in housing over a long-term period, with grave consequences including stress and alienation emanating from the lack of comfort, security and attachment to friends and family.

Centrality

From a time-geographical perspective, Ellegård & Vilhelmson (2004) finds that, despite the hybridisation of space, the home still acts as a geographical node around which most everyday activities take place. Hollander (1991) discusses the home as a place that is returned to whenever one is absent, and points out that this notion is particularly prevalent in legal definitions of the home. It's where personal belongings are stored, to which one intends to come back. In phenomenology, the home can be seen as a central point from which the rest of the world is experienced (Moore, 2000).

> *"The birth family house holds symbolic power as a formative dwelling place, a place of origin and return, a place from which to embark upon a journey."*
>
> (Mallett, 2004, p. 63)

The home comes out as a central aspect of life, both in terms of its physical location in space, as well as a reference point to memories, emotion and experience of the world.

The self

The home has strong connections to people's identity, to our understanding and expression of self. One aspect of this is that of self-expression, the communication of individuals' image of themselves to others through the appearance of the material home. This is also suggestive of the social identity of the inhabitant (Després, 1991). Moore (2000) finds that several attempts to distinguish attributes of the home mention identity and self-expression.

> "*Subjects, whether they be individual persons, households, ethnic groups, or nations, are at home if they control their own boundaries, if they can be themselves within those boundaries, and if the world within those boundaries is one which they have made or are making for themselves.*"
>
> (Somerville, 1997, p. 235)

The home is also argued to constitute a part of an individual's identity in a more profound and intangible way, as well as being a place where one can feel comfortable to express and fulfil one's unique identity (Mallett, 2004). Smith (1994) presents personalisation of the home as a recurring positive feature mentioned in interviews. Home in terms of place, as it affords personal and social action that enable self-impression and expression, is significant to establish one's social identity (Sixsmith, 1986).

Social relations

In her paper, Smith (1994) finds that social relations is the most occurring positive feature described in her respondents' current home. Many more researchers point out social relations to other people, not least the family, as an important aspect of home, and home might even be defined as the place where one's family lives. Meanwhile, patriarchal structures in the family structures are criticised to make the home a place for oppression and social isolation for women. The gender issue of home has received some attention,

often focusing on domestic work, authority and oppression, and the inequality that is maintained through these aspects of home relations (Mallett, 2004). Somerville (1997) argues that the rise of the nuclear family gave rise to ideas about privacy in the home, and that the state has regulated family homes on condition of its normality. Some researchers link the home to the course of life through its different family constellations. Ideas about young adults leaving their ancestral home to start a new family is part of this traditional story of making a home.

The home can also be the place of the **household**, which is a concept that could easily be confused with family. However, separating the two becomes more relevant when nuclear families lose ground, as household configurations are more diverse and single-person dwelling has become the norm. Sweden is world leading in regards of the high numbers of single households, where four out of ten people live alone (SCB, 2014c). This development certainly brings into question a lot of our traditional understanding of home, as the concept of family becomes weaker. This understanding is also seen by some as an idealised image, cast from the nuclear families of the white middle class (Mallett, 2004).

Residing at home

The home has been described as providing privacy, as a permanent and central point in life, as an important aspect of self-impression and expression, and as a place for close relations. It has also been described as a place of isolation and of oppression of women and children. The image of the home has emanated from varying home related practices and household configurations, and from marketing and governmental strategies. It's an idealised concept constructed of memories and aspiration, but also a highly practical space for domestic work and storage of possessions. The understanding of home is collectively as well as subjectively created.

Feeling at home is something we can do in other places than where we reside, and we might actually not feel that our residence is a home. Still, we conflate these two concepts time and again. There's hardly any doubt that home is important to us, and hence we should strive to provide people with one. However, the strong associations and affection we have to the concept might influence

our attitude and limit our openness towards changing the way we reside and how we shape our residence. This becomes problematic when these aspects are unsustainable. Residential design and our notion of home has changed many times before, and there's no apparent evidence that says that our current ways are optimal in any regard. If anything, it is rather adapted to the market than to sustainability and quality of life.

> *"Connotations of the 'good home', as created by market, media, research and policy – inform the general opinion in relation to these various discourses. The variation in subjective individual definition of home is in this perspective to be regarded as secondary to structural and organizational prerequisites."*
>
> (Hagbert, 2014, p. 28)

LIVING PLACE AND QUALITY OF LIFE

Theories of needs

It can be argued that the ultimate purpose of our buildings should be to create living conditions that can provide a high quality of life for people. What this entails is however not always apparent, why a deeper examination into what quality of life means is required. **Quality of life, wellbeing, needs** and **living conditions** are related terms used within this field of discourse that are not always easy to use discretely, as different theories and fields of academia define and use them in different ways.

An early, and probably the most well-known, attempt to formulate a theory of human needs has been done by Maslow (1943) in his **theory of motivation**. It states that our needs are ordered in a hierarchy, meaning that we need to fulfil more basic needs first, and will subsequently develop a desire to fulfil higher needs, like self-esteem and self-actualization. This is often illustrated as a pyramid with physiological needs constituting the base and self-actualisation the top. This theory has been criticised and developed over the years, and new ones have arrived, and it might not be all too relevant today in its original form. However, it is the basis for later research, and should be acknowledged for this reason.

A more recent theory has been developed by Max-Neef (1992), which structures the needs independently, and introduces the notion of **satisfiers**, being attributes, actions and settings which facilitates for a person to fulfil their demands. The different needs are classified into two categories, **axiological** and **existential.** There are nine axiological, quite similar to those of Maslow, and four existential; being, having, doing and interacting. These two categories are correlated and represent aspects of each other. The theory claims that needs are universal, but the satisfiers may vary over time and between cultures. By accrediting all needs equal importance, this theory implies that all needs should be equally cared for rather than focusing on the basic needs, which may be the consequence when looking at the needs in a hierarchical way. If we study the satisfiers presented by Max-Neef, especially those

EXISTENTIAL NEEDS

	Being	Having	Doing	Interacting
Subsistence	Health, equilibrium	Food, shelter, work	Rest, work, feed	Living environment, social setting
Protection	Care, adaptability, solidarity	Savings, social security, family, work	Cooperate, prevent, help	Living space, social environment, dwelling
Affection	Self-esteem, solidarity, respect, generosity	Friendships, family, partnerships	Make love, share, take care of	Privacy, intimacy, home
Understanding	Curiosity, receptiveness, astonishment	Literature, teachers, method	Investigate, study, experiment, meditate	Scools, groups, communities
Participation	Adaptability, dedication, respect	Rights, duties, privileges	Cooperate, share, interact	Parties, associations, communities, families
Leisure	Curiosity, imagination, humour, tranquility	Games, clubs, parties	Brood, dream, remember, relax, play	Privacy, intimacy, free time, landscapes
Creation	Passion, imagination, autonomy, curiosity	Abilities, skills, work	Work, invent, build, design, interpret	Workshops, cultural groups, audiences
Identity	Belonging, consistency, self-esteem	Symbols, habits, values, norms, memory	Commit, integrate, confornt, grow	Everyday settings, social rhythms
Freedom	Autonomy, passion, assertiveness, tolerance	Equal rights	Dissent, choose, be different, risk, disobey	Temporal/ spatial plasticity

A X I O L O G I C A L   N E E D S

Figure 16. Human needs and satisfiers after Max-Neef (1992).

connected to interacting, we can see that many are connected to social interaction, such as community, associations, cultural groups; to socio-spatial concepts such as privacy, intimacy and home, and to spaces, such as workshops, dwelling and landscapes.

> *"If we wish to define and assess an environment in the light of human needs, it is not sufficient to understand the opportunities that exist for groups or individuals to actualize their needs. It is necessary to analyse to what extent the environment represses, tolerates or stimulates opportunities."*
>
> Manfred Max-Neef (1992, p. 201)

Quantitative methods to measure wellbeing have later been developed, which has made it possible to further investigate the theories of needs. The concept of **subjective wellbeing**, as developed by Diener et al. (1999), has been used to find correlations between wellbeing, personality and the environment based in part on the needs put forward by Maslow. The conclusion from this work is that **personality**, i.e. an individual's approach towards life, is the most prominent factor in predicting subjective wellbeing. This implies that there is no universal recipe for achieving wellbeing, as different people in the same situation will rate their wellbeing rather differently.

Fulfilment of needs and wellbeing

The connection between fulfilments of needs and subjective wellbeing has been researched by Tay & Diener (2011) in an attempt to find the most important external predictors for wellbeing. They divide wellbeing into three different aspects: **long term life evaluation**, **positive emotion** and **negative emotion.** The prior reflecting the long term feeling of satisfaction, whereas the latter two reflects more temporal, situational, feelings. Needs are divided into six categories: basic needs, safety, social, respect, mastery and autonomy. The effects of different needs vary between geographical areas, but some general conclusions can be drawn. The fulfilment of basic needs is consistently the most important determinant for life evaluation, but provide little to none positive emotion. Social ties and feeling respected and proud showed up as the most important

predictors of positive emotion. The results show support for both Maslow and Max-Neef, as people tend to achieve basic and safety needs before other needs; however, fulfilling the various needs has relatively independent effects on subjective wellbeing.

Zooming in on the western world some additional patterns become evident. In this context, basic needs are generally fulfilled for most people, and as long as this is the case, other needs' influence on wellbeing become stronger. Lack of safety and freedom appear to cause the most negative emotion. Economic wealth does have a considerable impact on subjective wellbeing. However, this effect becomes considerably weaker as wealth increases. Economic growth is therefore a poor indicator of a wellbeing population in much of the western world, especially in countries that have a more equal distribution of wealth. Social factors instead stand out even more as a cause of positive feeling, and they are also the most important for life evaluation (Tay & Diener, 2011). The significance of social interaction for our wellbeing has been thoroughly researched, and has consistently been found to be one of, if not the most, important factor. This has been shown on both the national (Bjørnskov, 2003) and individual level of wellbeing. Being in a relationship, having close friends, a big network of acquaintances and community among neighbours all have positive impact on wellbeing. Social capital also makes for a resilient wellbeing, since it can compensate for the loss or lack of fulfillment of other needs (Helliwell & Putnam, 2004).

Person-environment congruity

Within the field of environmental psychology, Moser (2009) uses the concept of **quality of life**, being the "individual's perception of their position in life in the context of the culture and value system in which they live and in relation to their goals, expectations, standards and concerns" (WHO, 1997, p. 1). This concept is linked to environmental sustainability through the assumption that "without the achievement of an objectively and subjectively sufficient environmental quality, a sustainable development of society cannot be attained" (Moser, 2009, p. 352). Quality of life is thus an integral part of the concept of sustainability. Moser further argues that a situation where there is a mutually positive relation between a person and their environment is essential to achieve a

high quality of life, and uses the concept of **person-environment congruity** to describe a situation where this condition is met. This relation involves both the objective qualities of the environment as well as subjective satisfaction. Environmental factors such as noise and air pollution are considerable factors of people's quality of life, a fact that has been a great concern of building regulations (SFS 2010:900, 2010). These issues are however not strictly objective. In the case of noise pollution, only part of the annoyance reported has been found to be directly relatable to factual acoustic conditions, with factors such as place attachment having a considerably larger impact. Person-environment congruity is related to both the most immediate confines of a subject, as well as their neighbourhood. Kahana, Lovegreen, Kahana, & Kahana (2003), in a case of elderly community dwellers, consider six aspects of the environment, namely; amenities, aesthetics, safety, stimulation, engagement and homogeneity of the community. They argue that the congruity between personal preference and environmental features regarding these aspects is salient for residential satisfaction, and consequently a high quality of life.

> *"A space of good quality would reflect a congruent relationship with human behavior."*
>
> (Bardeesi, 1992, p. 206)

Searching for a living place to thrive within

In the search for living place, a fundamental aspect to conclude is whether we can access sufficient socio-spatial satisfiers within our day-to-day life. One of the aims in this thesis is to transcend our ways of residing to ensure more sustainable living conditions. This isn't solely an environmental or societal endeavor, but also regards the subjective wellbeing of the person who resides; what quality of life can their residence actually provide for them? In the coming part of this thesis there are suggestions how our residential environment could be interpreted and developed to better become a living place to thrive within.

CONCEPTUAL DEVELOPMENT

SOCIO-SPATIAL AFFORDANCES

This chapter introduces several aspect from which we might describe a certain setting and occasion within our living place. The main factors are proposed to be those of stimultaion and identity, where the latter is drawn from the subjects spatial control and social cohesion. As we perform an activity we are therto influenced by the contextual setting we're in. All these aspects interact together into a socio-spatial setting. Depending on this configuration together with the amenities available there will be shifting affordances for us to act within our living place.

THE VARIABLES OF SOCIO-SPATIAL SETTINGS

We're always present in a certain setting that influences our interpretation of a place, our emotions and behaviour. This **socio-spatial setting** is our subjective understanding of a certain space, at a certain moment in time, and is determined by the properties of the space itself, the people currently occupying it, our sense of place and its situation.

To illustrate the concept, this thesis proposes three dimensions spanning the **field of socio-spatial settings**, namely, **social cohesion**, **spatial control** and **stimulation**. Cohesion deals with the relation between people, control the relation between people through spaces, and stimulation the intensity and impressions of the activities that take place in a situation. Cohesion and control do in turn span a plane associated with identity; adding stimulation to this tells us about activity. Together these conceptions help us frame different social constructs and occasions that influence our spatial behaviour.

Spatial control

Our level of **spatial control** denotes a subject's possibility to influence a place, enforce exclusivity and their responsibility of it. It can vary from the personal ownership of a freestanding house to the shared commons of the public or the natural wilderness outside our built environment. This thesis argues that the socio-spatial setting will vary greatly depending on who is controlling a space, and the relation between the controlling entity and the visitor. One's behaviour in and attitude towards a place will be quite different if it's controlled by oneself, a close, trusted friend or by a distant acquaintance, or even a company or institution. How the manifestation of control is exerted can also have an effect in this regard.

Spatial control is often socially constructed and might be physically delimited with clear and rigid barriers such as walls or doors, but might also be solely mental socio-spatial interpretations, agreed terms or a shared consensus. Places that are controlled by an individual or group are what we call domains. The concept can

be found on all scales of society, from the individual bedroom to countries (Lawson, 2001), and consequently, so does control. The spatial control is strongly affiliated with identity and security (Somerville, 1997).

The ownership or occupancy of spaces are often relatively stable constructs, and spatial control consequently is as well. In some cases, the level of spatial control can however vary quickly, for example the control that is had over one's adjacency when claiming a table in a café, or locking the door to a public toilet.

Social cohesion

From an individual's point of view, **social cohesion** can be indicated by the attitudes and behaviours they have towards a group. This includes their identification with and stance towards being in the group, their participation in it and their susceptibility to interpersonal influence. Within a cohesive group, people tend to develop consensus about behavioural norms, solidarity and tolerance towards other members and resolve internal disagreements. Social cohesion can arise within a small group with strong interpersonal relations among all the members, as well as in large, differentiated groups with indirect personal relations (Friedkin, 2004). Thus, the level of social cohesion is an important factor in determining how people will behave in a certain setting. Being in a more familiar and desirable social context, one is more likely to feel free to act, knowing the codes of conduct and that your behaviour will be tolerated by others.

As the structure of a social group can vary, and the internal relations, behavioural norms and attitudes develop over time, equally cohesive groups can have very different manifestations. A family is often a highly coherent entity with certain connotations, and a football fan club another. The two are very different in structure and size, but may both have high levels of cohesion. Thus, the location on the axis does not indicate the size of the group, but rather the relation between a group and a subject. Some degree of cohesion exists between all people, and people of the same culture and nationality can be considered to have a fairly high level of cohesion.

The cohesion in a setting can vary quickly if someone new enters

the space, but how likely and unpredictable this is to happen vary between different places. In the public, anyone can enter into the presence of one's perceived place at any time, while this usually only happens at a resident's own discretion in their domestic living place.

The plane of identity

The importance of identity is emphasised in a wide range of contexts, not least within the discourses of place, home, social psychology and architecture. However readily done so, the ambiguity of the term makes it hard to use, and it has come to mean a great many different things both in everyday conversation and within academia (Brubaker & Cooper, 2000). Nonetheless, this notion will be associated with the plane spanned by cohesion and control. The position in this plane tells us something about one's affiliation with the setting, the possibility to personalize it and the feeling of comfort. In different group settings we develop different manners of collective or interpersonal identities with different forms of interdependency and coordination. As we take on different roles and have different motivations in connection to these different manners of groups, they influence us in different ways (Brewer & Gardner, 1996). The location in the identity plane indicates the relevance and prevalence of these different identities.

Different **domains of comfort** can be placed in diagonal strips in this plane**,** indicating the level of social comfort a person feels in a setting. Depending on the domain people can relax, behave and express themselves freely to varying degrees. Higher levels of cohesion and control both individually and together increase the level of comfort, as one can feel more at ease with the situation, emanating from social trust and a feeling of security and predictability. This implies that if social cohesion is increased, spatial control can be released, and vice versa, while staying in the same domain of comfort. In different comfort domains the manner of social responsibility is also different. One might be able to leave close friends to themselves even when they're in the same room in another way than a distant acquaintance. On the other hand, one might not feel the same responsibility for the personal feelings of the acquaintance.

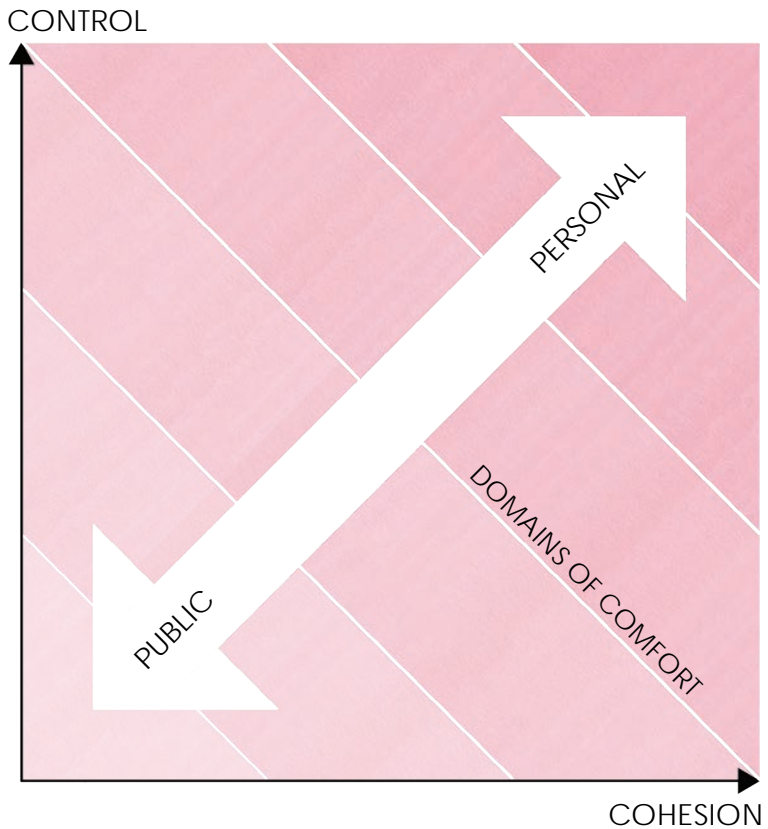The comfort domains range from public to personal. The

Figure 17. The plane of identity with domains of comfort.

domestic living place usually has a strong level of cohesion and control and is strongly associated with the personal domain while the other parts of our living place might be regarded as more or less public.

Stimulation

The third axis of the field of socio-spatial settings indicates the level of **stimulation**. As described by Kahana et al. (2003), this "reflects environmental demands or physical, cognitive, and sensory capabilities of individuals and the extent to which the physical environment encourages or discourages self-expression and activity." (p. 445) In this thesis, this is more specifically defined

as the stimulation that arise from the activities of people present in the setting. These stimulations demand some sort of attention and forces us to react; depending on situation this can mean anything from ignoring it to deeply engaging in an activity.

The amount of stimulation we receive from our environment has a strong influence on our ability to feel and perform well. How much stimulation we need varies depending on personality, mood and what activity we're undertaking. When reading a book, for example, one might prefer a calm environment to be able to concentrate on the task at hand. When in a more restless mood, or when performing a mundane task that doesn't require too much focus, one might want more stimulation to not be bored (Lawson, 2001).

The plane of activity

Rising diagonally through the plane of identity is the plane of activity. The position in this plane indicates the level of activity going on and in what domain of comfort. High up in this plane there is either a strong possibility to engage or a high level of disturbance, whereas a setting that offers privacy, serenity or isolation is placed lower down.

There is a temporal need to be alone or to participate in social activities, i.e. a range in our desire to engage socially. The range of engagement can vary between the anonymous presences of strangers to the committed engagement in a discussion. When visiting a café, one will receive a stimulation from other patrons, but them being strangers and undertaking the low key activity of having a coffee, the setting offers only a moderate amount of engagement, thus placing the setting in the middle of the plane. On the other hand, someone standing in the cheering section at a game of football will probably be highly stimulated both by the game itself and the surrounding crowd, as well as feeling cohesion with the team and the fellow supporters, thus being in a state of strong commitment and participation, with a high level of presence. This event would be placed high up to the right in this plane.

The possibility to retreat from view and social demand is important for our mental wellbeing, and the inability to do so is associated with overcrowding. What is considered an excess of stimulation depends on norms, social structure and preference,
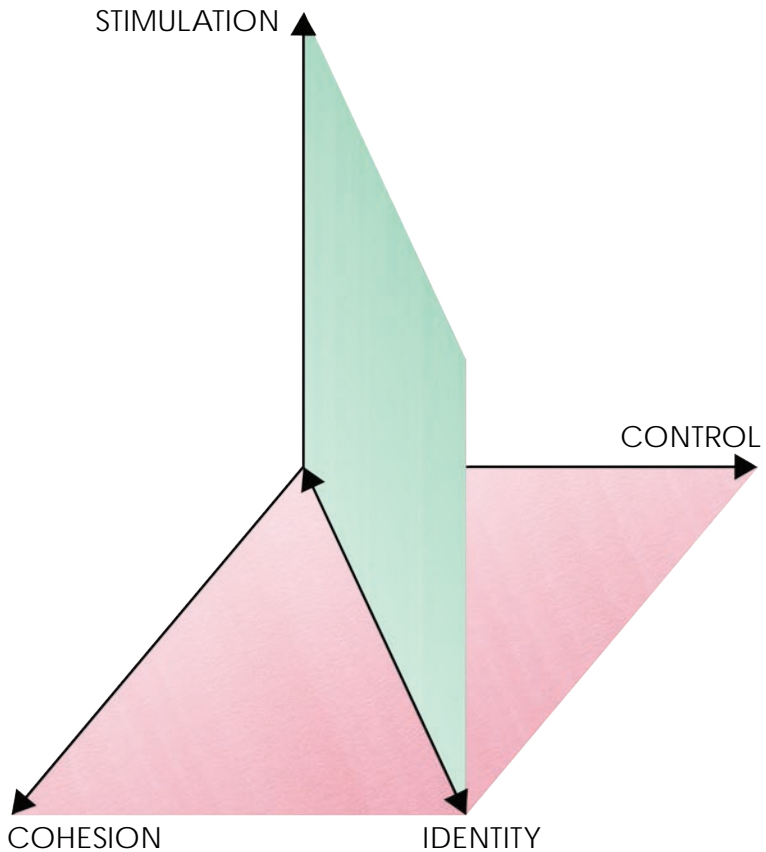
FIGURE 18. FIELD OF SOCIO-SPATIAL SETTINGS WITH THE PLANES OF IDENTITY AND ACTIVITY.

and thus is related closely to spatial control and social cohesion (Gove, Hughes, & Galle, 1979). The reason to retreat can be that one wants to perform activities that are embarrassing or that one would otherwise not want other people to see, such as using the toilet. Another reason would be to perform tasks that requires concentration, and one would therefore not want to risk being disturbed. This seclusion can also mean isolation, being undesirable if not chosen voluntarily.

SPHERES OF SOCIO-SPATIAL ATTENDANCE

In every occasion we interpret the place we're in through our perception and cognition. Our language of architecture helps us classify and read places as well as the behavioural settings within. All places are set within various levels of context, why we always attend an occasion within several socio-spatial layers. These could be pictured as numerous **spheres of attendance** that surrounds us in our everyday life. They range from the intimate space close around us, to the feeling of being within a certain part of the world. The conditions and content of these spheres are always changing as we move about or as other people act around us. The context within which we act might hence be regarded as temporal occasions set within a place of various layers. In this subchapter these layers are classified into four different types divided into two perceptive and two cognitive spheres. All these will influence how we position the occasion within the field of socio-spatial settings. Both the perceptive focus and presence of stimulations of the current occurring as well as the cognitive knowledge of the place we're in will influence aspects like the behavioural setting, domains of comfort and sense of place.

Perceptive spheres

The closest spheres are experienced with our bodies, senses and their perception of the surrounding. If we for instance act within a certain residential room, we will be exposed to the stimulation of the activity we are conducting, but also by other occurances in the room. What we can easily touch, smell, hear and see will hence affect our experience of the present situation. There might be infiltration from other rooms that stimulate us and steal our attention, the scale is hence seldom completely restricted to a delimited space, but rather fade as our senses decline, either with the absolute distance or because of our engagement in a certain activity that makes us absent minded from other occurances around us.

In the most direct sphere is the **focus of engagement**. When we sit on a bench in the park and lean towards our neighbour to talk, we create a zone different from someone we turn our back upon,

even if they both sit very close. In the same sense we can sit on a bus and listen to music or read the newspaper while we're so close we can touch the person next to us; still we might not acknowledge each other in a way that we attend in any mutual interaction. This is hence a sphere in which we can direct our engagement, behold others and signal our will of active interaction. When we are devoted within this sphere we might be less observing of what's occurring outside the focus of engagement.

We will also perceive stimulations from various activities within the place in which we are not engaged. Within this sphere we rather attend in a **presence of the surrounding.** If we are spending time reading a book, we are relatively focused on a solitary activity that has our attention. Still, we can't fully decouple our perception of our surrounding. Hence, the presence of the room influences us and make certain activities more or less favourable in that sphere.

Cognitive spheres

The perceived place is thereto situated within a certain contextual setting. If you spend time performing an activity in a single room of your home, the experience might vary quite notably if this is the only room of the residence or if you know that you might easily move from this room to other domestic places. Our interpretation of identical rooms can differ a lot depending on the contextual setting; is it situated in your own home, at a friend's house or in the public realm. Our understanding of our immediate surroundings and under what conditions we might access it is very important for our socio-spatial interpretation. The focus of engagement and presence of the surrounding is as such informed by the contextual settings they're in.

The first contextual sphere is connected to our language of architecture and interpretation of behavioural settings. Is the place we're in public or domestic, are we hosts or a visitors? Is the place we're in well-connected or isolated? What are the expectations on our actions and what is an acceptable manner? The situation of the place within the architectural framework is crucial to answer these questions and is hence important for what actions we might afford within a particular place. This sphere is called the **architectural setting.**
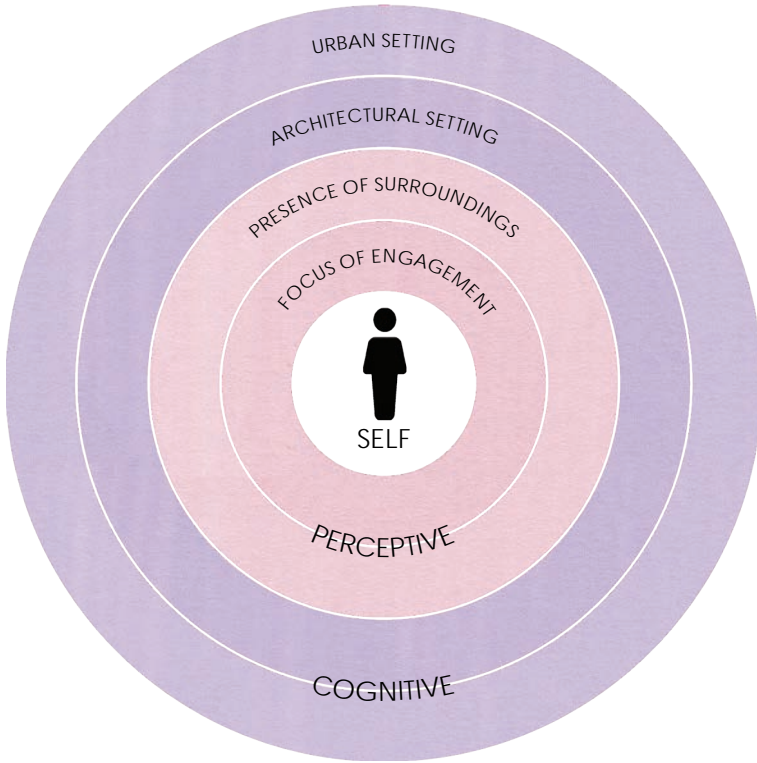
Figure 19. Spheres of socio-spatial attendence.

The second contextual sphere addresses where this typology is located in the urban context. Is it close or far away from our domicile? We might feel safe and familiar in some neighbourhoods, while we experience uncomfortable alienation in others. In certain parts of the city we might feel some cohesion with strangers because we recognize a shared urban identity while we lack this cohesion in other locations. This sphere is called the **urban setting**. Beyond this we could introduce additional spheres of identity such as regional, national or even international ones that all frame and influence our socio-spatial interpretation.

A TOPOLOGICAL MODEL

Cognitive interpretation and space syntax

The socio-spatial exploration of living place within this study needs to manage the complex and qualitative web that connects the various parts of our living place. As the study is to investigate the act of residing and explore the collaborative potential within, it is also important to understand the configuration of rooms and meaning in the residential design. Rather than the representations of physical conditions such as a section or plan of an apartment this study will propose a model more in accordance with that of mental maps and space syntax.

If we regard the cognitive perspective within spatial analysis the urban planner Kevin Lynch (1960) has studied the mental maps drawn from our understanding of reality and found that our cognitive simplification usually distorts our socio-spatial information from "the real world" into five general elements. These are the paths we move on and the nodes which denotes main junctions in this movement. We also apprehend districts, areas that one leaves and enters, and the edges that separate one such area from another. Last we recall certain physical reference points which he calls landmarks.

In the field of space syntax another simplification is done where a premise such as building is defined as an elementary socio-spatial cell containing several interrelated spaces that relates to social components (Farah, 2000). Hillier & Hanson (1984) argues that the spaces within such a cell is defined by a **boundary** (that also define an exterior space) and a **connection** where an interaction between these spaces might be made. They also point out that the continuous boundary performs a certain level of control to allow "continuous internal permeability such that every part of the building is accessible to every other part without going outside" (p. 147). These elements show resemblance with Lynch's suggestion upon how we interpret our surrounding. Especially the district (cell) and boundary (edges) might be seen as relevant aspects as we classify and make sense of our surrounding.

By the use of this topological representation there can a

simplified apprehension of how various socio-spatial settings might be configured within a domestic living place. The elements that will be used in this study is **zones**, **boundaries**, **connections** and **thresholds**. Just as the investigation of these four elements are essential for understanding the shifting socio-spatial affordances in our (domestic) living place, so is the separation and connection of these in relation to one another. This might be described as a configuration, a word defined by Farah (2000) as "the relationship between two spaces taking into account all other spaces in the complex."

Zones and boundaries

With our language of architecture there is a possibility to distinguish discrete zones of shifting socio-spatial affordances and behavioural settings within our built environment. These zones are often delimited by physical boundaries such as walls, floor slabs or other structural elements. The notion of zones will henceforth be used within this study to describe **a** discrete division within architectural design with characteristic socio-spatial affordances. The built environment might as such be subdivided into multiple zones drawn by our language of architecture and provide various socio-spatial settings and amenities such as ambiance, stimulation and identities. The apprehension of these zones are closely related to the boundaries who separate them and is hence important to study as well.

> *"To build a house (or any man-made structure), one must define and delimit space. Therefore it is important to analyse spatial boundaries – how rooms are separated and linked to each other"*
>
> (Lawrence, 1984, p. 261)

This quote is the introduction to an article by Lawrence (1984) about transition spaces and dwelling design, where he points out the importance of spatial delimitations. It is important to observe that these boundaries might be more or less absolute or dynamic, as well as physical or cognitive. The boundary will henceforth be defined as the more or less distinct separation between zones; and is classified into three categories. These are derived from the level of

enclosure they provide for the zone inside, as well as its restriction to perceptive interaction and our cognitive understanding of its demarcation. The first type is the **closed boundar**y that is usually used to define zones such as the rooms within our domestic living places. However, our language of architecture makes us susceptible to vaguer boundaries as well. We can interpret the zones of a kitchen and a dining area even if there's no separating wall. The sleeping alcove, kitchenette or open hallway are other examples of zones with less defined boundaries and enclosement, and from which we still perceive the presence of surrounding zones. These are examples of **semi-closed boundaries**.

Even if there isn't any physical boundary at all there might still be a cognitive understanding of zones and boundaries. The juridical or regulated boundaries such as that of your plot might be such an example. Even if there is no demarcation between the neighbour's perimeter and your own, there would still be some apprehension of what space we could occupy and under what circumstances. This third type is referred to as an **open boundary**.

Connections and thresholds

A feature that characterise a zone is the possibility for us to enter or leave it. This implies that there need to be connections for moving between different zones. How these are connected influence our spheres of attendance depending on the properties of the connection; these may also vary. For example, whether a door is open or closed will affect the interaction with the zone behind it, and sometimes our possibility to go through or the interpretation of whether we should or not. The connection is also defined as either closed, semi-closed or open. The openness regard how easy an interaction is between the zones.

The connection is not always as apparent as a door. Generally, it is more conceivable if the boundary is closed and less so if it is open. Within the domestic living place there are most often quite conceivable connections between zones, but in the urban landscape it might be harder to distinguish where one enters into a public park, plaza etc.

Transitions and depth

It is important to clarify that the apprehension of zones might be done in various scales. The private domain has been used to describe the combined configurations of the zones in our domestic living place in contrast to the public domain. Similarly, just as a living room might be interpreted as a zone in the dwelling there might be another level of zoning in this very room. If we regard the domestic threshold through which we enter the domestic domain from the public, there might either be a gradual shift of zones or a more abrupt confrontation between these distinct socio-spatial identities. Gehl, Thornton, & Brack (1977) refer to this as either a soft (gradual) or a hard (abrupt) interface. The soft interface will hereby create a zone (or several) of transition between the domains. Their study regarded the interface between public and private within residential areas, where the soft interface was seen upon as a semi-private buffer zone with a beneficial socio-spatial capacity. This type of transition might hence constitute a gradual shift between socio-spatial settings and identities that might lower the thresholds between and make more zones accessible.

Territorial depth is another aspect that might be revealed within a topological study of the configuration of zones. It denotes the number of zones that needs to be passed to get from one zone to another. In residential design it is for instance common that the more private zones of the residence such as bedrooms have a higher territorial depth than the more public places such as a living room or kitchen.

AMENITIES

Amenity is a broad term denoting a beneficiary property of a material nature perceived subjectively. It's a resource; an ambiance, facility or instrument, that provides benefit for people. It can be the ability of a wallpaper to provide aesthetics, of a stove to heat food or of a knife to cut bread. In our everyday life we make use of a wide variety of amenities to fulfil our needs. Many of these are associated with the domestic sphere, as the examples mentioned, while others are mostly found outside of it. Some are considered essential and are included in every residence, and may even be required by law to be so, while others are regarded as luxurious and only held by few. We could say that amenities are what we usually think of when we contrive requirements for a building, residential or otherwise. As hinted earlier, they can be subjects in many actions, such as protecting, facilitating, enabling, improving and supporting. Some amenities are what facilitates person-environment congruity and play an important role to provide good living conditions. Since they are so closely knit to our quality of life, their distribution and accessibility is a salient issue in the endeavour for sustainable living conditions.

Amenities are inherently material, and as such require resources to be produced and acquired. However, they are perceived subjectively, and something that is a beneficial amenity in one occasion might be useless in another. By this definition, amenities need to be utilised and therefore accessible, and can otherwise be considered as waste, as their benefit doesn't outweigh their negative externalities.

Ambiance
Benefits that are perceived passively are defined as ambient amenities. These do not require active interaction, but instead affect us through our realisation that they are present, consciously or unconsciously. These include a wide range of properties, both tangible and intangible. It can be lighting, daylight, aesthetics, heating and more. Objects that are useful but not used can temporally be sorted under this category. For example, books in a bookshelf can improve the ambiance of the room even if they are not currently

used. Architectural qualities, not least spatiality in itself, sorts under this category.

Nylander (1999) and Nylander & Forshed (2003) uses the properties of material and detailing, axiality, closedness and openness, movement and daylight to describe the qualities of residential architecture. They claim that these are salient aspects in the relation between residents and the domestic living place. Quality in materials and details is an important part in making the residence into a home. Axiality, daylight, movement and the contrast between open and closed together enhance the spatial sensations of the residence and turns residing into a richer and more exciting experience.

Facilities

Amenities that are used and stored in the same space, i.e. are immobile, are put in the category of facilities. They are not necessarily impossible to move, but are usually not done so due to ungainliness or other reasons. Furniture and appliances can generally be put in this category. The fact that facilities are not moved requires them to be placed in the zone where they are wanted, and together with the appropriate ambient amenities. Some facilities might however be moved for special occasions, the kitchen table might for example be moved to the dining room if more seating is required at a dinner party. Other examples of facilities are sofas, beds, refrigerators and shelfs.

Instruments

Things that can easily be moved around and used in different locations are defined as instruments. Some of these are closely related to certain facilities, like a frying pan to a stove, but can still be used together with different facilities of a similar kind. Instruments often require a facility for storage. A book is stored in a bookshelf, but can be removed and used in another space than where the shelf is situated. To be considered an instrument in this context, an object must have a certain degree of utility and purpose, even if this can change depending on situation.

SOCIO-SPATIAL AFFORDANCES

To simply look at what we can do by the means that our spaces provide is not a comprehensive method to decide what activities our living place affords, as our relation to our socio-spatial environment is much more complex than this would suggest. Consequently, this thesis argues that the program for our domestic living place cannot be comprehensively expressed in terms of rooms and facilities. Instead, the concept of **socio-spatial affordances** is hereby introduced. This is the aggregate of **socio-spatial settings** and **amenities**, the features of a place at a certain occasion and the beneficiary properties perceived. Socio-spatial settings are what gives us agency to perform activities.

> *"Perceiving affordances is placing features, seeing that the situation allows a certain activity."*
>
> (Chemero, 2003, p. 187)

Because the socio-spatial setting has such a considerable effect on our behaviour, as has been argued earlier, we will not necessarily deem an activity possible just because the material preconditions are in place. For example, seeing a bed in the middle of the town square will most probably not mean that we see a possibility for sleep. Thus, we need to develop our understanding of how, where and when, and under what circumstances we perform different activities, in order to transcend our domestic living place into more sustainable living place, more favourable to our quality of life. By understanding our domestic places in terms of socio-spatial affordances rather than rooms, we might have a better opportunity to configure our spaces in a more efficient way and better understand what we can share and with who and when.

This concept allows us to separate rooms into features, be it amenities or settings, or combinations thereof, to better see what activities they should afford and what is required to afford them. By doing this, there is a potential to see other possible spatial configurations that can provide better and more opportunities to perform activities in our domestic living place.

THE MESO-DOMESTIC LIVING PLACE

This chapter introduces a new model for residential design that could reconceptualize our ways of residing. the motive is to make more benefit of the idle capacity within residential space and provide a larger variety of socio-spatial affordances for the dweller. This meso-domestic approach consist of several domains connected by softer interfaces than that of the domestic threshold, in order to facilitate the development of collaborative residing.

THE DOMESTIC LIVING PLACE

The places and occasions of residing

This thesis argues that our living place is the set of all the places that we access, physically or virtually. This living place can be subdivided into subsets such as the urban or everyday living place, which delimit spatial and temporal aspects of our living place respectively. To denote the places that are the main focus of this thesis, the concept of **domestic living place** is hereby defined. This coincides with the **domestic domain,** separated from the public by the **domestic threshold.** Typically, this would be the apartment or house where one resides. All the different actions we perform in the domestic living place is what we could call **residing**.

The location of this place has been defined above as the domicile, a central location as our everyday activities are anchored there. The site and situation of our domicile is salient in the search for living place. The prior determines the ambiance and setting in adjacency to our domicile, and the latter conditions the accessibility to other
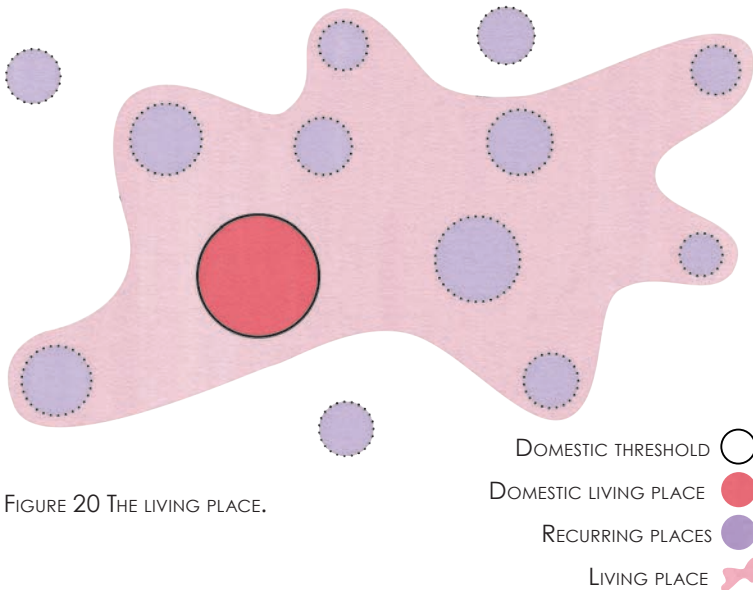
FIGURE 20 THE LIVING PLACE.

DOMESTIC THRESHOLD ◯

DOMESTIC LIVING PLACE 🔴

RECURRING PLACES 🟣

LIVING PLACE

places through the friction of distance to reach them. However, not least in the urban context, passing over the domestic threshold into the domestic domain might make the biggest contribution to the friction of distance, why we often choose to remain in the domestic living place once we're there. For places to truly be accessible and afford our activities, they should optimally be in the comfort of the domestic domain.

However, in our predominate residences, the range of settings and places is limited, and increasing it will often have negative sustainability impacts, as we need to claim more space and duplicate amenities. This indicates a limitation of our current ways of residing.

Collaborative residing

Collaborative consumption has shown the potential of people coming together and making peer-to-peer exchanges of services, goods and skills, seeking the benefits they provide rather than striving for possession. Just as the CC-movement embrace the concept of access rather than ownership, the provision of sustainable living conditions might be found in the access to a living place rather than ownership of a living space. This thesis will hereby propose a further addition to this discourse by introducing the concept of **collaborative residing.** This denotes a transcendence of residing into a collaborative endeavour aimed at providing accessibility to amenities, spaces and social capital to the members of the community. This concept would utilise the vacancy in the predominate domestic living place by giving up some of the individual control in exchange for increased accessibility. Instead of seeing shared spaces as an addition to the apartment, residing in its entirety becomes a collaborative venture. In the vein of the baugemeinschaft-movement, collaborative residing could also give agency to groups of people to co-create their living place in alternative ways.

Using the same discriminators as Brinkø et al. (2015) we might begin to ask ourselves **what** we might share; tools, facilities, rooms, outdoor areas or entire parts of a building, and with **who**? If the delimiting factor rather is what we can't share, what is then to be regarded as too private or sacred, and might this change as social trust and collaborative norms are developed? The question of **when**

is also essential. The temporal vacancy within the built environment can give opportunities for a serial use, where the same space might be shared through the use by different individuals or groups during different hours (Park & Gustafsson, 2015). Simultaneous use might also be beneficial as it provides an accessibility to social contexts that might increase social capital. The questions of **why** might reveal multiple motives; economic savings, more sustainable alternatives, and more stimulating activities. As more and more people share and develop these beliefs, a chain reaction of beneficial applications and solutions might gather momentum enough to direct us in a new direction.

To fully utilise the capacity that collaborative residing could hold, the way we understand and design our residential spaces will have to change. We need to better appreciate the importance of socialisation and socio-spatial settings in our spaces to avoid conflict and facilitate beneficial interaction.

THE MESO-DOMESTIC APPROACH

From threshold to transition

In an article concerning pro-environmental behaviour, Reid, Sutton, & Hunter (2009) propagates the importance of scale and different social units within sustainable behaviour. In particular, they emphasise the meso level of society, in which the household and immediate neighbourhood is included. In this thesis, the meso level is further investigated as a spatial expansion of the domestic threshold, with potential to improve the sustainability of, and quality of life afforded by our place of residing. This concept is here introduced as the **meso-domestic living place.**

The domestic threshold of contemporary urban residences creates a friction to go other places, as the abrupt jump in identity between domains is considerable when other places are in or on the other side of a fully public domain. The strong partition between apartments also means that amenities become inaccessible, socio-spatial settings are uniform and natural arenas for social interaction within the neighbourhood are lacking.

By introducing the meso-domestic living place into our residing, a soft transition between private and public domains can be created, instead of the abruptness of the domestic threshold. It consists of zones in between the domestic and public domains. By integrating socio-spatial affordances from places within the public domain as well as extending the domestic, a crucible of opportunities can be created that affords more possibilities that neither would otherwise do. In the process of making this place a part of our home, we surrender some of our spatial control to gain social cohesion. This could allow greater accessibility, not only to places and amenities, but also to people with which we have varying types of social relations.

The creation of home might be regarded as the place-making of a household in their delimited part of a residential building, but through the meso-domestic approach, there can be additional opportunities for place-making within other groups that reside within the close proximity of one's domicile. The concept of collaborative residing is hence crucial as it will be the tenants who

create these various zones of socio-spatial identity and regulate the accessibility and affordances within.

Extension and integration

Two terms that are introduced here are **domestic extension** and **public integration.** The first relates to the possibility to expand one's interpretation of domestic comfort and to gain an enlarged living place, where some parts are shared with different groups. This creates the possibility of relocating some amenities or spaces into a less personal zone that is shared with others. There can be several purposes to do this. Some amenities or spaces may be unwanted or unnecessary to keep inside the personal domain, and relocating them might make this space more qualitative. In doing so with any amenity or space, it could be made accessible to others, increasing the benefit and reducing the need of duplication. Worth pointing out is that this goes both ways, surrendering control of some things could give accessibility to many more.

Public integration is making affordances of a public character more accessible. By having them within the meso-domestic living place, the friction of distance can be heavily reduced. Zones with a more public identity could offer a setting with a presence of people, but with only limited social and material responsibility for the users. These places could also constitute an interface between insiders and outsiders, providing benefit for both, an arena that could be beneficial for the development of social capital as trust and cohesion might arise through a shared sense of place.

Different modes of sharing

The variation of zones in different domains of the meso-domestic living place creates opportunities for different modes of sharing. Socio-spatial affordances inherently require different settings, something that has implications for what we can share and not, and with whom. It is here useful to consider the difference between **sharing space simultaneously** and **sharing space separately.** These terms regard the temporal aspect of sharing, whether people share spaces at the same time or take turns.

Affordances that require comfort or privacy, can either be located in a domain of higher comfort, or be shared separately
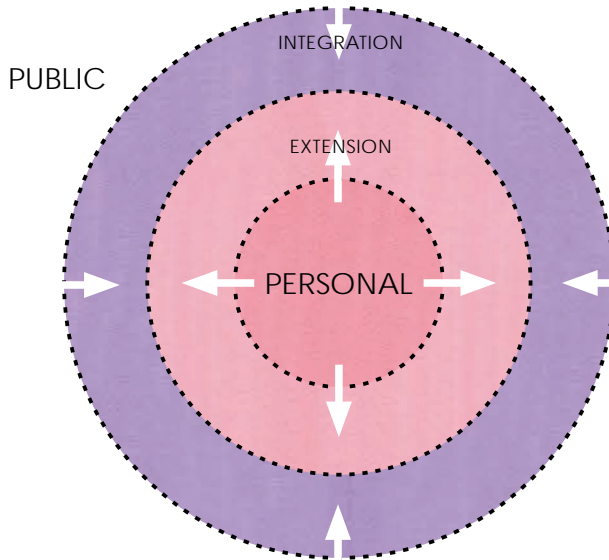
FIGURE 21. DOMESTIC EXTENSION AND PUBLIC INTEGRATION INTO THE MESO-DOMESTIC LIVING PLACE.

elsewhere. If low stimulation is required, this might be favourably achieved in a zone of personal influence, but other times more so in a public zone shared separately. Sometimes one could want to retreat from the household to get time alone elsewhere. Sharing a zone simultaneously can be done either because the activity at hand does not require privacy or that it do require the engagement or presence of others. Depending on activity, these requirements will vary, and should consequently be located in different domains.

This takes us on to consider why a space or amenity is shared. As mentioned, when they are shared simultaneously it could be that they afford more or other activities than they would if not shared. Affordances that do not depend on stimulation or that require privacy can be shared for different reasons. Zones that are only used sporadically or between long intervals can be shared to reduce duplication with economic and sustainability gains as a results. There can also be an intrinsic value to not need to have certain amenities in one's personal zones if they affect the ambiance. With whom these affordances are shared will depend on the frequency of use to avoid

temporal collisions. The laundry room of conventional Swedish multi-family buildings is a typical example of sharing separately.

Four meso-domestic domains

In the application within this thesis, the meso-domestic living place is concretised into four spatially delimited sets of zones of different domains. These are shared with consecutively more people in more public zones the closer they are to the public domain. This suggestion is made to have a more concrete framework to work with within this study, and that is applied in the empirical study.

The most personal domain that is similar to the present domestic living place is presented as the **personal influence.** The high levels of spatial control and social cohesion in this domain means that you or your household can influence these zones just as you would do with a regular apartment.

In the next domain of **domestic comfort,** the spatial control is shared with a few additional households. The social cohesion, either established beforehand, or developed over time as you meet each other often means there's comfort to act quite freely within this zone. One could sit quietly next to others without the need to interact, and it feels natural to engage in activities together. You have quite similar thoughts about the behavioural settings in this domain and the characterization of this space is a shared task. However, everyone might not feel as natural as they do within the zone of personal influence, to which you could want to withdraw occasionally.

After this domain comes another less domestic one called the domain of **common co-operation.** This domain is shared with some additional units of domestic comfort. Accordingly, this zone has less spatial control and social cohesion which means that you're interacting in a personal-public domain where you're not strictly a host but rather a regular. This space isn't possible for yourself to influence and characterize as much as the previous ones, but instead co-operated and co-charaterised. Within this space there are some common rules of conduct and you can't act completely as you wish. There might be some regulations about use and time-schedules. If the more personal zones of domestic comfort includes households with more similar world view and home related practises

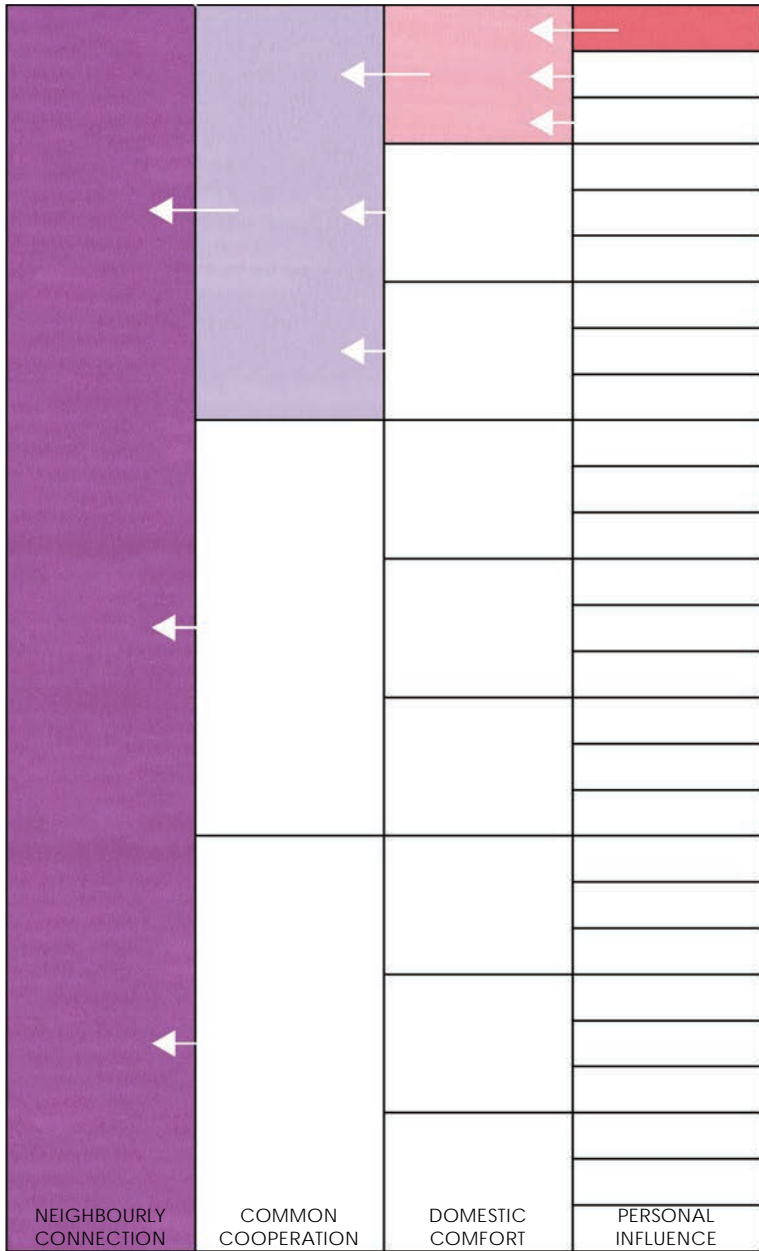| NEIGHBOURLY CONNECTION | COMMON COOPERATION | DOMESTIC COMFORT | PERSONAL INFLUENCE |

FIGURE 22. THE MESO-DOMESTIC ZONES ARE CONSECUTIVELY SHARED BY MORE AND MORE PEOPLE IN INCREASINGLY MORE PUBLIC DOMAINS.

as yourself, things might work differently in the common domain, where there is a wider range of ages, life situations and household configurations. This means that you will need to show more regard to others, but also might interact with other groups and individuals that you otherwise wouldn't do on an everyday basis. If somebody you don't know would visit here, you'd likely be introduced, and it might hence be a domain for a lot of new acquaintances.

The last domain before you face the public realm is that of **neighbourly connection.** This zone is shared by everyone in the meso-domestic living place. Here you probably know the names of most people after you've lived here for a while, but don't have a strong relation to everyone. Some of these people you might really enjoy to spend time with, but others might be less to your liking. The cleaning of the place might be outsourced and the furnishing and characterisation is likely to be more public and less homely. Still this might be experienced as a quality since one might spend time here more like the visitor of a café or a library. You are still a regular in this domain even not as much as in the more personal zones. It is quite common that people engage in different activities here, and just because you enter doesn't mean that you're automatically welcome to participate. This is something that can be an advantage since you might undertake activities in this area without being disturbed. As some zones here are directly connected to the public, some spaces may be accessible to outsiders. This can make it into an integrative meeting place, as well as provide a greater basis for common activities and amenities.

Meso-domestic settings

Just as the plane of identity above is divided into four domains in meso-domestic approach, the plane of activity is also divided into four levels of stimulation. These reflect four different modes of attendance in an activity from an individual's point of view.

The first level is called privacy. This describe an occasion when you're completely alone and there is no one present within your perceptive sphere, which implies that there is no stimulation to influence your affordance. This level might be present within all meso-domestic domains. However, the shifting levels of spatial control and social cohesion might vary the experience of this
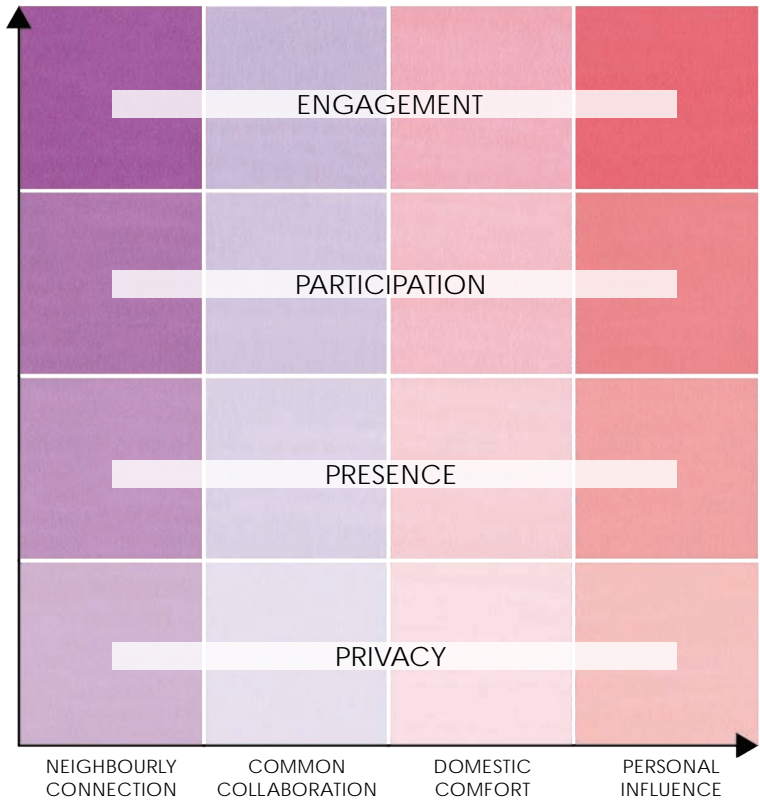
ENGAGEMENT

PARTICIPATION

PRESENCE

PRIVACY

NEIGHBOURLY CONNECTION   COMMON COLLABORATION   DOMESTIC COMFORT   PERSONAL INFLUENCE

Figure 23. Meso-domestic settings in the plane of activity.

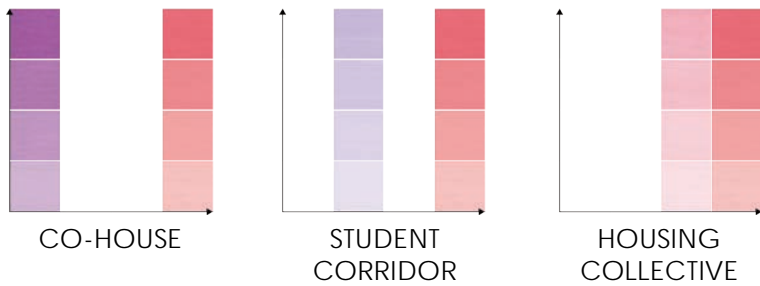

CO-HOUSE   STUDENT CORRIDOR   HOUSING COLLECTIVE

Figure 24. Examples of possible settings in existing shared residences.

privacy. Within a controlled zone you generally have the possibility to foresee if other people will enter your sphere and hence change the level of stimulation. If you are occasionally alone within a shared space, it possible for others to enter without warning, while a zone within the personal influence is perhaps never entered by others if you don't let them in.

The second level of attending stimulations is that of presence. This level is experienced if your focus of engagement is directed at a personal activity, but with other people present in the zone. You might occasionally share some words or in other ways acknowledge each other, but there is no real interaction except the sensation that people are present.

If you start to move your focus of engagement towards a common activity that include more people, the stimulation comes from an interaction beyond presence. This reaches the level of participation. This might be watching a film, sitting and studying or maybe preparing food or cleaning together. These are occasions where you would say that you've been spending time together and doing a common activity, even if it doesn't necessarily include a high level of socialisation.

The highest level of stimulation is when the focus of engagement is directed towards a social activity. It might last for a short period of time as you briefly discuss something with a household member, or for an entire evening when you meet some friends at a bar or get together to eat a dinner.

By the use of the four meso-domestic domains and four levels of attending stimulations, the concept of socio-spatial settings can be operationalised into a matrix of sixteen elements. It is important to highlight that within each domain, the social control and spatial cohesion can vary within the same identity of the specific domain. There are of course multiple qualitative aspects to describe a certain socio-spatial setting, but this matrix of meso-domestic settings is considered a favourable tool to initiate an investigation of various settings and find some general themes within different ways of residing.

SOCIO-SPATIAL EXPLORATIONS

EMPIRICAL EXPLORATION

In this chapter there's an presentation of the empirical study within this thesis. By the means of qualitative interviews there have been several explorations of the subjects of this thesis. How do people spend the time in their living place? What are their practises of residing? Which socio-spatial affordances do they desire? How do they regard the concept of collaborative residing framed by the meso-domestic approach?

A QUALITATIVE CONTRIBUTION

The main purpose of this thesis is the search for a living place. A subjective endeavour that will reveal different findings for different people, depending on who they are, how they search, and where they find value. The authors have already scrutinized the subject, discussed various ideas and become united in the drawing of some conclusions. Even if the authors have explored various benefits of a living place and interpretations of the conventional living space, this is still a narrow perspective on the issue. In order to argue for the empirical method that is chosen for this study there is a need to reflect upon the purpose of using qualitative interviews in contrast to alternative methods. The interviews might widen this perspective as it provides an enriched ethnographical vision. The stories of living place that the respondents give is a crucial resource. This is a chance to test out some of the framework and models that this study has invented, but also a situation that may lead to new ideas that might influence the continuous conceptual development.

The performed interviews are of a semi-structured qualitative character. The qualitative approach is described by Kvale & Brinkmann (2014) as "an interview that acquire descriptions of the respondents experienced reality with the purpose to interpret the phenomenological depiction untold" (translated by the authors). The interviews are regarded as semi-structured as they are prepared and planned to follow a certain guide. Still, they're given path by the stories or discussions that the respondent picks up. There are some general outcomes and stages that are to be achieved, but despite this the exploration of the living place is very much shaped by the respondent together with the interviewer and is allowed to take different turns depending on the situation.

The first initial interviews were tests to develop the questions of the interview and the tools used within. These trials were crucial to test the respondents understanding of the interview design. As the time and effort that the respondent needed to invest was quite high, a snowballing method was used to find people that could be interested to participate. The final layout of the interviews consisted of four parts and was performed on nine respondents.

The interviews where performed one-to-one and all interviews were voice recoded, with approval from the respondent.

The successive parts are designed to start with a study of the living place in general, before it moves towards the domestic living place. After these descriptive parts where the respondent depicts their day-to-day ways of residing, the final parts are of a more explorative character. The first of these inform the respondent to describe beneficial socio-spatial affordances in the light of several scenarios. The latter introduces the meso-domestic approach and investigates whether the respondent would regard this as an attractive alternative to their present ways of residing. The successive order of the interview is structured to prepare the respondent for this last part. During the work with this study the authors have realised that there was much prejudice towards collaborative residing and also not much interest in approaching this as an alternative; people felt reserved and sceptical. In order to make the respondent more open-minded, the first steps of the interview are designed to gather information that might reveal beneficial applications within a meso-domestic approach for the respondent during the interview. This last part is perhaps the most essential part of the empirical study, as it explores the possible applications of the meso-domestic approach developed within this study, and what socio-spatial affordances that people might be likely to request.

6 WOMEN   3 MEN

4 STUDENTS   4 WORKING   1 UNEMPLOYED

1.9
AVERAGE HOUSEHOLD SIZE

56 m²
AVERAGE APARTMENT SIZE
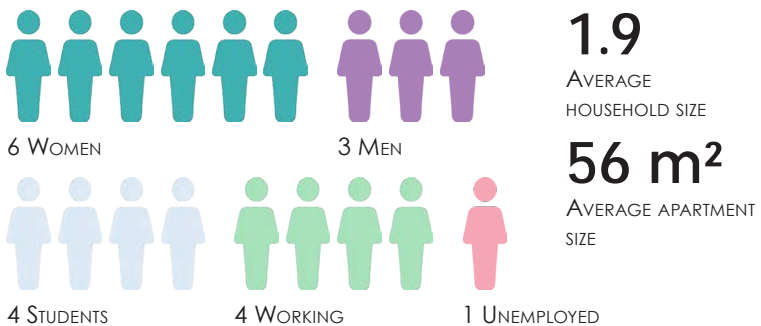
FIGURE 25. RESPONDENT DATA.

NARRATIVES OF EVERYDAY LIFE

Time diaries based on frictional distance

The first part of the interview is designed to briefly frame the everyday life of the respondent and review what places that together shape the living place of an average day. As the interview starts the respondent is asked to describe the places in which their everyday life occurs. These places are labelled and written down by the interviewer on paper notes and the respondent is later asked to position the location of these places in their living place.

To assist in this task, a physical concept model is used to visualize the living place and record the outcome of this primary exploration. This concept model consists of five perforated boards that together encompass the everyday living place of the respondent. Each board symbolizes more or less accessible locations within the living place, represented by a certain frictional distances to the domicile of the respondent.

On the first board the domicile is placed. Within this board everything is more or less inside the residence or its immediate surrounding. Places are experienced as accessible and reachable within one or two minutes.

On the second board are the places you can reach without too much effort in about five minutes, even if you feel that you need to leave the domicile to reach them. You wouldn't consider to take a bike as it's more beneficial just to walk there. Even if you are tired or just have little time to spend you most often have the energy to go to this place if you have an errand there.

The third board symbolize the part of your living place to which you might regard that you transport yourself. These locations are far enough to take a bike or to consider other modes of transportation. The friction of distance starts to feel effortful or time-consuming and it takes about fifteen minutes to reach the location.

The fourth board regards locations that are in another part of the city or in another way feel further away from your domicile. The effort to go to these places makes the transport into a more or less planned activity. You usually leave the home for at least a couple

of hours or just to do errands that are prioritized. These places aren't regarded as accessible enough to go there spontaneously if the circumstances aren't right; it might take about fifteen minutes to an hour to reach them.

The fifth board gather all places that are further away than an hour and often imply that you leave the city for another location. You would probably say that you travel there. If this is a place you frequently visit, like a workplace, the time and effort to go there in relation to your dwelling would imply commuting. If it is less frequently visited places it might be regarded as a trip and it might be that you feel that it's more convenient to spend a night away than returning to the domicile.

Drawn from the descriptions of the respondent, sticks with time-axes are placed next to the places where time is spent on a day-to-day basis. A timeline is later drawn to visualize how time awake is usually spent among these places on an average day. All respondents are asked to confirm that the timeline is representative before this first part of the interview is finished.
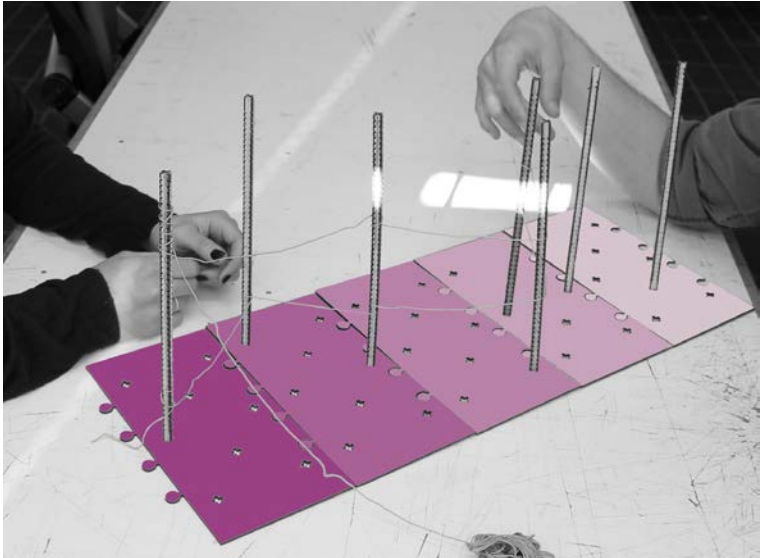
Figure 26. Mapping the respondent's living place.
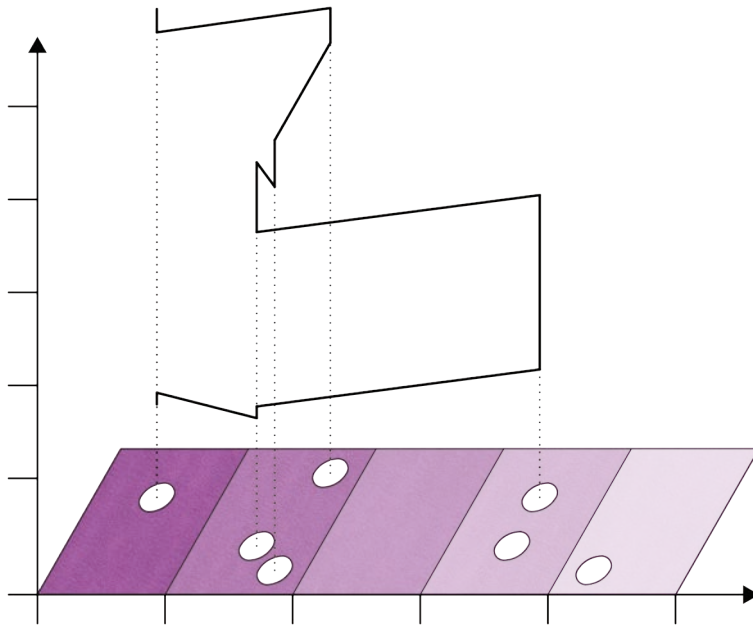
FIGURE 27. EVERYDAY TRAJECTORY FROM ONE OF THE RESPONDENTS. LINES ARE DRAWN BETWEEN THE FREQUENTLY VISITED PLACES OF THE RESPONDENTS TO VISUALISE WHERE THEIR TIMSE IS SPENT. THE AREAS REPRESENT INCREASING LEVELS OF ACCESSIBILITY ACCORDING TO FRICTION OF DISTANCE.

The residential design

In the second part of the empirical study the main focus is directed to the domestic living place and the relation between the respondent and the zones in the apartment. Each of these are discussed on account of their socio-spatial affordance. A floorplan was either received from the respondent prior to the interview or collected from the town building office. This floorplan was used as a reference to support the interviewer's understanding of how the dwelling is used and experienced. It is also proven to be a favourable way to record the descriptive narratives of the respondent during the interview as notes might be spatially assigned. From the floorplans and the descriptions of the respondent, the domestic living place was also transformed into a topological representation of zones, boundaries and connections. The respondent was also asked whether there were any differences in the use or apprehension of the domestic living

place during certain occasions due to the time of the day, weather, outsiders were present etc.

The floorplans and topological models are gathered in the appendix and constitute a residential portfolio within this study.

EXPLORING AN ALTERNATIVE RESIDING

Preferable Socio-spatial affordances

The third part of the empirical study is designed to reveal desirable socio-spatial settings and amenities but also to find out what spaces and amenities that might be regarded as excessive or lacking within the respondents domestic living place today. Instead of introducing the meso-domestic approach directly, this bridging part of the interview constitutes a stepping stone from which the respondent can envision alternative benefits of a living place without the possible confrontation of collaborative restrictions or responsibility.

The respondents are first presented to the idea of three magical doors through which any location could be accessed; i.e. adding a connection between any zone of the apartment directly into any favourable zone of choice. This gives insight into what qualities the respondent most wants to eliminate the friction of distance to. The stories told are explored more deeply and the interviewer asks follow up questions to better understand the socio-spatial value and benefits of these places and what they might afford in contrast to the present zones within the domestic living place, or other accessible places within the day-to-day living place. The aim is to depict a detailed description that might propose what identities and stimulations that is most crucial in the story and how the sense of place might differ from that of the respondents domestic living place.

> In your home everything is just one door away. If you had the opportunity to control three magical doors that could instantly lead you to any place and occasion, where should these doors take you?

After the discussion upon the magical doors, another idea is presented in the form of a magic wardrobe. This wardrobe is located just outside of the domestic threshold and anything that might be occasionally needed might be fetched from within. Something that both makes it possible to reduce the ownership of amenities or access additional benefits. In contrast to the doors that imply an

access to another place the wardrobe rather imply the possibility to benefit the domestic living place by the occasional accessibility to in- or outsource portable amenities. This question is, quite obviously, leading towards the capacity of sharing within collaborative residing. There is also some implication about what particular amenities that the respondent would like to extend out from the personal space, because they feel redundant, steals space or just disturb the ambiance of certain domestic places.

> In your home, everything you own needs an idle storage between uses; this requires space and organisation. If you had a magic wardrobe just outside your front door where you could choose to access anything you occasionally needed rather than owning it, what would you move out and what would you be most likely to fetch?

The last questions frame three various scenarios during three various parts of the day. They also set the occasional mood for the respondent. The respondent is informed that they shouldn't think of themselves as within their own domestic living place but rather imagine any possible place where the described occasion could favourably be performed. These scenarios hence show resemblance with the magical doors, but as these scenarios are fixed they might provide various situations than the ones that the respondent earlier depicted and additionally add a better possibility to compare settings of choosing as the circumstances were the same for all respondents in these scenarios. The places that's been described within these part of the interview will henceforth be referred to as desirable places.

> It's a laidback morning free of obligations and you have just prepared a delightful breakfast tray. Where would you like to go to enjoy it?

> *It's an afternoon without any scheduled activities or demands and you feel like withdrawing for a private peaceful moment with a book, laptop or just yourself. Where would you like to go to relax?*

It's an unstimulating evening at home but you feel inspired to engage yourself in a social activity. Where would you like to go to live out?

Investigating the meso-domestic approach

The last part of the empirical study introduces the meso-domestic approach for the respondents that were then allowed to investigate the possibilities within. Each respondent where given the possibility to redistribute the living area of their apartment into any of the four meso-domestic domains exemplified within this thesis. Since the apartments of the respondents varied in size from 19 to 91 square meters there were a wide field of different conditions to begin with. To demonstrate the distribution of living area a physical model was used. This model has the shape of a drawer from which four layers could be drawn out to represent the distribution of living area among the various meso-domestic domains. These regard an altering degree of collaborative residing on account of the number of people whom are considered insiders within that domain.

The degree of collaboration implies how much living area that the respondent gets in return for the same amount of space that is disclaimed from the own apartment, i.e. more living area might be
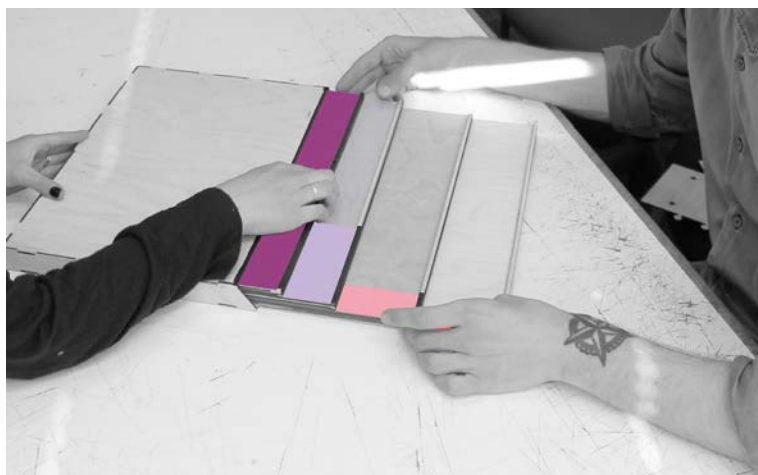
Figure 28. The resondent exploring a meso-domestic living place.

achieved by the concept of accessibility rather than ownership. The personal influence was regarded as the starting point from which the respondent received a pool equal to the amount of living area in the present apartment. From this one could abstain one square meter within the domain of personal influence to either add three in the domain of domestic comfort, ten in the domain of common co-operation or thirty in the domain of neighbourly connection. Accordingly, these domains where shared by three, ten or thirty households of the same size as the respondents. In order to make the distribution easier the respondent was informed that they shouldn't be constrained about how the specific area that was disclaimed should be removed from their present apartment, but rather regard this as a pool of square meters and that whatever living area that was left within the personal influence could be used in a new way to complement and relate to the rest of the meso-domestic living place gained. The design of the model made it visible how much residential space the meso-domestic living place provided in relation to the present living situation.

The respondent where allowed to elaborate with the model to test various configurations and describe the new zones that they wanted to create within. The interviewer was present at all times to assist with this task and help to estimate the sizes of zones due to the respondent's description of it. Just as there was an exploration of what zones the respondent would like to position within each domain, there were also questions about the thresholds between these and how they were interpreted. Once the respondent started to feel quite content with the result they were asked if this approach would be an attractive alternative if they were to move to a new residence and whether they regarded their meso-domestic design better than their present dwelling. All did.
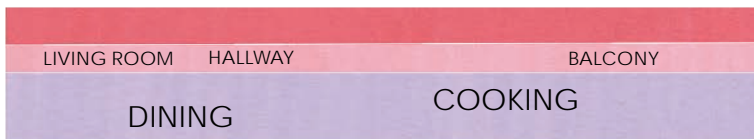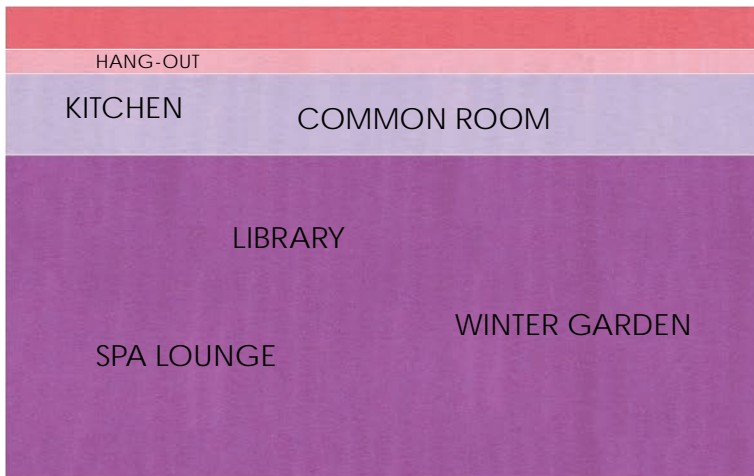
HANG-OUT

KITCHEN   COMMON ROOM

LIBRARY

WINTER GARDEN

SPA LOUNGE

LIVING ROOM   HALLWAY   BALCONY

DINING   COOKING

TERRACE   HALLWAY   GREENHOUSE

ACTIVITY TABLE   MUSIC ROOM

SEMI-PUBLIC
ENTRANCE LOBBY
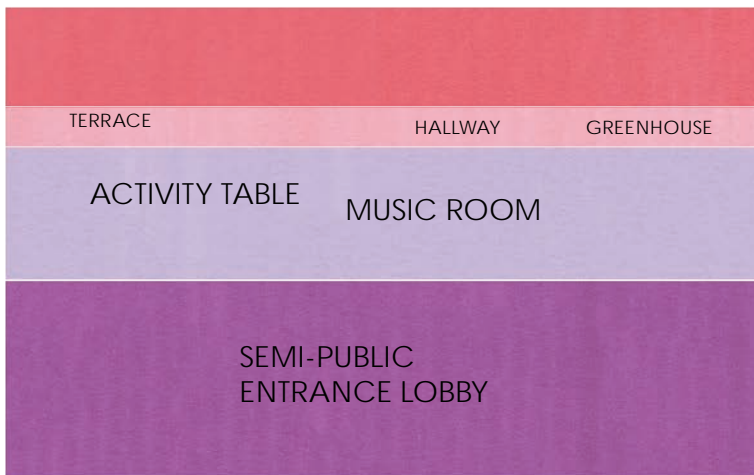
Figure 29. Meso-domestic living places conceived by respondents.

INTERIM EMPIRICAL INSIGHTS

A brief reflection

Even if the interviews and empirical study is an important contribution to this thesis it is not to be seen as the primary outcome. The result of the interviews is just one out of several aspects within the thesis that is referenced and analysed together in the ending discussion. As described in the introduction the interviews have supported both the conceptual development and theoretical framework during the process, why every respondent has made a contribution to the study by informing more knowledge and new perspectives. Much of the conclusions drawn from the interviews are therefore interweaved throughout the study, and references and quotes will be distributed among the coming chapters. With this said there will be some concluding reflections drawn from the empirical study in itself. These reflections are generated from the interplay between respondent and interviewer and expressed by the latter from the recall of the interviews assisted by notes, the models and recordings. As such the rest of this chapter should be regarded as the general interpretation that arose between the authors after the empirical study was due, rather than an accounting of its results.

Spending time and friction of distance

In the descriptive part of the interviews many respondents seemed to be surprised over how time was actually spent both within their living place in general, but also in the domestic setting. When the time-diary was visualized, and the day-to-day spending of time apparent, many respondents seemed discontent and regarded the outcome as meagre. If this was due to the crude visualization, a social desirability to reveal another outcome or a hint that the everyday life didn't act out as they would picture it is yet to be discussed upon. In general, they were troubled about the small amount of time that was not regarded as mandatory or planned and that it was hard to find either time or energy to afford more activities during the weekdays.

"[Hmm…] it really looks like a meagre life"

"Fucking life… [sigh]"

In general, a possibility to ameliorate the conditions for residing was seen, and some respondents pointed out that they would prefer to redistribute time to have more opportunities to participate in spontaneous activities or spend time with others, which they seldom had the time or energy for as much as they wanted today. Some respondents also pointed out that they would have wanted to relocate several places in their living place closer to the domicile to be able to visit them more frequently. As some described certain places that they regarded as important they became astonished when they started to realise how seldom they actually visited them. Even if a place was regarded as desirable to visit more frequently and was just a few blocks away from the domicile, the little extra effort of planning and leaving home to go there during a stuffed weekday schedule often left it unattended.

Several respondents had few or no places that they visited within the close proximity of the domicile why there were generally a certain friction of distance connoted to activities outside of the domestic living place. This often resulted in two scenarios; that activities were combined with the travel between the domicile and primary place of occupancy, or that the settle down at home in the afternoon often meant that the rest of that evening would be spent there as well. This was sometimes preferred as there were activities at home that were prioritised, but several respondents also pointed out that they could enter a passive state where they lacked the affordance to activate themselves in another activity. This passive state within the domestic living place was also depicted in occasions where more spare time actually was available.

"It is hard to invent activities to do, you kind of just get sucked into a passive state in front of the television, especially on weekdays."

"Many weekends I just end up spending entire days at home, and as times goes on I start to wish that I would have done something more with it."

Because of this tendency, many respondents also described that an ordinary weekday evening was usually either spent entirely at home or away, as the effort to go somewhere else often resulted in longer stays, why the domestic evening was regarded to be sacrificed for another activity. Only a few of the respondents pointed out that they had a place close to the home to which they could move quite spontaneously when needed. These places where usually another home of a friend or relative.

> *"Even if other places were closer I still think that I would have preferred to spend most evenings at home, but I really believe what is now two evenings away every week would become shorter periods and more often. Today it's usually that the one time you come to meet someone you'd like to invest the entire evening. But if they would have been closer by I don't think I would regard it this way. I guess we would see each other a lot more regularly."*

Three general time-periods

The time spent at home could generally be classified into three time periods with various circumstances and conditions attached to them. First is the morning period before one leaves home for the day, which is a period that is often regarded as practical and the time is spent efficiently to perform certain fixed activities. Some described that this morning routine included the qualitative aspect of being more private than otherwise, especially those who shared households.

In the evening there was usually a period when people eased up with more calm activities before they went to bed, both when they spent the afternoon at home or away.

The period in between these two were the one that altered most. Either there were various activities performed before the return home or none at all but which resulted in that the respondent settled down for the day at the arrival home. At the other case there were only a short stop at home before another evening activity took place. As such the third period was either a short stop or a prolonging of the evening.

A variety in residing

The depiction of the home varied a lot among the respondents. For some it was a social place shared with family, visitors and shifting activities while for others it was rather experienced as a place to return to between occasions of everyday life. In analogy some respondents expressed a huge interest in the making of the home, where they described the ambiances of rooms, furnishing and aesthetics details while others more or less regarded the domestic living place as a rather practical domain with a lot less affection to it.

The time-diaries and the description of residing were quite different between the people who lived alone and those who lived together in a household. Among the single dwellers more respondents described either partial solitude or a more active participation in various social context. They generally left the home more often to spend time with others. The single dwellers were generally more flexible in the way that they left the domicile more often to interact with other places.

> *"I panic when I just stay at home the entire evening. I really need to go outside even if I don't have a place to go to, then I just take a walk. I guess I need to change my environment and see people."*

> *"Either we meet at my place or at hers but we see each other every evening."*

A certain separation between the domestic residing and the private or public life was also seen. It was common that the respondents described that they met friends and colleagues when they were out in public during weekdays rather than family members. The most common activities performed apart from spending time at home or with their main occupancy was either exercise, shopping or strolling. Even if these activities are placed among other people they were most often described as individual activities that was performed alone. Still most people highlighted that they partly did these activities because they wanted to feel the presence of others.

Two main loci and domains

Just as the domicile was a central social place for many respondents that they arrived and returned to every day, so was the main location of the respondent's main occupancy. Many of the respondents also described that there were several places in close connection to this location in which they spent time. Because of this there were often a prolonged stay or several stops for activities on the way home. These locations, connected to the main occupation hence become a second loci within the living place, the occupational loci, for many respondents in collation with the domicile. Many respondents preferred to visit this place even if some could perform parts of their occupation from home, or even all of it. It was often described as a quality to be able to leave the socio-spatial setting of the home for that of the main occupancy. The secondary loci were both described as the main social meeting place in contrast to the lonely home or as one's own separate place in relation to the household.

Many experienced that this was an important social context in their life and that there were often close friends to be found in these places. But the more casual relations were also much appreciated and noted to be an important part of the social setting of mixed acquaintances. In general, the occupational loci were described in more social terms than the domestic living place. Some respondents also mentioned that many alternative activities derived from proposals during daytime that one could participate in such as going to the pub or other forms of get togethers. These are sometimes planned but might also be spontaneous. The most time was actually not spent within the domain of the domicile but rather the domain of occupational loci and among the community of its insiders.

Three types of desirable places

In general, there were three types of occasions or places that people described as desirable and which they wanted to have more accessibility to; outdoor or semi-outdoor places connected to nature, various social settings that where often related to certain social activities and finally space and amenities that were connoted to creativity or certain activities. Many of these were also combined.

Natural environments

The most thoroughgoing tendency among the interviews is perhaps the longing to spend more time in a setting with stronger contact with nature. Already in the first part of the interviews there were often several natural environments described as important within the living place, but they seldom become a part of the everyday trajectory. These places could both be described as private or social, passive or active but also domestic, public or even wild. They could also vary a lot in size from the vast landscape to the small garden or balcony.

The weekends were often regarded as a possibility to reach more locations in the living place to afford other activities and settings then those accessible during the day-to-day life of the week. For the respondents who had access to a summer house or family place on the country side these places where usually described heedfully and were common places to withdraw to during spare time. The change of environment also included a description of another lifestyle, less modern and less demanding. The limitation of certain amenities and domestic comfort was even depicted as a quality.

The boundary between the inside and outside also varied as some preferred a rather interior place with a protected climate and comfort but with a favourable contact of the outside and a view of greenery and blossom. These places where often described as atriums or ordinary rooms with a lot of connection to a beautiful exterior landscape. Other described a semi-outdoor environment with another climate and often more spacious ambiance such as a greenhouse, glazed patio etc. The third type were the places completely outside. The "magical" doors often let to a more natural landscape while the scenarios were more set in an urban greenery and a domestic setting such as shared rooftop terrace, private balcony etc.

> *"A place outside in connection to a garden where I can relax untroubled but still observe others from time to time, I wouldn't spend the time there with my neighbours but I would like them around, to greet them from a distance."*

Social environments

Another prominent tendency among the interviews where that most people described a desire to access several social contexts from home. Even before the meso-domestic domains where presented they were often partially described as the respondents had depicted the identity and stimulation of several socio-spatial settings. Many of the occasions described in part three of the interview were hence varying a lot in social settings and included both general domestic and public settings, but also a wide range in between, usually being in a comfortable place with a certain level of spatial control but with various levels of cohesion and favourable behavioural settings.

> *"There could easily be other people in my view. And there is one or a couple of free places next to me where somebody can take a seat, somebody I know well enough for laidback sharing of time."*

There was also a variation in the discussions of social cohesion and the benefit of interaction with groups of various acquaintances. Many described that they wanted their closest friends or relatives nearby, but some rather preferred a buffer zone with less private relations in the space closest to their own domicile. The level of acquaintances where also described in the sense that you sometimes want to spend time with a person who really know you, but sometimes with somebody that doesn't need to be private. And sometimes you rather want "new" people around that you can get to know, to increase your amount of friends or just because the very act of meeting is an appreciated activity. There was also a wish to be among people who shared one's interests. Among the respondents who lived with their families there were descriptions that one could be limited in affording activities of preference because you needed to adapt and constantly co-operate with the others. Among the single households there were rather a lack of co-operation that made many social activities hard to afford. Generally, it was seen to be a quality to have people close by that could be instrumental in performing activities of one's liking.

"To come to a place where we have a certain activity and interest in common, we don't need to talk about family and work but we rather do what we like doing."

"To go to a social situation with people you appreciate to meet more often, perhaps to someone else's home, a quite private meeting place."

"A big quality is that I can be more private, you can be more independent and do separate activities or be private even if you live together."

Several respondents described the differences between being social within a private or public setting. The more private where often described as an engaged social activity without presence of others and it was usually located in the own domestic living place or the one of a close friend or family. The public setting typically included restaurants, cafés, parks, strolls etc. and were usually attended in pairs or larger groups. A main advantage with the public settings were often the presence of strangers, the shift in environment and the fact that it was more flexibility to deviate or change activity compared to a private setting. This relates to the shifting qualities of being a host, guest or visitor in various settings which were something that some respondents talked about explicitly as a quality in certain cases.

"There are a lot of people I know but also others and my friends have brought their friends that i get introduced to. People are spread out, there are food and music and you can move freely. I don't need to invite people here, I can just drop in to this environment that is delivered to me."

A common wish was to have access to various common rooms, both active an passive, and within various socio-spatial settings. There were desires to achieve both smaller rooms shared with just a few to watch television together, bigger kitchens to have capacity to prepare food together or coordinate bigger dinners. Various recreational facilities to hang out in like libraries, lounges, reading rooms, spas etc. And as will be discussed in the following section,

several places to afford various activities. All respondents came to use the the capacity of the meso-domestic approach in various configurations.

> "If you come home from an evening out I might feel that I disturb when my home is turning to sleep. It would be nice to have a buffer zone to arrive to first."

Active environment

Several respondents described the longing for a place that were not as tidy as the rest of the apartment in which more spacious and messy activities could be performed. The carpentry, garage, workshop or greenhouse are such examples that the respondents wanted to access, move out their own tools to and occupy themselves within. There were also more specific places connoted with activities such as music rooms, gyms, painting studios, potteries, sewing rooms etc. These activities were often described as important but unmaintained interest or passion that were hard to afford within the present living situation due to lack of favourable space, amenities or both. But these active environments where also proposed by a curiosity and eagerness to explore and learn new things. Just as some people described that they wanted to engage themselves privately with these activities, some pointed out the quality in having other present to develop skills, knowledge or just a shared interest.

> "I would like a place where tools can be out front in a creative manner, you really want to do more activities than you do but the effort is to lay out you stuff knowing you soon need to clean up again."

Another aspect of the active environment was that many people regarded various instruments and facilities connoted with activities as the ones they were most prone to access rather than own. There was a quite shared view among the respondents that certain things were practical and other aesthetical or personal, and the fact that more active environments where present within shared spaces made it favourable to unhand a lot of owned belongings.

Difficulties to reconceptualise residing

Many of the respondent needed support to get started with the model. This was usually done by the interviewer referring to the places and desired settings that the respondent had described earlier in the interview. Even if the respondents could mention several rooms that they would like to access and integrate to their living space, the difficulties was in their surrender of domestic space. Several respondents, especially in the beginning of this exploration, tried to keep on to their old floorplan and configuration of rooms. This made it hard for them to achieve all the places they desired in the other domains. Some spaces were easier to surrender as a whole, like spare rooms, storage or space in rooms that were regarded as too large, like oversized bathrooms, bedrooms etc.

It was also hard for the respondents to picture that some affordances of a room were kept inside one domain while others were expanded out to another. A bedroom could for example include a closet, a bed and a small working space, but relatively few of the respondents regarded the opportunitiy to have a bed in an alcove with som basic clothes storage, move the rest of the clothes to a more favourable location and instead of a seldomly used office space inside the apartment get access to a shared office space with a lot more benefits to it. In this way a majority of the space in a large bedroom could be reused to afford other places. But this deconstruction of rooms was seldom done. In the next chapter there will accordingly be a socio-spatial exploration with the motive to deconstruct the conventional residential rooms into socio-spatial affordances and investigate this matter in an organized way.

However, some people transcended the notion of residing and rather reconceptualised the ways they could live. One example is a respondent that described the possibility to rather perceive the domain of personal influence as a hotel room from which there might be a shared place of domestic comfort with some acquaintances where the rest of the building could be spacious and favourable environments to enjoy time in when one preferred.

An interesting result from the empirical study is the fact that everyone who participated within the study choose to surrender at least a part of their present floor space in order to gain access to one

or several zones within the meso-domestic domains. In total the respondents kept around two thirds of their present apartment in the domain of personal influence (68 %). The rest was distributeted as domestic comfort (17 %), common co-operation (9 %) and neigbourly connection (6 %). This might look like a small extension but it still results in a average enlargement of the domestic living place with a factor 3.8.

There were just three respondents who used all of the domains while two used solely one domain in addition the personal influence. In general the slow starting process became more and more creative and positive as the respondent started to see potential during their exploration. It could have been beneficial with a supportive mood board or portofolio of inspiring settings and activities but within this study the respondent where left with their own imagination and earlier descriptions of desirable places during the interview. As this was the last step of a long and demanding interview session with a limited time assigned to it, it is likely that several of the respondents could have made even more findings in this exploration.

As a concluding confirmation all respondent were asked whether this was regarded as an attractive approach for residing and if their own solution was more preferable than their current living situation. An interesting outcome was that all did.

> *"This is definetly better. I really gain space. I have recieved a larger home."*

> *"I usually don't like to have a combined living room and kitchen but under these circumstences it would be a decent solution as I get something more in return."*

ANALYTICAL EXPLORATION

The conventional residential design is based upon a typology of rooms connoted to specific functions and features. These rooms are also inherent of several socio-spatial affordances. In this chapter there is a deconstruction of settings and amenities in order to investigate the benefits of these rooms among the various domains of a meso-domestic living place.

ZONES AND SOCIO-SPATIAL AFFORDANCES

In this subchapter, an investigation of the socio-spatial affordances within and between the typical rooms of urban residential architecture is made. These rooms and their configuration is what currently shape the materialized preconditions for our domestic living place. In accordance to the Swedish building regulations for residential architecture, a dwelling can be divided into seven types of rooms (Örnhall, 2014). In this chapter the same classification will be used.

One by one these rooms will be discussed in the context of the overall domestic living place in regards of connectivity and configuration. This will be done in terms of amenities and socio-spatial settings, with the aim to shed light on the various affordances of the rooms, their possibilities and limitations.

The following sections are a prima facie result of the deconstructed rooms of an apartment, based on the authors experience as architects and residents, and findings from the empirical study and literature review. It is important to clarify that this socio-spatial investigation is a qualitative method to apply the theoretical framework to a residential design. The relation to these rooms, both by meaning and practise are very subjective and the conclusions drawn in this chapter don't hold any claim to cover the broad spectrum of interpretations possible. An inspiring beauty with this plurality is the impossible task to encompass it. Still, the hope is that most readers will recognize and agree upon some of the general conclusions that are drawn.

Among the references to literature that should be mentioned, from where many conclusions about room configuration and connections are drawn, is the review of Swedish residential architecture by Björk, Kallstenius, & Reppen (2003). Discussions about the architectural amenities within the residential space is influenced by related research from Chalmers University of Technology such as Nylander (1999) and Nylander & Braide Eriksson (2009). The more relational apprehension of specific rooms are further informed by researchers and writers such as Chermayeff & Alexander (1963).

The Hallway and communications

"In sum, the entrance hall is an ambiguous space, neither public nor private, neither sacred nor profane, which is attributed a spatial form and ritual functions to inhibit unwanted matter from contaminating hearth and home."

(Lawrence, 1984, p. 270)

Connectivity and configuration: The hallway is usually the only room from which the domestic threshold might be passed, which makes this room unique as it connects a domestic zone with the public. This feature also gives the room special properties to its boundaries as the spatial control of the domestic space is in part reassured by the possibility to lock the door towards the public realm. This is where visitors are greeted and a room that is visible from the outside when the door is open. Inwards, the room is rather open, often lacking definite boundaries, and might connect or extend to a communication zone in order to reach other parts of the residential space. In small apartments the hallway may be seamlessly integrated with rooms such as the kitchen and living room. From a topological view the hallway is inevitably crucial as it needs to be passed to reach all other parts of the residential space. In regards of territorial depth, it also has the lowest value. A bathroom is very often directly connected to the hallway, as well as the more public rooms of the apartment, the kitchen and living room.

Certain apartments might lack a hallway, why the person who enters is more abruptly introduced to another residential room. One of the respondents have a configuration where the entrance door is located in the kitchen.

"It is messy with all the shoes and outdoor clothes but also cosy as you are closer to the stairwell, you can feel the presence from neighbours walking past while you spend time in the kitchen."

Amenities: Since this is the room to take off dirty clothes and muddy shoes it is sometimes treated with a more robust floor material. Apart from this it mainly contains storage facilities of

different kinds; wardrobes, dressers and hat racks, etc. A mirror and occasional facility for sitting down can also be found. As the entrance is often located in the core of the building, this room is often quite dark.

Socio-spatial affordances: The hallway is the room where one changes between their public identity and the domestic, or that of a visitor. In a tangible sense this means taking on or off clothes that protect from the outdoor climate and view of strangers. It is thus not only the transition zone between identities, but also between climates. This passing constitutes a rather abrupt leap between comfort domains wide apart, a considerable friction to overcome.

> *"Outdoor clothes might in their turn be shed at the entrance to the dwelling, thereby leaving external dirt and infection behind before proceeding to the interior, controlled environment, for the enjoyment of which other appropriate private garb might be put on,"*
>
> (Chermayeff & Alexander, 1963, p. 216).

The hallway is in one sense inevitably the most public room in the apartment, as anyone entering needs to pass through. However, it often lacks windows, and can thus offer a high level of privacy when the door is closed. In other words, whether the door is open or not makes all the difference to the socio-spatial setting. Still, considering the openness inwards and central location of apartments, the hallway is always among the least private rooms comparing to other ones internally in the apartment. This public identity of the room opens up to possibilities for rooms directly connected to it to be accessed without intruding into more private parts, which could be beneficial if a lodger or office is to be housed in the apartment.

One respondent with a communal area in the building sees the strong domestic threshold as a limitation to utilise it.

> *"There is no visual connection between the apartment and the common areas. It feels like they don't belong together."*

Living room

Connectivity and configuration: The living room is a room with varying boundaries to it. The threshold to the room is often a vague interpretation as it might be integrated with a dining place or a kitchen area, something that is common in a more open floorplan. The room is often connected to a hallway, often without doors, especially in smaller apartments. The territorial depth of the living room is hence often low. Bedrooms may enter directly into the living room, but separated by doors.

Amenities: The living room is designed to fit a lounge suite and usually a TV-set and stereo. In addition to or instead of the lounge suite there may be a dinner table with chairs. It is also supposed to fit storage in the form of bookshelves or such and wall area which sofas, TVs and storage facilities may be placed towards. Being the biggest room of the apartment, as well as the least specialised, the living room can apart from this host a wide range of amenities. The living room hence provides a unique space that both facilitates certain activities and the experience of space itself.

Socio-spatial affordances: The name of the living room itself implies its purpose; this is where we're supposed to spend our time in the apartment. It's also the principal room for socialising. These two facts tell us something about what activities we value in our lives, but also brings complications to what socio-spatial affordances we expect this room to accommodate. Different activities require different socio-spatial settings; someone reading a book will probably want a low level of stimulation, whereas playing a board game, having a discussion or even a party will inevitably bring about a high level of stimulation. As there is usually only one living room, conflict of interest may occur regarding what activities should be allowed to take place at a specific occasion.

The living room is the natural place for socialising with visitors, which further complicates the socio-spatial setting. Bringing outsiders inside the domestic threshold will vary the social-cohesion and in many cases change the identity of the setting into a more public one. This will create new affordances, but may simultaneously inhibit affordances that require more privacy and domestic comfort; something that particularly could prove a problem in a multi person

household. This also accentuates the importance of the topological relation between the living room and the outside, determining what spaces a visitor will pass on their way there. In a study of residential habits, a respondent stresses the importance of the connection between the public living room and more private spaces.

> *"[The living room] is where they socialise with visitors. It is good that the living room can be almost completely sealed off from the rest of the apartment by the door to the hallway, the door to the kitchen. But the small bedroom that is accessed from the living room works against this. There is a clash between the private and the public."*
>
> (Nylander & Braide Eriksson, 2011, p. 50)

In conclusion, the living room is supposed to accommodate a range of affordances for different occasions, all requiring different settings and amenities, and are done with varying regularity. The identity of the room varies as different visitors come and go, and so does stimulation. Certainly, these affordances could be separated and be placed more appropriately in different zones with different amenities and domains of comfort.
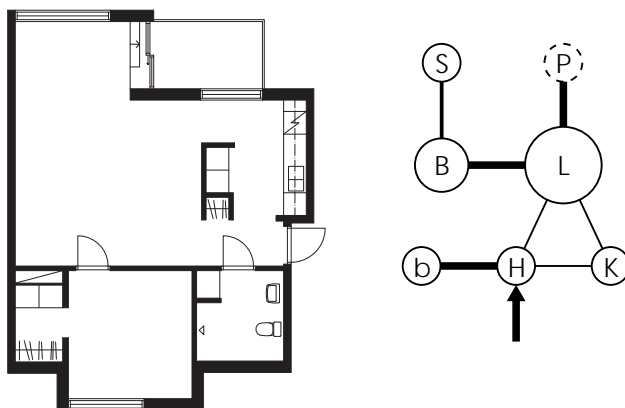
FIGURE 30. IN APARTMENT #8 WITH AN OPEN FLOORPLAN, THE LIVING ROOM BECOMES THE NODE OF COMMUNICATION. WHAT GOES ON THERE AFFECTS THE ENTIRE APARTMENT.

"Provision for voluntary communality rather than inescapable togetherness is essential. It demands recognition, first of all, of the diversity of interests that occurs in the average family of adults and children; this requires the provision of separate domains in which either group may be left decently to its own devices."

(Chermayeff & Alexander, 1963, p. 215)

Bedroom

Connectivity and configuration: Bedrooms are accessed from any of the more public parts of the apartment; most usually the hallway, but sometimes the kitchen or living room. The bedrooms are usually regarded as the most private and personal parts of the living space and are often shielded from more common and public parts of the residence by a territorial depth and configured as more or less closed rooms. Among the doors of an apartment it is perhaps most common that the doors of the bedrooms are the ones closed. An outsider would experience a certain barrier to enter one's bedroom rather than the more common places of the residence such as the living room, kitchen or bathroom. It is very uncommon that the bedrooms constitute a zone of transit or connect rooms. Some bedrooms might have a walk-through possibility but it is seldom the only connection. It might be though that the bedroom is assembled together with a balcony, bathroom or small storage. These additional rooms will probably be more exclusive for the user of the specific bedroom rather than the dwellers of the apartment in general. If the residential space is a studio apartment and lack a specific bedroom, this results in the incorporation of the socio-spatial affordances of a bedroom in the living room.

    Amenities: The ambiance of the bedroom might vary quite a lot depending on the use of the room. More generally it always contains a window, usually without insight or with the possibility to shield oneself from the outside. The size of the room is quite uniform to accommodate either a single- or master bed, why the room might also be referred to as the master bedroom, where the parents in a nuclear family are supposed to sleep. The bed is perhaps the facility

that is most connoted with this room as the name also implies, but other amenities are also common depending on how the room is used. The space also store personal belongings, especially those that doesn't fit in the rest of the residential space because they're not representative or too personal, such as kids toys or clothes. The number of bedrooms might be regarded as the number of members the household could uphold and is hence a limiting factor. Still, many rooms are shared and many households own more bedrooms than they've got members. These room are then usually turned to other purposes such as guestrooms, workrooms, storage etc., which are often less frequently used. Because of this, one could generally argue that the amenities vary from just a bed and some instruments for connoted activities to rooms filled with different facilities and instrument depending on the usage.

Socio-spatial affordances: The bedroom is often regarded as the space for personal influence. Even within a shared household, it is common that every member has a specific place to withdraw to from the rest of the household. This becomes true especially for children, roommates or the lodger who may lack spatial control over the rest of the residential space. It is generally the place in which one person has the strongest possibility to characterize a place as one likes. The social cohesion within this space is perhaps the highest within the residence, since it is the least public part of the residence and also a place with strong territoriality. The space is usually less representative and prepared for a visitor and some only let people in that they have a strong cohesion with. A closed door usually implies that you want to be alone and others, even members of the household, will usually knock before they enter. The room's high domestic identity makes it favourable for the user to influence the level of stimulation, but this may not be the case if the room is directly connected to the living room or kitchen. If one is alone in the bedroom, it is usually a private situation while it can be quite engaged if more than one person is present.

The most obvious affordance of the bedroom is as the place to accommodate sleep. For this purpose, it needs to support an ambience for our relaxation and shut out distractions such as light or sound. This usually implies that other people can't use the bedroom when we're sleeping. Sleeping in itself requires very little space,

a fact that is acknowledged where space is a scarcity, such as in boats. Another affordance is withdrawal. The possibility to choose our level of engagement within a place with high personal identity, especially when there are socio-spatial conflicts among activities in the common areas of the residential space. For the dwellers who spend most time out in the rest of the residential space, the bedroom is usually only used when waking up, sleeping and going to bed, while the dwellers who spend more time in their bedrooms might use it for a lot of different purposes such as a workspace, playroom etc. In a situation where several people are sharing bedrooms, the personal place might be absent in the apartment. If we disassemble these affordances for sleeping, withdrawal, working, playing, etc., could we perhaps find more favourable configurations more fit for the temporal and personal needs of different people?

> *"The integrity of domestic domains, which is to encourage concentration, contemplation, and self-reliance rather than inhibit them, must begin by respecting differences in age, sex, and interest. In particular, the integrity suggested by the word "bedroom," its meaning as a realm of solitude, for rest, sleep, and love, must be restored. It seems obvious that this desirable result will be more readily achieved if some of the commonplace facilities now found in the bedroom were removed: storage for personal possessions, facilities for washing, dressing and undressing, primping, et al."*
>
> (Chermayeff & Alexander, 1963, pp. 214–215)

Kitchen

Connectivity and configuration: In older modernistic buildings the kitchen is often quite small and designed for one person to efficiently work with the production of food; in newer apartments it's often more spacious and seen as an important place for social interaction. In both cases it is most often close to the entrance, since it's considered a less private space and is also the destination for most goods, i.e. food stuff, that is brought in. It is usually directly connected to the hallway, or in small apartments even integrated

in it, and might also be connected to a dining area or the living room, but less commonly to a bathroom or bedroom. Some older apartments might however have a small bedroom for a maid that is accessed through the kitchen. Being a place of limited privacy, it often lacks a door and might even be separated from the living room only by a bar counter or cooking island.

Amenities: Similarly to the bathroom, the kitchen features several facilities and instruments associated with specific tasks, in this case cooking, baking or other domestic work tasks. These facilities are even regulated in Swedish standards to a rather detailed extent (SIS, 2006). Facilities include cupboards for storage, stove, oven, refrigerator, freezer, a sink and kitchen worktop. Additional facilities that are often seen are dishwashers, microwave oven and other kitchen appliances like food processors and coffee machines. These are associated with a wide range of instruments for cooking, including knives, pans, pots, etc., and for eating, like plates, forks and glass that are stored but not necessarily used there. As the kitchen often has a high storage capacity, other instruments not dedicated for tasks directly associated with cooking might also be stored there, e.g. tools and cleaning equipment.

Socio-spatial affordances: The kitchen is sometimes called "the heart of the home" (Larsson, 2013) and is the centre of domestic work in the apartment. The most obvious of these are cooking and its associated tasks, like baking and doing the dishes. Because of its worktops and access to water it can be useful for other tasks as well. Depending on the layout of the apartment, this can also be where eating is done, particularly in more informal situations. An important use of the kitchen is also for storing foodstuff and instruments of cooking and eating. Being one of the more public spaces of the apartment, the kitchen is also a place for social interaction within the household as well as with guests, a practice that has become increasingly popular after an era of viewing the kitchen as a more functional space (Larsson, 2013). In existing co-housing solution, for example student corridors or collectives, the kitchen is what is most often shared, and cooking, doing the dishes, etc. is consequently considered as tasks that can be undertaken in relative publicity.

Cooking generally requires a stove and/or oven, a sink and

a worktop and a few reoccurring instruments, and an exhaust fan is also favourable. However, different kinds of cooking and baking requires widely different and sometimes highly specialised equipment, both facilities and instruments that might be used less frequently. What is common for almost all cooking is that it requires facilities that are exclusively found in the kitchen, and which can practically not be moved. This means that the kitchen has to do for any occasion when cooking is done.

Eating is a social activity of great importance, and is done with any kind of person from the closest family to newly met acquaintances. It is also done anywhere from out in the nature or in a restaurant in the public sphere, to a dining room or the kitchen in the domestic. Depending on situation, it requires different levels of comfort and stimulation, and availability of seating and eating utensils, i.e. cutlery, glass and china. The ambiance when eating can be highly valued.

The kitchen is an important place for both domestic work and social activity. These activities vary quite a lot in their required setting from occasion to occasion. Cooking with friends for a big dinner or making a quick breakfast have quite different demands on setting, as well as amenities, both when it comes to space required, ambiance and cooking equipment. Could it be that these varying occasions could fit in different spaces? Could more specialised cooking and special events be housed in another location than the everyday domestic work of the kitchen?

Bathroom

Connectivity and configuration: An apartment most often have one bathroom, but there may be two, or possibly three in extreme cases. One of these are almost always connected to the hallway close to the entrance, whereas other may connect to other communication spaces or a bedroom. The size is small compared to other rooms and doesn't vary much in terms of square meters, although they might considerably in percentage. In older apartments it's often minimal in size, whereas it's bigger in new ones, not least because of accessibility criteria. The bathroom often lacks windows and the door is lockable.

Amenities: The bathroom has several specific properties that

differs from other rooms of the apartment. It is usually the only room that is locked or even have the possibility to be locked. Because of the critical microclimate due to water and sanitation the envelope of the room is also treated to withstand this stress. Practically all bathrooms have a toilet, mirror and sink, and at least one bathroom in the apartment has a shower or bathtub. Some facilities for storage are also common, including shelves, cabinets and cupboards. There are also cases where the shower is in a separate room, although this solution is rare. The bathroom sometimes includes facilities for laundry but these are also common that these are detached to common facilities in multifamily houses in Sweden.
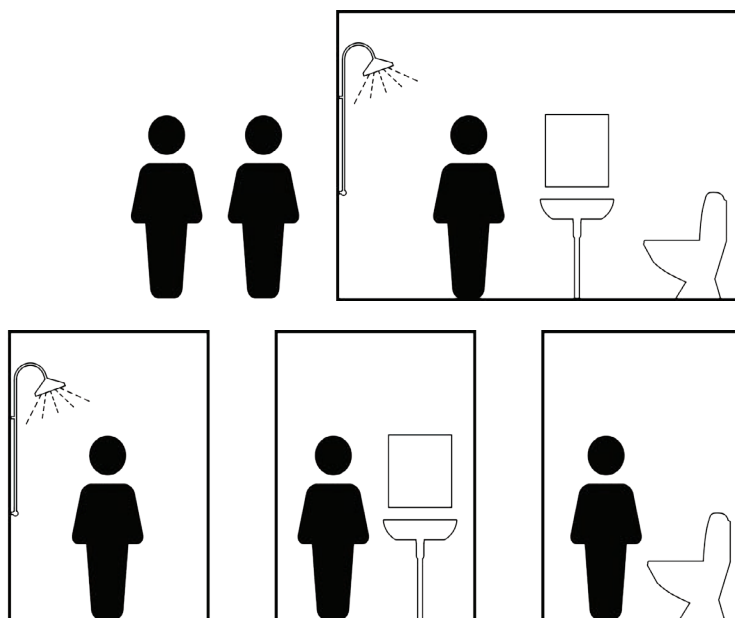
Figure 31. Putting different socio-spatial affordances together in one room will sometimes lead to collision that limit their utility.

Socio-spatial affordances: The bathroom is the most specialized room in the apartment with a few discrete affordances. Using the shower and toilet require these specific amenities as well as a high level of privacy. This setting is assured by locking the door, and

is by doing this created temporally; the same bathroom is usually shared by the entire household, as well as with visitors. The fact that the bathroom is occupied by the person using it also means that all amenities become inaccessible to everyone else, whether or not they are actually used. This sets it apart from the bedroom, which is permanently controlled by one or a few people. Some instruments in the bathroom might however be considered highly personal, e.g. toothbrushes, makeup and medicine. These are not necessarily connected to the toilet or shower/bathtub, and could favourably be stored in a more personal space.

Balcony and patio

Connectivity and configuration: The balcony or patio is an outside place that can be accessed directly from the apartment, through the living room, kitchen or bedroom. The area can range from practically zero in the case of a balconette, too much bigger spaces that more likely might be regarded as separate rooms, especially those that are glazed or in other ways weather protected such as a loggia.

Amenities: The balcony or patio gives access to the ambient amenities offered by the outdoor; sunlight, fresh air, temperature, etc. Seating and tables can facilitate spending time there, and facilities for drying clothes and cooking may be put there. Even if the seasons for being in this room is quite short it's a very appreciated space in a residence. Some activities often demand the connection to the exterior like smoking a cigarette or beating a rug. The possibility to open a door rather than a window might also be a favourable feature to connect to the outside without moving things from the window sill.

Socio-Spatial Affordances: The balcony or patio constitutes a place that permeates the domestic threshold into a more public domain while retaining spatial control. Here, the resident can enjoy the ambiance of outside climate and light and the comfort and security offered by the domestic living place simultaneously. It also offers some level of interaction between the residents and the people of the more public outside. The substantial economic value that a balcony adds to an apartment Knutsen & Månsson (2010) proves that it is a highly valued quality.

Storage

Spaces for storage are distributed all across apartments, and all instruments, facilities and consumables need to be stored somewhere, favourably in a dedicated facility or room. Some things are stored in the adjacency to where they are used, which is the normal case for facilities. Instruments and consumables often fall into this category as well; the foodstuff and cooking equipment in the kitchen, the hygiene articles in the bathroom and stationery in the office are some examples of this. Other things are stored in the apartment or storage room, but are used elsewhere, either inside or outside of the apartment. Examples of this can be books, clothes, portable electronic devices and tools. Some of these things aren't ever used inside, but are merely kept there, typically outdoor equipment.

Many residents experience a lack of storage (Nylander & Braide Eriksson, 2009). Whether this can be attributed to storage space not being properly provided, or rather to an excess of possessions is something that could be discussed. Where and how we choose to store our things have great influence on their accessibility and consequently on what affordances they provide. As we have seen, many amenities aren't that personal and only sporadically used, but since they are stored inside a very personal place, i.e. the apartment, they become inaccessible to people outside of the household. Even the stored things we can access may not offer any affordance if the friction to retrieve them is too big, if we don't know where they are, or even that we have them.

While storage is needed in our domestic living place; we cannot use all our amenities all the time, it can also facilitate an excessive possession of thing we do not need and may not want. It should certainly be possible to reconfigure our storage to make amenities afford more both for ourselves and others, and in doing so increasing the benefit that they provide.

Concluding the conventional apartment

The conventional residential design is made up of several rooms that should provide for varying needs for the dweller and reassure some degree of quality of life. However, the lack of shifting socio-spatial affordances due to the unilateral spatial control and social cohesion within an apartment, and the lack of other qualitative places within

accessible distance of the residence, appears to limit its potential. The design is often focused on function with measurements to fit specific amenities in specific rooms, meaning the socio-matter has a strong influence on the possible ways to use the residential space. Braide Eriksson (2016) conclude in her investigation of residential usability that there is a "misfit detected between spatial requests and needs and the kind of residential design currently being provided" (p. 79). Nylander & Braide Eriksson (2009) state that the apartments in their study is rigidly adapted to a certain family situation, making it difficult for other constellations to reside in them. They further argue that apartments should be more flexible to deal with this issue, as well as being fit for more purposes. By designing the apartment with general purpose rooms, the residents have more possibilities to decide what different rooms should be used for. This would address the spatial aspect of providing more affordances, but does not fully take into account the social preconditions of many activities, or the idle capacity created in apartments.

The topological layout of apartments typically branches out from the hallway or living room in the centre, rarely reaching a territorial depth of more than three, limiting the possible variation in identity domains. In noble estates and the bourgeois apartments of the nineteenth century, the layout was more sequential. This provided a wider range of semi-public comfort domains which could be maintained simultaneously. When visitors are received in the living room, and this coincides with the communicational node of the apartment, the change in socio-spatial setting affects the entire domestic living place.

ILLUSTRATIVE STUDY

This chapter presents an illustrative example of what a meso-domestic way of residing could imply. Depictured by the life of a household consisting of a single parent, a teenager and a child, as they will describe the various zones of their living place and the day-to-day occasions within.

THE AFFORDANCES OF TWENTY SQUARE METERS

Living large with low spatial consumption

The main motive of the meso-domestic approach is to unlock the domestic threshold of the residential space into a transitional range of various domains. Through this, others can benefit from the idle capacity and the dweller can enlarge the domestic living space, both spatially and socially. With new affordances, there are hence new places to be shaped and given meaning in different groups of insiders. From the self, the household, the neighbour and all the way to the stranger in the street.

In the empirical study, the respondents were allowed to extend their present residential usage of space into a meso-domestic transition. All of them did, and all of them discovered the potential of doing so. But if this approach is to give leverage for sustainability there needs to be conditions for the residential space we use. The average per capita use of residential space is about forty square meters in Sweden. Could there be a possibility to reduce this space by half and still provide a living place that is more beneficial for the dwellers? In this chapter there will be such an investigation. An illustrative household of three members is used to describe a possible configuration of a meso-domestic living place. This is just one solution that might reveal what twenty square meters could afford through the practise of collaborative residing.

A collaborative household

The household consists of an adult, a teenager and a child. They had been interested in the concept of collaborative residing for some time and discussed various solutions with friends and family. They had various motives for creating a new living place for themselves. The adult is the sole provider for the household and is looking for a residential alternative that is economically accessible, but still favourable to live in. They wanted a living space big enough for the teenager to get some privacy and the child to have more space to explore and play in. Apart from these motives there was also a longing for a more social life, more people to interact with and more activities to participate in. During the busy day-to-day life there was rarely time for these types of engagements, as most friends and
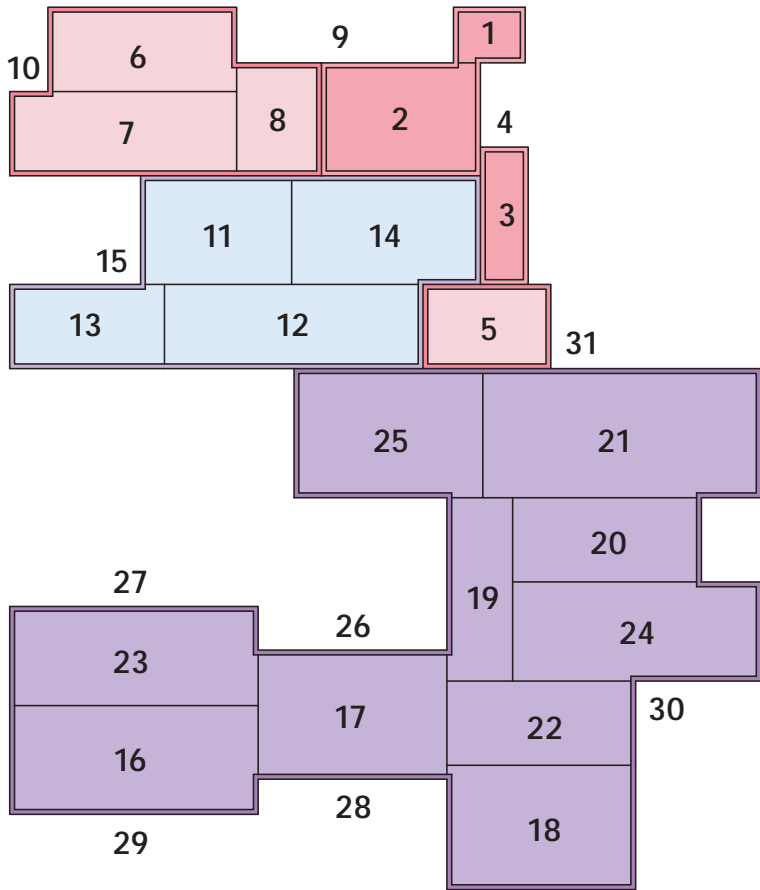
Figure 32. The meso-domestic living place of a family from the exhibition of this thesis. See page 161.

activities were too distant from the domicile. Especially the teenager and child were exited to move into a house with more places to hang out with people of their own age and have areas that were designed for them and their desires.

The household got together with three other households and also talked with the extended family about the possibility to live together in the same house. They already had a close cohesion towards these people and accordingly a lot of potential to live close by and partly together. The adult decided to share some domestic facilities with

two other adults and two more children who have been raised in close relation to the own child and which had become like siblings. The teenage daughter wanted to have a more secluded part of the residence to reside together with two friends, whose parents were also part of the organisation who were planning the house. They have talked about what more areas to share and have spent time together with other stakeholders in the field of collaborative residing, and many of these have become acquaintances. They formed various groups that have been meeting to organise and plan for the making of the meso-domestic living place in which they now have been living together for some time.

What could be afforded

This example is depicted by twenty-one interior zones and ten exterior. The layout in figure 32 is solely a showcase for the various zones and not to be mistaken for an actual building design. As such the main focus of this example is the meso-domestic settings themselves rather than the actual floorplans or sections of this illustrative living place. The interior zones are limited to twenty square meters per person which is about half of the mean residential space per person in Sweden. The exterior places are excluded from this floor space, but regarded as feasible outcomes in connection to the various domains within the house. The adult and child dwell in connected zones of personal influence while the teenager has a secluded private zone connected to a domain of domestic comfort that's shared with roommates. In the coming subchapters the major zones from each domain will be described by the members of the household. Starting with the personal influence and extending outward to the public realm.

PERSONAL INFLUENCE

1. **To sneak into the hideout**

The reduced dimensions make this little nook comforting and cosy. This is the hideout for a child, a secluded space to sneak inside, from which one can overlook the surrounding. Just as spaciousness might provide a favourable ambiance, so might a sheltering seal. It's also a place where children can play undisturbed or get lost in their books, as the grown-ups are busy below. As a sleeping place it's just what it needs to be. In an ordinary apartment the child has an entire room to sleep and play in, but here there is an entire house to take part of with multiple places for playing when morning comes.

"It feels like I've got many rooms now. I like to be where the others are. Either we play there or somewhere else like outside or in the playrooms. But it's very cosy to go up here and play on the tablet with your friends, while you can hear and see the others below."
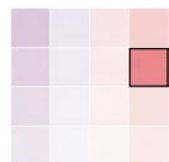
2. **Returning for the evening ease**

A lot of the time, people dwell on the sofa in their living rooms. In this new house you have a similar location to withdraw to, but a lot more time is spent in other shared settings. The own quarter is still an important place though, a comfortable zone under your control and personalised entirely to your liking. It feels safe to know that this haven of yours is always attended as you please, and you usually spend some time here during the evening ease before you go to bed. It actually feels liberating that your own personal living space is limited to this zone. It has resulted in a more minimalistic possession, and you only have stuff around you that brings you joy. The rest is moved out to other, more favourable locations or you use the shared facilities. Less clutter, less stress, and a lot more savings as you've realized how much you bought that you didn't need, and truly doesn't miss to have around as your own.

"Now I can say that I love all of my home rather than parts of it. All those things and spaces that were just around for rare occasions, or cluttered piles of stuff and the feeling that they needed to be organised or addressed, now they are gone. Now I can just be.
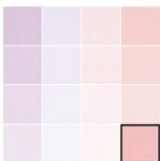
3. **Withdraw to the private nest**

Situated in a more remote and shielded part of the dwelling, this is a chamber to withdraw to. In a large, shared place there are secluded and individual sleeping places with storage for personal belongings. It's usually some calm activity about, but the place could also be integrated with the connected living area that is hence enlarged. This is a place to begin and end the day in the homely presence of the ones with whom you dwell. Just as we choose to spend time in living rooms to feel the presence of others, some appreciate the same presence as we go to sleep. The old bedroom was mainly a private place to withdraw to, but privacy can be found elsewhere now, it's not limited to a bedroom.

"It feels like we share a small apartment and it's actually better than having your own room. Even if I close of this space to be private when I go to bed, during the days these are the places where we hang out together, it's like having several lounge suits."
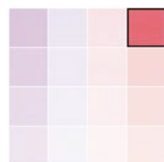
4. Open up to the outside

The possibility to open up a door to the exterior can make your relatively small room a lot larger. To let sun and air inside, and to feel the presence of the city outside. Even if there is just enough space for a chair you don't need anything more, as the quality is the ambiance of the surroundings, the view and the presence of the outside. This is the most important square meter of the house.

> *"When you open this door, the weather might really change the ambiance of this place."*

DOMESTIC COMFORT

5. **To just hang out**

You can just float in and out of this well-known and homely hang-out place as you please. You regard the friends you share it with as your room mates, just that you've got your own secluded space to withdraw to as well. As such this feels more like a shared apartment. It's nice to have this place together, it really feels like your own part of the house and you've just as much privacy than you did in your old room. You often do and plan activities together but you can also have the room for yourself as your friends are away or elsewhere in the house.

"You watch the latest episode of your favourite TV-serial together. It's so nice to share it with the people who relates to these characters just like you and who might gather up for this most important hour of the week. You have a mutual understanding that embraces this occasion and has turned it into an appreciated tradition."
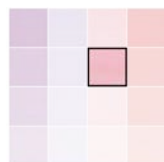
6. Preparing dinner

There is a lot more space to prepare and store food, and there are multiple utensils available for you. You know that some keep a pantry or store food in their own spaces, but for you this was never an issue. It feels good to have everything available in one place, and if you're feeling for privacy, this place is often empty or you just prepare your food and then have it inside you own quarter. Still, the benefit of socialisation is higher. Together, you have turned this into an enjoyable shared place that have known many tasteful dinners, lively discussions and late evenings.
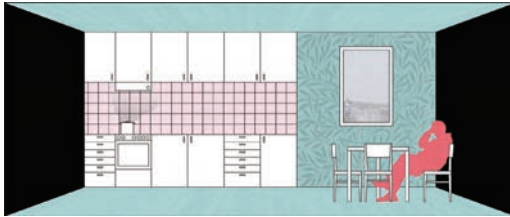
"I can prepare almost anything in here, all that I need is around, especially space. And the people inside, they're my second family, it just feels so natural to share this with them. It would feel so lonely to return to my old living where the social ceremonies of eating where constrained to ourselves. But in occasions like this it's also a private place to go to, right now it's a calm place where I can sit and work by myself while the children are playing."
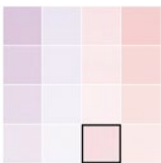
7. The second living area

An added value with the new residence is the fact that you have two main living spaces that are homely and completely comfortable to access. One is completely your own and one is shared with your neighbours who've become like a second family. The opportunity to dwell in their presence have added so much value in your day-to-day life. You really appreciate the possibility to enter when you distinguish a discussion or activity that's interesting, to feel the presence of well-known voices and faces. You frequently spend a few seconds or entire evenings in here among friends, just to feel that you belong.

"You come home from an exciting day and you're bubbling to talk about it. You look inside and see that they sit there, so funny since you just talked about this very thing last week. They can tell by your face that something is coming and you just spit it out and can hear by their laughter that they think this is just as exciting as you do."
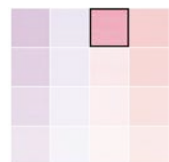
8. **Combined living**

This space might seem trivial but it's actually the opposite. Where you used to reach the staircase from your old apartment, you now reach a pleasant environment where you can expand you own living space when you please. Since you completely trust the others you don't need to lock your own space anymore. This zone has become more than a communication between the front door and the street, it is a part of your enlarged living place where you spend time interacting with others as you move between places, and the children are playing in the interface of their enlarged homes.
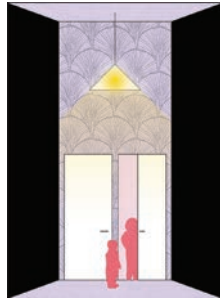
"It would be so awkward to keep the front door open in my old apartment, but here the doors are often open and you can feel the presence from the others, it's inviting and your home is growing."
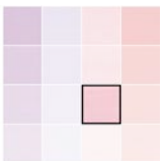
9. The exterior access

The entrance balconies provide a second way to enter the private quarters without moving through the entire house. The insight and privacy is not a major problem as you're so familiar with your neighbours. You have the opportunity to design this poorly reputed communication into a qualitative place together.

> *"This is a second balcony for me, why I can sit in the sun both day and evening. It's nice to come home this way when you don't want to meet people in the house, when you just want to come straight to your own quarters."*

10. Herb balcony

Just next to the shared kitchen there is a small area for growing herbs and open up the kitchen to the exterior during summer days, or to take a cigarette with a glass of wine while preparing the weekend dinner.

> *"It's much more fun to prepare food as you actually have access to fresh spices directly in the kitchen."*

COMMON CO-OPERATION

11. Experience the weather

Between the exterior and the interior there is an area to experience the weather while you're still sheltered inside. There are small tables around for working on your laptop or having a breakfast. People often sit here by themselves with music in their earphones or do some calm activity. This place might also be open to the lounge area and also extend to the outside, as such there are possibilities for a spacious living area in-suit.

"I really love to have this place to go to, especially when I'm studying from home. You can often have it entirely for yourself during the day. The best is when it's raining outside and you cuddle up with a cup tea and a blanket and hear the rain chatter against the glass."
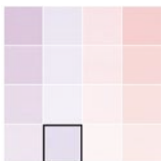
12. The common meeting place

In connection to the more domestic parts of the residence is this common meeting place. Others are often present, but the space is large enough to provide for multiple activities simultaneously. People pass through as there are many connections from this room to both activities, the exterior and more domestic and public parts of the house. As such this is a natural meeting place, one can sit here and take part of what is happening in the house, and maybe be invited to an activity or participate in making plans for the evening. Occasionally the big floor space is used for having large dinners or hosting feasts and celebrations.

"I always pass by this place every day, even those when I'll spend the time in the more domestic spaces. It's a great change of environment when you need an energy boost. And I also spend evenings here with my family, especially around the fireplace, I have never had that luxury within my previous apartments."
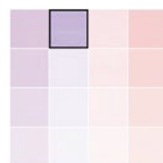
13. **The pleasure of day-to-day care**

It feels practical to have this shared place for doing laundry and keeping domestic utensils together. It has a lot more facilities than you could ever fit in your own apartment, and it's still used by a limited amount of people whom you know, so the booking doesn't need to be so formal and the door is always open. It's no problem to do your laundry while someone else is ironing, hanging clothes to dry or just getting a new dust bag for the vacuum cleaner.
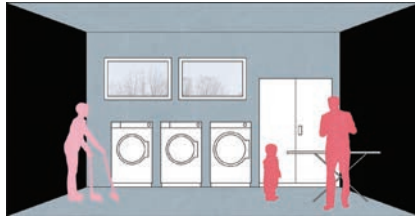
"It feels so practical that you know everyone here and just can walk in to check if there is a machine available, and you can often throw in some towels with someone else's laundry. We take care and shape this place together. It makes it feel very differently from the conventional residential facility like the ones where I lived before, I actually think it's pleasurable to spend some time here with the laundry."
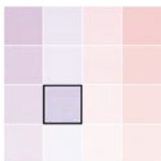
14. **Performing activities**

This place is used by multiple households for various activities that is hard to fit elsewhere, especially in an individual apartment. The ping-pong table is very popular, but the kids also use it for floorball or building castles with cushions. It might also be booked and people use it for sewing, gaming or so, when they need some space for a certain activity for some time.
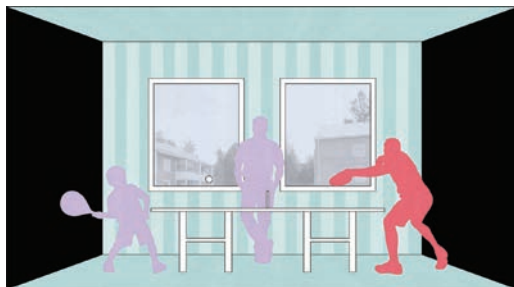
"I often come here to do some sport with the neighbours or the kids. I rarely did that before, but it's so convenient to just participate for a couple of minutes before you continue with whatever you were doing."
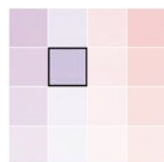
15. Eating outdoors

When the first warm nights emerge, the barbecue is lightening up. People come together around this place to prepare food together and either dissolve to their own going-ons, or stay around for a gathered dinner under the open sky.

> *"Even when you're not participating yourself it's very homely to hear voices and see lights from the dinners outside in the evenfall."*

NEIGHBOURLY CONNECTION

16. Producing and maintaining

The floor is durable and the facilities permit hard handed activities. This place might be used to fix a car or to build something out of metal or wood. It is also a shared source of tools and knowledge where one might pick up the equpiment they need when you are about to fix something or ask for advice. Even if people appreciate to spend time here alone with a project, it's the gathered engagement that has made this place possible. The shared know-how and skill within the house and the right tools and facilities can make the dweller produce and maintain so much on their own.
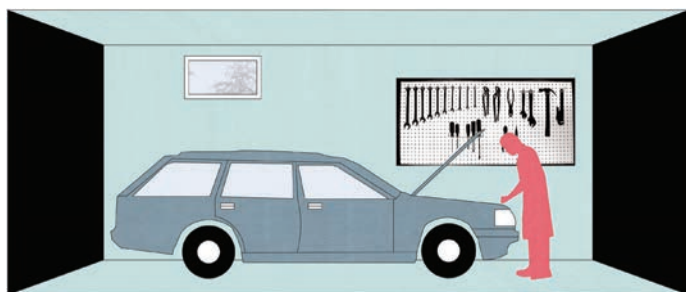
"This place is an important escape for me to fiddle about with something practical by myself. I was so annoyed where I lived before, you never got the tool you needed when you were about to do something and you often lacked help. Now It feels like we can do just about anything ourselves within this house."
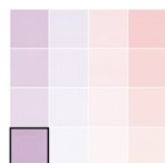
17. **To overlook the flow**

The main flow of people who enter and leave the house passes this place. Just like in a hotel lobby one might sit and study how people come and go. There are also a close connection to the street and city life outside and many tenants like to spend time in this semi-public and busy ambiance. There are a lot of spots to sit down with others or just to relax by yourself.

"I really like to bring my coffee down here and read the newspaper in the morning before I go to work. For me, the breakfast upstairs feels too homey and I appreciate the more active flow down here. I like to feel the presence of the others and be able to say hello to my neighbours as they pass by, I really think they appreciate it at well. "
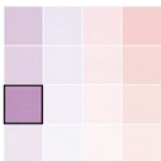
18. **Running a business**

Some people from the house work here occasionally to run this as a small café in the daytimes and as a bar in the evenings. The place has become a popular coffice for both tenants and people from the outside. There is also the possibility for the dwellers to use this place during evenings if they need access to a kitchen as they hang out in the surrounding areas. People often sit here with friends to chat and play games and the environment is very allowing. The buzzing of people talking and the music in the background makes it more easy going to be a bit noisy in this place, even in the evenings.
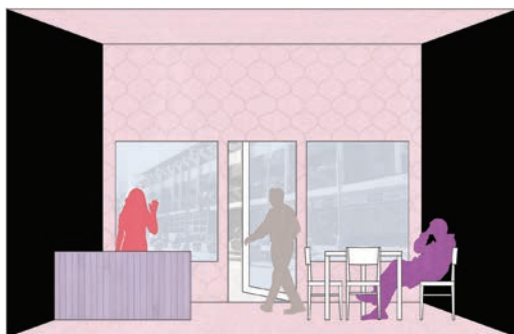
"It's so nice to be able to hang out here, it feels more public than the rest of the house and it's also nice with a place where you can see new faces as many of the customers don't live here."
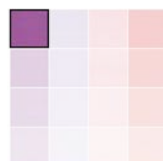
19. A shadowed breeze

This place provides an open but sheltered interaction between inside and outside. One might sit in the pleasing shadow while overlooking the sunlit yard outside. It is also a place to move within the house and to watch others as they pass by. Everyone in the house uses this communication and several have found their own lovely little spot beneath the fragrant climbing plants as they bloom.
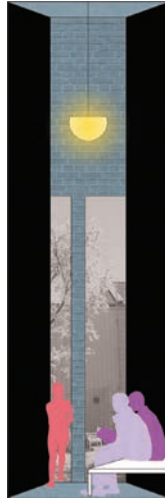

"I choose to reach my own room through the arcades as I like to pass some people and maybe small talk a little bit before I leave my stuff in my own room and chill for a while. It's a nice stroll and I often get a quick brief about plans for the evening."
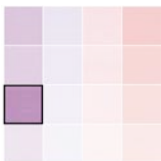
20. **Space for others**

Many of the people who dwell in the house want to contribute with spaces for people who might be in various needs of a retreat. The strong community within the house can provide a strengthening setting for them who use it. It's also an important aspect that the capacity of this residence shouldn't be limited to a socio-spatial capital that's bonding but also invite others and integrate with the urban society as a whole.
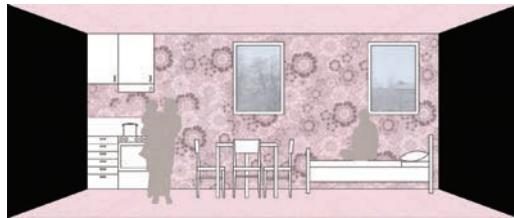
"There was spare space that we could provide for refugees, and some of us have organized introduction courses in Swedish. But the most teaching is perhaps the day-to-day interaction in the house. Especially the kids, it's amazing how fast they pick everything up by just playing together. Above all I have learned so much myself, become more open minded and less prejudiced. To know that this residence can take some responsibility for the society is a rewarding sensation and especially as we have so much fun together."
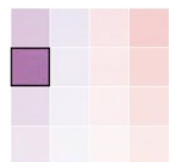
21. **To see it grow**

This is by many regarded as an oasis in the residence. There's usually someone pottering about and the climate and ambiance is shifting over the season. In the spring there is so much preparations going on in here for the summer, and in the autumn the place becomes more relaxed. In the winter many store their Mediterranean plants here. It's been something of a fashion in the house to have orange and olive trees since we've got this space to store it in and so much knowledge among the gardening enthusiasts in the house.

"I usually come here because I like the climate inside and how it changes with the seasons; it feels like the air here is more pleasant to breath. I always plant some vegetables and flowers here in the spring for the urban garden outside and for my private balcony."
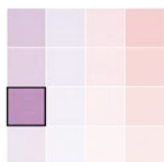
22. Creating ideas

This place provides a secluded zone where people might get together in a more formal and practical setting. There's a big meeting table for a large group to work together or for several people to work with their own. In the evenings there are usually several of the dwellers who sit here and study. During daytime when most tenants are away this place and connected semi-public zones provide office spaces, rented out to companies and individual freelancers, many who have become friends with people in the house.


"This room is favourable to use when we have meetings or need to plan something in a workgroup. Several people sit here to work or study in the evenings, the space has a more focused ambiance than many other places that are more connected to leisure."
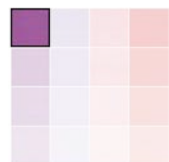
23. **Finding new activities**

The quality of this place is its spaciousness. It is adaptable to a variety of activities where the empty floor might be used for dancing, acting or doing sports. The place is booked several times a week for yoga classes which has become so popular that even people from the outside have come to attend. There are also storages for various tools such as easels, pottery wheels and instruments. As such the place is also used for art courses and practising music.
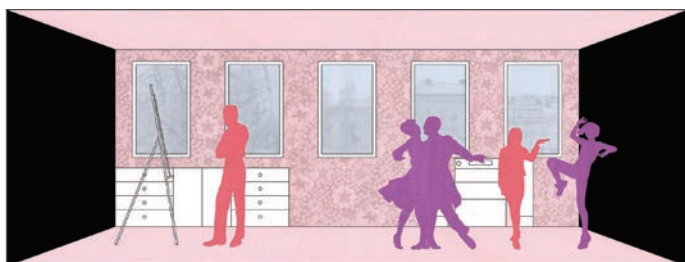

"I have always wanted to practise my drawing skills and there are actually both an art teacher and painter in the house who hold courses. Some evenings I hang around here to paint and I appreciate the presence of the other activities around, it adds a creative spirit to the place."
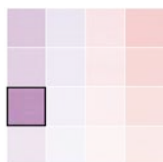
24. Playing together

This is a place that provide enough space for the children to play together in the house with an overview from parents and other familiar adults. It's like an indoor playground that can be used when there isn't a favourable condition to go outside. It's a meeting place for the children from which they invite others to their own dwelling areas and from which they might also explore different parts of the residence together. This interaction also increases the amount of acquaintances among the rest of the households surrounding the children.
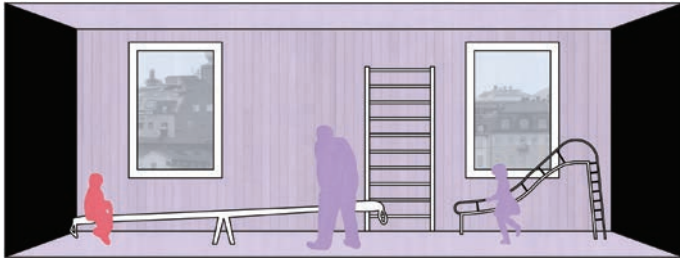

"I like to play here because there are fun toys and other children to play with. I'm often here when my family needs to go to the store or do something else. I know the other parents too, because I see them all the time."
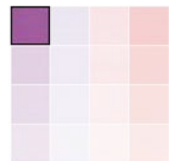
25. Visit a reading chair

This place is calm and welcoming for all to sit and relax in. It's recognised as a silent environment where the people who have chosen to stay here shouldn't be disturbed. There is a huge collection of books of which many are frequently read. And there are several book clubs going on in the house formed by the dwellers and their interests. There is also music, movies and games to be borrowed. A lot of stuff that were before unused have now come into use again.
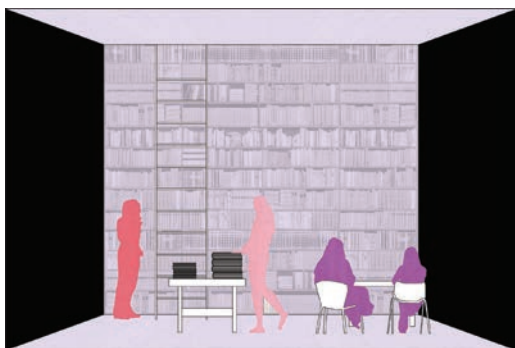
"Sometimes I come here to read or to borrow a book. But I also spend time here to just observe the headings and explore what is here for a while, it's a nice place to just spend some time in. It makes me relaxed if I'm stressed."
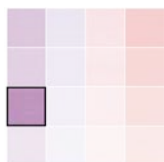
26. **Playing safe outdoors**

It is easy to keep an eye on the kids as they play here, and the fact that there are many familiar grownups around give them a lot of freedom to spend time outside even if their own family can't be present. This area is more secluded from the public and protected from the surrounding streets. It feels safe to leave furniture, bicycles and toys outside as this place is principally accessed by the dwellers, overlooked and commonly used.

> *"I am allowed to be here by myself as long as there is a grownup around, and it usually is. There are always kids here playing. I know most of them and can often join them."*

27. **A day in the park**

This part of the yard is a bit more public and open. A lot of tenants are using it but it's also welcoming for the passer-by to sit down for a while. There are some benches but above all a lot of open grass to lay out a blanket on and enjoy a breakfast or fall asleep with a book. There are various degrees of vegetation to provide both for sunlit areas and shadowed parts.

> *"In the summer I often sit here with my friends for entire days. It's more practical than going to the city park as you can just run inside if you need to do or get something. You can still observe the city life from here and it feels like you get out from home when you leave the more interior parts of the yard."*

28. Facing the street

The entrance is interacting with the street and there is often dwellers and other citizens interacting outside the house. There are several places to sit on a small and inviting forecourt. From a narrow roofed porch one can follow the flow of people in the neighbourhood that passes by. Many goes out to grasp some air or take a cigarette while others enjoy to spend more time in this environment, even in the colder months there are sometimes people around with a blanket and a thermos of coffee, it is appreciated to go public for a while.

> *"It feels very inviting when you return home. It creates a welcoming place that points out the entrance and you are often greeted by someone who's sitting outside. It's a great felling when you get back inside."*

29. Sharing transport

There is a car and bicycle pool that might be used by the tenants. A lot of space is saved as few people find it necessary to keep their own cars. Many people share transport to work and there are both small electric vehicles for the short daytrips within the city and bigger ones for fitting more baggage, carrying bigger furniture or to take several people on a weekend trip.

> *"I really appreciate the opportunity to access a car when I need one. It was so expensive to keep my previous one, with parking space, insurances and everything. I only used it on a few occasions every month and I often needed a bigger one for transporting stuff or to fit more people. Now I can get that for a fraction of the price and it feels right that we invested in more environmentally friendly models."*

30. **Pavement café**

During the warmer months the pavement outside comes alive with chairs and tables, life and conversations. This is the period when the café in the house find a lot of guest and interact with the public. Some come here to take an espresso in the morning, and in the weekends it becomes a small and homely beer garden during the evenings. Occasionally there are music performances inside and there have been some bigger festivities that people still talk about in the neighbourhood.

> *"It's fun that we have some regulars here. This has actually become an important meeting place for some people in the neighbourhood."*

31. The gardening terrace

In connection to the greenhouse is a big sunlit terrace that's used for urban gardening and spending time outdoors. Most of the dwellers have chosen to take care of a plot out here, to grow their own seasonal vegetables, cutting flowers or just to care for a place where they can sunbathe during clear days without going down to the yard.

> *"We usually have this harvest-festival in October and the kids hang out here a lot when the first strawberries appear."*

DISCUSSION
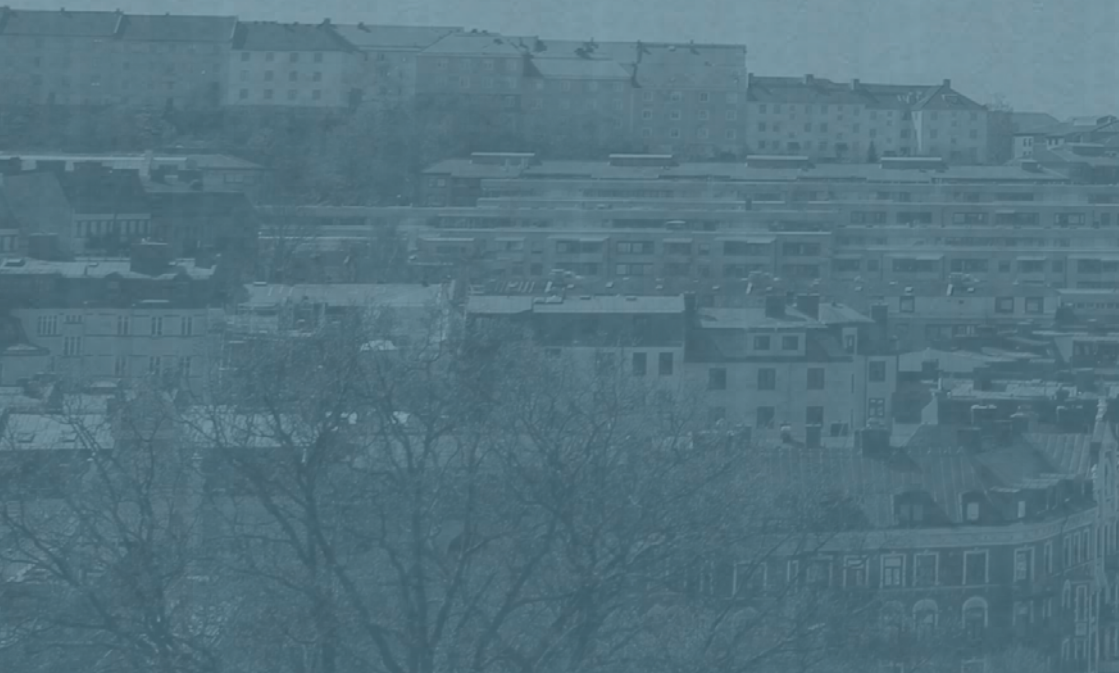
FINDING LIVING PLACE

This chapter evaluates the concept of collaborative residing and the meso-domestic approach in regards of sustainability. The notion of sustainable urban space is used for this discussion. What are the added benefits to our residential space? In what sense might it reduce the negative externalities of our residing?

A LIVING PLACE TO THRIVE WITHIN

We can at this point readily conclude that our socio-spatial environment has considerable impact on our quality of life. Different features help fulfil different needs, whereas other may influence us in a negative way. Whatever we consider our needs to be, we can safely say that they are many and varying in nature, and that the ability to fulfil them are key to our wellbeing. Personality, aspirations and mood vary from person to person and from time to time. This means that our living place should provide a diverse environment that is accessible, creative and flexible, in order to give us agency to find satisfiers by being, having, doing and interacting. Below is a presentation of the principal potentials that have been found within the meso-domestic approach to increase the benefits of our living place.

Social capacity

It has been established in this thesis that social interaction is an important, if not the most important, factor for quality of life. It has further been found that it is salient to predict our satisfaction with our home and neighbourhood. Consequently, our domestic living place should afford social interaction if we want to increase its benefit.

In the meso-domestic living place, a large community of people would be accessible to the residents within a short frictional distance. This is in one sense true for any multi-family building or co-house. However, there is something lacking that means that people will seldom engage with neighbours, who in conventional residing are just a random outsiders with which people do not live their life together with, but rather beside. The interviews in this study supports this statement, as only one of the respondents spend time with neighbours, apart from friends that happen to live nearby. The possibility to have friends close is one of the purposes of the more personal domains of the meso-domestic living place, something that several respondents mention as desirable.

"It would have been nice to have more close friends nearby. Due to the rather framed and humdrum day-to-day life one lives it would have been a lot easier to include them and make them a more natural part of it. This would probably have made it possible to see them a couple of times every week."

"People aren't visiting as often nowadays. They've moved out of this area."

Variation of social interactions is however still important. The meso-domestic living place could contain a range of different group constellations, which would allow an individual to have proximity to different social settings in the different domains. Over time, more and more people could be acquainted with each other as they share a common venture of collaborative residing, and hence increase the social capital in the entire group. The multiple levels of community in the meso-domestic living place could facilitate a successive process of establishing social cohesion with bigger and bigger groups. By early having established interpersonal relations to a smaller group in the larger community, this group can more easily branch out since it will have more opportunities to meet other people, and can introduce new acquaintances among its members.

The variation in social contexts close to the domicile also gives the possibility to express different personal identities, which can vary depending on mood and emotions. One can also change between different roles, from being a host, to a guest, to a regular. In a household there is often a very strong social cohesion, but it will not satisfy every social need. In the meso-domestic living place the social context can be changed in a flash.

"It's overall positive to share spaces. That's one reason why I still live here, because it works. When I want privacy I have my own room, but can always go down to the kitchen when I'm bored and want to hang out with people."

One respondent that shares some spaces with neighbours feels that it's overall positive, even if they don't like everyone in the community. The fact that there are always people available to engage

with is seen as an advantage. The importance of having a private haven to be able to retreat to is also key, according to the respondent.

Accessibility to activities

The ability to perform certain activities is an essential aspect for our wellbeing, and if we want to increase our quality of life, we cannot limit these activities to the ones needed to fulfil basic needs.

In the analytical study and in the interviews, it is found that conventional apartments can offer only a limited variation in socio-spatial affordances, and that conflicts arise between different activities. There are at least two main reasons for this, the lack of amenities and spaces, and a uniformity of socio-spatial settings. A main advantage of the meso-domestic approach is the possibility for an increase of affordances in direct connection to the domicile. As we spend a considerable part of our spare time in the domestic living place, and it also constitutes a node for other activities, incentives to improve the opportunities offered there become apparent. By reducing the friction of distance to a wider range of domains and amenities, they become more accessible. A European city of medium size or bigger, like Gothenburg, may offer almost any affordance conceivable. This becomes somewhat irrelevant, however, if they're too far away either spatially or mentally, as the friction of distance will discourage people to utilise them, something that is supported by the interviews. In the meso-domestic living place, the barrier of distantness can be greatly reduced between the comfort of personal influence and some of these affordances, as they can be integrated in the transitional domains between personal and public.

The household is sometimes considered the elemental economic unit, and its economic capacity is what determines the possibility to acquire amenities and space for its domestic living place. In the meso-domestic living place, several households come together to form new units that can have increased economic capacity. As the need for duplication is reduced in the shared zones, the investment into fewer instances of a particular facility or instrument can be higher and consequently be of higher quality.

> *"The good thing with sharing with this many is that the living room gets really big. There's a big wall and a projector, so it's almost like a cinema."*

Economic limitations and the finiteness of space and the resources it consumes means that the amount and manner of space and amenities that every household can possess is limited as well. Through sharing, bigger spaces with more spatial variation, and more specialised amenities could be accessible. This could afford other activities than would be possible in a regular apartment. Collaborative consumption has showed that this kind of distribution is both possible and advantageous.

> *"It's nice to have a big shared living room because you can set a really big dinner table and have a party."*

The fact that some activities require other people to be afforded is also an important realisation. If we want to play a game of chess, engage in a discussion or just feel human presence around us, other people is the least that is required to do so, and we cannot do any activity with any person in any setting. Amenities and spaces need to be placed in the appropriate domain to afford the activity intended and be considered accessible.

> *"There is a common room in the building, but no one ever uses it. You don't know anybody there."*

The ambiance of the living place

The spatial diversity of conventional apartments is very limited, with a narrow range of shapes and absolute room dimensions. Furthermore, the ambiance is quite fixed; once a room if furnished it will stay like that for a considerable time. As the apartment is in a fixed position, the view, sun and sound conditions will also not be variable from the dwellers point of view. The options for experiencing a change in ambiance is today to refurbish or go outside the domestic threshold. The meso-domestic living place could have capacity to offer a range of ambiances. Shared spaces could be both big and small, open and closed, with a view or in the basement, to

the north or south. They could have different styles and climates. Instead of having to make changes in the domestic living place, one could instead change location in the meso-domestic living place to experience a change in ambiance.

Bridging meeting places

In addition to creating meeting places between the dwellers of the meso-domestic living place, a potential for public integration into the building can also be seen. The benefits of this could be an increased utilisation, and to facilitate interaction between groups. Zones in the more public domains could be open to outsiders where for example freelancers could have workplaces, associations have meetings or evening classes, or a workshop be open for people that need to fix their bike. These outsiders could apart from having a chance to interact with the insiders help to constitute an economic basis for the shared spaces. Among the most recurring topics of Swedish urban planning is those to create meeting places and provide services in the street level of buildings to facilitate a livelier street life. This could be achieved in the meso-domestic living place without the need of additional businesses to set up, since the dwellers themselves can provide these services and simultaneously constitute the basis.

REDUCE NEGATIVE EXTERNALITIES

Duplication and consumption

Drawn from the four salient aspects of urban space within this thesis there are a central take-off that the negative externalities of our residential space need to be reduced. In the broader context this is regarded as a salient measure if we are to development our built environment in a way that might find leverage to succeed through the window of sustainability. There are multiple perspectives and applications towards these challenges, which however often come to neglect the critical aspects of our residential space per capita and rather focus on the impacts per square meter of space.

As we regard the negative externalities of the domestic living place there is a fundamental correlation to regard; the amount of individually owned residential space and the sustainability of our ways of residing. If we are to afford sustainable living conditions, there must be a more just access to a living place to reside within and the quality of residing should be secured with a less abundant usage of space. In order to achieve this the development of a meso-domestic approach has several benefts. There are especially two critical and interconnected aspects that this approach can address; duplication and consumption. Both of these aspects derivate from the predominant ways of residing where the domestic living place is still designed for household configurations for nuclear families, even if the constellation is in decline and its size is shrinking. The result is that many people dwell within a rather large domestic living place that needs to contain all the spaces and amenities they feel that they need, have gathered, or just have the capacity to own. With smaller households that might share these spaces and amenities and with a design that leave no opportunities to collaborate within or outside of the threshold there hence need to be a sole consumption for the shrinking households to assemble all the affordances in their own living space. A development that gives rise to a society of hyper-consumption were the same affordances are reproduced, duplicated and stored in each apartment. The idle capacity in this duplication of space and amenities is the resource that could be

exploited within the notion of a more collaborative residing rather than the approach to legitimate a continuous abundant sprawl of "sustainable" square meters

An idle amount of space

The main leverage for reducing the negative externalities of residential space found in this thesis is a reduction of per capita ownership of the same. The concept of minimizing the living space to a minimum is not a new concept and compact living solutions have a lot of application both in zones of a dwelling but also to parade minimalistic or space efficient lifestyles. Still, even if the space might be drastically reduced it is still a duplication if it isn't shared. A compact solution might have trouble to provide sufficient affordances for the dweller. In this thesis the concept of collaborative residing is regarded as a more promising alternative to both reduce per capita use of space but also provide and extended the capacity of socio-spatial affordances that is argued to be a salient aspect to support quality of life.

A critical aspect is proposed to be within the very concept of the domestic threshold. This demarks a very strong domain and domestic identity. Not only is it a household-wise ownership of space and amenities but also a strong act of place making with a small group of insiders which creates a sense of place with a strong territoriality attached to it, a sanctity of home that makes it hard to collaborate with outsiders. The suggestions that there is a declining social capital and loss of neighbourly communities makes the threshold even more abrupt as we often face a more or less public domain just outside our front door without social trust or knowledge of the space and people whom surround our domicile. With the softer interface of the meso-domestic approach there is a possibility to stretch this threshold into a gradient of domains defined by thresholds of reduced friction. The possibility to become an insider in these various domains and create a shared sense of place that might develop behavioural settings, social norms and trust is regarded as a prerequisite in order to extend ones living place and transcend the act of residing into a collaborative way where the capacity of idle space can be shared in new ways to benefit the domestic living conditions of the dwellers.

In residential architectural design there are strict regulations that consolidate the current practise of space duplication within our domestic living places. A critical circumstance is that each apartment needs several mandatory spaces and facilities gathered in various rooms. As the domestic threshold is regarded as a delimiting barrier more or less everything needs to fit in this area apart from some shared facilities such as laundry, storages etc. It might be regarded as rather strange sharing of some activities in residing is so well-established why other are regarded as unthinkable. One of the socio-spatial explorations of this study was hence to deconstruct the conventional rooms of an apartment to see the socio-spatial affordances within. Even if some of the affordances in a specific room might still be regarded as crucial to maintain in a meso-domestic domain such as the domestic comfort or personal influence, some affordances in the same room are perhaps more favourable to extend to other domains. This study hence proposes that there is a critical need of reconceptualization as we need affordances and not rooms. During the empirical study of this thesis the respondents were able to redistribute their present square meters of space which they all did. This didn't result in less individual, space but a promising outcome was that many respondents found themselves in positions where they almost felt there was too much space to work with, especially in the more public domains. Some even asked if they could downsize to reduce rent and one respondent said that the abundance of space could be used by others. The ones that used the capacity of the meso-domestic approach most were also the ones who dwelled in small apartments. A subsequent empirical study could be to study how a sustainable living place could be configured in the meso-domestic approach by using a smaller portion of space to start with.

When considering the temporal aspect of sharing, a possibility to shift the domain of zones appears. Certain zones might be unused by the group usually controlling it during parts of the day, week of year. This idle capacity could be utilised by temporarily shifting them to a more public domain. It may be difficult to open up the domestic living place to the public, but the transitional domains of the meso-domestic living place could make this shift possible between domains that are closer in the identity plane. The public

integration could also mean that other activities could have the possibility to enter the building and share the amenities of the residence, especially when it is not so much used. This could give the opportunity for an environmentally safer residential space.

Idle amenities in space

The concept of collaborative residing might not only be used to reduce the individual usage of space but also to access an idle capacity of amenities in that space. The present hyper-consumption within western societies are partly made possible by our duplication of owned amenities. Without the chance to share a certain product there will always be a sole possession if we are to access it. Just as space is shared as people form a household, so are most of the amenities inside. With the collaboration of space a main capacity of the meso-domestic approach is to create more domains in which amenities could be shared among the insiders. A possibility with instruments and some facilities is that these could be moved and hence redistributed or borrowed within a collaborative residence. As a lot of stuff that we own are used only occasionally or even left unused there is often a favourable aspect to access an amenity rather than owning it. The amount of owned amenities might actually become a spatial problem as it clutters our domestic living place to the extent that we might need to invest in additional storage or move to a bigger apartment. From the empirical study one could distinguish several classes of stuff from the way in which the respondents described their relation to them. Among these there were some that were more favourable to access rather than owning while others were preferred to be owned and kept within a place of more spatial control.

Facilities and especially instruments might be distinguished in several subgroups depending on the purpose of the amenity. Some of these are related to the ambiance of the room such as decoration and interior design. This might be the furniture as a whole, various instruments that might be regarded as knick-knacks or the biophilical presence of plants and cut flowers. These were among the amenities that the respondents choose to not put in "the magic wardrobe" as it is connected to the room itself. As people described the various settings of the meso-domestic domains it was

obvious that aesthetical amenities where used to alter the qualities and ambiance of these places. One of the capacities they gained was hence to access shifting aesthetical ambiances which could imply that they don't need to change the amenities just as often as we redesign and furnish our present apartments.

Another class of instruments are those that you might use for a specific activity such as a television, a board game or a sewing machine. Some of these were preferably stationed within a shared room that matched that activity, while others where still seen as preferable to keep in the domain of the household. There are also amenities that combines a certain service with an aesthetical value as they might contribute to the ambiance of the room as decoration while it isn't used such as the books in a shelf that make the room look homely, the nice looking part of the porcelain that one showcase in a glass cabinet or the luxury spa-equipment you store openly on a bathroom shelf. Another type we might regard are the more personal or affective amenities. These might be the clothes we bear, photos, heirlooms etc.

Last there are those amenities that we keep for their service but which are regarded as in the way, bulky and distracting as they obstruct or downgrade the ambiance, usage or aesthetics of a place. Examples of these might be tools for cleaning, work tools, hobby equipment and occasional outdoor wear. There was a general consensus among the respondents that these were the amenities that one would rather access than keep.

> "Actually most things that aren't here for decoration could go into the closet if they're not private, such as clothes, it's nice to have something you've worn before."

> "As long as i could access it and it was in the same kind of condition as the stuff I kept, I couldn't see any problem. It would just be nice to put away all the seldomly used stuff that just take up place at the moment."

A main problem for the respondents was that they all already owned a lot of amenties which they liked and needed to store and might be

sceptical of moving to zones of less spatial control. In the scenario of a meso-domestic living place there would be a great opportunity to move into a place that is already inherent of various ambiances, well equipped and accessible. This would indeed provide a major opportunity for a new dweller to move in with a small amount of stuff and with little need to consume more. And it might just be the case that with less stuff one might also discover that there is less individual space needed as well.

A sustainable ripple effect

Just as the concept of access rather than ownership have capacity to reduce idle abundance of space and amenities there is an additional gain in the discourse of sustainability in the growing community of collaborative stakeholders. If the meso-domestic approach came into practise there would be a great possibility for dwellers to share a platform for other forms of collaboration than that of residing. If there is a common interest of sustainable lifestyles in the various communities who dwell within there is likely to be more empowerment to pick up and develop new incentives than within a more compartmentalised residence where people lack a common arena for collaboration. Even if this surplus value isn't specifically studied in this thesis there is a belief that this might be a likely development in a residence of collaborative residing.

In the light of the collaborative groundswell that's emerged in recent years the numerous applications and ideas to support both quality of life and sustainability are countless. The strength is within the power by numbers as the online communities and platforms constitute an immense source of knowledge and opportunity to spread ideas. As highlighted within this thesis there is a shift of paradigm as individuals start to question the supply of the market and rather search for new ways to fulfil their needs or motives with peer-to-peer interactions and transactions. Even if the application of residing as proposed in this thesis haven't been found during the literature review of this study it might very well be out there or start do develop in the near future. As pioneering projects will start to appear, it is likely to create momentum as people might share inspiration and models of architectural designs, organisational structures, sustainable benefits etc.

As people start to find that there are alternative ways to reside and there are collaborative platforms as well as illustrative and inspiring examples the role of the architect might come to switch from a top-down consultant for the building sector to a bottom-up consultant for the dwellers themselves.

> *"Collaborative consumption is not a niche trend, and it's not a reactionary blip to the recession. It's a socioeconomic groundswell that will transform the way companies think about their value propositions— and the way people fulfil their needs"*
>
> (Botsman & Rogers, 2010, p. 30)

THREATS AND PREREQUISITES

The importance of permanence

The domestic extension means that residing in the meso-domestic living place is inevitably a collaborative venture, as some zones will be shared with others. It has been assumed in this thesis that there will be a certain level of comfort in the different domains, which is a prerequisite for collaboration to work well. The empirical study indicates that people are reluctant to use spaces where there is lack of a common sense of place and comfort. This comfort could be achieved through organising a community before moving in, but the community will nonetheless change over times.

> *"The reason that we're using the living room together is because we've gotten to know each other over time when we've been forced together in the kitchen."*

> *"We've established a strong community over the years, so now we use the communal living room much more than we did before."*

To develop a common sense of place, trust and behavioural norms requires time. This is supported by one respondent living in a student corridor, with a shared kitchen and living room, who highlights the importance of community for the shared spaces to be utilised. In this case, cohesion has been established over time, since people have met each other in the kitchen. When people got to know each other there, they started to use the living room together. Once the community is in place, it can handle people being replaced and integrate newcomers in a positive way.

> *"We're a nice crowd and everyone's outgoing and happy. When someone new moves in everyone wants to show them around. It's fun that someone new is joining."*

The permanence does in turn require adaptability and flexibility if people are going to be able to stay when life situations change.

Architectural challenges of shifting thresholds

The meso-domestic approach is an architectural challenge. The topological model is quite easy to adopt and might hence be used to divide zones in domains that are separated by thresholds. But as these zones are to become physical and constitute the spaces of a building they need to be connected in a favourable way and manage to meet several conditions such as natural daylight and acessability. This aspect of realisation is not considered in this thesis but rather seen as a subsequent challenge to address if a meso-domestic approach is to be developed and laid out as a residential design.

The approach is depending upon the provision of several domains within the domestic living place of a dweller. These domains are created by the placemaking of various collaborative communities, whereof the personal influence and various household configurations need their spaces. But just as a household configurations transforms over time, the domains and thresholds within the collaborative residing will be dynamic. If there is to be a reduced idle capacity of space and amenities in this flux there is an architectural endevevour to provide for flexible and adaptable solutions. Researchers such as Braide-Eriksson (2015) has studied the aspects of flexibility and adaptability within architectural design to improve the usability of rooms and room configuration. She denotes flexibility as the alteration of the physical fabric of the building while adaptability is the inherent capacity of a room to be used in various ways. Her research demonstrate alternatives for residential usability, but is still done within the context of a conventional residential approach with rigidly separated apartments.

In the light of a meso-domestic approach there will be altering ways to address the concepts of flexibility and adaptability as the hard interface of the domestic threshold is rather regarded as a transition inherent of several thresholds and domains. But these aspects are still as essential if the domestic living place is to afford sustainable living conditions over time. Practises and needs are likely to change among individuals and within communities; the architecture hence needs a more open terminology for people to find their own words of expression, to explore and find what a living place they might thrive within.

REFLECTION

This final chapter concludes the most essential findings of the study and report on the three initial research questions. A brief description of the process is made with suggestions upon further studies within the topic of this thesis.

THE THESIS AND FINDINGS

The purpose of this thesis is framed as the search for living place, a search to find more sustainable living conditions by the means of collaborative residing. The urge for this search is presented within the theoretical framework of this study. A first contribution is found in the development of a guiding model, the window of sustainability, and the four salient aspects of urban residential space that's been drawn from this context. This points out that there is an idle capacity within the present usage of residential space. Concurrently there is a promising emergence of a more collaborative economy and sharing mentality in the urban society. In this overlap lays the normative incentive for this thesis, the finding of a leverage for the challenges of sustainability.

The backbone of the study is the process and findings within its conceptual development. This second part concluded four succeeding investigations from a general concept of a living place towards it's domestication, socio-spatial interpretations and finally the proposal of a new design approach; the meso-domestic living place. Derived from the merge of interdisciplinary theories, this development has analysed the subjects of living place and residing from multiple perspectives. The outcome of the conceptual development might be seen as the invention of an analytical toolbox, in the search for living place.

A language of architecture is proposed by the dialectics of space, matter and socialisation. A language that both enables and constrains our interpretation of our living place and the acting space it provides. There are societal norms of behavioural settings and socio-spatial boundaries that presently demarcate the various settings and occasions of our lives. An especially abrupt interface is found between the domestic and public life where the concept of home is an essential, yet limited, aspect of place making that's closely bound with our present ways of residing. Theories upon subjective wellbeing and quality of life have been studied to propose an increased accessibility to shifting socio-spatial affordances within our living place. The access to various identities and stimulations in combination with favourable amenities are found to be deciding

factors to provide for these affordances, the meso-domestic approach is an application where the friction of distance to these might be reduced due to a physical proximity and an adaption of transitional domains rather than the abrupt threshold of the home. This softer interface might improve the affordance for the dweller and introduce a platform for collaborative residing that might make use of the idle capacity of residential space.

The accessibility to socio-spatial affordances are hence regarded as the salient aspect for reassuring sustainable living conditions, an intrinsic motive that might reconceptualise the benefits of residing and the architectural design of residential space. An exploration of desirable affordances and the shifting ways of residing were done in the light of nine qualitative interviews. Multiple applications of sharing space and amenities were proposed as well as an illustrative meso-domestic design by each respondent. A general finding was that all interviews ended in a domestic living place that the respondent saw as more beneficial than their current dwelling. All of them were positive towards the approach and saw the concept of collaborative residing as an attractive alternative as framed within the meso-domestic approach, but with varied levels of enthusiasm.

A critical issue arose from connotations between affordances and specific rooms. Even if respondents could describe narratives of occasions without concepts of rooms, they tended to use this conventional socio-spatial typology of settings as they worked with the model. This implies that the standardised rooms and apartment typologies that make up our language of residential architecture need to be deconstructed and translated into the affordances they provide. This might open up a new vocabulary within residential design in order to redistribute affordances in a more beneficial way for increased accessibility and reduced duplication. One of the socio-spatial explorations of this thesis has been to initiate a socio-spatial deconstruction of the conventional residential rooms. The primary findings are that rooms and apartments as residential elements create a critical holdback to transcend the notion of a residence to suit a collaborative residing. All rooms include multiple affordances whereof some are favourably shared within a certain domain different from others. This makes it more beneficial to reconceptualise the specific rooms and rather regard various

affordances which might be accessed within several domains.

The search for a living place has led this study to the very threshold of our homes. The small step through our front door, but still a tremendous leap in identity and affordance. Between these settings there is a vast void in which we might stretch out our domestic living place. A hidden place between our need of personal influence and public self.

The initial questions

The four beliefs that were pointed out in the background of this thesis have all been scrutinised during the process and has come to grow towards a conviction. We have seen that there is a great potential to be discovered within the notion of collaborative residing. Even if we have come across many examples of communal housing and shared aspects of living, there are differences between the meso-domestic approach and other alternatives which we have come across so far. The concept of collaborative residing as an access to socio-spatial affordances rather than ownership of living space is as such regarded as a foresighted way to formulate the motive of residential development.

In the light of the collaborative lifestyles and platforms that are at the forefront we find it likely that numerous applications are soon to emerge. As the discourse of access rather than ownership finds its way into residing it might give rise to an enormous momentum as beneficial solutions and instructive practises goes viral. The failure within the conventional economy and housing market to provide sustainable living places might as such be resolved by the dwellers themselves. This thesis initially concluded three research questions to which a brief report follows.

First; what are the individual, societal and environmental implications of contemporary urban residing? This question is many sided and complex, but there are some general aspects that have been reviewed in this thesis. The unjust scarcity of residential space and favourable amenities, as well as the unsafe abundance of idle space and amenities depicture a biased distribution of assets for residing. There are also findings of a demographical transition within the context of urban residing in Sweden where the space per person is increasing as household sizes shrink; i.e. we share less and

hence duplicate spaces and amenities that could be shared if there was more potential for collaboration. There are also indications that this development is declining the social capital within society and that people are experiencing undesired solitude and lack of belonging.

Second; what are the salient socio-spatial aspects affecting quality of life within urban residing? The main focus within this thesis is that quality of life is depending upon the aspects of subjective wellbeing and beneficial living conditions. These two concludes multiple needs that must be met in order to improve the experienced quality of life. This is a vast field to investigate, but there is generally a qualitative social aspect of subjective wellbeing as well as the factor of personality, while the needs associated with living conditions are often classified into varied types and hierarchies. The concept of socio-spatial affordances is a framework to address these needs. The accessibility to them might provide for various subjects to explore and meet their varying needs within their day-to-day life.

Third; what could be a more progressive approach for residential urban design and what might be a pragmatic model to reveal it? In contrast to our concepts of socio-spatial affordances and critical view upon the use of residential space, the conventional design rather provides an apartment for an individual household, provided with standardised rooms for general domestic needs. The meso-domestic approach rather provides several socio-spatial contexts or domains to fulfil various needs of the dwellers as well as empowerment among the dweller(s) to explore and develop what places and settings one wants. Still, the architectural design is just a spatial and functional prerequisite, the main part of this design and the affordance for quality of life must come from the collaboration of residing among the dwellers themselves. The biggest challenge is hence to develop communities that thrive and an architecture that might be responsive to their shared and subjective needs as time goes by.

The process

The work within this thesis has often been performed off the beaten track. Even if there was an early formulation of the purpose and assumptions, there were uncountable ways to approach the subject.

Many paths have been explored, discussed and developed but in the end left out. The various perspectives upon the subject of study have resulted in multiple side tracks and investigations with loose ends that couldn't be tied together within the confined scope of this thesis. It is recognized by the authors that the study became initiated as a more extensive study than there was time for. This resulted in a very extensive literature review and discussions leading to a huge collection of relevant references, possible topics and interesting issues. It also opened several fields and theories to engage oneself in, and even if the process was educational it also increased the proportion of work needed to delimit and edit this final thesis. The willingness to expand the work has been in conflict with the cutting of loose ends to bind the study together. Even so, the allowance for a broad investigation and sometimes windy process have led to many interesting discoveries and promising ideas to be further developed after the completion of this study.

There have been several thoughts about what methodology to use in this study. The focus on literature review and a conceptual development was an early decision, but there were varied thoughts about the level of empirical contributions and whether there would be a design proposal included. In the beginning of this process there were some time invested in design explorations and various ideas upon a design proposal set within the context of a multi-apartment building to demonstrate how the concept of collaborative residing could be physically depicted. As the process progressed the focus started to move into the exploration of various socio-spatial settings and what aspects were crucial to the experienced occasions within. As such there was rather an interest in the narrative descriptions and phenomenological understanding of the places we spend time in, rather than the physical structure of them. The connection to the field of architecture is primarily in our interpretation of the built environment, our language of architecture. Just as we need to understand this language to create spaces for people, we need to understand how people turn these into places. The search for living place is hence a way to use these dialectics to create preconditions for architecture out of an increased understanding of place rather than creating the preconditions for places out of an increased exploration of architectural design. This choice of orientation turned the focus

from design explorations towards place studies were the interviews became a qualitative method to unfold the meanings of the living place and especially the domestic place-making and usage of the home. In analogy with this focus, the meso-domestic approach is essentially a concept of domains, identity, and affordance that might gather information for an architectural design. There were discussions upon other methods such as workshops, more orientated towards the design of the meso-domestic living place, or more rigorous studies of the living place by time-geographical studies. These were however scrapped due to other priorities that arose during the development of the thesis. The interviews that were performed could have benefited from a more structured selection rather than the snowballing process used. There could have been a better mixture of respondent as the present group is generally young and include a large portion of students.

Some final words

The idea of merging idle residential capacity with collaborative lifestyles open up multiple theoretical approaches and practical applications. The meso-domestic approach found within this thesis is one such method with the motive to provide more socio-spatial affordance and reduce the per capita ownership of space. Within the concurrent groundswell of the shared economy it is likely to be peer-to-peer advances within the field of collaborative residing in the coming future. If they are to reveal the benefits of concepts such as the meso-domestic living place, the viral rippling effect among networks that could start to adapt these approaches might come to raise a debate about our ways of residing. We advise that approaches such as the one explored within this study could benefit to be furthered explored in collaboration with organisations of the shared economy that might be willing and interested to develop such approaches. But the exploration of this field is also a task for the academy, among teams of researchers within varied fields that might start to survey the impacts and favourable development of a collaborative reconceptualisation of residing.

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APPENDIX

PORTFOLIO OF RESIDENTIAL DESIGNS

Below is a presentation of the respondent's aparments. The topologies are drawn using the concepts presented above in this thesis. To these is the aspect of specialisation of the zones. This is an evaluation how strongly the design of the rooms determine the possible socio-spatial affordances.

ZONES

◯ GENERAL

◯ SEMI-SPECIALISED

◯ SPECIALISED

BOUNDARIES

◌ OPEN

◌ SEMI-CLOSED

◯ CLOSED

CONNECTIONS

— OPEN

▬ SEMI-CLOSED

▬ CLOSED

ROOM TYPES

Ⓛ LIVING ROOM

Ⓑ BEDROOM

Ⓚ KITCHEN

Ⓣ TOILET

ⓑ BATHROOM

Ⓟ PATIO/BALCONY

Ⓢ STORAGE

Ⓗ HALLWAY

Ⓒ COMMUNICATION
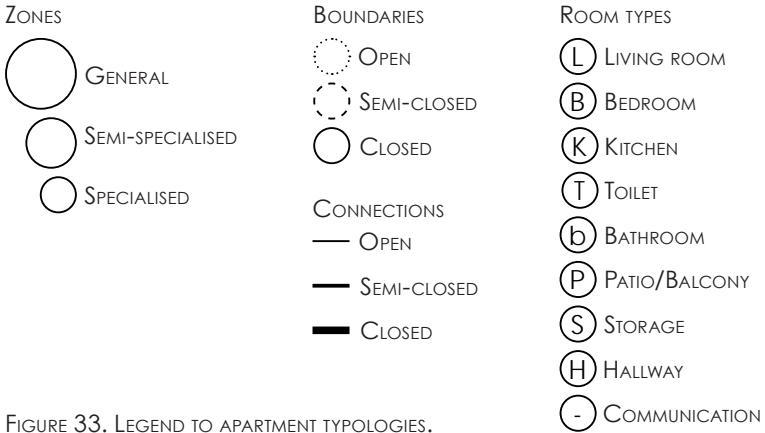
FIGURE 33. LEGEND TO APARTMENT TYPOLOGIES.
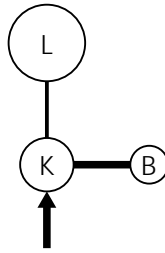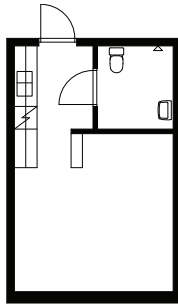
MAN 27
UNEMPLOYED
LIVES ALONE
1 ROOM + KITCHENETTE
27 M²

FIGURE 34. APARTMENT #1.
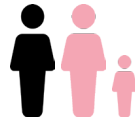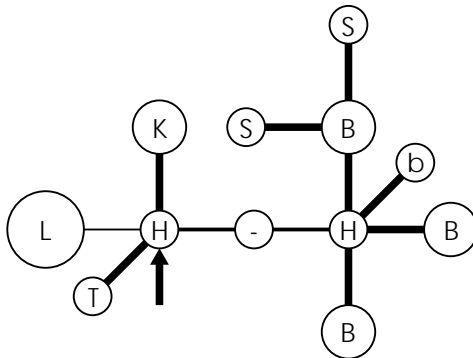
WOMAN 28
STUDENT
LIVES WITH PARTNER AND
TODDLER
4 ROOMS + KITCHEN
99 M²

FIGURE 35. APARTMENT #2.
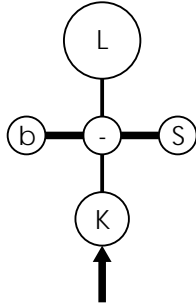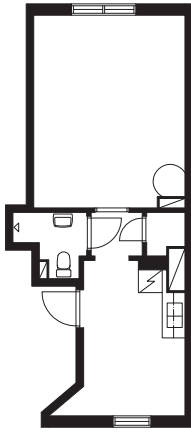
Man 26
Student
Lives with partner
1 room + kitchen
37 m²

Figure 36. Apartment #3.
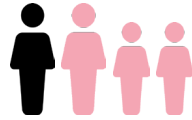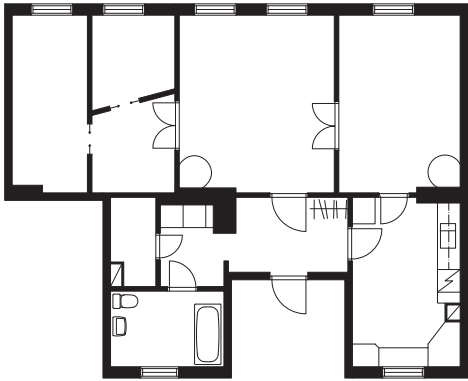
Woman 49
Working
Lives with partner and
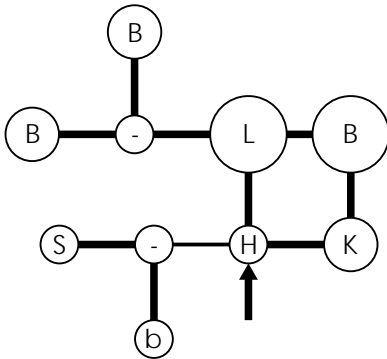two teenaged children
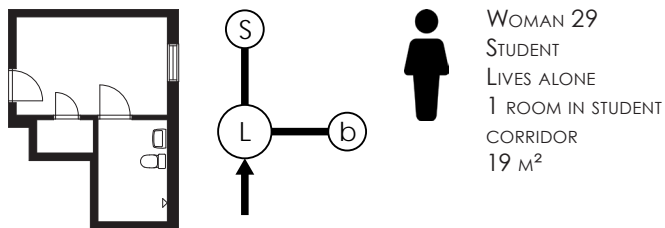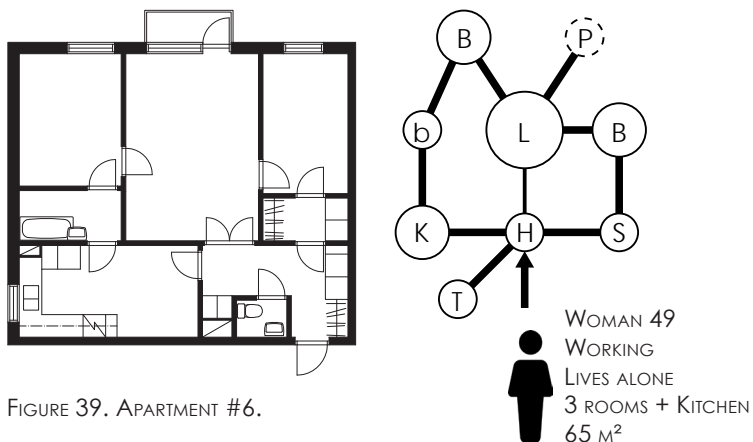4 Rooms + Kitchen
91 m²

Figure 37. Apartment #4.

Woman 29
Student
Lives alone
1 room in student
corridor
19 m²

Figure 38. Apartment #5.

Figure 39. Apartment #6.

Woman 49
Working
Lives alone
3 rooms + Kitchen
65 m²

Woman 29
Working
Lives alone
1 room + Kitchen
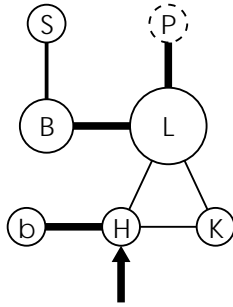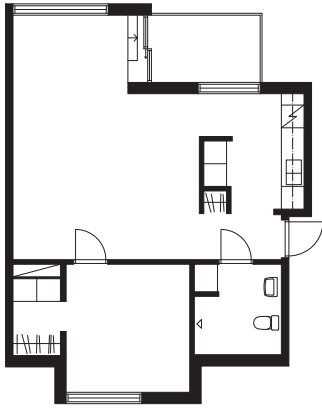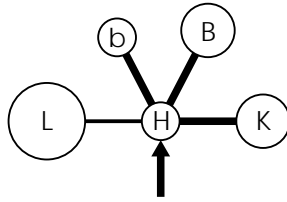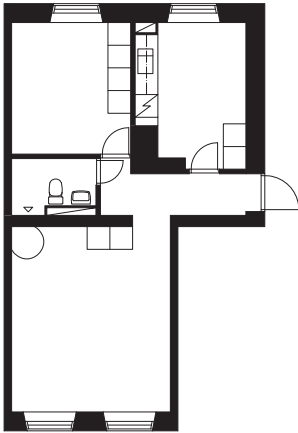37 m²
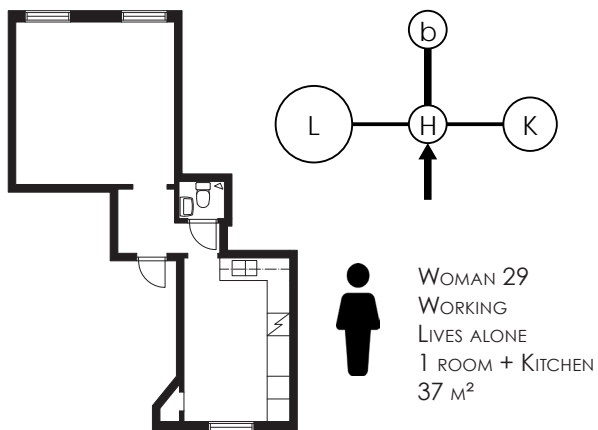
Figure 40. Apartment #7.

FIGURE 41. APARTMENT #8.

Woman 55
Working
Lives with partner
2 rooms + Kitchen
64 m²

FIGURE 42. APARTMENT #9.

Man 26
Student
Lives with partner
2 rooms + Kitchen
54 m²

THE INTERVIEW

Start up

The interview consists of four parts and take up to two hours to perform. The interview is to be regarded as semi-structured and the questions within this guide might shift according to the development of the interview and the dialogue between the respondent and the interviewer. Follow up questions are added continuously in order to reach the aim of each part.

The concept of socio-spatial affordances is not introduced during the interviews. The interviewer rather encourages the respondents to describe situations and places in a way that socio-spatial settings and amenities become naturally touched upon.

Before the interview starts the respondent is informed about the study and the layout of the interview as well as the treatment of the data collected. After this there is a brief gathering of variables such as; age, sex, occupation, household configuration and form of tenure.

How long time have you lived in your present dwelling and with whom do you share it?

How did you live before and why did you choose to move here?

Living place

The aim with this first part of the interview is to map out the various places in which the respondents spend their day-to-day life and what they mean. The collection and descriptions of these places will provide the authors with qualitative data of place, time and every day practises from various urban dwellers. This step also gives some contextual insight into the everyday life of the respondent for the coming parts of the interview. Of certain importance is the distance of friction between these places and the domicile.

Can you describe what places you spend time in during a common weekday? What qualities and

conditions do they have? What amenities do they have and what activities do you perform there?

What other places do you usually spend time in on a weekly basis?

Are there any other places of importance that you spend time in less frequently?

Introduction of the time-diary model

Where on these boards would you position these places that you've mentioned?

The respondent is given notes, that have been labelled with the places described.

From these places, can you describe how you spend your time during an average weekday?

The interviewer draws a timeline on the model in accordance with the description.

Would you say that this timeline constitutes a decent description of an average day or would you like to add an alternative timeline or correct something?

What are your thoughts as you regard this living place and time line in front of you?

Are there any places that you feel that you miss or would desire to spend more time in?

What make these places and activities where you spend time more favourable than being at home?

Would you have preferred to rearrange anything? Have any places more accessible or alter the amount of time you spend in various locations.

Do you think you would spend your time differently if some of these places where closer to your home?

Domestic Living place

The aim with this second part of the interview is to give insight into the respondents' ways of residing and to investigate how residential space is being interpreted and used. A floorplan is prepared to facilitate this part of the interview and each room is discussed. This will provide qualitative data to understand what affordances each room provide or what affordances that uses several rooms or are hard to fit within the apartment.

Is this floorplan correct and are there other places than those within your own apartment that you might access or spend time in, within the residence?

If there are, these are added to the floorplan.

Do you use the home differently during certain periods of the day and does any conditions change during certain hours?

Where do you spend your time within the home, and what activities do you commonly do?

Could you quantify how your time is distributed between the rooms?

What is your relation to the different rooms of your apartment? What is the ambiance inside? Why and when do you choose to spend time there?

How often are there more people than the members of the household present inside the home?

How does this effect the conditions or activities inside the home? Which parts of the home?

Imagine place

The aim with this third part of the interview is to explore what socio-spatial affordances that the respondent would want to access from the home in various occasions. In order to reconceptualise what a domestic living place could imply the following questions are designed to encourage the imagination of the respondent; to initiate

a socio-spatial exploration for places, situations and amenities that could benefit their day-to-day life.

> *In your home everything is just one door away. If you had the opportunity to control three magical doors that could instantly lead you to any place and situation, where should these doors take you?*

> *In your home all your stuff and belongings needs a place to be stored between uses, this require space and organisation. If you had a magic wardrobe just outside your front door were you rather could access the thing you wanted when needed rather than owning and keeping them, would you move something out? Would you reduce your possession of stuff? Would you appreciate to access something that you're currently missing?*

> *It's a laidback morning free of obligations and you have just prepared a delightful breakfast tray. Where would you like to go to enjoy it?*

> *It's an afternoon without any scheduled activities or demands and you feel to withdraw for a private peaceful moment with a book, laptop or just yourself. Where would you like to go to relax?*

> *It's an unstimulating evening at home but you feel inspired to engage yourself in something. You feel full of energy, social and stoked. Where would you like to go to live out?*

The workshop

The aim with this last part of the interview is to investigate what the respondent thinks of the meso-domestic approach and perform a brief test of the associated design model by letting the respondent reallocate their residential space into other domains. The respondents are encouraged to depicture these places, their settings, the activities that they would perform inside as detailed as possible. The narrative descriptions of what a meso-domestic living place could imply is regarded as a valuable contribution within this

study. This gives examples of application but also evaluation of the meso-domestic approach, its comprehensibility and capacity.

Introducing the meso-domestic approach and the model.

> *What places would you regard as favourable to locate within the various meso-domestic domains?*
>
> *If you had your present amount of floor space to redistribute as you pleased, how would you divide it among these domains?*
>
> *What do you think about this meso-domestic living place that you've designed?*
>
> *Do you regard this as an interesting approach that would be interesting for you if you were to move?*
>
> *Do you think that this design is better than your present living place?*